# **University of Richmond Law Review**

Volume 18 | Issue 1 Article 3

1983

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## **Recommended Citation**

David E. Nagle, The Polygraph in the Workplace, 18 U. Rich. L. Rev. 43 (1983). Available at: http://scholarship.richmond.edu/lawreview/vol18/iss1/3

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#### THE POLYGRAPH IN THE WORKPLACE

David E. Nagle\*

#### I. Introduction

The polygraph is an instrument which measures and records certain physiological data of a subject under controlled conditions in an attempt to detect deception.¹ It operates on the theory that an individual exhibits certain predictable physiological characteristics every time that he intentionally tells a lie.² While some critics question the reliability and validity of polygraph test results,³ the use of the polygraph in the workplace⁴ reveals that it has gained acceptance by a sizable segment of American business as an effective tool in personnel matters.

Since its development, the polygraph has been analyzed by the legal profession primarily in terms of its impact on the field of criminal law. For many years, the literature has been dominated by discussions of the use of the polygraph in criminal investigations and by the enduring controversy over the admissibility of polygraph test results in criminal cases. Almost all of the articles have been written by polygraph examiners, police investigators, prosecutors, and criminal defense attorneys.

During the last decade, the use of the polygraph in the workplace has increased to the point at which the number of employment-related polygraph tests now dwarfs the number of tests conducted for law-enforcement purposes. Strangely, few articles have been written for the benefit of those affected by this transition. As a consequence, the attorneys and corporate executives who are expected to answer questions concerning polygraph use frequently have little information to guide them beyond their perceptions of the polygraph, which have been gleaned from television and mov-

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<sup>1.</sup> J. REID & F. INBAU, TRUTH AND DECEPTION: THE POLYGRAPH ("LIE DETECTOR") TECHNIQUE 5 (2d ed. 1977).

<sup>2.</sup> See infra note 34.

<sup>3.</sup> See infra notes 81-91 and accompanying text.

<sup>4.</sup> See infra notes 92-119 and accompanying text.

ies, the polygraph examiner's sales pitch, and the anguished cries of civil libertarians. This article is intended to serve as a primer for those individuals who bear the responsibility for making decisions regarding the use of the polygraph in employment. It will focus both on the current application of the polygraph test in the employment context and on the legal limitations circumscribing its use. In the interests of providing a fuller appreciation of the nature and function of the polygraph, a section will be devoted to an explanation of its operation.<sup>5</sup>

#### II. HISTORY

# A. Early Means of Detecting Deception

While all of the various mechanical devices which comprise contemporary polygraphs have been developed within the past century, efforts to devise a means of detecting deception date back thousands of years. The earliest primitive cultures attempted to determine whether an individual was telling the truth by using various trials by ordeal, that is, physical tests inflicted upon the accused and occasionally upon the accuser. These tests relied exclusively upon the religious or superstitious hypothesis that a supernatural force would intervene to protect the innocent from physical trauma.6 The earliest recorded methods involved ordeals by exposure to fire or water. The Code of Hammurabi, which dates from approximately 1700 B.C., required that one accused of sorcery "plunge into the sacred river," where drowning established guilt.7 In India a test for deception involved holding fire in one's hands, while in Africa the accused was required to place his arms in boiling water or to ingest poison.8

Other cultures attempted to detect deception by methods recognized today as being premised upon pyschophysiological principles. These tests are frequently seen as the conceptual forerunners of the polygraph in that they depended upon the subject's faith in the procedure, his fear of detection, and his resulting physiological

<sup>5.</sup> Two areas of potential significance will not be addressed in this article—the effect of polygraph test results or of a discharged employee's refusal to submit to a polygraph examination upon a claim for unemployment compensation, and the current proliferation of tort litigation in the state courts arising from the use of the polygraph in the workplace.

<sup>6.</sup> D. Lykken, A Tremor in the Blood: Uses and Abuses of the Lie Detector 25 (1981).

<sup>7. 1</sup> THE DEVELOPMENT OF CIVILIZATION 24-25 (H. Carroll, A. Embree, K. Mellon, A. Schrier, A. Taylor eds. 1961).

<sup>8.</sup> S. Abrams, A Polygraph Handbook for Attorneys 11 (1977).

reactions. In India, for example, an accused was given dry rice to chew. If he could spit it out, he had allegedly demonstrated his truthfulness; if he was unable to do so, he was considered a liar. This test was based upon the notion that fear produces activity of the autonomic nervous system, which, in turn, controls the salivary glands. The accused's fear of being revealed as untruthful led to a reduced production of saliva, which made it difficult for him to spit out the dry rice. A similar but more painful test utilized by the Arabs also relied upon the effect of attempted deception in diminishing the flow of saliva so that when a hot iron was placed on the dry tongue of a liar, burning would result.

# B. The Evolution of Experimentation in Lie Detection

Many individuals have made significant contributions to the development of the polygraph and the procedure for its use. While an in-depth discussion of all of these men is beyond the scope of this article, the role played by a few of the most noteworthy individuals will be mentioned briefly.

The first test applying a principle which was subsequently utilized in the polygraph appears to have been the simple observation by Erasistratus, a Greek physician in the royal court of Syria, about 250 B.C., that the pulse quickens during emotional stress.<sup>12</sup> In the 1890's, Italian criminologist Cesare Lombroso devised the first scientific tests intended to reveal deception.<sup>13</sup> Using a hydrosphygmograph, he studied variations in blood pressure and pulse measurements in an effort to determine when an individual was lying.<sup>14</sup>

In 1914, using a pneumograph,<sup>15</sup> Vittorio Benussi completed studies of respiration comparing the length of inspiration and expiration.<sup>16</sup> His experiments indicated that the inspiration/expiration ratio was higher before telling the truth than after and, conversely,

<sup>9.</sup> D. Lykken, supra note 6, at 26.

<sup>10.</sup> Id.

<sup>11.</sup> N. Ansley & S. Abrams, The Polygraph Profession 10 (1980).

<sup>12.</sup> Comment, Licensing of Detection of Deception Operators in Illinois, 41 CHI.[-]Kent L. Rev. 115, 116 (1964).

<sup>13.</sup> C. LOMBROSO, L'HOMME CRIMINEL 336-46 (2d ed. 1895). For an English translation of some of these tests, see G. Ferrero, Criminal Man 223-25 (1911).

<sup>14.</sup> J. REID & F. INBAU, supra note 1, at 2.

<sup>15.</sup> See infra text accompanying note 35 for a discussion of the pneumograph.

<sup>16.</sup> Benussi, Die Atmungsymptome der Lüge, 31 Archiv Fuer Die Gesampte Psychologie 244 (1914).

higher after telling a lie than before.17

In 1917, an American psychologist and attorney, William Marston, published the results of experiments in which he had recorded intermittent blood pressure readings in an effort to evaluate the existence of physiological responses associated with deception. His studies indicated that while the diastolic blood pressure responded to intellectual activity and pain, the systolic blood pressure responded to fear, anger, and attempts to deceive. He concluded that "the fear of the lie's being detected and the conflict associated with its expression caused the change in blood pressure." Marston also experimented with the galvanometer, which measures changes in skin resistance, for use in the detection of deception.

In 1921, John Larson combined the theories of Benussi and Marston with an instrument called the "ink polygraph," which had been developed by Sir James MacKenzie, a British cardiologist.<sup>23</sup> Larson's "cardio-pneumo-psychogram" continuously recorded the subject's blood pressure, pulse, and respiration. Larson is also noted for developing the procedure currently employed in polygraph examinations, whereby the subject answers "yes" or "no" to all questions asked of him.<sup>24</sup> Larson utilized the so-called relevant/irrelevant test format, which involves an analysis of physiological

<sup>17.</sup> J. Reid & F. Inbau, supra note 1, at 3.

<sup>18.</sup> Marston, Systolic Blood Pressure Symptoms of Deception, 2 J. EXPERIMENTAL PSYCHOLOGY 117 (1917) (providing a technical explanation of the physiological significance of systolic and diastolic blood pressure).

<sup>19.</sup> The diastolic blood pressure is "[t]he lowest pressure of the blood, occurring at the time of ventricular relaxation, when the heart is in diastole. . . ." J. Schmidt, Attorney's Dictionary of Medicine and Word Finder D-66 (1984). The diastole is "[t]he relaxation or dilation of the heart between contractions. . . . After each contraction, the heart dilates, in order to fill up with more blood." *Id.* at D-65.

<sup>20.</sup> The systolic blood pressure is "[t]he maximum pressure of the blood during the time when the left ventricle contracts. . . ." Id. at S-266. Systole is "[t]he contraction of the heart, specifically the contraction of the two lower chambers, the ventricles. . . . The contraction of the left ventricle drives the blood into the arteries of the body. The contraction of the right ventricle propels the blood into the lungs. The occurrence of systole is manifested by the pulse and the first heart sound." Id.

<sup>21.</sup> S. Abrams, supra note 8, at 19.

<sup>22.</sup> See infra text accompanying note 37 for a discussion of the galvanometer.

<sup>23.</sup> Gay, The Search for Truth, 21 Eng. Police J. 284 (1948), cited in J. Reid & F. Inbau, supra note 1, at 4 n.9.

<sup>24.</sup> Larson, The Cardio-Pneumo-Psychogram and its Use in the Study of the Emotions, with Practical Application, 5 J. Experimental Psychology 323 (1922). For a more thorough discussion, see J. Larson, Lying and its Detection (1932).

reactions to relevant and irrelevant questions.25

Larson's studies were advanced by his assistant, Leonarde Keeler, who manufactured a portable polygraph, established the first school of polygraph technique, and added a galvanometer to his Keeler Polygraph.<sup>28</sup> Keeler was also responsible for developing the card test,<sup>27</sup> which is used to bolster the subject's confidence in the polygraph exam, and the peak of tension test,<sup>28</sup> which records the subject's physiological responses to a series of questions, only one of which is relevant to the matter under investigation.

