

THE POLYGRAPH IN ALLEGANT INVESTIGATION
AND PERSONNEL SCREENING

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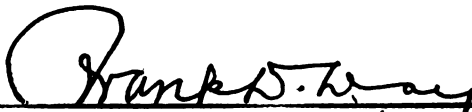
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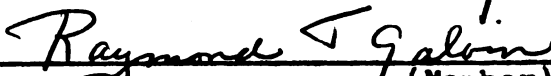
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ABSTRACT

AN INQUIRY INTO THE USE OF THE POLYGRAPH IN APPLICANT EVALUATION AND PERSONNEL SCREENING

By Charles D. Gooch

The purpose of this thesis is to inquire into the use of the polygraph to determine whether or not it is a worthwhile aid to the administrator in applicant evaluation and periodic personnel screening. To obtain results with the desired objectivity, the questionnaire technique was utilized as the principal means of collecting data. The information collected was composed of comments from management, labor, and independent commercial polygraph consulting firms. Comments were solicited from organizations that opposed as well as favored the use of the polygraph as a screening device.

Since the thesis is oriented toward police operations, a system adaptable to a police organization is proposed. The proposed system takes into account manpower, facilities and equipment, and itemizes costs. The material contains a sample of questioning procedures to be followed by an examiner.

Some administrators who responded to the questionnaire, and who utilized the polygraph as an aid in their screening program, felt that the instrument was a very definite asset.

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There were others, however, who violently objected to its use based upon equally strong convictions. Administrators who neither endorsed nor opposed its use were in the majority. Apparently, they were content with the screening system that now exists within their respective organizations and have given little, or no serious consideration, to utilizing the polygraph.

It is concluded that, when properly employed, the polygraph is a valuable aid to the administrator in applicant evaluation and periodic personnel screening. In addition, the evidence indicates it can be used as an aid in solving conflicts that may arise between the employee and the organization.

The study discloses a need for polygraph examiners to take action to increase the professional standards of their services. Higher standards for qualification, combined with regulations to govern the conduct of an examiner and authority for their enforcement, are necessary to enable the vocation to achieve its maximum potential.

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CHAPTER I

INTRODUCTION

One can hardly read the newspaper, listen to a radio broadcast, or view a television program today without being exposed to an account of a subject's having "flunked" or "passed" a polygraph or lie-detector examination. Policemen, employees of commercial firms, athletic coaches, athletes, and representatives from other walks of life are frequently named for having taken or requested permission to take a polygraph examination to establish their freedom from guilt or involvement in some "scandal" or "fix."

Despite widespread use of the polygraph, mystery has created in the minds of some people complete hostility to its use. Others think of it as the absolute answer in detecting innocence or guilt. No known intensive efforts have been made to clarify for the administrators of commercial firms as well as those in the police field the capabilities and limitations of the polygraph instrument or the qualifications and capabilities of a competent examiner--the real lie detector.

I. THE PROBLEM

Statement of the Problem. The polygraph has been used for at least thirty years by commercial firms and police

organizations in their applicant evaluation and personnel screening programs. Outstanding results have been reported extolling its merits. Yet despite the success achieved by police administrators in applicant evaluation and the commercial firms in both applicant evaluation and periodic personnel screening, the polygraph has not been as generally accepted as one might think after reading literature praising its merits. Questions logically arise as to whether or not the polygraph really has merit when used as an aid in the screening program. Is the instrument, as well as the techniques, advanced enough to be considered as a useful tool in the management program in light of current professional standards necessary for public acceptance? If the answer is yes, then the task of the administrator in his applicant evaluation and periodic personnel screening program should become less difficult and concurrently produce results contributing toward a more efficient organization.

Purpose. It was the purpose of this study (1) to determine the extent of use of the polygraph for applicant evaluation and personnel screening in commercial firms and police departments with emphasis on the latter; (2) to explore the polygraph systems utilized by police departments and commercial firms; (3) to compare and evaluate these systems; (4) and to provide the police administrator primarily with a

polygraph system that could be utilized in initiating a polygraph screening program.

Scope. The scope of this study encompasses only the non-technical aspects of the polygraph instrument. Its application as an aid in applicant evaluation and periodic personnel screening, not its mechanical functioning, is the principal topic of discussion.

A brief history of the polygraph is considered necessary to acquaint the reader with its development. Only those persons considered to be the most instrumental in its development are included.

To achieve a sought-after degree of objectivity, the arguments offered by the opposition to the use of the polygraph for applicant evaluation and periodic personnel screening must be heard. It is emphasized that every effort was made to present the arguments offered by those who opposed its use for screening purposes. However, a deliberate effort was made to avoid personal comment on the arguments advanced by both the proponents and opponents regarding the legal implications of its use. The intent of the study was to inquire into its use and not so much into its legality.

The questioning techniques that are used in polygraph examinations are perhaps the most misunderstood of any other aspects of its use. Therefore, a sample listing of

questions is considered necessary to acquaint the reader with those that could be asked an applicant.

As the title of the thesis implies, a survey into the use of the polygraph for screening purposes is necessary to determine whether or not the system is being accepted and utilized. Because of the hesitancy of consultant firms to identify by name the customers who employ their services, few specific commercial organizations are listed by name.

Importance of the Study. It is reasonable to assume that much of the controversy that exists over the use of the polygraph for screening purposes has come about because of the conflicting arguments that have appeared in all forms of news media. These conflicting arguments have placed the administrator in a position of not so much deciding whether or not the use of the polygraph for screening purposes will assist his own program but whether or not the polygraph has any merit at all as a screening device. Seldom has there been an objective-type study made with the specific intent to inform the administrator of the use of the polygraph solely for screening purposes. The author is not aware of any study that is available to the administrator in which a detailed discussion of the polygraph examination, to include a sample listing of questions that could be asked, is presented. This study has been conducted to assemble the

available information for analysis so that the administrator may be better prepared to make a decision regarding its use. In addition, it will furnish him with enough information on the proper utilization of the polygraph so that he will be in a better position to appraise its merits.

Review of the Literature. The literature pertaining to the utilization of the polygraph for screening purposes has been primarily limited to the police field. Excellent textbooks have been published which explain in detail the mechanics of polygraph operation. Some of these are Lie Detection and Criminal Interrogation by Inbau and Reid; The Instrumental Detection of Deception by C. D. Lee; and Academy Lectures on Lie Detection, Volumes I and II, edited by V. A. Leonard. However, none are known to exist which pertain only to screening procedures. Periodicals containing articles relating to psychology, criminology, and police science are the only media available which discuss the subject. A majority of these articles have been written by persons who depend upon their use of the polygraph as a means of livelihood. Therefore, the questionnaire was resorted to as a major source of information. The questionnaires, coupled with personal conversations with business executives, civilian police administrators, and military

police officers attending the United States Army Military Police School at Fort Gordon, Georgia, provided an excellent sampling of different points of view.

II. ORGANIZATION OF THE REMAINDER OF THE THESIS

Chapter I. The content of this thesis has been divided into seven chapters. The preceding portion of Chapter I has served to introduce the subject to the reader, present the problem, and to impart the significance and importance of the study. The remainder of this chapter contains a listing of words and their definition as they apply to the polygraph field. A brief discussion of the history of the polygraph instrument as well as a resume of its use for screening purposes concludes Chapter I. Only those historical accounts considered necessary to provide the reader with general information of their development were included.

Chapter II. Chapter II contains a discussion of the polygraph instrument and the examiner. Personal qualifications of the examiner involving education, training, and utilization are discussed. The polygraph instrument, psychological conditions, and physical surroundings required for its most effective use are reviewed. Figures depicting polygraph instruments that contain three major data transmitting components plus a drawing of an examination room

concludes the chapter.

Chapter III. The systems that are generally employed plus the costs for these systems are examined in Chapter III. Commercial firms employing their own examiners, consultant polygraph firms, and police departments are included. The average cost reported by each of conducting an examination is submitted.

Chapter IV. Chapter IV contains the results obtained by the users of the polygraph in their screening program. The information was obtained from the questionnaires that were returned and from articles appearing in periodicals. The chapter is divided into two sections. The first section refers to police and security organizations while the second includes commercial firms.

Chapter V. Chapter V includes the arguments given by the opponents to the use of the polygraph for screening purposes. The chapter includes three main sections: labor unions, law enforcement and security agencies, and other opposition. Opposition from other sources is limited because little literature is available other than that containing the views of the aforementioned three agencies.

Chapter VI. Chapter VI is considered to be the most important chapter in the thesis. The chapter projects a

proposed system for use in a law enforcement agency. The police administrator can refer to this chapter to determine how the system should work. It is subdivided into two major parts: the overall personnel screening program and that part which pertains only to the polygraph examination.

Chapter VII. This chapter contains the summary and conclusions based on the contents of the previous six chapters. The summary and conclusions are considered together. Every effort has been made to be objective in the findings. All conclusions have been based on what is considered to be a preponderance of the evidence available. The recommendations are by no means all inclusive. They are considered to be actions which must take place within the next five years. Although the recommendations will not be easily accomplished, they are deemed essential if the polygraph is to enjoy a productive and extended life in screening operations.

III. DEFINITIONS OF TERMS USED

Applicant Evaluation. Applicant evaluation refers to a polygraph examination given to an applicant to verify information provided the employer by the applicant and to help to determine the suitability of the applicant for employment. Pre-employment personnel screening is another

term sometimes used to describe the examination.

Chart. A chart is the paper on which the physiological changes are recorded in ink. It provides a permanent and visual history of what is recorded during the test.

Control Question. A control question is one relative to a similar but unrelated offense utilized in general question tests and designed in such a manner that the examinee will usually lie in responding to it. The results are utilized by the examiner in overall chart interpretation.

Examination. A polygraph examination consists of everything that transpires from the moment the examinee enters the polygraph room until the time he leaves the room. The examination is generally divided into three distinct phases. These are a pretest interview, a testing phase during which time actual tests are administered, and a post-test interview.

Examinee. The individual being examined with the polygraph is generally referred to as the examinee or subject.

Examiner. A polygraph examiner is a trained and skilled individual who conducts a scientific examination, using an established and proven technique, interpreting

physiological changes, and rendering an opinion.

Polygraph or Lie Detector. This is a diagnostic instrument which records with ink on a chart changes in relative blood pressure, pulse rate, respiration cycle, and skin resistance to electricity.

General Question Test. An irrelevant-relevant question test containing one or more control questions is called a general question or control question test.

Irrelevant Question. An irrelevant question is one which does not pertain to the case for which an examinee is being tested on the polygraph. It is designed to elicit a minimum emotional response and to act as a criterion for establishing a norm in the subject. It is also known as a non-crucial, immaterial, or non-pertinent question.

Peak of Tension Test. A series of relevant questions enveloped by two or more irrelevant questions at the beginning and end of the series is a peak of tension test. It is designed to detect the question in the series which is the most tension producing to the suspect or examinee.

Relevant Question. A relevant question is one which pertains directly to the matter under investigation for which

the subject is being tested on the polygraph. It is also known as a crucial, pertinent, or material question.

Test. A single test is that which transpires from the time the instrument is turned on until it is turned off. Questions are asked during this period resulting in a chart. Usually there are two or three tests or charts during an examination.

IV. BACKGROUND

History of Lie Detection. Man has been telling lies since his creation. The first attempt at detection of deception in all probability was concomitant with the first lie. Marston cited the case of Adam and Eve in the Garden of Eden as the earliest instance of lie detection.¹ As man lied and was detected, he became intrigued by the advantages which could be realized over his adversary through the ability to know when he was lying and when he was telling the truth. Trovillo, a forensic psychologist and student of Keeler, explained the ancient attempts to uncover deception or to determine the guilt or innocence of accused persons by the use of trial by combat, the ordeal, and torture. He pointed

¹William M. Marston, Lie Detector Test, (New York: Richard K. Smith, 1938), p. 3.

out that most of these ancient tests stemmed from superstition and religious faith and were not based on an understanding of the psychology of deception.² However, one such test did have a psychophysical basis. This was the rice chewing ordeal utilized by the Chinese. During the trial the suspect was given a handful of consecrated rice to chew while he was being questioned. After a few minutes he was instructed to spit the rice out. If the rice was found to be dry, the suspect was adjudged guilty. If the rice was wet, he was considered to be innocent. Consciousness of his crime and fearfulness of his punishment by the gods and the judge or ruler caused the mouth of the guilty to become dry. The innocent believed in the justice of his god and the ordeal of the consecrated. Therefore, he was not emotionally disturbed.³

Another test utilized by a Hindu prince to determine innocence or guilt was based on superstition, yet it displayed sound psychological principles and a good understanding of human behavior. In this test the suspects were told that in a darkened room there was a sacred ass which would

²Paul V. Trovillo, "A History of Lie Detection," The Journal of Criminal Law and Criminology, March-April and May-June 1939. (Reproduced in full by special permission in School Reference 19-13, United States Army Military Police School, Fort Gordon, Georgia, September 7, 1961), pp. 1-6.

³Clarence D. Lee, The Instrumental Detection of Deception, (Springfield, Illinois, Charles C. Thomas, 1953), pp. 3-4.

bray when his tail was pulled by a guilty person, and that they were to go into the room one at a time, pull the donkey's tail, and return. After all suspects had done this and the donkey had not brayed, the hands of the suspects were examined. Only one of the suspects had come out with clean hands--the guilty one. The prince had dusted the donkey's tail with black powder. Those who were telling the truth did not fear that the donkey would bray, so they blackened their hands by pulling his tail.⁴

The notion that lies could be detected by observing certain changes in physiological phenomena fascinated man. Trovillo comments on one of the earliest records of an attempt to detect deception by objectively utilizing observation of physiological changes:

During the Middle Ages it is related that a nobleman suspected his wife of infidelity, and told his suspicions to one of his advisers, who agreed to make a test to determine the facts. At dinner he sat next to the nobleman's wife, casually laid his hand upon her wrist and conversed with her. During a brief conversation he mentioned the name of the man suspected by the nobleman, whereupon the lady's pulse immediately quickened. He later brought up the name of the husband but perceived no similar response. It is said a confession was later elicited.⁵

⁴Ibid., p. 4.