In the 1940's, John Reid made further improvements to the polygraph as well as to the procedure to be applied in using it. Reid observed that a subject could distort the results of an examination by unobservable muscular movements. In order to prevent these distortions, he included in his polygraph a device for measuring such movement in addition to the standard devices measuring changes in pulse, blood pressure, respiration, and galvanic skin response. Reid's most significant contributions, however, were in the refinement of the so-called "Polygraph Technique," particularly in the development of the guilt complex test, the comparative response or control question, and the systematic appraisal of behavior symptoms.

Cleve Backster, the founder of major polygraph training programs, developed standardized polygraph test and chart interpretation procedures. While some examiners continue to use the rele-

<sup>25.</sup> For a discussion of the various test formats, see *infra* text accompanying notes 72-78. 26. Abrams, *Polygraphy*, in Scientific and Expert Evidence 755, 765 (E. Imwinkelried 2d ed. 1981).

<sup>27.</sup> The card test is a procedure designed to encourage the subject to believe that the polygraph is capable of detecting a lie. The examiner presents ten cards, one of which is chosen by the subject as "his card" and is subsequently returned to the other nine. The ten cards are turned over individually, and the subject is asked, "Is this the card you chose?", to which he is to reply in the negative. The telling of the one "lie" apparently serves as a release of pressure. The purpose is to demonstrate that the polygraph can detect a lie by the subject at a time when neither fear nor stress has been elicited. Keeler, A Method for Detecting Deception, 1 Am. J. Police Sci. 38, 42-44 (1930).

<sup>28.</sup> Id. at 46-47. See also J. Reid & F. Inbau, supra note 1, at 55. For a more thorough discussion of the peak of tension test, see infra text accompanying note 78.

<sup>29.</sup> See Reid, A Revised Questioning Technique in Lie Detection Tests, 37 J. CRIM. L. & CRIMINOLOGY 542 (1947).

<sup>30.</sup> Id. at 545-46; see infra text accompanying note 70.

<sup>31.</sup> Reid, supra note 29, at 544-45.

<sup>32.</sup> J. Reid & F. Inbau, supra note 1, at 3; Reid & Arther, Behavior Symptoms of Lie Detector Subjects, 44 J. Crim. L., Criminology & Police Sci. 104, 105-07 (1953) (discussing behavior symptom analysis).

vant/irrelevant format, and some follow Reid's techniques, others utilize Backster's zone of comparison technique, in which responses to adjacent relevant and control questions are recorded in a printed notepack, then compared and scored numerically. Some authorities consider the Backster technique superior because of its reliance upon standardized procedures.<sup>33</sup>

# III. THE NATURE AND FUNCTION OF POLYGRAPHS AND POLYGRAPH TESTING

#### A. The Instrument

The polygraph is composed of various units which measure the sympathetic reactions of the autonomic nervous system. The instruments described below are common to virtually all polygraphs and may be either mechanical or electronic in their operation. Their use is predicated upon the theory that the body of the individual being tested will respond physiologically in a predictable, recognizable manner to the subject's intentional attempts to deceive.<sup>34</sup>

Within the autonomic nervous system of a human being there are two divisions known as the sympathetic and para-sympathetic nervous systems. The sympathetic nervous system is structured to respond automatically to any kind of emergency perceived by the senses and without the concurrence of the will or any possible control by the decisional processes of the mind. Thus, those sensations common to human experience which accompany fear or anxiety are produced by the autonomic nervous system, sympathetic division, in its effort to warn and protect the person of some threat or danger. Among the physiological responses which are stimulated by the autonomic nervous system are changes in the function of the cardiovascular system, respiratory changes, and variations in the conductivity of the skin of the hand, due to activity of the sweat glands which is not relevant to atmospheric or temperature conditions but is precipitated by fears and anxieties. The basic theory of polygraphy is that under certain circumstances, questions the truth of which may have grave consequences for the subject will stimulate the sympathetic division of the autonomic nervous system and cause physiological changes which can be measured, recorded, and analyzed. For this reason, the verbal answer which is articulated by the subject may not necessarily affect the physiological responses which . . . [are] demonstrated by the instrument. That is to say, if the subject is asked the question, "Did you kill X?" and he is at that time aware that he did kill X, a physiological response would likely result even if he admitted his guilt and answered in the affirmative. On subsequent verifying or "clearing" polygrams, it is to be expected that the response to this question would be eliminated or diminished because the crisis of a concealment (an admission having been made) is past.

If in response to this question the subject were to untruthfully deny his complicity,

<sup>33.</sup> F. Bailey & H. Rothblatt, Investigation and Preparation of Criminal Cases § 376, at 296-98 (1970); D. Lykken, *supra* note 6, at 33-35.

<sup>34.</sup> A more thorough explanation was provided by Lynn P. Marcy, current president of the American Polygraph Association, in trial testimony supporting the admissibility of polygraph evidence. His testimony is summarized as follows:

## 1. Pneumograph

The pneumograph measures the rate of respiration, thereby revealing the subject's breathing pattern. Respiration is recorded through the use of two pneumatic tubes which are positioned around the subject's torso, one tube to measure thoracic breathing and the other to measure abdominal breathing. Expansion of the subject's chest and stomach during breathing causes stretching of the tubes, the movements of which are transmitted through bellows and recorded by pens on moving graph paper (the chart). Most authorities consider a subject's pattern of respiration to be the most accurate and reliable measure of deception.<sup>35</sup>

# 2. Cardiosphygmograph

The cardiosphygmograph measures changes in the subject's blood pressure and pulse by means of a rubber cuff which is inflated around the upper arm over the brachial artery or occasionally around the thumb or wrist. Blood pressure and pulse are recorded by a single pen on the polygraph. The changes which may occur with stress are revealed on the chart as variations in the frequency of the heartbeats, in the amplitude of the heartbeats, or in a trend in the tracings.<sup>36</sup>

#### 3. Galvanometer

The galvanometer measures variations in skin resistance to electricity because of electrodermal activity. This physiological activity.

the fear of discovery of the truth as he knows it will cause changes in the function of each of the systems measured and recorded by the polygraph and permit the examiner to view a visible physiological response which both in theory and as demonstrated empirically by hundreds of thousands of polygraph tests can be correlated with deception. If the subjects were truthfully denying involvement in the crime, no crisis would be present and the question would not stimulate the sympathetic nervous system into action. The truthfulness of the denial would be demonstrable by the absence of any significant changes in the physiological functions measured by the instrument. Thus, the witness explained, the instrument is not so much a means of "lie detection" (an unfortunate misnomer) but is instead an instrument of truth verification. Simply put, the absence of responses must mean that the subject is telling the truth, whereas the presence of responses means and means only that he is withholding information which he believes to be relevant to the question put to him.

F. BAILEY & H. ROTHBLATT, supra note 33, § 380, at 303-04 (quoting Brief for Appellant in Support of Emergency Application for Leave to Appeal, People v. Lazaros, decided sub nom. People v. Batten, 9 Mich. App. 195, 156 N.W.2d 640 (1967)).

<sup>35.</sup> F. Bailey & H. Rothblatt, supra note 33, § 362, at 290.

<sup>36.</sup> Abrams, supra note 26, at 777.

ity, variously referred to as galvanic skin response (GSR) or psychogalvanic reflex (PGR), is measured by attaching small electrodes to two of the subject's fingers. When a small amount of electrical current passes through these fingers, any variation in perspiration, a routine sympathetic response to stress, is measured and recorded by another pen on the polygraph. GSR readings are generally considered to be most valuable in peak of tension tests.<sup>37</sup>

## 4. Kymograph

The kymograph is the basic machinery which moves the chart paper under the above-mentioned recording pens at a uniform speed of six inches per minute.<sup>38</sup> All of the response measurements are recorded simultaneously, and the chart should be marked by the examiner to identify the point at which each question was asked and each response given. The response (yes or no), as well as other factors capable of causing physiological responses, such as loud noises or a cough, should be noted on the chart.<sup>39</sup>

## B. The Subject

There are two prerequisites for an individual to be an appropriate polygraph subject. The first is that the person be in proper physical and mental condition. A person who is excessively fatigued or hungry, who has been physically or psychologically abused, or who is under the influence of alcohol or drugs, should not be examined. In addition, individuals with heart or respiratory disorders, as well as pregnant women, should be tested only with a physician's approval, and even then an examination might not be effective.<sup>40</sup>

The second requirement is that the subject take the test voluntarily. This is a legal and an ethical necessity, as well as a scientific one. Only when an individual cooperates fully may he be examined in a manner which will permit the polygraphist to form an expert opinion as to the presence or absence of deception in the subject's responses.

<sup>37.</sup> A. Moenssens & F. Inbau, Scientific Evidence in Criminal Cases § 14.07(b), at 614 (2d ed. 1978); J. Reid & F. Inbau, supra note 1, at 275, 277.

<sup>38.</sup> F. Bailey & H. Rothblatt, supra note 33, § 365, at 291.

<sup>39.</sup> Abrams, supra note 26, at 778.

<sup>40.</sup> Highleyman, The Deceptive Certainty of the "Lie Detector," 10 Hastings L.J. 47, 60-61 (1958).

Controversy exists over the extent to which various physical or mental conditions may prevent an examiner from drawing accurate conclusions. Those who contest the general reliability of the polygraph assert that persons with medical or psychiatric conditions are particularly unfit for testing, on the ground that tests of such individuals are likely to produce inaccurate results.<sup>41</sup> On the other hand, one advocate asserts,

With relatively few exceptions almost everyone is capable of being accurately tested. . . . While the research findings have shown that psychotics, retardates, and children under the age of twelve should not be tested, because of the increased risk of error, the results for them tend to be inconclusive rather than inaccurate. Pain or excessive use of drugs may result in inconclusive findings, but there are no medical conditions, drugs, or counter-measures that would cause a truthful person to appear deceptive or a lying one to seem truthful. If one of the subject's physiologic functions is impaired so that adequate polygraph tracings cannot be obtained, he can still be evaluated through the other sensors.<sup>42</sup>

At least one recent study, however, has indicated that certain tranquilizers may effectively suppress physiological responses indicative of deception.<sup>43</sup>

Of major concern to subjects is the effect of nervousness upon polygraph test results. While nervousness is lessened by a proper environment, an explanation of procedures, and assurances from the examiner during the pre-test interview,<sup>44</sup> it may nevertheless persist. In such cases, tension leads to responses distinguishable from deception in that they are "uniformly irregular . . . [that is,] the physiological changes or disturbances induced by nervousness usually appear on the Polygraph record without relationship to any particular question or questions." Furthermore, the use of control questions<sup>46</sup> substantially diminishes the possibility of misinterpre-

<sup>41.</sup> See, e.g., D. Lykken, supra note 6, at 233-34; Floch, Limitations of the Lie Detector, 40 J. Crim. L. & Criminology 651, 651-53 (1950); Highleyman, supra note 40, at 57-61.

<sup>42.</sup> Abrams, supra note 26, at 778-79 (footnotes omitted). See also J. Reid & F. Inbau, supra note 1, at 233-53.

<sup>43.</sup> Waid, Orne, Cook, & Orne, Meprobamate Reduces Accuracy of Physiological Detection of Deception, Sci., Apr. 3, 1981, at 71-72.

<sup>44.</sup> See infra text accompanying notes 62-63.

<sup>45.</sup> J. REID & F. INBAU, supra note 1, at 216.

<sup>46.</sup> See infra text accompanying notes 68-69.

tation of responses induced by the nervousness of the subject.<sup>47</sup>

#### C. The Examiner

## 1. The Need for Competent Polygraph Examiners

Because of the subjective nature of determining truthfulness through a polygraph examination, the competency of the examiner is uniformly recognized by authorities in the field as the most important factor in procuring accurate test results.<sup>48</sup> The role of the examiner in interviewing the subject, designing the appropriate test questions, conducting the test, and evaluating and interpreting the charts "is generally regarded as much more critical to an accurate diagnosis [i.e., determination of truthfulness] than is the mechanical function of the polygraph itself."<sup>49</sup> Thus, a lack of sufficient training may render a polygraphist's test results worthless.<sup>50</sup>

For many years the field of polygraph examination has been plagued by a lack of standardization and professionalism. In 1953, the noted authorities John Reid and Fred Inbau wrote of some "grossly incompetent" and "unquestionably dishonest" examiners. More recently, the same individuals testified that only about twenty percent of the individuals who profess to be examiners possess the training and skill required for competency in the field. While some authorities have observed considerable advances in the profession as a whole, 53 the large number of unqualified examiners who continue to conduct polygraph tests clearly undermines general claims of polygraph accuracy. 54

<sup>47.</sup> A. Moenssens & F. Inbau, supra note 37, § 14.07(b), at 613-14.

<sup>48.</sup> Moenssens, Polygraph Test Results Meet Standards for Admissibility as Evidence, in Legal Admissibility of the Polygraph 14, 15 (N. Ansley ed. 1975).

<sup>49.</sup> Pemberton, Polygraphy: Modern Rules and Videotape Technology to Promote the "Search for Truth" in Criminal Trials, 10 Polygraphy 273, 279 (1981).

<sup>50.</sup> A. Moenssens & F. Inbau, supra note 37, § 14.04, at 605; Note, The Emergence of the Polygraph at Trial, 73 Colum. L. Rev. 1120, 1124 (1973).

<sup>51.</sup> F. Inbau & J. Reid, Lie Detection and Criminal Interrogation 128 (3d ed. 1953).

<sup>52.</sup> See Burkey, The Case Against the Polygraph, 51 A.B.A. J. 855, 856 (1965) (citing Use of Polygraphs as "Lie Detectors" by the Federal Government: Hearings Before the Subcomm. of the House Comm. on Government Operations, 88th Cong., 1st Sess. pt. 1, at 8 (1964) (testimony of Fred Inbau)).

<sup>53.</sup> N. Ansley & S. Abrams, supra note 11, at 32; F. Bailey & H. Rothblatt, supra note 33, § 357, at 288; Abrams, supra note 26, at 766.

<sup>54.</sup> A. Moenssens & F. Inbau, supra note 37, § 14.04, at 605; Jones, "Truth" When the Polygraph Operator Sits as Arbitrator, 31 Proc. Ann. Meeting, Nat'l Acad. Arb. 70, 88 (1978); Note, The Polygraph and Pre-Employment Screening, 13 Hous. L. Rev. 551, 554 (1976).

#### 2. The Movement Toward Reform

Individuals practicing in the field of polygraph examination have provided a strong impetus for the imposition of new controls over examiner training. National, state, and local societies of polygraph examiners have been established and are actively engaged in efforts to upgrade the knowledge, skills, and techniques of examiners through publications, seminars, and the like.<sup>55</sup>

Perhaps the most important activity of the national and state associations has been their support of licensing legislation<sup>56</sup> intended to put the unqualified examiner out of the market. The subjective nature of the polygraphist's task and the significant impact that the test results frequently have upon employment decisions justify state licensing procedures designed to ensure a specified minimum level of training.<sup>57</sup> Currently, at least twenty-eight states have enacted legislation requiring that polygraph examiners be licensed.<sup>58</sup> While the individual statutes vary widely, most re-

<sup>55.</sup> Abrams, supra note 26, at 766. For example, the American Polygraph Association, the dominant organization, accepts and evaluates complaints about examiners, accredits training facilities, conducts seminars, provides research assistance, and publishes several periodicals. In addition, it has established a code of ethics for polygraph examiners.

<sup>56.</sup> N. Ansley & S. Abrams, supra note 11, at 2-5.

<sup>57.</sup> As one commentator has written, "State regulation of polygraph examiner competence is a necessary and effective means of protecting persons who submit to polygraph tests from the unwarranted and potentially harmful errors of incompetent examiners." Note, Regulation of Polygraph Testing in the Employment Context: Suggested Statutory Control on Test Use and Examiner Competence, 15 U.C.D. L. Rev. 113, 130 (1981).

<sup>58.</sup> Statutes which control the licensing and activities of polygraph examiners include the following: Ala. Code §§ 34-25-1 to -25-36 (1977 & Cum. Supp. 1983); Ariz. Rev. Stat. Ann. §§ 32-2701 to -2715 (1976 & Supp. 1983); Ark. Stat. Ann. §§ 71-2201 to -2225 (1979); Cal. Bus, & Prof. Code §§ 9300-9321 (West Cum. Supp. 1984); Fla. Stat. Ann. §§ 493.561-.577 (West 1981); GA. CODE ANN. §§ 84-5001 to -5016 (1975 & Supp. 1982); Ill. Ann. Stat. ch. 111, §§ 2401-2432 (Smith-Hurd 1978 & Cum. Supp. 1983); Ind. Code Ann. §§ 25-30-2-1 to -2-5 (Burns Cum. Supp. 1983); Ky. Rev. Stat. Ann. §§ 329.010-.990 (Baldwin 1981); La. Rev. STAT. ANN. §§ 37:2831-:2854 (West Cum. Supp. 1984); Me. Rev. STAT. ANN. tit. 32, §§ 7151-7169 (Cum. Supp. 1981); Mich. Comp. Laws Ann. §§ 338.1701-.1729 (West 1976 & Supp. 1983); Miss. Code Ann. §§ 73-29-1 to -29-47 (1973 & Cum. Supp. 1983); Mont. Code Ann. §§ 37-62-101 to -62-311 (1983); Neb. Rev. Stat. §§ 81-1901 to -1936 (1981 & Supp. 1983); Nev. Rev. Stat. §§ 648A.010-.290 (1983); N.M. Stat. Ann. §§ 61-26-1 to -13 (1983); N.C. GEN. STAT. §§ 74C-3 to -18 (Cum. Supp. 1983); N.D. CENT. CODE §§ 43-31-01 to -31-17 (Repl. Vol. 1978 & Supp. 1983); OKLA. STAT. ANN. tit. 59, §§ 1451-1476 (West Cum. Supp. 1983); Or. Rev. Stat. §§ 703.010 -.990 (1983); S.C. Code Ann. §§ 40-53-10 to -53-250 (Law. Co-op. 1977 & Cum. Supp. 1983); Tenn. Code Ann. §§ 62-27-101 to -27-124 (Repl. Vol. 1982 & Supp. 1983); Tex. Stat. Ann. art. 4413 (29cc) (Vernon 1976 & Cum. Supp. 1984); Utah CODE ANN. §§ 34-37-1 to -37-14 (1974 & Supp. 1983); Vt. Stat. Ann. tit. 26, §§ 2901-2910 (Cum. Supp. 1983); Va. Code Ann. §§ 54-916 to -922 (Repl. Vol. 1982); W. Va. Code § 21-5-5c to -5-5d (Cum. Supp. 1983).

quire a college degree or extensive investigative experience, completion of requirements from an approved school of polygraphy,<sup>59</sup> and satisfactory performance on a competency examination. Unfortunately, few statutes provide for a period of internship prior to the awarding of a license.<sup>60</sup>

While strict licensing requirements and high standards for qualification as expert witnesses may temporarily limit the number of examiners qualified to testify, the supply should increase as judicial acceptance of trained and licensed examiners renders the rigorous training economically desirable.<sup>61</sup>

## D. The Polygraph Technique

Polygraph testing procedure is divided into three distinct phases: the pre-test interview, the test, and the post-test interview. Each segment is essential in developing the foundation for the examiner's conclusions.

#### 1. The Pre-Test Interview

The pre-test interview is the period during which the examiner assesses the suitability of the subject for testing, explains the nature of the test and the procedure to be followed, seeks to establish rapport with the subject, formulates the questions to be asked in the test, and reviews the questions with the subject. No measurements of physiological data are taken during this phase. The explanation of the polygraph is intended not only to diminish the truthful person's apprehension and to assure him that the test will be

<sup>59.</sup> There are currently at least 29 accredited polygraph examiner training schools in the United States. American Polygraph Association Directory of Membership 9-1 (1983). A minimum of 252 hours of instruction is required by the American Polygraph Association in the following courses: operation of the polygraph, question formulation, examination procedures, chart analyses, interviewing, physiology, psychology, legal standards and limitations, ethics, and instrument maintenance and calibration. Am. Polygraph A. Newsletter, July-Aug. 1982, at 26.