⁵Trovillo, op cit., p. 6.

Lombroso, the Italian criminologist, was one of the first persons to be successful in conducting tests associated with innocence or guilt. As early as 1895, he was conducting tests in which blood pressure and pulse changes were recorded while questioning criminals.

In 1906, Dr. James Mackenzie, a famous English heart specialist, developed an instrument which he called "The Ink Polygraph." This instrument, although used only for medical testing, is similar to the basic polygraphs of today. It continuously recorded blood pressure, pulse, and respiration changes.⁶

At about the same time that Dr. Mackenzie was using "The Ink Polygraph" in England, Munsterberg, a German psychologist, was advocating the use of instruments for recording pulse rate, blood pressure, respiration, and the psychogalvanic reflex.⁷

Others were experimenting with various means of deception throughout the first quarter of the 20th century. One of these was Reverend Walter G. Summers of Fordham University. He developed the "Pathometer," a psychogalvanometer utilized in conducting deception tests. Summers' instrument was utilized in numerous laboratory experiments

⁶Richard O. Arther and Rudolph R. Caputo, Interrogation for Investigators, (New York: William C. Copp and Associates, 1959), p. 210.

⁷Lee, op. cit., p. 9.

and a limited number of actual cases involving the question of the guilt or innocence of criminals.⁸

Dr. John A. Larson was the first to make use of the polygraph in a police department in the United States. While employed by the Berkeley, California, Police Department, Dr. Larson conducted hundreds of polygraph examinations which reportedly revealed amazing accuracy. It was during these examinations in 1925 that a young high school student named Leonarde Keeler became interested in Dr. Larson's work. Subsequently, he designed his own instrument and in 1930 accepted a position with the Scientific Crime Detection Laboratory at Northwestern University. He opened his own training institute in Chicago in 1938 to instruct in his polygraph techniques. Since that time other nationally recognized polygraph training institutions have emerged.

History of Screening. The use of the polygraph for personnel screening was found to be no new procedure. It was first utilized by banks, department stores, and restaurants in the Chicago area as early as 1931. In one of the first applications of this practice, a large chain store system with a \$1, 400,000 annual inventory shrinkage employed

⁸Trovillo, op. cit., p. 31.

⁹Lee, op. cit., pp. 14-17.

the polygraph to determine if this enormous annual inventory shrinkage was due to employee theft and pilferage. Keeler's initial examination revealed that seventy-six per cent of the employees tested were stealing money or merchandise. The names of the employees involved were kept confidential. However, they were told that in the future they would be examined every six months and that they would be dismissed for any subsequent thefts. Six months later a re-test showed that less than three per cent of them were repeaters.¹⁰⁻⁵

In 1945 the United States Government hired Keeler to screen a group of German prisoners of war being held at Fort Getty, Rhode Island, prior to their being sent back to Germany to aid the United States Occupation Forces in governing the American Sector of Germany. The screening procedure was highly successful and resulted in other Federal agencies' resorting to the use of the polygraph for screening purposes.¹¹

The Manhattan Engineer District at Oak Ridge, Tennessee, utilized the polygraph between 1942 and 1945 for screening scientists and top level administrative persons who would have access to the final products used in the building of fissionable materials. When the Atomic Energy Commission (AEC)

¹⁰Robert D. Steel, "A Tribute to Leonarde Keeler, 1903-1949," Police, (July-August 1958), pp. 40-45.

¹¹Lee, op. cit., pp. 174-175.

assumed operation of the Oak Ridge Project, January 1, 1947, the use of the polygraph was continued for screening purposes. A high level panel was formed in 1952 to consider its future use within AEC. The panel recommended to the General Manager of the AEC that its routine use, even for top positions and activities, be discontinued. The recommendation was put into effect in March, 1953. Since that time the polygraph has been used only about six times in individual cases. The approval of the General Manager of AEC must be obtained before it can be used in any given situation.¹² ⁷ Additional information regarding the AEC's use of the polygraph for screening purposes is contained in Chapter V.

Since World War II there has been a significant increase in the use of the polygraph by management for screening purposes. Thousands of American employees were screened in 1962 with the polygraph by more than 400 commercial polygraph firms, governmental agencies, and municipal, county, and state police departments.

¹² Robert E. Tharp, Assistant Director, Personnel Security, Division of Security, United States Atomic Energy Commission, Washington, D.C., Personal Interview, February 12, 1964. (Note: Mr. Tharp was the Chief, Personnel Clearance Branch, Security Division, Oak Ridge Operations Office, during the time period indicated in the discussion above and in Chapter V).

CHAPTER II

GENERAL PRINCIPLES IN POLYGRAPH OPERATION

The polygraph used in lie detection has received as much publicity and has attracted as much public interest as any other diagnostic instrument in existence. It has been praised and described as a panacea for almost everything, and it has been condemned and called a fraud. Neither of these claims is correct. The polygraph is a diagnostic instrument with the capabilities and limitations inherent in all other diagnostic instruments. Since it is a mechanical instrument, it is only as effective as the examiner controlling its operations and the conditions under which it is used.

I. EXAMINER

In the field of polygraph usage the examiner is the most important single factor. It is he and not the instrument that points to deception or truth. Therefore, it is the examiner and not the instrument that detects deception. The best polygraph instrument manufactured is worthless when operated by an unskilled or poorly trained examiner. For this reason, extreme care must be used in selecting, training, and utilizing an examiner.

Education. Ideally an examiner should be a college graduate. Naturally a baccalaureate degree in psychology or police science does not insure that the recipient will be a better examiner. It does provide him with professional status and furnish him with advanced knowledge in the police field. The minimum acceptable educational standard would be a high school education with additional specialized training in psychology and physiology.

Training. The examiner should have attended a recognized polygraph training school having a course of instruction at least six weeks long. In addition he should have served an internship of at least four months under the guidance of a senior polygraph examiner.

Utilization. The polygraph examiner should work exclusively in his field of specialization. To do otherwise would jeopardize his proficiency. Experience has proved that the examiner who devotes his full time to the polygraph is the most efficient examiner. Finding enough work to keep him busy may pose a problem for a small police department. This problem may be partially or fully overcome by using the same examiner for both criminal and screening tests.

II. POLYGRAPH INSTRUMENTS

The polygraph is a diagnostic instrument operated under scientific conditions on much the same order as the electrocardiograph, an instrument for recording the changes in electric potential produced by the contractions of the heart. Numerous types and makes of instruments are produced and marketed as so-called "lie detectors." They range in price from twenty-five to several thousand dollars and in complexity from a single swinging needle unit instrument to multi-unit research instruments. For example, the Reid Polygraph, a multi-unit instrument which records muscular activity along with changes in blood pressure, pulse, respiration, and psychogalvanic skin reflex,¹ and the Arther Polygraph, also a multi-unit instrument, simultaneously record wrist pulse rate and changes in blood pressure, upper arm pulse rate and changes in blood pressure, chest breathing, stomach breathing, variations in electrical resistance of the skin, and skin temperature changes. "The single swinging needle unit measures only variations in electrical resistance of the skin and is unreliable and

¹Fred E. Inbau and John E. Reid, Lie Detection and Criminal Interrogation, (Baltimore: The Williams and Wilkins Company, 1953), p. 4.

invalid."² The exact cause for the galvanic skin reaction has never been fully agreed upon by those who have tested the phenomenon. It is generally agreed that perspiration plays the most important part. The single swinging needle does not provide other tracings of the physiological changes in the body with which to make comparisons. These comparisons are necessary for the most nearly accurate interpretation of the charts. The multi-unit research instrument is too complex for the average examiner. Between these two extremes there are reliable instruments manufactured specifically for the detection of deception.

Type of Instrument Recommended.

In order to provide the examiner with the maximum diagnostic criteria with which to detect deception, the polygraph instrument utilized should consist of at least three major data-transmitting components. These are the cardio-sphygmograph, pneumograph, and a galvanograph. In addition, a data-recording unit called a kymograph is necessary for efficient operation of the instrument.

²Richard O. Arther and Rudolph B. Caputo, Interrogation for Investigators, (New York: William C. Copp and Associates, 1959), p. 209.

Cardio-sphygmograph. This component transmits the pulse rate and amplitude as well as the blood pressure changes of the person being tested.

Pneumograph. The function of this component is to transmit the breathing pattern of the person being tested.

Galvanograph. This component records the changes in the examinee's resistance to an external electrical current.

Kymograph. The function of this component is to move the chart paper under the writing pens of the other three components.

Polygraph Manufacturers.

Instruments of the type recommended are manufactured by Associated Research Incorporated, Chicago, Illinois, and C. H. Stoelting Company, Chicago, Illinois. Examples of the instruments manufactured by these two companies are shown in Figures 1-4.

III. REQUIRED CONDITIONS AND SURROUNDINGS

If an examiner is to achieve consistent success, certain psychological conditions and physical surroundings are required. The primary consideration for a polygraph examination is privacy. Extraneous noises, such as the ringing

of a telephone or the conversation of other individuals, must be eliminated. All distracting stimuli must be reduced to a minimum. Any distraction, psychological or physiological, may distort the recordings and make diagnosis of deception difficult or impossible.

Polygraph Examination Room.

The exact type and size of the examination room is dependent upon many factors. A major one will be the financial capabilities of the organization administering the examination. A room offering the ideal conditions and surroundings is depicted in Figure 5, page 30.

Location. The room should be located in an area where there is a minimum of activity.

Size. A room twelve feet by fifteen feet with a nine-foot ceiling provides ample space without excess roominess.

Doors. There should be only one door leading into the room. It should be of plain structure. Padding is necessary for soundproofing. There should be a warning device, normally a sign, on the outside of the door to indicate when a test is in progress and that no one is to enter.

Windows. The room should not have windows. If windows cannot be avoided, they should be well covered with

drapery so as to block exterior distractions. This covering will also contribute to the soundproofing of the room.

Floor. The floor should be carpeted to reduce noise. Carpeting on wood is preferred to carpeting on concrete.

Lighting. Indirect illumination should be utilized. Bright glaring lights are distracting and should be avoided. Fluorescent lighting, unless well shielded, will adversely affect the galvanometer of the polygraph.

Ventilation. A noiseless air circulating unit should be utilized. The temperature should be maintained at a comfortable level. An air conditioning unit is required in most situations.

Decorations. The decorations should be kept to a minimum. Wall paint or paper and drapery should be simple in form and without specific patterns or designs. Pastel shades of color are best.

Furnishings. The room should be furnished with a polygraph and desk, a swivel chair for the examiner, and a comfortable chair with wide arms for the subject. A telephone should not be in the room. The one-way mirror should be inconspicuously placed so that it will not distract the subject. A microphone should be concealed in the desk or

polygraph. The room should be free of ornaments, pictures, or other objects that would in any way distract the person being tested.

Soundproofing. The entire room should be soundproofed by the use of acoustical material. This material should be pastel in color and not of a type that would be distracting to the subject. An additional piece of glass behind the one-way mirror in the observation room is required to create an air cell for soundproofing.

Observation Room.

There should be an observation room with a one-way mirror adjoining the polygraph examination room. This provides an area for supervisors and other essential personnel to watch and listen to the examination. This room should be equipped with stools or chairs for the observers, an amplifier, and a tape recorder. There should be some type of light signal on or in the examiner's desk with a switch in the observation room so that the examiner may be called from the room without alerting the person being tested.³

³The features of the examination room are those recommended by the United States Army Military Police School, Fort Gordon, Georgia. However, numerous other authors and examiners recommend basically the same features. A recent addition is closed-circuit television to allow monitors to observe the questioning. It also precludes the necessity of a female witness when the examinee is a female unless a female witness is specifically requested. In addition, a video tape may be made for subsequent referral.



Figure 1. Associated Research (Keeler) "Positive Pattern" polygraph, Model 6303, containing components for the continuous recording, simultaneously, of variations in pulse-blood pressure, respiration, and electrodermal responses. Utilizes 110-115 volts, 60 cycle AC current. Weight 34 pounds. (Picture and description courtesy of Associated Research, Incorporated, Chicago, Illinois).



Figure 2. Associated Research (Keeler) transistORIZED portable polygraph, Model 6317, containing cardio-sphygmograph, pneumograph, galvanograph, and kymograph components. Net weight 19 pounds. (Picture and description courtesy of Associated Research, Incorporated, Chicago, Illinois).

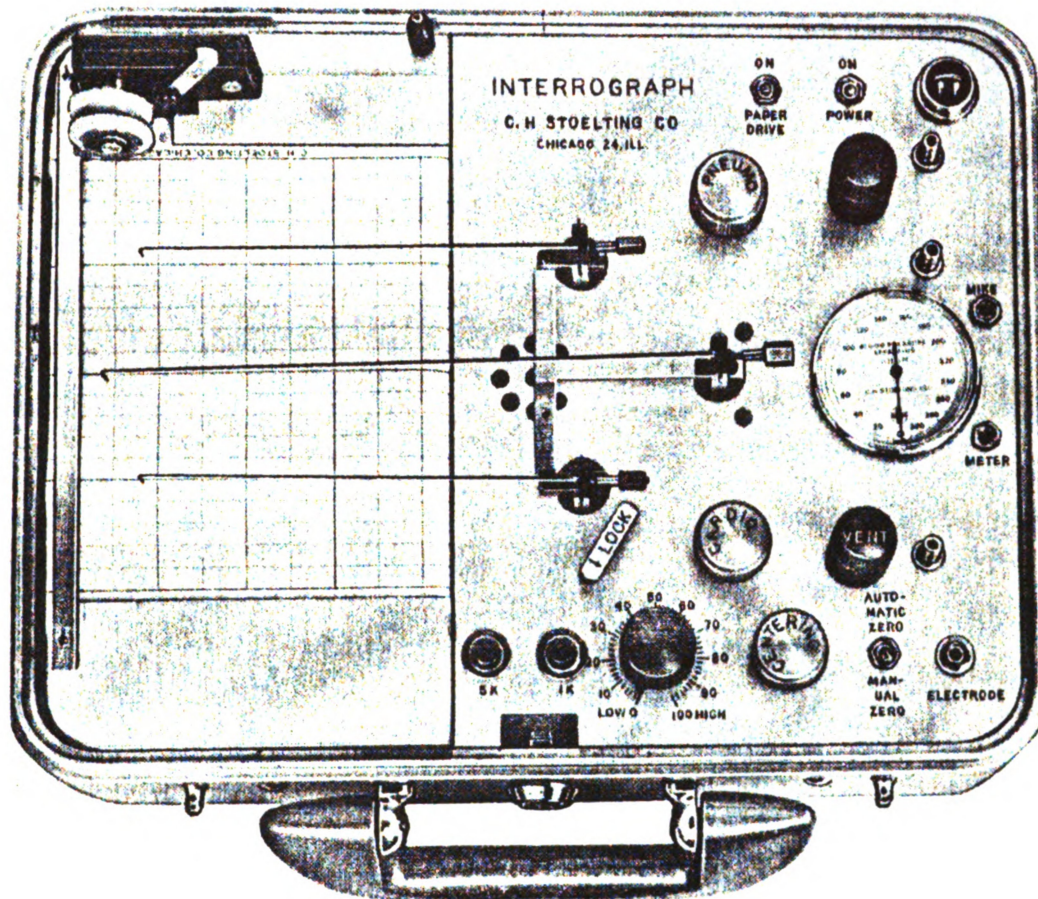


Figure 3. Stoelting transistor "Interrograph," Model 22530, containing cardio-sphygmograph, galvanograph, pneumograph, and kymograph components. Weight 11-12 pounds. Normally uses 110-115 volts, 60 cycle AC current. A power pack can be used to convert to 6 or 12 volts DC to 115 volts AC. (Picture and description courtesy of C. H. Stoelting Company, Chicago, Illinois).

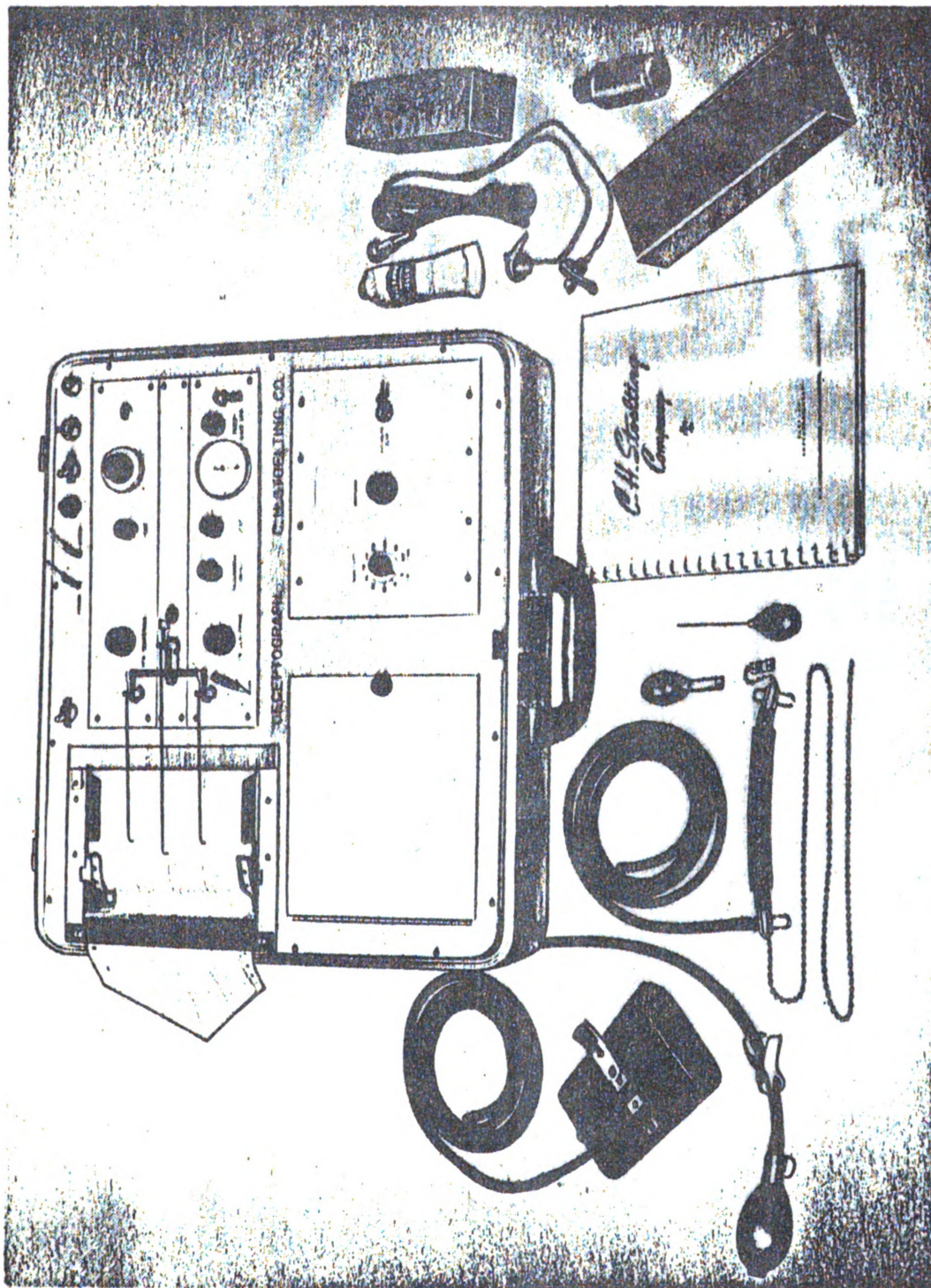
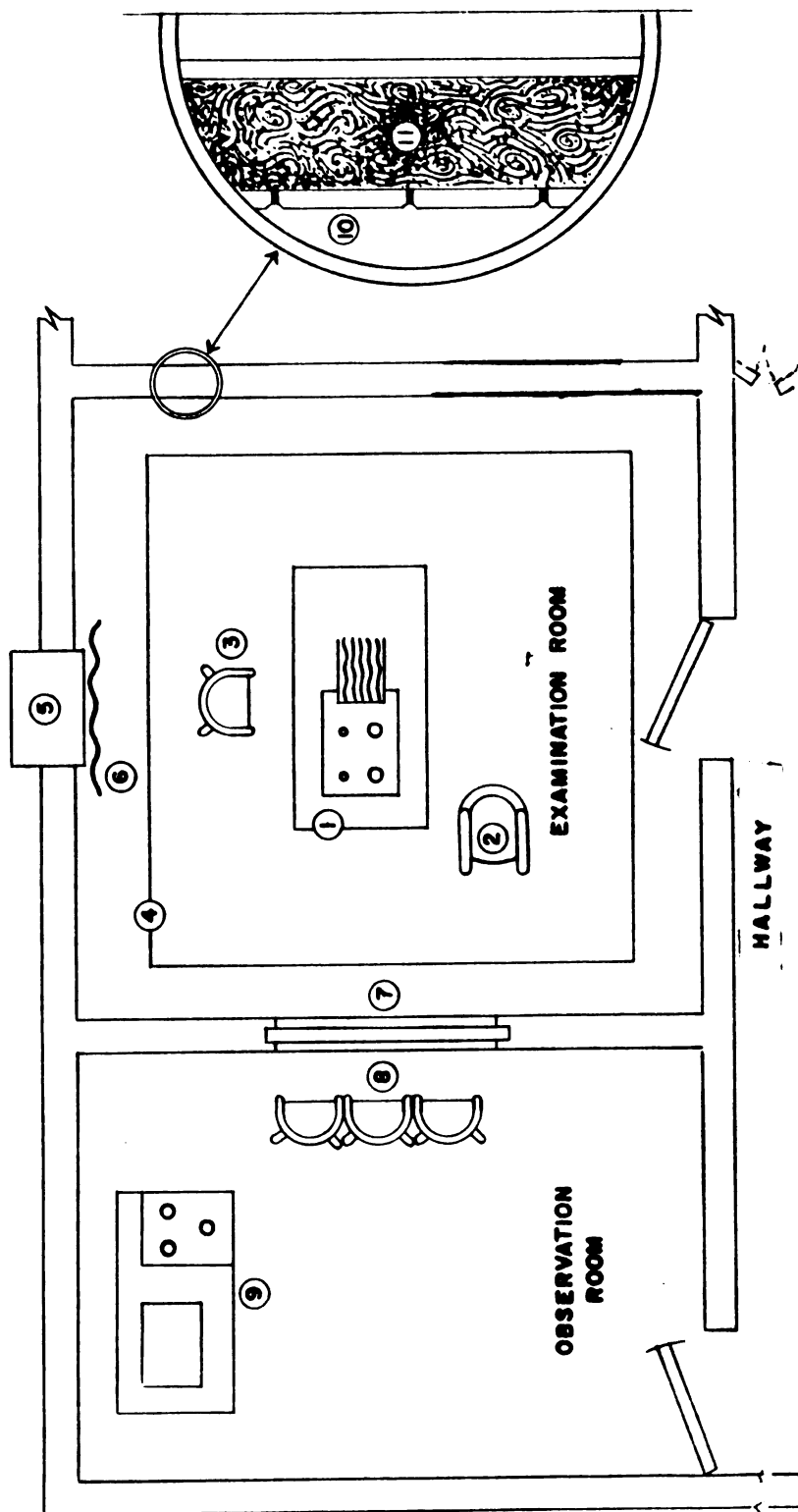


Figure 4. Stoelting "Deceptograph," Model 22500, containing sectionalized blood pressure, electrodermal and breathing recording units. Net weight 31 pounds. Utilizes 110 volt, 60 cycle AC current. (Picture and description courtesy of C. H. Stoelting Company, Chicago, Illinois).



Legend: 1. Lie detector and desk
 2. Chair w/extended arm rests
 3. Examiner's chair
 4. Rug

5. Air conditioner
 6. Drapery
 7. One way mirror
 8. Stools
 9. Sound equipment
 10. Acoustical tile
 11. Insulation

Figure 5. Polygraph examination room with observation room recommended by the United States Army Military Police School. (Picture courtesy of United States Army Military Police School, Fort Gordon, Georgia).

CHAPTER III

LIE DETECTION SYSTEMS THAT ARE GENERALLY EMPLOYED IN LAW ENFORCEMENT FOR SCREENING PURPOSES AND COSTS INVOLVED

I. SYSTEMS EMPLOYED

The replies to the questionnaires indicated that there was not a standardized system being used for applicant evaluation or periodic personnel screening. The systems utilized included a broad scope. They varied from the simple irrelevant-relevant type tests of approximately eight questions to the more complex peak of tension type tests which, in some instances, consisted of fifty or more questions.

The Cincinnati Police Department reported that after a lengthy pretest interview, peak of tension type tests were used. The number and type of questions used on the first and subsequent tests depended upon the information obtained through the local character investigation, responses during the pretest interview, and reactions during the tests.¹

The Delaware State Police employed general questions type tests to screen police applicants who had successfully

¹Cincinnati, Ohio, Police Department, Questionnaire Reply, November 1962.

completed other phases of the selection process. The other phases consisted of a rigorous background investigation, intelligence and psychological testing, medical examination, and personality analysis by a psychiatrist.²

The Oakland Police Department reported utilizing the polygraph for applicant evaluation only whenever discrepancies are noted in any phase of the selection process.³

The Maine Highway Patrol, the Salt Lake City Police Department, and the Phoenix Police Department, in answering the questionnaire, reported utilizing the irrelevant-relevant type testing for applicant evaluation. However, they did not indicate the number of questions asked or the techniques utilized.

Chief O'Keefe, Stockton, California, commented that a consultant polygraph firm was utilized to conduct polygraph evaluations of their police applicants. The average examination required one hour. The questions were generally based upon the background information the applicant provided the examiner and other general questions concerning sex,

²Paul T. Riley, "Use of the Polygraph for Pre-employment Testing of Police Recruits," Police, (July-August 1961).

³Oakland, California, Police Department, Questionnaire Reply, November 1962.

military service, use of liquor and narcotics, marital information, health information, arrest record, work history, honesty, and general habits. O'Keefe did not indicate the type of testing techniques utilized.⁴

Lindberg offered the following remarks:

The standard pre-employment (applicant) examination in this laboratory consists of the applicant's answering 157 questions in the Reid Report . . . and undergoing a polygraph examination (Reid Technique) consisting of two or more tests.⁵

Harman reported that in conducting a pre-employment examination, he had the applicant fill out a questionnaire which provided the examiner with basic background information for use in initiating the interview and formulating test questions. The questionnaire was reviewed with the applicant and test questions formulated during the pretest phase of the examination. Harman did not report the type test utilized.⁶

Other consultant firms reported similar systems to

⁴Jack A. O'Keefe, "Use of the Polygraph in Police Applicant Screening," (Paper read at the International Association of Chiefs of Police 1962 Conference, St. Louis, Missouri).

⁵George W. Lindberg, Letter, John E. Reid and Associates, Chicago, Illinois, November 15, 1962.

⁶George W. Harman, John E. Reid and Associates, San Francisco, California, Questionnaire Reply, November 1962.

those that have been listed. The irrelevant-relevant tests were used by Myatt.⁷ Tupkelewicz employed a modified general question type testing technique.⁸ Furr utilized as the primary system the general question type test.⁹ Berman reported utilizing the probing peak of tension type tests for pre-employment testing and the general question tests for periodic personnel screening.¹⁰

II. COSTS INVOLVED

The systems utilized did not materially affect the cost of the screening programs. Valid figures pertaining to cost were difficult to determine in agencies which utilized the examiner, instrument, and facilities for both criminal and screening purposes. Estimated costs for agencies utilizing personnel, instruments, and facilities for both functions ranged from \$2.50 to \$16.00 per examination

⁷M. W. Myatt, Truth Conformation, Incorporated, Oklahoma City, Oklahoma, Questionnaire Reply, November 1962.