<sup>60.</sup> Several studies have indicated that the accuracy rate of experienced examiners (those practicing for more than one year) is approximately 10% higher than that of inexperienced examiners (those practicing for less than six months). See Horvath & Reid, The Reliability of Polygraph Examiner Diagnosis of Truth and Deception, 62 J. CRIM. L., CRIMINOLOGY & POLICE SCI. 276, 279, 281 (1971); Hunter & Ash, The Accuracy and Consistency of Polygraph Examiners' Diagnosis, 1 J. POLICE SCI. & Ad. 370, 373 (1971), reprinted in J. Reid & F. Inbau, supra note 1, at 395.

<sup>61.</sup> Note, The Polygraph Revisited: An Argument for Admissibility, 4 Suffolk U.L. Rev. 111, 120 (1969).

fair and accurate, but also to increase the deceptive person's concern over possible detection.<sup>62</sup> All questions must be reviewed word-for-word with the subject so that both parties have a clear, common understanding of their meaning, and the questions must be worded to facilitate unequivocal "yes" or "no" answers. Surprise questions are of no value because they are certain to result in dramatic physiological reactions that may not be indicative of deception.<sup>63</sup> The pre-test interview may last several hours but generally takes from thirty to forty minutes.

#### 2. The Test

The test usually consists of a series of ten questions at twenty-second intervals, covering a time span of five minutes or less.<sup>64</sup> The responses are recorded on a chart and analyzed for evidence of deception. At least two tests are conducted, with subsequent tests being modified to enhance responsiveness in an effort to resolve inconclusive reactions.

#### a. Types of Questions

While the test methods vary, 65 there are generally three types of questions: irrelevant, relevant, and control.

An *irrelevant* question is one which should produce little or no stress or deception because it concerns a known fact unrelated to the case at hand. Topics may include the subject's name, age, address, or recent meals. These questions are designed primarily to establish the subject's normal physiological baseline for truthful responses under test conditions. They are also used to terminate a lingering reaction to a previous relevant question, to calm a shock reaction to extraneous noise, and "to provide an outlet for a relief response after relevant questions."

A relevant question is one which seeks to determine the subject's knowledge and involvement in the matter under investigation. Relevant questions (sometimes called critical questions) must refer to only one particular act and must be concise and easily un-

<sup>62.</sup> J. REID & F. INBAU, supra note 1, at 13-14.

<sup>63.</sup> Abrams, supra note 26, at 783.

<sup>64.</sup> Id. at 786, 790.

<sup>65.</sup> See infra text accompanying notes 72-78.

<sup>66.</sup> J. Reid & F. Inbau, supra note 1, at 30.

derstandable. In addition, they must be based upon facts, not opinions, and must not contain highly charged words which can generate a response by themselves.<sup>67</sup>

A control question is based on an assumed lie and is devised during the pre-test interview. This type of question was developed in recognition of the fact that innocent people may seem responsive to relevant questions that appear threatening. The control question, designed to elicit a deceptive response, provides a sample of the subject's physiological reaction to this deceptive response.<sup>68</sup> As one authoritative text in the field described it,

A control question is one which is unrelated to the matter under investigation but of a similar, though less serious nature, and one to which the subject will, in all probability, lie; or at least his answer will give him some concern with respect to either its truthfulness or its accuracy. For instance, in a burglary case the control question might be: "Have you ever stolen anything?". . . 69

Additional types of questions are used in special situations. For example, the guilt complex question, developed by Reid, is used whenever a subject exhibits a strong specific response to all relevant and control questions. It determines whether the subject will respond to accusatory questions about a fictitious incident similar in nature to the one being investigated. Another type of question, the outside issue or symptomatic question, utilized by followers of the Backster school, gauges whether an unrecognized outside factor may be distorting test results. 71

# b. Types of Test Format

In most polygraph examinations the test format utilized is the so-called "control question" test developed by Reid.<sup>72</sup> This format entails the asking of a combination of relevant, control, and irrelevant questions in varying order. The subject's physiological re-

<sup>67.</sup> Id. at 24-28.

<sup>68.</sup> Abrams, supra note 26, at 786.

<sup>69.</sup> Inbau & Reid, The Lie-Detector Technique: A Reliable and Valuable Investigative Aid, 50 A.B.A. J. 470, 471 (1964).

<sup>70.</sup> D. LYKKEN, supra note 6, at 32; J. REID & F. INBAU, supra note 1, at 48-49; see also Abrams, A Survey of Attitudes on the Guilt Complex Technique, 6 POLYGRAPH 123 (1977).

<sup>71.</sup> S. ABRAMS, supra note 8, at 76.

<sup>72.</sup> Reid, supra note 29, at 542-43.

sponses to the relevant questions and the control questions will be compared because, as described by Professor Abrams,

During a polygraph examination, attention will be directed toward the greatest threat. This will occur at that point at which the individual is responding deceptively. For a person lying to both the control and the critical [relevant] items, the greater threat will be to his deceptive reaction to the critical question, "On June 15, did you shoot John Smith?" While the innocent subject will find the critical question frightening, he has been informed that he must not lie at all during the test. Therefore, his greatest concern is with the control question to which he has responded deceptively.<sup>73</sup>

# Thus, as summarized by Reid and Inbau,

At the risk of oversimplification it may be said that if the subject responds more to the control question than to the crucial [relevant] questions, he is considered innocent. On the other hand, a greater response to the crucial questions, in comparison to no response or only a slight response to the control question, is suggestive of guilt, although several other test procedures are required before a definite conclusion to that effect is permissible.<sup>74</sup>

Other test formats utilized by polygraph examiners include the truth control test, the positive control test, and the relevant control test. The truth control test involves questioning the subject about an irrelevant but parallel crime in which he was not a participant. Subsequently, he is asked a relevant question in order to compare the responses. The positive control test uses a relevant question as the control. The subject is asked to respond to the question, once in the affirmative and once in the negative. Hence, an identical question is associated with a lie and a truthful answer. The relevant control test, on the other hand, uses some of the relevant questions as controls for other relevant questions. It involves comparing the responses to different relevant questions, thereby clarifying ambiguous results created by responses that even innocent people may have to threatening questions.

<sup>73.</sup> Abrams, supra note 26, at 787.

<sup>74.</sup> Inbau & Reid, supra note 69, at 471.

<sup>75.</sup> D. LYKKEN, supra note 6, at 130.

<sup>76.</sup> Id. at 135.

<sup>77.</sup> Id. at 141.

Another test format frequently utilized is the peak of tension test, which is considered most appropriate in a case in which the examiner has some specific knowledge of facts that have not been made public and, hence, should not be known by an innocent subject. The examiner proceeds through a series of irrelevant questions before a direct question about the crime is posed. The test may reveal that the subject's respiration, blood pressure, pulse, or GSR was distorted at the time the examiner inquired about the unpublicized fact, thereby detecting the subject's guilty knowledge.<sup>78</sup>

#### 3. The Post-Test Interview

After the charts produced during the tests have been analyzed and interpreted, the examiner discusses the results of the tests with the subject during the post-test interview. When the findings indicate deception, the examiner may seek to ascertain if the subject can provide any other explanation for the distorted physiological responses. In criminal investigations, this interview may be transformed into an interrogation if the results clearly indicate that the subject is being untruthful. Confessions and damaging admissions are frequently obtained during this stage, thus making the polygraph a useful device apart from its actual effectiveness as a "lie detector."

# E. Reliability and Validity of Polygraph Test Results

Reliability, in the polygraph test context, refers to the consistency of the results obtained when different examiners test the same subject or examine the same chart. Validity, on the other hand, refers to the degree of accuracy with which the test results are able to detect deception.<sup>81</sup>

<sup>78.</sup> Id. at 145-47; J. Reid & F. Inbau, supra note 1, at 55-59, 169-82; Keeler, supra note 27, at 46-47.

<sup>79.</sup> Professional ethics require an examiner to tell the subject when the results are not indicative of deception.

<sup>80.</sup> Polygraph examiners have reported obtaining damaging admissions from as many as 75% of the job applicants given a polygraph test. Examiners of applicants for police department positions have reported receiving admissions relating to hundreds of undetected crimes. D. Lykken, *supra* note 6, at 206-14; Harrington, *The Power of the Polygraph*, Case & Com., Jan.-Feb. 1983, at 3, 4.

<sup>81.</sup> Sevilla, Reliability of Polygraph Examinations, 14 Am. Jur. Proof of Facts 2d 14-1, § 2 n.12 (1977); see also D. Lykken, supra note 6, at 70-74.

The relatively few reliability studies which have been conducted have produced evidence of a consistency of examiner evaluation ranging from seventy-seven to ninety-five percent.<sup>82</sup> Critics, however, assert that analyzing the total percentage of tests on which examiners agree is an inadequate method of assessing reliability<sup>83</sup> and contend that some of the studies do not reflect reality since only the most qualified examiners were employed.<sup>84</sup>

Articles focusing upon the validity of polygraph examinations indicate that the polygraph is accurate from seventy-five to ninety-eight percent of the time.<sup>85</sup> Nonetheless, the validity of the polygraph technique is still questioned by many. Critics frequently either ignore studies such as those mentioned above<sup>86</sup> or denigrate them through references to the assumed influence of pecuniary self-interest.<sup>87</sup> Professor Lykken, perhaps the most articulate opponent of polygraph usage in the employment context, focuses his

<sup>82.</sup> N. Ansley & S. Abrams, supra note 11, at 35 (citing six studies with a 77% to 95% range); Abrams, supra note 26, at 798-99 (citing three studies in which consistency of evaluation ranged from 85% to 91%); Horvath & Reid, supra note 60, at 276; Hunter & Ash, supra note 60, at 372, 375.

<sup>83.</sup> D. LYKKEN, supra note 6, at 72.

<sup>84.</sup> Note, *supra* note 54, at 554. Although the Horvath and Reid study evaluated both inexperienced and experienced examiners, it has nonetheless been disparaged because all of the examiners were graduates of accredited polygraph training facilities and thus could be expected to demonstrate a higher consistency in their diagnoses than those who had not received such training. Horvath & Reid, *supra* note 60, at 390.