⁸John Tupkelewicz, Security Engineers, Incorporated, Birmingham, Alabama, Questionnaire Reply, November 1962.

⁹Lloyd B. Furr, Letter, Furr Investigations, Washington, D.C., November 17, 1962.

¹⁰Milton Berman, Berman and Associates, Louisville, Kentucky, Questionnaire Reply, November 1962.

with \$7.50 being the average. Agencies employing consultant firms paid from \$15.00 to \$50.00 for each examination with \$25.00 being the average. Only one consultant firm charged \$50.00 while two reported charging as little as \$15.00 per examination. The lower costs resulted from employment of the firms on a retainer basis.

CHAPTER IV

RESULTS OBTAINED BY USERS OF THE POLYGRAPH IN APPLICANT EVALUATION AND PERSONNEL SCREENING

In order to determine the results of the use of the polygraph in applicant evaluation and personnel screening, a survey by letter, questionnaire, and personal interview was conducted. A representative sampling of law enforcement and security agencies, private corporations, labor unions, and lie detection consultant firms in the United States was made. The principal means of communication was by questionnaire. Information was requested concerning their use of the polygraph in applicant evaluation and personnel screening. A total of 138 replies were received from the 204 agencies that were consulted.

I. POLICE AND SECURITY ORGANIZATIONS

A total of 167 questionnaires were sent to municipal, state, and federal police and security agencies in the United States (see Appendix C). All state police agencies except those in Alaska and Hawaii were queried. Municipal police departments from the Atlantic to the Pacific that serve a minimum population of 50,000 people were consulted. The Federal Bureau of Investigation and the Security Division of the Atomic Energy Commission represented the Federal government.

From the total number of questionnaires sent, 118 replies were received. Twenty-three of these police agencies reported that they used the polygraph in applicant evaluation. Two departments--Jacksonville, Florida, and San Antonio, Texas--reported that they were in the process of initiating an applicant screening program. Eleven other agencies also replied that they were seriously considering the future use of the polygraph for applicant evaluation only (see Remarks--Appendices D and E). Although no effort was made to determine whether or not the police department used the polygraph for criminal purposes only, some of the ninety-two state and municipal agencies which indicated that they did not use it for applicant evaluation and periodic personnel screening probably use it in criminal work. No department reported the use of the polygraph for periodic personnel screening.

The twenty-three police agencies reporting full-time utilization of the polygraph for applicant evaluation are as follows:

State Police. Connecticut, Georgia, Illinois, Maine, Maryland, New Hampshire, and Vermont.

Municipal Police. Akron, Ohio; Amarillo, Texas; Cincinnati, Ohio; Dayton, Ohio; Fort Wayne, Indiana; Fort Worth, Texas; Lincoln, Nebraska; Miami, Florida; Montgomery, Alabama; Oakland, California; Phoenix Arizona; Salt Lake City,

Utah; San Diego, California; Stockton, California; Tucson, Arizona; and Wichita, Kansas.

The Richmond, Virginia, Police Department reported the utilization of a consultant firm to conduct occasional polygraph applicant evaluation tests. Other police departments known to be using the polygraph in applicant evaluation are those in Burbank, California, and Evanston, Illinois. However, neither replied to the survey questionnaire.

The general results reported by the twenty-three police departments that utilize the polygraph in applicant evaluation are listed below. (See Appendices D and E for a listing of those agencies not using the polygraph for screening purposes).

<u>Materially Reduced</u>	<u>Yes</u>	<u>No</u>	<u>Unknown</u>	<u>No Comment</u>
Personnel turnover	11	3	7	2
Training costs	8	4	9	2
Disciplinary problems	13	3	5	2
Number of applicants	5	8	8	2

Materially Increased

Caliber of employees	17	1	3	2
Public confidence	8	1	12	2
Employee efficiency	10	2	9	2

A survey by Yeschke, staff member of John E. Reid and Associates, Chicago, Illinois, revealed the following:

One hundred and eighty questionnaires were sent to police departments serving cities with populations of 100,000 or more, and to all state police agencies. One-hundred and sixteen replies were received.

Of the 116 replies to the survey: 64 agencies do not use polygraph testing on applicants; 3 agencies have policies against such testing; 26 agencies are considering the use of polygraph testing in the future; 4 agencies occasionally use polygraph testing; and 19 agencies are presently testing applicants with the polygraph.¹

Early in 1950 the Burbank, California, Police Department utilized the services of a commercial polygraph examiner in an experiment to determine the value of a combined psychological and polygraphic testing technique for screening police applicants. The experiment revealed that this technique screened out a large number of applicants who were not physiologically, mentally, and emotionally oriented toward police work but who had successfully passed through the other phases of the screening process including the background investigation. The specific results reported in this experiment were as follows:

During the first ten examinations the polygraph, based on conformed admissions from the applicants themselves, rejected 60 per cent of the prospective applicants. In a later screening series, when twenty-four applicants were interviewed and examined with the polygraph, the rejections, based again upon actual admissions by the subjects themselves, amounted to fourteen. Quite a shocking figure, considering that all twenty-four had been thoroughly investigated, given psychological test batteries, and interviewed

¹Charles L. Yeschke, "The Advantages and Limitations of Police Applicant Testing with the Polygraph," (Paper read at the Ninth Annual Meeting, American Academy of Polygraph Examiners, Chicago, Illinois, August, 1962).

by the various city departments participating in the selection. The fourteen applicants were eliminated for one or more of the following reasons:

1. Excessive alcoholism
2. Excessive gambling
3. Poor credit standing
4. Record of arrest until then successfully concealed
5. Homosexuality
6. Serious emotional problems
7. Other than honorable discharge from the military service
8. Serious health defects.²

The Georgia Bureau of Investigation reports that during the two months the applicant evaluation program has been in effect, twenty-two applicants have been tested. Six were rejected based on information revealed during the polygraph examination. The reasons for rejection were larceny, falsification of application, and mental illness.³

The Cincinnati Police Department has used the polygraph for applicant evaluation since August, 1955, with outstanding results according to their evaluation. The examiner who conducts the applicant evaluation tests summed up the value of the polygraph in the screening of police recruits as follows:

The improved methods of selection and constant striving of the staff to demand only the finest personnel have placed the Cincinnati Police Department

²Chris Gugas, "Better Policemen Through Better Screening." Police, (July-August 1962), pp. 57-58.

³B. G. Ragsdale, Letter, State of Georgia, Department of Public Safety, Atlanta 1, Georgia, November 13, 1962.

among the first in the nation. This is shown, not only in the reduction of dismissals of undesirable policemen, but also, in the high percentage of criminal cases solved.

The improved caliber of personnel in the Police Department is further emphasized by the increase of good public relations. The citizen's respect for the department has reached the highest pinnacle in its history.

Although this cannot be attributed solely to the use of the polygraph in selection of personnel, there can be no doubt the polygraph is playing a prominent role in the selection of the most capable and desirable personnel.⁴

A confirmed user of the polygraph for applicant evaluation is the Stockton, California, Police Department. Their chief thinks that the results are gratifying as the following remarks indicate.

The Polygraph Interview (lie detector interview) has been in use in screening applicants for the City of Stockton Police Department in excess of four years.

The Polygraph Interview is a major useful tool for screening applicants. It is more valuable, in the writer's opinion, than the psychiatric interview or an oral board. The Polygraph Interview is a tremendous step forward in the raising of the standards of Policemen. (sic) We are extremely satisfied with the polygraph as a part of the screening process for new officers with some 40 officers presently on the department having passed through this examination . . . These men who have been selected have been above standard.

⁴Gerald Elam, "Polygraph--An Aid in Recruiting," Law and Order, (July, 1960), pp. 24-27.

The polygraph is used on the basis of uncovering information which normally might not be brought to light in a general background investigation.⁵

Chief O'Keefe set forth the following cases as being representative of what the polygraph interview has accomplished for his department:

. . . a twenty-one year old male police applicant; after a thorough background check which provided no negative traits, the polygraph interview revealed that he had had abnormal sex relations with other boys up to and including age nineteen years. Upon interview . . . he readily admitted this activity

On a twenty-two year old male applicant, after having been fingerprinted with negative or record free return, the polygraph interview revealed that he had served an eighteen-month term in a reformatory for robbery when he was seventeen years of age.

Two male applicants who were employed by a public hospital agency and who had very high recommendations in their personnel histories at the institution were found, through the polygraph, to have beaten patients and to have stolen money from inmates.⁶

The City of Evanston, Illinois, has utilized the polygraph in applicant evaluation since 1959. The Evanston Personnel Director revealed these interesting results.

When the first group of police and fire candidates were asked to take the test, five waived appointment either because they had obtained employment elsewhere

⁵ Jack A. O'Keefe, "Use of the Polygraph in Police Applicant Screening," (Paper read at the International Association of Chiefs of Police 1962 Conference, St. Louis, Missouri).

⁶ Ibid.

or for other reasons, and six of the remaining thirteen were not hired as a result of the tests. When the candidates on the second police list of seventeen were asked to take the test, three waived, seven were cleared satisfactorily, and seven failed to pass the requirements. Of the first seven persons on our fireman list who were asked to take the test, six passed and one is still under question for further investigation.

From the third police eligible list of fifteen, eleven passed, two failed and two are still under further investigation. Those under further investigation are usually asked to take a second or, if necessary, a third polygraph test in addition to psychological and psychiatric tests. We are now able to more thoroughly examine the backgrounds of questionable applicants because the use of the polygraph reduces the number that needs to be scrutinized.

For those who did not meet the requirements, the tests showed long histories of thefts, serious undetected crimes, debt problems, homosexuality, use of narcotics, alcoholic tendencies, gambling problems, and other undesirable traits. Most of these characteristics were not discovered by other methods⁷

Evanston has broadened the scope for their use of the polygraph to include periodic personnel screening. The program first began in 1959 with parking lot attendants, but it has now been extended to include policemen. The periodic screening program includes only those policemen employed since the applicant evaluation program for them began in 1959.

⁷George J. Washnis, "Polygraphic Tests for City Employees," Public Personnel Review, (July, 1962), pp. 192-198.

The Delaware State Police have found the polygraph to be a very definite asset in their recruit screening program. The results depicted in the following comments note the value of the polygraph in the department.

When the polygraph examination of the applicants was completed it was found that approximately ten per cent of the available pool of recruits had been eliminated for such varied reasons as false statements on applications, false statements to interviewers, and prior involvement in minor criminal activity.⁸

The Vermont State Police gave a similar situation in their department.

It is quite possible that the use of the LD has reduced the number of applicants for positions with the Department, but there is no question that with the use of the LD we eliminate many undesirable applicants who would otherwise get onto the force. As a result the people we employ are much more satisfactory.⁹

The Wichita Police Department has used the polygraph for twenty-five years in applicant screening. They regard it as quite reliable on the basis of their experience with the instrument.

Both fire and police applicants are run on the polygraph as a late step in the applicant screening process. This step of personnel selection is extremely important and we feel that we couldn't do without it.¹⁰

⁸Paul T. Riley, "Use of the Polygraph for Pre-employment Testing of Police Recruits," Police, (July-August 1961), pp. 42-43.

⁹Ray C. Smith, Letter, State of Vermont, Department of Public Safety, State Police Division, Montpelier, Vermont, November 16, 1962.

¹⁰Wichita, Kansas, Police Department, Questionnaire Reply, November 1962.

The cost of professional psychological evaluations for each police applicant had a great influence upon the decision of the Dayton Police Department to utilize the polygraph for applicant evaluation. After two years' experience, the Department reports that polygraph applicant screening is an invaluable aid and has resulted in the disclosure of undesirable traits in approximately thirty-five per cent of the applicants who had successfully passed the background investigation.¹¹

The Amarillo Police Department reports screening approximately fifty applicants annually and made the following comments concerning the results:

It is our opinion that the polygraph is invaluable in the screening of applicants. It also saves much investigation that would otherwise have to be done.¹²

The recruitment of outstanding police personnel has been a problem to which Gugas, for many years a West Coast polygraph examiner and at the present time Director of Public Safety, Wichita, Kansas, has devoted extensive time and study. His conclusion that the pre-employment screening of police applicants should include a polygraph examination was based upon the results obtained during his period of research.

¹¹Dayton, Ohio, Police Department, Questionnaire Reply, November 1962.

¹²Amarillo, Texas, Police Department, Questionnaire Reply, November 1962.

The following statistics were prepared by me after examining approximately 510 applicants for approximately seven police departments in the California area. It must be pointed out that the rejection of the applicant was solely the responsibility of the Personnel Department and the Chief of Police. In no situation did this office recommend what action should be taken. The reports usually spoke for themselves, and it is interesting to note that in over 90% of the subjects examined, admissions were made by them on things which had been purposely left off the application form by the subject himself.

Police Department No. 1: 274 applicants were screened, and 108 were rejected, which is a total of 40%.

Police Department No. 2: 44 applicants were screened, and 29 were rejected, which is a total of 65%.

Police Department No. 3: 97 men were examined and 48 were rejected, a total of 50%.

Police Department No. 4: 19 men were examined and 12 were rejected, a total of 60%.

Police Department No. 5: 13 men were examined and 8 were rejected, a total of 60%.

Police Department No. 6: 14 men were examined, 12 were rejected, a total of 85%.

In all a total of 510 men were screened by the polygraph and 233 were rejected, the gross rejection amounted to approximately 45% of all those examined.

It is interesting to note that the majority of the above-listed Police Departments did conduct as thorough an investigation as possible on all of their applicants prior to asking them to take a polygraph examination.

In checking back with all of the departments that have hired those who successfully passed the polygraph examination, we have yet to find one applicant who has gone "sour." ✓

The polygraph screening program for police applicants . . . has greatly reduced the number of potential misfits in the police departments concerned, lowered recruiting costs because of the decrease in turnover, and it has also increased the morale of the department as a whole.¹³

II. COMMERCIAL ORGANIZATIONS

The commercial use of the polygraph has continually increased over the years. The majority of all polygraph examinations conducted today are pre-employment and personnel screening type examinations administered for industry and private companies by the more than 400 commercial polygraph firms rendering such services.

Questionnaires were sent to thirty-three of the major firms known to be engaged in pre-employment and personnel screening testing. Twenty replies were received. Without exception the firms replying to the questionnaire reported outstanding results in pre-employment screening. The majority reported the same results in personnel screening; however, comments on this type screening ranged from praise to condemnation.

John E. Reid and Associates, one of the oldest established polygraph firms, conducts more than 3,000 pre-employment and periodic personnel screening examinations

¹³Chris Gugas, "Better Policemen Through Better Screening," Police, (July-August 1962), pp. 54-58.

annually. The firm's services are utilized by practically every type of enterprise; manufacturers and distributors, department and other retail stores, insurance companies, banks and other financial institutions, transportation companies, hotels and hospitals, and law enforcement agencies. An assistant director reports achieving outstanding results in both applicant and periodic personnel screening.¹⁴^o

From the West Coast of the United States^A comes a similar report. The General Plant Protection Company, Los Angeles, California, a pioneer in the polygraph screening field, reports the following dramatic results concerning the rate of employee turnover after initiation of polygraphic screening.

During 1955, the last year during which our company operated without the polygraph (but with psychological aptitude tests) our rate of turnover for the organization as a whole, including all its offices, was 4.66%.

During 1956-57 to date (or since the introduction of the polygraph) this turnover has been cut to 2.175%--a reduction of 53.3%. (There were no wage increases or other changes to affect the above results.)

Even more dramatic, however, has been the results of a control test conducted during this period between two of our installations, which in manpower are of approximately equal size.

¹⁴ George W. Lindberg, Letter, John E. Reid and Associates, Chicago 5, Illinois, November 15, 1962.

In office A, the polygraph has NOT been used; while in office B, it came into use with the hiring of the first man, and has been employed on every single employee from manager to newest recruit.

In 1955, the turnover of personnel in office A was 3%; during 1956-57, this figure actually increased, and has reached the present level of 4.3%--a rise of some 43%.

In office B, the turnover has remained constant at a figure of .009%.

With these controls producing such conclusive proof of the effectiveness of the polygraph screening process in reducing employee-turnover, it is not surprising that the management of our company has decided that henceforth the polygraph screening examination shall be "standard procedure" in all our offices. ¹⁵ 9

An employee research service organization in El Paso, Texas, after having conducted thousands of pre-employment and periodic personnel screening polygraph examinations, stated that their experience had proved that these polygraphic screening programs materially reduce personnel turnover, training costs, disciplinary problems, inventory shortages, and if approached properly by both the polygraph examiner and employee, materially increased employee morale. ¹⁶ 10

Gregory, a nationally prominent polygraph examiner with more than a quarter of a century of polygraph experience

⁴ ¹⁵ Chris Gugas, "A Scientifically Accurate Method of Personnel Screening," Police, (November-December 1961) pp. 20-24.

¹⁶ Otis C. Campbell, Letter, Employee Research Service, El Paso, Texas, November 19, 1962.

reported phenomenal results utilizing the polygraph for pre-employment and periodic personnel screening. The following examples are typical:

. . . In one Michigan supermarket, "inventory shrinkage"--business's polite term for merchandise losses from employee thefts and unexplained disappearances--amounted to \$22,000 a year. Following polygraph tests which indicated many of the employees knew what had become of missing merchandise, stricter records systems and other security measures were instituted, and inventory shrinkage dropped to \$5,000 within a year. Similarly, the parts-department inventory shrinkage at a Michigan auto dealership dropped 60 per cent after periodic testing with the polygraph.¹⁷

Arther, for many years a polygraph examiner, consultant, and educator, conducts approximately 300 pre-employment applicant and 750 periodic personnel screening examinations annually.¹⁸ His experience with periodic personnel screening has convinced him of its importance in crime prevention. The following examples of the advantages accrued by businesses utilizing periodic personnel screening are cited by Arther.

One chain organization had an average shrinkage of over \$47,000 per year. Then this "routine" or periodic lie-detection testing began. Now, after three years, the total shrinkage is down to less than \$14,000 a year although their sales volume and number of branches have increased.

One bank had a night-deposit of \$885 missing from one of its branches. It was decided to give lie-detector tests to all the employees who could

¹⁷Alex Lee Gregory, "Workers Steal," The Saturday Evening Post, (November 10, 1963), pp. 30-33.

¹⁸Richard O. Arther, Scientific Lie Detection, Incorporated, New York, New York, Questionnaire Reply, November 1962.

have taken it. Not only did the polygraph examiner determine who took the missing \$885, but 21 out of the 22 tellers confessed to stealing from the company. . . . Arther . . . recommended that none be fired. However, this recommendation was dependent upon the condition that these employees be told that they would be given another test in six months.

When this second group of tests was conducted, only 2 of the 19 still employed had stolen any money from the bank since their original tests.^{19/2}

Myatt conducts approximately 1,000 pre-employment and 500 personnel screening examinations annually. In his opinion these tests have proved to be of great assistance to the firms utilizing the service.^{20/3}

Low reported that his firm conducts 2,500 to 3,000 pre-employment and periodic personnel screening examinations annually. The results that he obtained have convinced him that. . . "when properly used--the polygraph is the most efficient and effective tool in personnel work. . . ." ^{21/4} ✓
His reply was similar to several others that were received from consulting firms which reported outstanding success

^{19/19} Richard O. Arther, "Stopping Employee Thefts," (Paper read before various business associations, New York, New York, 1961-1962).

²⁰ M. W. Myatt, Truth Confirmation, Incorporated, Oklahoma City, Oklahoma, Questionnaire Reply, November 1962.

²¹ Joseph W. Low, Affiliated Food Stores, Questionnaire Reply, November 1962.

with the polygraph in applicant and personnel screening.²²

The McKesson Robbins, Incorporated, pharmaceutical firm has successfully utilized the polygraph for years in applicant screening. They also use it to screen probationary employees at the end of their probationary period. However, they do not utilize the polygraph for periodic personnel screening. Concerning the cost of the program to the company and the value received from such a program, the McKesson Robbins representative made the following statement:

The cost of the program is only a "drop in the bucket" in relation to reduction of inventory shortages and annual loss due to theft²³15

Harman, after many years of experience in the polygraph field, made the following comments concerning pre-employment and periodic personnel screening:

. . . I do not do much in the way of periodic tests. I don't particularly believe in them as necessary. . . . I believe that most of our problems today with unions and with anti-polygraph legislation have been caused by the improper use of the routine or periodic test. ✓

²² Edwin L. Seale, Director, Management Systems Evaluation Service, Arlington, Virginia; Charles Zimmerman, Scientific Security, Incorporated, Boston, Massachusetts; Milton A. Berman, Berman and Associates, Louisville, Kentucky; and Lloyd Furr, Furr Investigations, Washington, D.C.

²³ Kirk Barefoot, McKesson Robbins, Incorporated, Skokie, Illinois, Questionnaire Reply, November 1962.

.
. . . Polygraph pre-employment screening has proved to be most helpful in stabilizing the work force of a company. Employee turnover is substantially reduced. This is an advantage both to the employee and to the employer, and ultimately to the public.²⁴₁₆

Harman was not listed as opposition because he indicated that some periodic personnel screening was performed. His objection appeared to be based on the improper use of the test rather than the procedure itself.

²⁴George W. Harman, Director, Scientific Lie Detection, San Francisco, California, Questionnaire Reply, November 1962.

CHAPTER V

OPPOSITION

Opposition to the use of the polygraph in applicant evaluation and personnel screening ranged from resistance because of the funds required to utilize the procedure to condemnation solely because of moral considerations. An issue frequently encountered was the contention that results of the polygraph test are not admissible in court and therefore should not be condoned for any type of screening purpose. This admissibility issue appeared in practically all cases in which differences existed. No effort was made to justify the arguments in favor of either side of the legal issue. The fact is that the polygraph has not achieved scientific acceptability in court. That is, the chart itself and the examiner's opinion as to what it indicates not admissible.

Labor unions, law enforcement agencies, and a few other miscellaneous persons or groups have led the opposition parties. Arguments advanced by each proved to be revealing and reflected deep concern for their position.

I. LABOR UNIONS

Replies received from major unions revealed that all are not in agreement on their outlook toward the polygraph in applicant evaluation and personnel screening. Some unions themselves had resorted to the polygraph as an aid

in settling union conflicts within the union as well as with other agencies. Others, led by the Teamsters, violently opposed the use of the polygraph for any type of screening endeavor. A comment contained in a letter from the Teamsters Union portrays their position.

Our organization is strongly opposed to attempts by employers to give lie detector tests. Requesting employees to take such tests puts such employers in the category of suspecting all their workers. Such tests violate a worker's private rights, as well as being an unreliable method of arriving at the truth. We consider them an invasion of privacy.¹ Questions used in testing are often quite personal.

A local Teamsters affiliate in California initiated action in the form of a resolution to emphasize its views.

WHEREAS, employers and law enforcement agencies have resorted to the use of lie detector machines to aid them in detecting persons engaging in such unlawful conduct, and

WHEREAS, the results of such lie detector devices are totally unreliable, and inadmissible in a court of law, and

WHEREAS, it is insulting and degrading to any individual to subject him to a lie detector test, and force him to do so is repugnant to the constitutional protections guaranteed to every individual by the Fifth Amendment to the Constitution of the United States.²

¹International Brotherhood of Teamsters, Chauffeurs, Warehousemen and Helpers of America, Letter, Washington Office of James Hoffa, Washington 1, D.C., December 10, 1962.

²Ibid.

Victor Riesel, noted newspaper columnist, in his travels throughout the country, observed that only one major union violently opposed the use of the polygraph in the screening process.

In Chicago--in fact over a 10,000-mile circuit--I found that there was only one union which was bitterly battling the use of the lie detector in any case--the Teamsters.³

"The AFL-CIO has not up to this point taken any position with regard to the use of lie detectors, either for screening job applicants or in other connections," said an associate general counsel in a personal letter.⁴ A similar letter mailed to the New York headquarters of the International Longshoremen's Union was not answered.

II. LAW ENFORCEMENT AND SECURITY AGENCIES

Law enforcement agencies queried consisted of federal, state, and municipal departments. Although the Atomic Energy Commission is not principally recognized as a law enforcement agency, its security program qualifies it to be included in this section for discussion.

³Victor Riesel, "Beach Waiter Holds His Job," The Miami News, March 15, 1960, p. 12A.

⁴American Federation of Labor and Congress of Industrial Organizations, Letter, Washington 6, D.C., December 6, 1962.

". . . The FBI does not use the polygraph in any matters pertaining to applicant evaluation."⁵ Mr. Hoover did not explain his negative answer in the letter reply. While he has not commented upon the use of the polygraph for applicant evaluation, he has previously made the following comment concerning the use of the polygraph in criminal cases.

. . . Whenever the human element enters into an interpretation of anything, there is always a variance. I would never accept the conclusion of a lie detector as proof of innocence or guilt. All that it can be called is a psychological aid.⁶ ✓

As was discussed in Chapter I, the Atomic Energy Commission did not completely eliminate the polygraph from their screening program. But since they have conducted only about six examinations during the past ten years after having used it extensively for at least six years prior to 1953, it appears appropriate to categorize the AEC as being among the opposition.⁷

Even though the general use of the polygraph for screening purposes was discontinued, it proved to be successful in two activities of the security program. It produced

⁵J. Edgar Hoover, Letter, Federal Bureau of Investigation, Washington D.C., November 1962.

⁶United States Congress, House of Representatives, Committee on Un-American Activities, Security Practices in the National Security Agency, Hearings before Subcommittee, 87th Congress, 2d Session, August 13, 1962 (Washington: Government Printing Office, 1962), p. 14.

⁷Tharp, loc. cit.

results that were very reliable when persons were questioned as to whether or not key material had been removed to an unauthorized location. It also proved to be of limited value in determining the validity of the information contained on the personal history questionnaire and the application form of the applicant.⁸

The polygraph as an aid in the screening program was not successful at the Oak Ridge Project when its use was extended to determine the ideological thoughts or state of mind of the examinee. In efforts to determine whether or not the examinee was a member or follower of a subversive group whose purpose was to overthrow the United States Government, the polygraph yielded negative results. Conclusive opinions could not be given. In addition, resentment was aroused among the employees who were being examined. This resentment was adverse to the use of the polygraph for any screening purposes.⁹

The extensive polygraph screening program was not dropped from the Oak Ridge Project because of labor opposition. Rather, the scientific personnel and the senior administrative officials were principally responsible for its general use being discontinued. A person seeking employment with the AEC is still asked if he will be willing to take a polygraph examination if it is deemed appropriate. Regardless

⁸Tharp, loc. cit. ⁹Tharp, loc. cit.

of his answer, it does not affect the further processing of his application.¹⁰

State and municipal police departments' objections were similar to those of the FBI. As the size of the department decreased, fund limitations became more prevalent as one of the reasons for not using the polygraphic screening procedure. For a complete listing of those agencies and departments who answered the questionnaire that do not utilize the polygraph for screening purposes and their reasons for not doing so, see Appendices D and E.

The representative in the South Dakota Division of Criminal Investigation perhaps best summed up the feeling of many departments with this thought-provoking remark:

We are still old-fashioned out here. We prefer the man-to-man approach, plus a thorough background investigation when dealing with prospective employees. Also, we believe that there is a little sin in everyone's life--past, present, and future--and feel that we are capable of handling these situations with the time-tested method of requiring the accuser to face the accused.¹¹

III. OTHER OPPOSITION

An article appeared in Harvard Business Review in

¹⁰Tharp, loc. cit.