<sup>85.</sup> STAFF OF SUBCOMM. ON CONSTITUTIONAL RIGHTS OF THE SENATE COMM. ON THE JUDICIARY, 93D CONG., 2D SESS., PRIVACY, POLYGRAPHS, AND EMPLOYMENT 6 (Comm. Print 1974) (83% in study conducted for Defense Department) [hereinafter cited as Privacy]; Abrams, Polygraph Validity and Reliability: A Review, 18 J. Forensic Sci. 313, 322 (1973) (83%); Barland & Raskin, An Experimental Study of Field Techniques in "Lie Detection," 1 Polygraph 22, 24 (1972) (81%); Bersh, A Validation Study of Polygraph Examiner Judgments, 53 J. Applied Psychology 399, 401 (1969) (90.3%-94.1%); Edwards, A Survey: Reliability of Polygraph Examinations Conducted by Virginia Polygraph Examiners, 10 Polygraph 229, 254 (1981) (98.3%); Horvath & Reid, supra note 60, at 278 (87.75%); Hunter & Ash, supra note 60, at 372 (86%); Slowik & Buckley, Relative Accuracy of Polygraph Examiner Diagnosis of Respiration, Blood Pressure, and GSR Recordings, 3 J. Police Sci. & Ad. 305, 306 (1975) (87.2%).

<sup>86.</sup> See, e.g., Harrington, supra note 80, at 4 ("There have been relatively few scientific studies to determine accuracy and those that have been conducted resulted in alarming conclusions."); Note, supra note 54, at 554 ("At present there is only the assumption that the polygraph works.").

<sup>87.</sup> Jones, *supra* note 54, at 85-88 ("But the commercial polygraph proponents persisted, managing to publish self-serving 'studies' in respectable criminology journals, the constant theme of which has been the near infallibility of this 'complete diagnostic technique' for the 'detection of deception'. . . .

<sup>. . . [</sup>S]ome of them seem to churn their files continuously for such reassuring statistics." Id. at 85, 88.).

criticism upon the test methodology utilized in some studies and upon the resulting statistical analyses.<sup>88</sup> Advocates of the polygraph acknowledge this weakness<sup>89</sup> but emphasize the substantial number of scientifically conducted studies which conclude that accuracy is in the range of eighty-five percent to ninety percent or higher.<sup>90</sup> Even Lykken admits that some of these were "reasonably good" in quality as "objective, controlled scientific" studies of polygraph accuracy.<sup>91</sup>

#### IV. USE OF THE POLYGRAPH IN EMPLOYMENT

# A. Applications

In the employment context, polygraph examinations are classified according to their application: pre-employment, periodic, and specific.

## 1. Pre-employment Examinations

Employers utilize pre-employment polygraph examinations as a means of screening out undesirable job applicants. "Many experts believe that personnel screening is the most vital safeguard against internal theft," as the obvious security risks are "weeded out."

In pre-employment examinations, the polygraph is utilized primarily to verify data on employment applications with respect to previous employment, criminal convictions, medical history, and driving records. It may also be used to detect propensities for alcohol and drug abuse and to verify intentions of job permanency.<sup>93</sup> Its primary benefit, however, is its ability to uncover an applicant's

<sup>88.</sup> D. Lykken, supra note 6, at 63-81.

<sup>89.</sup> Abrams, supra note 26, at 794 ("The claims of accuracy in the field must be evaluated with caution because of the many anecdotal reports that are not sufficiently controlled to be viewed as valid.").

<sup>90.</sup> See N. Ansley & S. Abrams, supra note 11, at 34; A. Moenssens & F. Inbau, supra note 37, § 14.09, at 616; J. Reid & F. Inbau, supra note 1, at 304; Abrams, supra note 26, at 798.

<sup>91.</sup> D. LYKKEN, supra note 6, at 67.

<sup>92.</sup> Polygraph Control and Civil Liberties Protection Act: Hearings on S. 1845 Before the Subcomm. on the Constitution of the Senate Comm. on the Judiciary, 95th Cong., 1st & 2d Sess. 143 (1977-1978) (statement of the American Polygraph Association).

<sup>93.</sup> R. FERGUSON, THE POLYGRAPH IN PRIVATE INDUSTRY 6 (1966); Coleman, Safeguarding the Workplace from Theft, Fraud, and Other Breaches of Security, 1981 A.B.A. NAT'L INST. ON PERS. RTS. IN THE WORKPLACE 1, 17 (sponsored by the Section of Labor and Employment Law); Hindle, The Use of the Polygraph in Private Industry, 3 Polygraph Rev. 7, 7 (1977).

past wrongdoing and attitudes towards theft.<sup>94</sup> Studies indicate that between fifteen and thirty percent of the applicants tested are disqualified on the basis of the polygraph examination.<sup>95</sup> However, several authorities have explained that more than ninety percent of those rejected are disqualified on the basis of admissions made to the polygraph examiner, rather than on the examiner's analysis of test results.<sup>96</sup>

Many critics argue that misconduct in the past, detected through polygraph examinations, should not be used in an effort to predict future behavior, <sup>97</sup> and even advocates of polygraph screening of job applicants caution that the results should constitute only one factor in personnel evaluation. <sup>98</sup> Nevertheless, while it is not necessarily true that an individual who has stolen from a previous employer will steal from a future one, many companies are understandably willing to accept the presumed correlation in an effort to reduce the risk of internal theft.

#### 2. Periodic Examinations

Periodic polygraph examinations are those given to all employees or to randomly selected employees without any particular incident of theft having occurred. Such examinations are viewed as primarily preventive in nature, serving to deter employees from stealing when the opportunity presents itself.<sup>99</sup> Private employers may also utilize these examinations in an effort to prevent industrial espionage concerning trade secrets, patent information, or company strategy.<sup>100</sup> The periodic testing of the loyalty of govern-

<sup>94.</sup> Business Buys the Lie Detector, Bus. Wk., Feb. 6, 1978, at 101; Siatt, Screening Survey: What Companies Are Doing About Employee Screening and Testing, Security World, Apr. 1982, at 29, 32.

<sup>95.</sup> Corporate Lie Detectors' Come Under Fire, Bus. Wk., Jan. 13, 1973, at 88 (15%); Stephens, Polygraph Preemployment Screening, Bus. Stud., Spring 1969, at 33; Note, Lie Detectors in Private Employment: A Proposal for Balancing Interests, 33 Geo. Wash. L. Rev. 932, 937 (1965) (25%); Note, The Working Man's Nemesis — The Polygraph, 6 N.C. Cent. L.J. 94, 101 (1974) (30%) [hereinafter cited as Note, The Working Man's Nemesis].

<sup>96.</sup> D. LYKKEN, supra note 6, at 187; Barland, A Survey of the Effect of the Polygraph in Screening Utah Job Applicants: Preliminary Results, 6 Polygraph 318, 319 (1977).

<sup>97.</sup> PRIVACY, supra note 85, at 4; Hermann, Privacy, the Prospective Employee, and Employment Testing: The Need to Restrict Polygraph and Personality Testing, 47 WASH. L. REV. 73, 85 (1971); Note, supra note 54, at 555; Bonner, Lie Detectors as Corporate Tools, N.Y. Times, Feb. 13, 1983, at F-4, cols. 5, 6.

<sup>98.</sup> Inbau & Reid, supra note 69, at 473.

<sup>99.</sup> R. Ferguson, supra note 93, at 282; D. Lykken, supra note 6, at 187.

<sup>100.</sup> D. Lykken, supra note 6, at 172; Hindle, supra note 93, at 8.

ment employees, particularly those in sensitive intelligence and law-enforcement positions, has been done routinely for many years.<sup>101</sup>

## 3. Specific Examinations

Employers use specific polygraph examinations in response to incidents involving internal theft or shortages of cash or inventory, the release of restricted plans or secrets, industrial sabotage and vandalism, or other acts of wrongdoing,<sup>102</sup> including allegations of sexual misconduct.<sup>103</sup> When examinations concern a specific act of misconduct, which the subject must unequivocally admit or deny, the test procedure is the simplest, and the test results are the most accurate.<sup>104</sup>

## B. Reasons for Use

Polygraph usage has increased because of the need to ensure industrial security. In the words of one commentator,

Industrial security has always been important from an economic perspective, and it becomes increasingly important in economically troubled times. Employers, particularly small ones, cannot afford the risks attendant with lax hiring practices and unreliable employees. Additionally, as a matter of public relations and business reputation, employers may not be able to afford the costs of dishonest or disloyal employees.<sup>105</sup>

While precise figures are nonexistent, estimates of losses directly attributable to employee theft<sup>106</sup> range from two to fifteen billion

<sup>101.</sup> R. Ferguson, supra note 93, at 296; J. Reid & F. Inbau, supra note 1, at 348; Weir & Atwood, Applicant Screening Polygraph Examinations, 10 Polygraph 129, 131 (1981).

It was recently announced that the British Government would begin utilizing polygraph testing "in the security and intelligence services as an additional barrier to penetration by the KGB in spite of opposition from the Civil Service unions." Hennessy, Security Services Get Lie Detectors, The Times (London), Nov. 16, 1983, at 28, col. 6.

<sup>102.</sup> R. FERGUSON, supra note 93, at 283; Hindle, supra note 93, at 8.

<sup>103.</sup> The author has recently been consulted in several cases in which the individual accused of sexual harassment was tested as part of management's investigation.

<sup>104.</sup> Coleman, supra note 93, at 19; Weir & Atwood, supra note 101, at 131; Note, supra note 57, at 125; Bonner, supra note 97, at F-4, cols. 4, 5.

<sup>105.</sup> Coleman, supra note 93, at 1-2.