¹¹South Dakota Division of Criminal Investigation, Attorney General's Office, Letter, Pierre, South Dakota, November 4, 1962.

1962 which strongly advocated the banning of the polygraph in all aspects of both criminal and screening functions.¹² The authors, two associate psychologists and a graduate student in industrial management, criticized the inadequacies of the instruments, the lack of training of their operators, and morality of the procedure. The laxity on the part of the manufacturers of polygraph instruments to keep pace with the electronic advances made in similar measuring devices used in laboratories and in aerospace programs was severely criticized. They put it this way:

The relatively primitive devices used by commercial operators, as compared with those in use in laboratory and aerospace applications, are only part of the limitations on the polygraph techniques. Even with better instruments, the real problem is not acquiring the data but interpreting the data. . . . It is no exaggeration to say that commercial operators are using the equivalent of biplanes in a rocket age.¹³

They further contended that the national associations, whose function would be to prescribe the required training for operators, seem to have been organized solely for promotional purposes. They added that:

The training of professional operators is often less than adequate. There is no governing body which stipulates requirements to be met and passes on by

¹²Richard A. Sternbach, Lawrence A. Gustafson, and Ronald L. Collier, "Don't Trust the Lie Detector," Harvard Business Review, November-December 1962, pp. 127-134.

¹³Ibid., p. 129.

the candidates, as in the case of doctors, lawyers, accountants, clinical psychologists, and many other groups. The operator may simply have read a book on the subject, or taken a course lasting from a day or two to six months.¹⁴

The morality issue and its influence on the employer and abuse against the potential or present employee was lastly considered by the authors. Although no statistics or tangible evidence can be adduced from their findings, they developed a number of points to substantiate their argument.

The use of polygraphic techniques either to detect or to avoid hiring certain persons constitutes a subversion of judicial processes to "trial by polygraph." An individual is persuaded by social pressures to testify against himself through a distorted, error-ridden medium; he may be denied the right to work without ever knowing the reason why; he may be "convicted" of certain "tendencies" without having committed an illegal act; and he has no defense against the operator's report, since it is unknown to him and he has no rights in the process by which it is drawn up and used.¹⁵

Colonel Oldham, a former Kentucky State Police Superintendent, advocated complete abolishment of the procedure. In his condemnation he gave particular emphasis to the integrity of the individual as his remarks that follow indicate.

These screening examinations are often euphemistically referred to as "detection of deception,"

¹⁴Ibid., p. 131.

¹⁵Ibid., p. 123.

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"truth verification," etc., and are predicated upon the basic premise that an individual's word is no longer worthy of acceptance without the blessings of the polygraph examiners. By such compulsion the burden of proof is even reversed to be upon the unaccused, but manifestly suspect, individuals--suspect only because they have the audacity to seek employment in a free society.¹⁶

Much has been said about outlawing the use of the polygraph for screening purposes. But, as of December 31, 1963, only California, Oregon, and Massachusetts had enacted laws specifically banning the use of the polygraph as a condition of employment. Similar bills had been introduced in the legislatures of several other states. States which had passed legislation to license polygraph examiners as of December 31, 1963, were Illinois, Kentucky, and New Mexico.

¹⁶Colonel Charles C. Oldham, "Police Forum, Subject: The Polygraph," The Police Chief, August 1961, p. 14.

CHAPTER VII

A PROPOSED SYSTEM FOR USE IN A LAW ENFORCEMENT AGENCY

A number of systems are now used by administrators in an effort to screen applicants. They generally consist of one or more of the following; (1) written aptitude and intelligence tests, (2) emotional stability evaluation by psychological testing or psychiatric examination, (3) physical examination, (4) personal interview, (5) and character investigation. Police agencies that have utilized these methods of screening have proved their value by the number of undesirable applicants eliminated by the tests. Unfortunately, however, experience has shown that these screening devices do not eliminate all of the undesirable applicants as was shown by Gugas in his study of the Berkeley Police Department recruiting program discussed in Chapter IV. Gugas had indicated earlier that the primary reason for the failure of these screening devices to eliminate all undesirable applicants was the deceptive and misleading data provided by the applicant in answering the questions on the application form, the psychological tests, and the oral interview.¹

¹Chris Gugas, "A Scientifically Accurate Method of Personnel Screening," Police, (November-December, 1961), p. 19.

According to Price, a secondary reason was the failure of the character (background) investigation to reveal certain character defects of the applicant due to the reluctance of the individuals interviewed to provide derogatory information.² A third reason was the inability of these methods to reveal undetected crimes committed by the applicant, such as larceny and homosexuality. Undoubtedly, the aforementioned screening procedures do aid the administrator in making a selection; however, the defects noted indicate that there still exists a need for improvement. The proposed system that follows is designed to provide the needed improvement by the polygraphic verification of the data provided by the applicant and the results of the physical and psychological tests.

I. THE OVERALL SYSTEM

The proposed overall screening system contains eleven elements. These elements are: (1) a set of qualifications, (2) a comprehensive application form similar to the outline suggested by Germann,³ (3) an audit of the applications at

²Carroll S. Price, "An Instrumental Approach to Applicant Evaluation," Police, (May-June, 1961), p. 40.

³A. C. Germann, Police Personnel Management (Springfield, Illinois: Charles C. Thomas Publishers, 1958), pp. 38-44.

the time they are filed, (4) aptitude and intelligence tests, (5) physical agility test, (6) an oral interview, (7) a medical examination, (8) a community character inquiry, (9) a psychiatric evaluation, (10) a polygraphic evaluation, (11) and a complete background investigation. With exception of the polygraphic evaluation, the elements of the system are in common usage today and are thoroughly covered in literature on personnel management. Therefore, these elements will not be discussed further.

Order of Screening. The order of screening was designed to eliminate an undesirable applicant as quickly and as economically as possible. Thus the more economical and expeditious screening devices of application audit, aptitude and intelligence testing, physical agility test, the oral interview, and the medical examination should be utilized first. A number of applicants would automatically be eliminated by these devices, leaving only the best qualified to be screened by the more expensive and time-consuming devices of the community character inquiry, the psychiatric examination, the polygraphic evaluation, and the background investigation.

Because of the high percentage of applicants that are eliminated by the polygraphic evaluation, the expensive and time-consuming complete background investigation should be accomplished last. However, a community character inquiry

should be conducted prior to the polygraphic examination in order to provide the polygraph examiner with some positive data for the examination. It is desirable to conduct a thorough background investigation on all applicants rejected on the basis of the polygraph results, unless the applicant admits attempting deception. Areas of deception should be utilized as primary investigative leads.

II. THE POLYGRAPHIC EVALUATION

The polygraphic evaluation was designed to verify the information provided by the applicant and to substantiate the results of the medical examination, the psychological tests, and psychiatric examination. The examination consists of a pretest interview period, a series of polygraph tests, and a post-test interview period. The total time required for the evaluation is approximately two hours.

Background Areas Covered. The twenty areas listed below were considered to be critical areas of data provided by the applicant that should be verified by polygraphic testing. Detection of homosexuality is considered to be especially important by governmental agencies which require security clearances.

Name
Birth
Residence

Use of alcohol
Use of narcotics
Indebtedness

Education/Training	Extent of gambling
Military service	Accident record
Physical health	Arrests
Mental health	Undetected crimes
Previous employment	Loyalty
Employment permanency	Homosexuality
intentions	Answers given on psychological
Marital status	tests and to the psychiatrist

Preliminary Preparations. In preparing for the polygraph examination the examiner must first study the application form, the results of the aptitude and intelligence tests, the psychiatric and medical reports, the community inquiry investigation, and the oral interview evaluation. The questions asked during the examination should be based on these documents and the information furnished by the applicant during the pretest interview.

Pretest Interview. The polygraph examination must include a pretest interview between the applicant and the examiner. This interview would normally be conducted just prior to the actual tests. During this interview the applicant would be made comfortable, allowed to smoke, and encouraged to relax. The initial phase of the interview would be devoted to establishing rapport and explanation of the polygraph examination to the applicant. After this had been accomplished, the examiner would advise the applicant that an untruthful answer would disqualify him for the position for which he was applying. The entire application

would be reviewed with the applicant, and specific questions (see Appendix B) concerning each of the twenty areas to be covered during the actual tests would be asked. His answers would then be discussed with him and recorded on the question sheet. Based upon these answers and the information on the application, the examiner would formulate the actual questions to be asked during the testing phase and discuss them in detail with the applicant. These questions should be the same or modifications of the questions listed in Appendix A. This interview would require approximately one hour.

The pretest interview would psychologically condition the applicant for the polygraph tests that would follow after a brief intermission. The intermission should provide the applicant ample time to contemplate the correctness of his answers and to correct any erroneous answers he may have given on his application, personal interview, or pretest polygraph interview. It could be a "face-saver" for the applicant and a "time-saver" for the examiner.

Prior to administering the tests following the intermission, the examiner would again briefly interview the applicant. The initial step during this interview would be to reestablish rapport. After this had been accomplished, the applicant would be invited to make any changes or corrections he desired to the information that he had previously

provided. Sufficient time would be allowed for the applicant to discuss any areas of doubt concerning the correctness of the information he had provided and to explain the reasons for any changes or corrections he desired to make. Upon completion of this phase, the test questions would be modified, if required, and all questions to be asked during the test would again be reviewed with the applicant.

After the examiner had assured himself that the applicant clearly understood the questions to be asked during the tests, he would attach the blood pressure cuff, pneumograph tube, and electrodes to the applicant. Upon completion of this task, the examiner would review the testing procedure with the applicant and administer the tests.

Testing Phase. This phase of the examination would consist of dividing the series of questions (see Appendix A) into two groups and enveloping each group by adding two irrelevant questions to the beginning and end of the group. To ask all of the questions in a single test would cause discomfort to the applicant. Two tests covering each of the two groups of questions would be administered utilizing the probing peak of tension technique. There should not be any discussion or interrogation between tests. Upon completion of the four tests, the examiner would diagnose the charts.

If deception was indicated to one or more questions in either or both groups, the questions to which deception was indicated would be removed from the group, and a third test administered covering the remaining questions in the group. Upon completion of all tests, the examiner would remove the components, diagnose the charts, and notify the applicant of the results of the tests.

Post-test Interview. If deception was not indicated, the applicant should be thanked for his cooperation and referred to the personnel director or other official that requested the examination. If deception was indicated on one or more questions, the applicant should be given an opportunity to explain and make any admissions he desires concerning the deception. Should the applicant deny deception, the examiner would attempt to obtain additional specific information concerning the deception by administering additional probing peak of tension or general question tests utilizing the appropriate specific area questions (see Appendix B).

Report. The examiner would render a simple and factual report to the administrator who requested the examination. This report would contain the examiner's opinion concerning the truthfulness of the applicant in answering

all of the questions as well as any investigative leads that were developed during the examination. Specific questions would be pointed out in which deception was indicated. The examiner would not make specific recommendations concerning the acceptance or rejection of the applicant unless requested to do so by the administrator requesting the examination.

Cost. An agency which utilized the polygraph as an investigative aid in criminal investigations would need only to have the experienced examiner further trained in personnel screening. This could be accomplished by sending him to one of the polygraph schools for a minimum of two weeks to observe and learn the polygraph techniques involved in personnel screening. He then should serve an apprenticeship with an experienced examiner in personnel screening until proficiency has been attained. The costs, excluding the examiner's salary, would involve tuition, material fees, quarters, rations, and other expenses incidental to the apprenticeship training.

An agency initiating a polygraph program for either criminal or screening purposes or both would be required to train an examiner, purchase an instrument, and convert an existing room into an examination room. The Albuquerque

Police Department spent approximately \$2800.00 to initiate their polygraph program. This figure included the cost of an instrument plus the expense of training the examiner. It did not include the salary of the examiner nor the cost of the examining room.⁴ The Delaware State Police expended slightly less than \$5000.00 to initiate their polygraph program. This figure included training and salary of the examiner plus the cost of a new instrument. However, it did not include the cost of an examiner's room.⁵

⁴Bill Slevin, "Police Lie Detector Proves Its Worth," Keeler Polygram, Associated Research Bulletin 6-15.3, (Undated), p. 1.

⁵Colonel John B. Ferguson, "The Polygraph Knockers," The Police Chief, (May 1962), p. 39.

CHAPTER VII

SUMMARY AND CONCLUSIONS

It is concluded from this study that the polygraph can be a definite asset to an administrator in his screening program. The polygraph becomes a valuable aid only when the examiner is skilled in his profession. The aid is effective only when it is used under conditions conducive to the proper functioning of an extremely sensitive diagnostic instrument.

Conventional screening programs now in use often fail to detect undesirable traits and behavior symptoms that would adversely affect an applicant in the performance of his duty or bring discredit upon his organization. Existing screening procedures can be made more effective by using the polygraph. The instrument should be used only after enough information has been obtained to construct a valid test.

Use of the polygraph has not yet been generally accepted by police administrators as a supplement to conventional applicant evaluation. This finding, depicted in Chapter IV and in Appendices D and E, may be misleading when the numerical ratio of one to the other is the only consideration because the majority of both the municipal police departments and the state police agencies replied that they do not use the polygraph for the stated purposes.

Of this total, only seven municipal departments and four state agencies gave as their reason for not using the polygraph a lack of confidence in polygraph techniques and examiners. The resentment that would result reported by only two state agencies and four municipal departments further indicates that there is no overwhelming objection to the use of the polygraph for screening purposes. But, satisfaction obtained from other methods such as psychological tests, background checks, and personal interviews suffices at the present time for evaluating a potential employee.

There is, however, a definite trend toward the use of the polygraph for screening purposes in that twenty-three agencies reported that they are well pleased with their polygraph as an aid for this purpose. Others reported seriously considering its use in their applicant screening programs for the future (see Appendices D and E). All known commercial firms that have resorted to the use of the polygraph have had good to outstanding results. With the exception of the Atomic Energy Commission, no evidence has been discovered in which other users of the polygraphic system have discontinued the practice. Even though used sparingly in individual cases, for all practical purposes the AEC has discontinued its use (see Chapters I and V).