<sup>106.</sup> Employee theft is referred to as "pilferage" or "shrinkage" by the American Civil Liberties Union, labor unions, and other opponents of polygraph testing.

dollars annually.<sup>107</sup> Furthermore, statistics show that nearly one-third of all business bankruptcies are caused by employee theft,<sup>108</sup> that seventy percent of all workers steal something during the course of their employment,<sup>109</sup> and that an employee steals from his employer for an average of three years before being detected.<sup>110</sup> Although discipline, not arrest, is the normal consequence, in 1982 approximately 335,000 American workers were arrested for theft from their employers.<sup>111</sup>

By deterring and detecting internal theft, polygraph testing may reduce employee turnover and the associated costs of training and unemployment compensation. It may also lessen suspicion and the need for employee surveillance, thereby reducing tension in the workforce. Furthermore, the cost of polygraph testing is generally considerably less than the cost of private investigators or of hiring or retaining dishonest employees. 113

A survey of four hundred firms drawn from Fortune's lists of the largest companies in various industries revealed that those firms using polygraph examinations did so because of the speed with which results could be obtained, the validity and reliability of the testing procedure, and the low cost of polygraph examinations.<sup>114</sup>

## C. Extent of Use

While it is difficult to obtain an accurate count of the number of employment-related polygraph examinations conducted annually,

<sup>107.</sup> D. Lykken, supra note 6, at 185 (attributing the figure of \$9.2 billion in 1981 to the U.S. Dep't of Commerce); J. Reid & F. Inbau, supra note 1, at 302 (over \$2 billion in 1974 according to the U.S. Dep't of Commerce); Am. Polygraph A. Newsletter, Nov.-Dec. 1982, at 21 (\$15 billion in 1982); Corporate Lie Detectors Come Under Fire, supra note 95, at 88 (\$3 billion in 1973); Lykken, Guilty-Knowledge Test: The Right Way to Use a Lie Detector, Psychology Today, Mar. 1975, at 60 (\$6 billion in 1974); Outlaw Lie Detector Tests for Private Jobs, Nation's Bus., June 1975, at 23 (\$4 billion in 1974).

<sup>108.</sup> Note, The Working Man's Nemesis, supra note 95, at 100.

<sup>109.</sup> Am. Polygraph A. Newsletter, supra note 107, at 21 (attributing the estimate to the Fireman's Ins. Co. of New York City).

<sup>110.</sup> Coleman, supra note 93, at 16 (citing N.Y. Times, June 16, 1963, § 3, at 1, col. 2).

<sup>111.</sup> Am. Polygraph A. Newsletter, supra note 107, at 22 (attributing the estimate to the Stores Protective Ass'n in Los Angeles).

<sup>112.</sup> R. FERGUSON, supra note 93, at 6; Hindle, supra note 93, at 9; Yes to Lie Detector Tests for Private Employees, NATION'S BUS., Aug. 1975, at 16.

<sup>113.</sup> Pre-employment examinations generally cost \$45 to \$100, while specific examinations may cost up to \$500. See D. Lykken, supra note 6, at 184; Crowley, The Truth About Polygraph, Security Mgmt., Dec. 1982, at 31; Harrington, supra note 80, at 8.

<sup>114.</sup> Belt & Holden, Polygraph Usage Among Major United States Corporations, 57 Personnel J. 80, 85 (1978).

estimates range up to a million.<sup>116</sup> Figures indicate that twenty to thirty percent of the nation's largest corporations utilize the polygraph,<sup>116</sup> especially in the investigation of specific incidents of wrongdoing.<sup>117</sup> Studies have shown that employers find polygraph testing to be an effective personnel tool and intend to continue or expand its use,<sup>118</sup> providing more work for the estimated 4,000 to 7,000 polygraph examiners practicing today.<sup>119</sup>

# V. LEGAL LIMITATIONS UPON USE OF THE POLYGRAPH IN THE WORKPLACE

State and federal statutes, as well as certain provisions of the United States Constitution, must be considered before proceeding with employment-related polygraph testing. Most specific limitations upon testing in the workplace are found under state law, although provisions of the federally enacted National Labor Relations Act<sup>120</sup> may be applicable where employees are organized, or are attempting to organize, for purposes of collective bargaining.

<sup>115.</sup> The Use of Polygraphs and Similar Devices by Federal Agencies: Hearings Before the Subcomm. on Foreign Operations and Government Information of the House Comm. on Government Operations, 93d Cong., 2d Sess. 10 (1974) (500,000 in 1968); D. Lykken, supra note 6, at 2 (calling one million "the most conservative estimate"); Crowley, supra note 113, at 30 (500,000 to one million); Harrington, supra note 80, at 3 (one million); Bonner, supra note 97, at F-4, col. 3 (500,000). A recent survey indicated that during 1982 there had been more than 350,000 examinations conducted in Texas alone. Am. Polygraph A. Newsletter, July-Aug. 1983, at 23. The United States Government, primarily the Central Intelligence Agency and the National Security Agency, conducted between 22,000 and 30,000 tests in 1982. Rapoport, To Tell the Truth, The Washingtonian, Feb. 1984, at 72.

<sup>116.</sup> The major United States corporations using polygraph tests include fast-food chains such as McDonalds and Burger Chef; retail stores such as Zale's Jewelers and Gimbel's Department Stores; banks such as Chase Manhattan, Republic National, and Chemical Bank; security agencies such as Guardsmark; and manufacturers such as Adolph Coors Brewery. D. Lykken, supra note 6, at 3; Bonner, supra note 97, at F-4, cols. 3, 4; Wall St. J., June 16, 1981, at 1, col. 5.

<sup>117.</sup> The Belt and Holden survey indicated that 90% of the Fortune 500 companies using the polygraph did so to investigate specific incidents, while 35% used it for pre-employment and periodic testing. A majority of the firms utilizing the polygraph used it for more than one of these purposes. Belt & Holden, supra note 114, at 82-85.

<sup>118.</sup> Hindle, supra note 93, at 10; Report on Polygraph Usage in Chain Drug Stores, 7 Polygraph 49, 52 (1978) (61% of those surveyed experienced decreases in theft after initiation of polygraph examinations); Siatt, supra note 94, at 33 (89.4% of survey respondents believed polygraph testing is very effective or somewhat effective; 41.3% intended to increase their use of polygraph testing); Yes to Lie Detector Tests for Private Employees, supra note 112, at 16 (over 80% of survey respondents objected to outlawing polygraph screening).

<sup>119.</sup> D. Lykken, supra note 6, at 1 (4000-7000); Abrams, supra note 26, at 766 (4300); Crowley, supra note 113, at 30 (6000).

<sup>120. 29</sup> U.S.C. §§ 151-168 (1982).

The precise scope of the limitations imposed by the Constitution remains unclear for two reasons. First, as is customary in cases involving constitutional principles, factual considerations have been the primary determinants in the judicial decision-making process. Second, the number of cases providing refinements and clarifications of existing law has been relatively small, because of the fact that constitutional challenges to polygraph testing must be predicated upon a finding of governmental action in order for the constitutional guarantees to apply. This "state action" requirement has meant that suits by private-sector employees alleging that their constitutional rights have been violated have usually been summarily dismissed.

The following discussion focuses not only upon existing legislation but also upon two types of cases in which polygraph usage has been contested—actions brought by public-sector employees and disputes settled by labor arbitration.

## A. Statutory Law

## 1. Federal Legislation

No federal legislation currently prohibits or restricts employers from requiring their employees to submit to polygraph examinations as a condition of hire or continued employment. Moreover, no federal legislation presently regulates polygraph examiners. There has been, however, no shortage of congressional proposals on the subject over the past two decades. For example, in the Ninety-eighth Congress, two bills—one prohibiting polygraph testing of employees<sup>122</sup> and the second regulating such tests<sup>123</sup>—were introduced but defeated.

Despite the absence of federal statutes specifically addressing

<sup>121.</sup> See, e.g., Flagg Bros. v. Brooks, 436 U.S. 149 (1978); Jackson v. Metropolitan Edison Co., 419 U.S. 345 (1974); Burton v. Wilmington Parking Auth., 365 U.S. 715 (1961); The Civil Rights Cases, 109 U.S. 3 (1883).

<sup>122.</sup> H.R. 2403, 98th Cong., 1st Sess., 129 Cong. Rec. H1820 (daily ed. Apr. 5, 1983). This bill would have made it unlawful for an employer to permit, require, or request an applicant or employee to take a polygraph examination and would have provided a fine and/or imprisonment, as well as a civil action for the individual aggrieved by such action.

<sup>123.</sup> H.R. 4106, 98th Cong., 1st Sess., 129 Cong. Rec. H8193 (daily ed. Oct. 6, 1983). This bill would have prohibited polygraph examiners from inquiring into matters which occurred more than seven years before the examination or into the subject's opinions relating to religion, race, politics, labor organizations, and, unless related to job performance, sexual behavior.

polygraph usage, the issue of polygraph testing in the unionized workplace occasionally arises under the National Labor-Relations Act.<sup>124</sup> These cases generally fall into one of two categories: those concerning an employer's obligation to engage in collective bargaining before implementing testing requirements and those concerning polygraph examinations to which employees are required or requested to submit.

Once a collective bargaining representative for employees has been certified, the imposition of a rule requiring employees to submit to polygraph examinations is a mandatory subject of collective bargaining because it affects the terms and conditions of employment. Failure to bargain over such a change constitutes an unlawful refusal to bargain under the National Labor Relations Act.<sup>125</sup>

As soon as the bargaining obligation has been fulfilled, an employer can require his employees to take polygraph examinations<sup>126</sup> and can fire them for an unwarranted refusal to do so.<sup>127</sup> Testing to discover union sympathies or other protected activities is not permitted,<sup>128</sup> however, although tests which result in the discovery or admission of improper activity may lawfully be used to support a discharge.<sup>129</sup> Of course, neither test results nor required submission to testing may be used as a pretext for a discharge actually predicated upon antiunion sentiments.<sup>130</sup>

<sup>124. 29</sup> U.S.C. §§ 151-168 (1982).

<sup>125.</sup> Medicenter, Mid-South Hosp., 221 N.L.R.B. 670, 675 (1975). See also Laney & Duke Storage Warehouse Co., 151 N.L.R.B. 248 (1965), enforced in pertinent part, 369 F.2d 859 (5th Cir. 1966). Where a union had acquiesced to polygraph testing, the NLRB declined to make any assertion with regard to an obligation to bargain over administration of polygraph examinations, holding that there had been no unilateral change in working conditions. Gulf Coast Automotive Warehouse, Inc., 256 N.L.R.B. 486, 489 (1981).

<sup>126.</sup> Mariano's Restaurant, 230 N.L.R.B. 1087, 1090 (1977); National Food Serv., Inc., 196 N.L.R.B. 295, 296 (1972). One recent decision held that the polygraph testing itself was not unlawful, but that the employer's refusal to accede to an employee's request that a union representative be present during all phases of the polygraph examination was a violation. Consolidated Casinos Corp., 266 N.L.R.B. No. 172, 1983 NLRB Dec. (CCH) ¶ 15,749 (1983).

<sup>127.</sup> Shoppers Drug Mart, Inc., 226 N.L.R.B. 901, 906-07 (1976); American Oil Co., 189 N.L.R.B. 3, 4 (1971).

<sup>128.</sup> St. Anthony's Center, 227 N.L.R.B. 1777, 1784 (1977); Solo Serve Co., 219 N.L.R.B. 395, 398 (1975); Coleman, *supra* note 93, at 25.

<sup>129.</sup> Falstaff Beer Distribs., 152 N.L.R.B. 1570, 1575 (1965) (holding that an employer may refuse to hire a person who fails a polygraph test when that person does not prove that the employer's motive in giving the test was to determine past union activity).

<sup>130.</sup> Restaurant Management Servs., Inc., 266 N.L.R.B. No. 144, 1983 NLRB Dec. (CCH) ¶ 15,714 (1983); Glazer's Wholesale Drug Co., 152 N.L.R.B. 467, 478 (1965).

## 2. State Legislation

State legislative enactments regarding the polygraph generally fall into one of three classifications: 1) examiner licensing provisions, 2) statutes limiting the use of the polygraph, and 3) statutes prohibiting the use of the polygraph in employment. Currently, only four states both license examiners and prohibit mandatory tests, 131 while eleven states neither restrict the use of polygraph testing nor require licensing of examiners. 132 As previously mentioned, twenty-eight states have licensing statutes. 133

Twenty-one jurisdictions presently prohibit employers from requiring that an individual submit to a polygraph examination as a condition of employment.<sup>134</sup> In addition, the statutes in nine jurisdictions prohibit an employer from even requesting that the applicant or employee submit to such an examination.<sup>135</sup> Law-enforcement agencies, however, are exempted from all but five of the statutes.<sup>136</sup> Penalties for a statutory violation range from a \$100 fine<sup>137</sup> to a \$1,000 fine and one year in jail.<sup>138</sup>

<sup>131.</sup> The following statutes prohibit mandatory testing: Calif. Lab. Code § 432.2 (West 1971 & Cum. Supp. 1984); Mich. Comp. Laws Ann. §§ 37.201-.208 (West Supp. 1983); Neb. Rev. Stat. § 81-1932 (1981); Or. Rev. Stat. §§ 659.225-.227 (1983). The following statutes require licensing of examiners: Cal. Bus. & Prof. Code §§ 9305-9319 (West Cum. Supp. 1984); Mich. Comp. Laws Ann. §§ 338.1708-.1722 (West Cum. Supp. 1983); Neb. Rev. Stat. §§ 81-1914 to -1929 (1981); Or. Rev. Stat. §§ 703.050-.140 (1983).

<sup>132.</sup> These states are Colorado, Indiana, Kansas, Louisiana, Missouri, New Hampshire, New York, Ohio, South Dakota, Wisconsin, and Wyoming.

<sup>133.</sup> See supra note 58.

<sup>134.</sup> Alaska Stat. § 23.10.037 (1972); Cal. Lab. Code § 432.2 (West 1971 & Cum. Supp. 1984); Conn. Gen. Stat. § 31-51g (1972 & Supp. 1983); Del. Code Ann. tit. 19, § 704 (1979); D.C. Code Ann. § 36-801 to -803 (1981); Hawah Rev. Stat. §§ 378-21 to -22 (1976); Idaho Code §§ 44-903 to -904 (1977); 1983 Iowa Legis. Serv. 274-75 (West 1983); Me. Rev. Stat. Ann. tit. 32, § 7166 (Cum. Supp. 1983); Md. Ann. Code art. 100, § 95 (1979 & Cum. Supp. 1983); Mass. Ann. Laws ch. 149, § 19B (Michie/Law. Co-op. 1976); Mich. Comp. Laws Ann. §§ 37.201-.208 (West Supp. 1983); Minn. Stat. Ann. §§ 181.75-.76 (West Cum. Supp. 1984); Mont. Code Ann. § 39-2-3034 (1983); Neb. Rev. Stat. § 81-1932 (1981); N.J. Stat. Ann. § 2C:40A-1 (West 1982); Or. Rev. Stat. §§ 659.225-.227 (1983); Pa. Cons. Stat. Ann. § 7321 (Purdon 1983); R.I. Gen. Laws §§ 28-6.1-1 to -2 (1979); Wash. Rev. Code Ann. §§ 49.44.120-.130 (Cum. Supp. 1983); W. Va. Code § 21-5-5b (Cum. Supp. 1983).

<sup>135.</sup> See Alaska Stat. § 23.10.037 (1972); Conn. Gen. Stat. § 31-51g(b)(1) (Supp. 1983); Del. Code Ann. tit. 19, § 704(b) (1979); D.C. Code Ann. § 36-802(a) (1981); Mass. Ann. Laws ch. 149, § 19B (Michie/Law. Co-op. 1976); Mich. Comp. Laws Ann. § 37.203 (West Supp. 1983); Minn. Stat. Ann. § 181.75 (West Cum. Supp. 1984); N.J. Stat. Ann. § 2C:40A-1 (West 1982); W. Va. Code § 21-5-5b (Cum. Supp. 1983).

<sup>136.</sup> Hawaii Rev. Stat. § 378-21 (1976); Mich. Comp. Laws Ann. §§ 37.201-.208 (West Supp. 1983); Minn. Stat. Ann. § 181.75 (West Cum. Supp. 1984); N.J. Stat. Ann. § 2C:40A-1 (West 1982); Or. Rev. Stat. §§ 659.225-.227 (1983).

<sup>137.</sup> Md. Ann. Code art. 100, § 95(g) (1979).

Several states have enacted limitations upon the questions that may be asked in an employment-related polygraph examination. Virginia, for example, provides that a prospective employee is not required to answer questions about sexual activity, unless such activity has resulted in a criminal conviction. Wisconsin prohibits questions relating to an employee's honesty, sexual practices, religious views, political affiliation, or union activity, but permits questions directly connected with employment applications and job performance. 140

## B. Suits Involving Public Sector Employees

An analysis of the cases concerning the use of polygraphs in the public sector is facilitated by categorizing the decisions into those involving police officers and those involving public employees who are not police officers. The majority of the reported cases have been brought by police officers, and the courts have generally held that a public employer can require a policeman to submit to a polygraph test as part of an investigation of his conduct. The decisions have focused upon three issues: 1) the role of police in society, 2) the duty of a policeman to obey a superior officer, and 3) the reasonableness of the order to submit to the examination.

Courts have concluded that, since a police officer must be above suspicion of violation of the laws that he is sworn to enforce, <sup>141</sup> must be a guardian of the peace, and must perform his duty to investigate crime and maintain the public trust, <sup>142</sup> questions concerning the propriety of his conduct must be resolved promptly. In furtherance of this objective, polygraph tests can be administered, and an officer's refusal to submit to such an examination can result in his dismissal. Other courts have reasoned that an officer must submit to the test because of his duty to obey the superior officer who ordered it. <sup>143</sup> Although the superior officer has broad powers

<sup>138.</sup> Alaska Stat. § 23.10.037(d) (1972); Hawah Rev. Stat. § 378-22 (1976).

<sup>139.</sup> Va. Code Ann. § 40.1-51.4:3 (Repl. Vol. 1981). Some states accomplish the same objective through regulations which apply to licensed examiners.

<sup>140.</sup> Wis. Stat. Ann. § 111.37 (West Cum. Supp. 1983-1984).

<sup>141.</sup> McCain v. Sheridan, 160 Cal. App. 2d 174, \_\_\_\_, 324 P.2d 923, 926 (1958).

<sup>142.</sup> Roux v. New Orleans Police Dep't, 223 So. 2d 905, 910 (La. Ct. App. 1969), cert. denied, 397 U.S. 1008 (1970). See also Fichera v. State Personnel Bd., 217 Cal. App. 2d 613, 32 Cal. Rptr. 159 (1963).

<sup>143.</sup> See, e.g., Eshelman v. Blubaun, 114 Ariz. 376, 560 P.2d 1283 (1977); Piotrowski v. State Police Merit Bd., 85 Ill. App. 3d 369, 406 N.E.2d 863 (1980); Roux v. New Orleans Police Dep't, 223 So. 2d 905 (La. Ct. App. 1969), cert. denied, 397 U.S. 1008 (1970); Sorbello

to order a polygraph examination, his request or order must still be reasonable in the view of most courts.<sup>144</sup> Included in this concept of reasonableness is the prohibition against requiring the officer to waive his fifth amendment privilege against self-incrimination.<sup>145</sup>

A refusal to submit to a polygraph test does not always constitute grounds for the discharge of a policeman. For example, if a police manual merely requires that members of the police department be truthful at all times, a polygraph test used to determine if this requirement is being satisfied may be properly refused. Refusals have also been permitted where a state statute provides that an employer may be found guilty of disorderly conduct for forcing an employee to take a lie-detector test. 147

There are few cases concerning the application of polygraph tests to public employees who are not police officers. A requirement that non-police public employees submit to a polygraph examination has been upheld when public safety was threatened by a public employee, <sup>148</sup> as well as when the purpose of the test was investigatory in nature rather than adjudicatory. <sup>149</sup> On the other hand, such a requirement has been rejected when it was not integrally related to public service. <sup>150</sup> For example, a discharged fireman who had refused to take a polygraph was reinstated because the court found no relationship between the charged crime and the fireman's performance of his official duties. <sup>151</sup>

v. Maplewood, 610 S.W.2d 375 (Mo. Ct. App. 1980).