Use of the polygraph for periodic personnel screening

has not been accepted by police administrators; nevertheless, it can be utilized effectively for this purpose. Its use, however, should be limited to personnel who have agreed to take the tests prior to employment. To initiate the testing procedure after personnel have been hired would adversely affect morale and create dissension. It was revealed that those few police departments that do resort to the polygraph for these purposes relied upon outside agencies to conduct the examinations. This procedure appears to be a wise one in that it is less likely to receive criticism of favoritism from the parties involved. Then, too, some examiners are reluctant to give a fellow employee an examination.

The polygraph has achieved greater acceptance in commercial firms than it has in police agencies as a screening aid. Management reports that it has been a valuable tool in applicant evaluation and periodic personnel screening. They claim that there have been reductions in merchandise losses, monetary thefts, personnel turnover, training costs, and disciplinary problems when the polygraph has been employed. The caliber of employees, their efficiency, and the confidence of the public have been enhanced by proper use of the instrument. ✓

Polygraph consultant firms regard the identities of

the commercial firms for which they provide services as restricted information. These consultant firms, which number more than 400, claim outstanding success for their clients which consist of practically every type of business entity. Accepting these claims as valid, there appears to be a place for its use in applicant evaluation and periodic screening of policemen.

The outstanding results claimed by non-police organizations utilizing the polygraph for screening purposes reflect that once the polygraph has been established, the adverse criticism by employees that its use is an invasion of their rights to personal privacy soon becomes less pronounced. This reduction in adverse criticism has been achieved to some extent by management's emphasizing the protection of the innocent from suspicion of having committed some offense. To achieve the results claimed by polygraph consultant firms, each examination must be conducted ethically by an efficient examiner. The instrument cannot be resorted to as a crutch for solving all employer-employee personnel problems.

The fact that the results of polygraph examinations are not generally accepted in court in itself does not invalidate the use of the instrument as an aid in the screening program. Proponents of its use maintain that

an applicant and screening program is not a court of law and should not be treated as such. Rather, the polygraph is being used only as another aid in assisting the employer to obtain either good or bad information about potential employees and personnel already on the payroll. The requirement to take a polygraph examination is a condition of employment and should not be objected to when it is administered under the conditions prescribed in earlier discussion.

As of December 31, 1963, California, Massachusetts, and Oregon had passed legislation which prohibits the requirement of a polygraph examination as a condition of employment. As of this same date, only Illinois, Kentucky, and New Mexico had established a licensing law for polygraph examiners.

Recommendations

1. Administrators, both in police organizations and in commercial firms, should seriously consider the adoption of the polygraph as an aid in their own applicant evaluation and periodic personnel screening program.

2. Polygraph examiners must form a professional association in order to promote favorable legislation in state and federal law-making bodies.

3. Polygraph examiner associations must unite and establish minimum prerequisites for a qualified examiner.

4. Polygraph examiner associations must conduct a vigorous campaign for favorable legislation to rid the field of operators who do not meet the minimum standards established by statute.

5. Polygraph examiners and manufacturers of instruments must combine their resources to acquaint police and business administrators of the capabilities and limitations of the polygraph instrument. They must emphasize the proper conduct of an examination.

6. Polygraph examiner associations must convince administrators and present and potential employees that the properly conducted polygraph examination is not an invasion of the individual's right to privacy.

7. Use of the polygraph to protect the innocent must be publicized rather than its use to detect the guilty if it is to achieve maximum success in screening operations and overcome the stigma attached to it as a "lie detector."

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APPENDICES

APPENDIX A

**TEST QUESTIONS COVERING THE
TWENTY CRITICAL AREAS**

APPENDIX A

TEST QUESTIONS COVERING THE TWENTY CRITICAL AREAS

1. Have you been completely truthful concerning your name?
2. To the best of your knowledge is the place and date of your birth shown on your application correct?
3. Have you been completely truthful concerning present and former residences?
4. Have you been completely truthful concerning your education (training)?
5. Have you deliberately withheld any unfavorable information concerning your military service?
6. Have you intentionally withheld any information concerning a past or present physical ailment or injury?
7. Have you been completely truthful concerning your mental health?
8. Have you deliberately withheld any unfavorable information concerning previous employment?
9. Are you seeking long-term employment with this agency?
10. Have you been completely truthful concerning your marital status?
11. Have you been completely truthful concerning your gambling habits?
12. Have you been completely truthful concerning your alcoholic drinking habits?
13. Have you ever used, bought, or sold narcotics or drugs for other than medical reasons?
14. Have you been completely truthful concerning your financial status and obligations?

15. Have you intentionally withheld any unfavorable information concerning an automobile accident?
16. Have you deliberately withheld any information concerning your police record or arrests?
17. Have you ever committed any serious undetected crimes?
18. Have you ever been a member of any organization advocating the overthrow of the United States Government?
19. Since the age of sixteen have you engaged in sexual acts with a man; a child; an animal?
20. Were you completely truthful in answering the questions on the psychological tests?

NOTE: The phrase "other than what you have told me about" may precede any of the above questions to which the applicant has made partial admissions.

APPENDIX B

SPECIFIC TEST QUESTIONS COVERING THE TWENTY CRITICAL AREAS

Critical Area One--NAME

1. Is the name shown on your application your real full name?
2. Is it identical with the name recorded on your birth certificate?
3. Is the name shown on your application spelled correctly?
4. Have you ever spelled it any other way?
5. Have you ever had your name changed legally?
6. Have you ever assumed a fictitious name?
7. Have you ever represented yourself to be somebody else?
8. Have you ever attempted to conceal your real identity?
9. Have you ever used on police records any name other than your real name?
10. Have you ever used on employment records any name other than your real name?
11. Have you ever used on military records any name other than your real name?
12. Have you ever registered in a hotel or motel using a name other than your real name?

Critical Area Two--BIRTH

1. Have you ever seen your birth certificate?
2. To the best of your knowledge is the date of birth shown on your birth certificate your true date of birth?
3. To the best of your knowledge is the place of birth shown on your birth certificate your true place of birth?
4. Is the date of birth shown on your application the same date recorded on your birth certificate?
5. Is the place of birth shown on your application the same as the place recorded on your birth certificate?
6. Have you ever used a date of birth other than the date of birth shown on your application?
7. Have you ever used a place of birth other than the place of birth shown on your application?
8. Have you ever intentionally lied about your date of birth for any reason?
9. Have you ever intentionally lied about your place of birth for any reason?

Critical Area Three--RESIDENCES

1. Are all your former residences listed on your application?
2. Is the information about your residences correctly listed on your application?
3. Have you actually resided at all the addresses listed?
4. Have you intentionally omitted any residence?
5. Have you ever lived any place other than at the addresses listed on your application?
6. Is your present address (residence) correctly listed?
7. Have you ever changed residence because of trouble with neighbors?

Critical Area Four--EDUCATION

1. Are all the secondary schools, colleges, and universities that you have attended listed on your application?
2. Have you actually attended all the schools listed on your application?
3. Did you complete the years of education indicated on your application?
4. Have you intentionally misrepresented your level of education?
5. Were you ever suspended from school?
6. Were you ever expelled from school?
7. Were you ever placed on probation in any school?
8. Were you ever directed to transfer to another school for any reason?
9. Did you ever have disciplinary trouble at the schools you attended?

Critical Area Five--MILITARY SERVICE

1. Have you actually completed the military service listed on your application?
2. Have you intentionally omitted any period of military service?
3. Have you ever been rejected for military service for any reason?
4. Have you ever been discharged for physical or mental reasons?
5. Have you ever received a discharge other than an honorable discharge?
6. Have you ever been court-martialed?
7. Have you ever appeared as a defendant before a military board?
8. Have you ever falsified information to be eligible for military service?
9. Have you ever falsified information to keep from being drafted?

Critical Area Six--PHYSICAL AILMENTS OR INJURIES

1. Besides routine childhood diseases, have you ever been seriously sick?
2. Have you ever suffered from heart trouble?
3. Have you ever had TB?
4. Have you ever had a serious effect from an allergy?
5. Have you ever been seriously injured?
6. Have you ever been injured in an accident?
7. Have you ever suffered a head injury?
8. Have you ever "blacked out"?
9. Do you suffer from headaches for long periods of time?
10. During the last year have you been under medical treatment for any reason?
11. During the last five years have you been under medical treatment for any reason?
12. Do you presently have any complaints about your health?
13. Are you physically handicapped in any way?
14. Have you intentionally misrepresented your state of health in any way?
15. Have you intentionally omitted any injury or illness from your application?

Critical Area Seven--MENTAL DISORDERS

1. Do you presently have any emotional problems?
2. Do you think you are presently in need of mental or psychiatric treatment?
3. Have you ever suffered from a nervous breakdown?
4. Have you ever suffered from a mental breakdown?
5. Have you ever suffered from any type of mental or nervous disorder?
6. Have you ever been confined to a mental institution?
7. Have you ever been confined to a rest home?
8. Have you ever been under psychiatric treatment?
9. Have you ever consulted a psychiatrist?
10. Have you ever consulted mental hygiene personnel?
11. Have you ever attempted to commit suicide?
12. Have you ever seriously considered committing suicide?
13. Has any member of your immediate family ever been confined to a rest home?
14. Has any member of your immediate family ever been confined to a mental institution?

Critical Area Eight--PREVIOUS EMPLOYMENT

1. Have you correctly listed all your employments on your application?
2. Have you intentionally omitted any employment?
3. Are the true reasons for leaving your previous employments correctly listed on your application?
4. Were you ever fired from any employment?
5. Were you ever asked to resign from any employment?
6. Did you ever resign a job because you thought you were going to be fired?
7. Did any of your employers ever discipline you for misconduct?
8. Did you ever intentionally act against the interests of any of your employers?
9. Did you ever steal anything from any of your employers?
10. Did you ever help others steal from any of your employers?

Critical Area Nine--LONG-TERM EMPLOYMENT

1. Are you seeking long-term employment in applying for this position?
2. Are you applying for this position because you like the type of work involved?
3. Is there some other type of work that you would prefer to law enforcement?
4. Do you intend to make a career of law enforcement?
5. Do you presently have any applications for employment pending with other organizations or companies?
6. Have you agreed or arranged to accept another position at some future date?

Critical Area Ten--MARITAL STATUS**(Single Applicant)**

1. Is the information contained in your application concerning your marital status complete and correct?
2. Have you ever been married?
3. Have you ever been engaged to be married?

(Married Applicant)

1. Is the information contained in your application concerning your marital status complete and correct?
2. Have you ever been married before?
3. Have you ever been divorced?
4. Have you ever been separated from your wife because of domestic difficulties.

Critical Area Eleven--GAMBLING

1. Have you ever bet money on cards, horses, dice, numbers, fights, ball games, etc.?
2. Have you ever played the slot machines or pinball machines for money?
3. Have you ever bet more than \$20.00 on a single bet?
4. Do you presently owe any gambling debts?
5. Have you ever borrowed money to gamble?
6. Has your family ever suffered because of your gambling?
7. Have you ever worked for a company which was organized for purposes of gambling?

Critical Area Twelve--ALCOHOL

1. Have you ever used alcoholic beverages?
2. Have you ever used alcoholic beverages to excess?
3. Have you ever been drunk?
4. Have you ever borrowed money to buy alcoholic beverages?
5. Have you ever been in any kind of trouble as a result of your drinking?
6. Have you ever lost time from work because of your drinking habits?
7. Have you ever been arrested for being under the influence of alcohol?
8. Have you ever been fired or asked to resign from a job because of your drinking habits?
9. Have you ever been in a sanitorium for alcoholism?
10. Have you ever been treated by a doctor for alcoholism?

Critical Area Thirteen--NARCOTICS

1. Are you now or have you ever been addicted to the use of habit-forming drugs?
2. Have you ever used narcotics or drugs for other than medical reasons?
3. Have you ever bought narcotics or drugs for other than medical reasons?
4. Have you ever sold narcotics or drugs for other than medical reasons?
5. Have you ever been involved in any other way in the illegal traffic of narcotics or drugs?

Critical Area Fourteen--FINANCIAL STATUS AND OBLIGATIONS

1. Have you intentionally omitted listing any of your debts on your application form?
2. Are you presently behind in making payments on any of your debts?
3. Has a creditor ever repossessed merchandise from you because of delinquent payments?
4. Have you ever been sued for not paying a debt?
5. Have you ever refused to pay a legitimate debt?
6. Have you ever been refused credit?
7. Have you ever resorted to the laws of bankruptcy?

Critical Area Fifteen--AUTOMOBILE ACCIDENTS

1. Have you intentionally omitted from your application form any information concerning automobile accidents in which you have been involved?
2. Have you ever failed to report an accident in which you were involved?
3. Have you ever been involved in an accident that resulted in death or serious injury?
4. Have you ever been involved in an accident resulting in extensive property damage?
5. Are there presently pending any lawsuits or police actions resulting from accidents in which you have been involved?
6. Has your drivers license ever been suspended or revoked because of an accident?
7. Has your automobile insurance coverage ever been cancelled because of an accident?
8. Have you ever been refused automobile insurance?

Critical Area Sixteen-- POLICE RECORD

1. Have you intentionally omitted from your application any arrests or detentions by any law enforcement agency?
2. Have you ever been accused of any offense but not arrested or detained?
3. Have you ever been interrogated as a suspect by a law enforcement officer but not arrested or detained?
4. Have you ever been charged as a juvenile delinquent?
5. Have you ever been charged as a youthful offender?
6. Have you ever been charged as a wayward minor?
7. Have you ever been in trouble with any law enforcement agency?
8. Have you ever appeared in court as a defendant?
9. Do you presently have any charges of any kind pending against you?

Critical Area Seventeen--UNDETECTED CRIMES

1. Have you ever committed any serious undetected crime?
2. Have you ever helped anyone commit a serious undetected crime?
3. Have you ever committed any undetected acts of violence?
4. Have you ever done anything for which you feel that you could be blackmailed?
5. Have you ever accepted a bribe?
6. Have you ever threatened anyone with a weapon?
7. Have you ever assaulted anyone with a weapon?
8. Have you ever broken into anyone's home?
9. Have you ever broken into a place of business?
10. Have you ever stolen a car?
11. Have you ever stolen anything of value?
12. Have you ever forced a woman to have sexual intercourse with you?

Critical Area Eighteen--LOYALTY

1. Have you ever been a member of the Communist Party?
2. Have you ever been a member of a communist front organization?
3. Have you ever been a member of a communist controlled organization?
4. Have you ever been a member of a nazi organization?
5. Have you ever been a member of a fascist organization?
6. Have you ever been a member of an un-American organization?
7. Have you ever been a member of any organization that advocates the overthrow of the United States constitutional government?
8. Have you ever contributed money to the activities of any of these organizations?

Critical Area Nineteen-- HOMOSEXUALITY**SINCE THE AGE OF SIXTEEN:**

1. have you engaged in acts of oral sodomy with other men or boys?
2. have you engaged in acts of anal sodomy with other men or boys?
3. have you and another man or boy engaged in mutual acts of masturbation?
4. have you engaged in sexual activity with animals?
5. have you engaged in a sex act with a child?
6. have you sexually exhibited yourself?

Critical Area Twenty--PSYCHOLOGICAL TESTS

1. Did you answer all the questions on the psychological tests truthfully?
2. Did you give misleading answers to any of the questions on the psychological tests?
3. Did you give evasive answers to any of the questions on the psychological tests?
4. Did you give false answers to any of the questions on the psychological tests?

NOTE: The specific questions to be used would be dependent upon the type of psychological tests employed.

APPENDIX C

**POLICE AGENCIES AND DEPARTMENTS TO
WHICH QUESTIONNAIRES WERE SENT**

APPENDIX C

POLICE AGENCIES AND DEPARTMENTS TO WHICH QUESTIONNAIRES WERE SENT

I. FEDERAL

1. Federal Bureau of Investigation
2. Atomic Energy Commission (Security Division)

II. STATE

All State Police Agencies Except Those in Alaska and Hawaii.

III. MUNICIPAL

- | | |
|------------------------------|--------------------------------|
| 1. Akron, Ohio | 14. Binghamton, New York |
| 2. Albany, New York | 15. Birmingham, Alabama |
| 3. Albuquerque, New Mexico | 16. Boise, Idaho |
| 4. Allentown, Pennsylvania | 17. Boston Massachusetts |
| 5. Amarillo, Texas | 18. Buffalo, New York |
| 6. Atlanta, Georgia | 19. Burlington, Vermont |
| 7. Atlantic City, New Jersey | 20. Butte, Montana |
| 8. Augusta, Georgia | 21. Canton, Ohio |
| 9. Baltimore, Maryland | 22. Charleston, South Carolina |
| 10. Baton Rouge, Louisiana | 23. Charlotte, North Carolina |
| 11. Beaumont, Texas | 24. Chattanooga, Tennessee |
| 12. Bethlehem, Pennsylvania | 25. Chicago, Illinois |
| 13. Billings, Montana | 26. Cincinnati, Ohio |

(con't)

APPENDIX C

- | | |
|--------------------------------|-----------------------------|
| 27. Cleveland, Ohio | 49. Hartford, Connecticut |
| 28. Columbia, South Carolina | 50. Houston, Texas |
| 29. Columbus, Georgia | 51. Indianapolis, Indiana |
| 30. Columbus, Ohio | 52. Jackson, Mississippi |
| 31. Corpus Cristi, Texas | 53. Jacksonville, Florida |
| 32. Dallas, Texas | 54. Kalamazoo, Michigan |
| 33. Davenport, Iowa | 55. Kansas City, Missouri |
| 34. Dayton, Ohio | 56. Knoxville, Tennessee |
| 35. Denver, Colorado | 57. Lansing, Michigan |
| 36. Des Moines, Iowa | 58. Las Vegas, Nevada |
| 37. Detroit, Michigan | 59. Lincoln, Nebraska |
| 38. Duluth, Minnesota | 60. Little Rock, Arkansas |
| 39. El Paso, Texas | 61. Los Angeles, California |
| 40. Erie, Pennsylvania | 62. Louisville, Kentucky |
| 41. Evansville, Indiana | 63. Madison, Wisconsin |
| 42. Flint, Michigan | 64. Memphis, Tennessee |
| 43. Fort Lauderdale, Florida | 65. Miami, Florida |
| 44. Fort Wayne, Indiana | 66. Milwaukee, Wisconsin |
| 45. Fort Worth, Texas | 67. Minneapolis, Minnesota |
| 46. Fresno, California | 68. Mobile, Alabama |
| 47. Grand Rapids, Michigan | 69. Montgomery, Alabama |
| 48. Greensboro, North Carolina | 70. Nashville, Tennessee |

(con't)

APPENDIX C

- | | |
|--------------------------------|---------------------------------------|
| 71. New Haven, Connecticut | 94. San Diego, California |
| 72. New Orleans, Louisiana | 95. San Francisco, California |
| 73. New York, New York | 96. Savannah, Georgia |
| 74. Norfolk, Virginia | 97. Scranton, Pennsylvania |
| 75. Oakland, California | 98. Seattle, Washington |
| 76. Oklahoma City, Oklahoma | 99. Shreveport, Louisiana |
| 77. Omaha, Nebraska | 100. South Bend, Indiana |
| 78. Peoria, Illinois | 101. Spokane, Washington |
| 79. Philadelphia, Pennsylvania | 102. Springfield, Illinois |
| 80. Phoenix, Arizona | 103. Springfield, Ohio |
| 81. Pittsburgh, Pennsylvania | 104. Syracuse, New York |
| 82. Portland, Oregon | 105. Tacoma, Washington |
| 83. Providence, Rhode Island | 106. Tampa, Florida |
| 84. Racine, Wisconsin | 107. Toledo, Ohio |
| 85. Raleigh, North Carolina | 108. Topeka, Kansas |
| 86. Reading, Pennsylvania | 109. Trenton, New Jersey |
| 87. Richmond, Virginia | 110. Troy, New York |
| 88. Rochester, New York | 111. Tucson, Arizona |
| 89. Sacramento, California | 112. Tulsa, Oklahoma |
| 90. St. Louis, Missouri | 113. Waco, Texas |
| 91. St. Paul, Minnesota | 114. Washington, D.C. |
| 92. Salt Lake City, Utah | 115. Wichita, Kansas |
| 93. San Antonio, Texas | 116. Winston-Salem, North
Carolina |
| | 117. Youngstown, Ohio |

APPENDIX D

**STATE POLICE AGENCIES REPLYING TO QUESTIONNAIRE
THAT DO NOT USE THE POLYGRAPH**

APPENDIX D

STATE POLICE AGENCIES REPLYING TO QUESTIONNAIRE

THAT DO NOT USE THE POLYGRAPH

Code: (1) Resentment That Would Result--2
(2) Cost Involved--3
(3) Shortage of Applicants--1
(4) Size of Organization--3
(5) Lack of Confidence in Polygraph Technique--2
(6) Lack of Confidence in Polygraph Examiners--2
(7) Have Never Been Approached--7
(8) Satisfaction from Other Methods--9
(9) Remarks: Replies--35; Considering Its Use--2

[illegible]

(con't)

APPENDIX D

STATE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Mississippi							X		Appointments are political in nature
Missouri								X	
Montana	X	X				X	X		
Nebraska								X	
Nevada									Requires state legislation
New Jersey									Five examiners are too busy with oriminal cases
New Mexico								X	Operate a six weeks competi- tive recruit school
New York								X	
North Carolina			X	X					
North Dakota								X	
Ohio								X	Stress system in 14 weeks basic training.
Oregon								X	
Pennsylvania									Do not use
South Carolina				X			X	X	
South Dakota					X				Sin in every- one's life
Tennessee									Complete inves- tigation made

(con't)

APPENDIX D

STATE	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Texas									No comment
Utah								X	
Virginia								X	
Wisconsin							X		
Wyoming							X		

Seriously considering the polygraph for applicant screening:

Michigan

West Virginia

APPENDIX E

**MUNICIPAL POLICE DEPARTMENTS REPLYING TO
QUESTIONNAIRE THAT DO NOT
USE THE POLYGRAPH**

**MUNICIPAL POLICE DEPARTMENTS REPLYING TO
QUESTIONNAIRE THAT DO NOT
USE THE POLYGRAPH**

[illegible]

(con't)

APPENDIX B

MUNICIPALITY	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Columbia South Carolina	X	X	X	X			X	X	
Columbus Georgia									Only for criminal cases
Columbus, Ohio									Considering its use
Corpus Cristi Texas									Have considered it
Dallas, Texas								X	
Davenport, Iowa								X	
Des Moines Iowa									Considered but rejected
Detroit Michigan							X	X	
Duluth Minnesota		X						X	
El Paso, Texas									Have not investigated its possibilities
Erie Pennsylvania		X							Desire to but insufficient funds
Evansville Indiana							X	X	
Fort Lauderdale Florida								X	
Fresno California	X	X							
Grand Rapids Michigan					X	X		X	

APPENDIX F

**QUESTIONNAIRE SENT TO
CONSULTANT FIRMS**

APPENDIX F

QUESTIONNAIRE SENT TO
CONSULTANT FIRMS

2423 Dickey Road
Augusta, Georgia
(Date)

(Organization and address)

Dear Sir:

I am a Military Police officer presently assigned as an instructor to the United States Army Military Police School, Fort Gordon, Georgia. I am writing a thesis for a graduate degree in Police Administration from Michigan State University. I have selected as a subject for my thesis, "An Inquiry Into the Use of the Lie Detector in Applicant Evaluation and Personnel Screening." Your assistance is requested for me to complete this task.

Please complete and return the enclosed questionnaire. Indicate in your reply whether or not your comments may be included in the thesis.

Thank you,

CHARLES D. GOOCH
Captain, MPC
United States Army

QUESTIONNAIRE

SUBJECT: "An Inquiry Into the Use of the Lie Detector in Applicant Evaluation and Personnel Screening"

INSTRUCTIONS: Please indicate by marking or commenting in the appropriate spaces those statements or questions which apply to your organization.

- A. In utilizing the LD in applicant evaluation and personnel screening (periodic re-examination):
1. What systems do you use?
 2. What background areas are verified in your applicant evaluation?
 3. At what time intervals are personnel screening tests (periodic re-examinations) administered?
 4. How many exams are conducted annually? Applicant evaluation____; personnel screening_____.
 5. What is the approximate cost per examination?_____.
 6. What type organization(s) utilize your services?
 7. What type of non-police organization is predominant in the use of your LD service?
 8. Are you authorized to identify the organizations utilizing your services. YES____; NO____. If YES, please list major users.
- B. COMMENTS: Please comment as well as include any material that may be of value.

Signature - Organization

APPENDIX G

**QUESTIONNAIRE SENT TO
POLICE ORGANIZATIONS**

APPENDIX G

QUESTIONNAIRE SENT TO
POLICE ORGANIZATIONS

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Augusta, Georgia
(Date)

(Organization and address)

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Please complete and return the enclosed questionnaire. Indicate in your reply whether or not your comments may be included in the thesis.

Thank you,

CHARLES D. GOOCH
Captain, MPC
United States Army

QUESTIONNAIRE

SUBJECT: "An Inquiry Into the Use of the Lie Detector in Applicant Evaluation and Personnel Screening."

INSTRUCTIONS: Please indicate by marking or commenting in the appropriate spaces those statements or questions which apply to your organization.

A. ___ YES, this organization uses the LD in ___ applicant evaluation; ___ personnel screening (periodic re-examination). If NO, see Part B.

1. What system(s) do you use?
2. What position(s) to be filled by applicants do you use the LD?
3. Does refusal to take a LD test deny the applicant employment? YES ___. NO ___. OTHER _____
4. Is the applicant aware of the LD test prior to applying for a job? YES ___. NO ___.
5. How much emphasis is placed on the LD test results when it differs with:
 - (1) Completed application form; not any ___, very little ___, same ___, LD test overrules ___?
 - (2) Physical background check; not any ___, very little ___, same ___, LD test overrules ___?
6. If personnel screening (periodic re-examination) is used, at what interval is the test administered? _____
7. What was the approximate cost to initiate the applicant evaluation and/or screening program? _____
8. What is the estimated cost per year for operation of your program to include operators, equipment, and facilities? (Pro-rate if same are used for criminal and applicant or screening tests).
9. How many applicant evaluation and/or personnel screening exams are conducted annually? _____

Questionnaire (con't)

10. Has your program materially REDUCED: (1) Personnel turnover ____, (2) training costs ____, (3) disciplinary problems ____, and (4) number of applicants ____?

11. Has your program materially INCREASED: (1) calibre of employees ____, (2) public confidence ____, (3) employee efficiency ____?

12. COMMENTS:

B. ____NO, this organization does NOT utilize the LD in: applicant evaluation____; personnel screening____(periodic re-examination).

BECAUSE

1. Resentment that would result ____.
2. Cost involved ____.
3. Demand for and shortage of applicants prohibits selectivity ____.
4. Size of organization does not justify such a program____.
5. Lack of confidence in lie detector techniques____, operator(s)_____.
6. Have never been approached ____, or considered such a program_____.
7. Satisfactory results obtained from other applicant and screening methods, such as psychological tests____, background checks____, and personal interviews_____.
8. OTHER: (please comment).

C. Does your organization utilize the LD to resolve conflicts within the organization____; complaints or accusations made by the public against employees? (Comments desired).

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~~JUL 30 65~~

~~AUG 26 65~~

~~APR 11 1966~~ mag 4-11-66 SK

~~NOV 4 1966~~

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~~MAR 15 1969~~ 130

~~JUL 17 1969~~ 115

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