<sup>144.</sup> A few courts have not required that the order be demonstrably or prima facie reasonable, explaining that if an officer can refuse to obey a direct order from a superior and seek judicial determination of the reasonableness of the order, a severe weakening of the authority and discipline within the police ranks would result. See, e.g., Myers v. Cook County Police & Corrections Merit Bd., 67 Ill. App. 3d 223, \_\_\_\_, 384 N.E.2d 805, 810 (1978); Williams v. Police Bd., 8 Ill. App. 3d 345, \_\_\_\_, 290 N.E.2d 669, 672 (1972).

<sup>145.</sup> See Seattle Police Officers' Guild v. City of Seattle, 80 Wash. 2d 307, \_\_\_\_, 494 P.2d 485, 493 (1972).

<sup>146.</sup> Molino v. Board of Pub. Safety, 154 Conn. 368, 225 A.2d 805 (1966).

<sup>147.</sup> Engel v. Woodbridge, 124 N.J. Super. 307, 306 A.2d 485 (1973). See also Farmer v. City of Fort Lauderdale, 427 So. 2d 187 (Fla.), cert. denied, 104 S. Ct. 74 (1983); Kaske v. City of Rockford, 26 Ill. 2d 298, 450 N.E.2d 313, cert. denied, 104 S. Ct. 391 (1983).

<sup>148.</sup> Gulden v. McCorkle, 680 F.2d 1070 (5th Cir. 1982), cert. denied, 103 S. Ct. 1194 (1983).

<sup>149.</sup> Brown v. Gardern, No. 78-334-N (E.D. Va. July 18, 1978).

<sup>150.</sup> In re Fairbanks, 287 N.W.2d 579 (Iowa 1980).

<sup>151.</sup> Talent v. Abilene, 508 S.W.2d 592 (Tex. 1974).

# 1. Constitutional Challenges to Mandatory Polygraph Exams

Both present and prospective public employees have asserted several constitutional arguments against the use of mandatory polygraph examinations. Challenges have been premised upon the following grounds: 1) the privilege against self-incrimination, 2) the inalienable property right inherent in a job, 3) equal protection, and 4) the right to privacy. The success of these arguments has depended largely upon the nature of the job held or sought and the circumstances surrounding the required polygraph examination.

# a. The Privilege Against Self-Incrimination

Although the Supreme Court cases defining the scope of the fifth amendment privilege against self-incrimination do not involve mandatory polygraph testing, <sup>153</sup> the constitutional interpretations which they contain have been relevant to subsequent state court decisions focusing on polygraph use. <sup>154</sup> In Garrity v. New Jersey, <sup>155</sup> the Court ruled that police officers, as public employees, may invoke the fifth amendment to prevent the use, in a later criminal proceeding, of information obtained during a departmental disciplinary investigation. <sup>156</sup> Because the policemen were faced with the prospect of either testifying in the investigation or losing their jobs, the Court considered the police testimony to have been coerced and, therefore, not appropriate for use in a criminal prosecution. <sup>157</sup> The Garrity Court, however, did not specifically decide whether a police officer could be discharged for invoking the privilege when his on-duty conduct was at issue.

Subsequent Supreme Court decisions have indicated that a public employee cannot be discharged for asserting his fifth amend-

<sup>152.</sup> At least one case has examined the polygraph subject's right to have counsel present during the test. The court in Grabinger v. Conlisk, 320 F. Supp. 1213 (N.D. Ill. 1970), found that police officers have no such right in examinations conducted pursuant to an investigation of police conduct. The court noted that the effectiveness of police disciplinary proceedings would be impaired if the "full panoply of judicial due process" were required for every decision. *Id.* at 1220.

<sup>153.</sup> See Lefkowitz v. Cunningham, 431 U.S. 801 (1977); Uniformed Sanitation Men Ass'n v. Commissioner of Sanitation, 392 U.S. 280 (1968); Gardner v. Broderick, 392 U.S. 273 (1968); Spevack v. Klein, 385 U.S. 511 (1967); Garrity v. New Jersey, 385 U.S. 493 (1967).

<sup>154.</sup> See Toomey, Compelled Lie Detector Tests and Public Employees: What Happened to the Fifth Amendment?, 21 S. Tex. L.J. 375 (1980).

<sup>155. 385</sup> U.S. 493 (1967).

<sup>156.</sup> Id. at 500.

<sup>157.</sup> Id. at 497.

ment immunity in a subsequent criminal prosecution based upon his testimony in a departmental investigation. Employees are required, however, to answer questions "specifically, directly and narrowly relating to the performance of their official duties on pain of dismissal from public employment without requiring relinquishment of the benefits of the constitutional privilege . . . ."159 Thus, a public employee may be dismissed for his refusal to answer potentially incriminating questions relating to his duties, but may not be required to waive his constitutional right to prevent the information thereby obtained from being used in a later criminal proceeding. 160

The Supreme Court's analysis prompted decisions by a number of state courts permitting the discharge of public employees for refusal to submit to polygraph tests when the testing was conducted pursuant to an investigation of their professional duties rather than pursuant to a criminal proceeding.<sup>161</sup> The courts found these dismissals justified because the employees' "insubordination" interfered with the effective and efficient operation of a police department in its investigation of crime<sup>162</sup> and failed to comport with the need for a credible police force.<sup>163</sup> One court viewed the reasonableness of the requirement as providing justification for a discharge based upon the employee's refusal to submit.<sup>164</sup>

<sup>158.</sup> Gardner v. Broderick, 392 U.S. 273, 278-79 (1968).

<sup>159.</sup> Uniform Sanitation Men Ass'n v. Commissioner of Sanitation, 392 U.S. 280, 284 (1968) (emphasis added).

<sup>160.</sup> Lefkowitz v. Cunningham, 431 U.S. 801, 805-06 (1977).

<sup>161.</sup> See, e.g., Fichera v. State Personnel Bd., 217 Cal. App. 2d 613, 32 Cal. Rptr. 159 (1963); Coursey v. Board of Fire & Police Comm'rs, 90 Ill. App. 2d 31, 234 N.E.2d 339 (1967); Roux v. New Orleans Police Dep't, 223 So. 2d 905 (La. Ct. App. 1969), cert. denied, 397 U.S. 1008 (1970); Richardson v. City of Pasadena, 500 S.W.2d 175 (Tex. Cir. App. 1973), rev'd on other grounds, 513 S.W.2d 1 (Tex. 1974); Seattle Police Officers' Guild v. City of Seattle, 80 Wash. 2d 307, 494 P.2d 485 (1972). In all of these cases, the public employees were law-enforcement officers.

<sup>162.</sup> Coursey, 90 Ill. App. 2d at \_\_\_\_\_, 234 N.E.2d at 344-45.

<sup>163.</sup> Richardson, 500 S.W.2d at 177.

<sup>164.</sup> Seattle Police Officers' Guild, 80 Wash. 2d at \_\_\_\_\_, 494 P.2d at 493. The Washington Supreme Court in Seattle Police Officers' Guild set forth the following elements of the test of reasonableness:

<sup>1)</sup> There is a direct order from superiors to submit to a polygraph;

<sup>2)</sup> The order asserts that the questions to be asked will be specifically, directly, and narrowly related to the employee's official duties;

<sup>3)</sup> The order guarantees that the employee will not be required to waive any immunity from criminal prosecution; and

<sup>4)</sup> The order advises the subject that information gained by the results of the test cannot be used against him in any criminal proceeding. *Id.* at \_\_\_\_\_, 494 P.2d at 493.

## b. Inalienable Property Right Inherent in a Job

Public employee challenges to dismissals resulting from refusals to submit to polygraph tests have been unsuccessful when based upon the denial, without the requisite due process, of an alleged property right in one's job. The pivotal factor in such cases has been whether there has in fact been a property interest in continued employment conferred upon the individual by state law or by contract. For example, where a police officer has no right to employment, his refusal to submit to a polygraph test concerning his knowledge of a crime is a proper ground for a discharge. Likewise, a city employee who is dismissed because of polygraphs that he voluntarily took cannot argue that his prior tenure, his expectation of continued employment, or the future vesting of pension benefits constitutes a legally protected property interest in a job. 167

# c. Equal Protection

Public employees have rarely advanced equal protection arguments in their challenges to polygraph testing. In a case in which only ten percent of the applicants for police cadet positions with the San Francisco Police Department were required to submit to polygraph examinations, a cadet discharged for his refusal to submit to a polygraph challenged the procedure on equal protection grounds, claiming that all or none of the applicants should have been required to submit to the tests. The City of San Francisco asserted in its defense that the cadet had been selected for testing because he had omitted certain relevant information from his application for employment. The federal district court dismissed the claim, finding that the plaintiff's actions justified the City's request, and that the police department thus had a "compelling interest in demanding that certain, but not all, of the applicants take

<sup>165.</sup> Bishop v. Wood, 426 U.S. 341, 344 (1976). The United States Supreme Court in Board of Regents v. Roth, 408 U.S. 564, 577 (1975), stated that "[p]roperty interests . . . are not created by the Constitution. Rather, they are created and their dimensions are defined by existing rules or understandings that stem from an independent source such as state law—rules or understandings that secure benefits and that support claims of entitlement to those benefits."

<sup>166.</sup> Frey v. Department of Police, 288 So. 2d 410 (La. Ct. App. 1973); Roux, 223 So. 2d 905 (La. Ct. App. 1969), cert. denied, 397 U.S. 1008 (1970).

<sup>167.</sup> Overstreet v. City of Roanoke, No. 80-294, slip op. at 4 (W.D. Va. July 24, 1981). The court noted that the employee's only claim was to grievance procedures for dismissal provided by the city code.

the examination."168

## d. Right to Privacy

Privacy can be defined as "the right of the individual to decide for himself when and under what conditions his thoughts, speech and acts should be related to others." Although it has been asserted that the polygraph examination constitutes an invasion of privacy per se, 170 one court has rejected such an argument. The court noted that the polygraph test is merely an "extension of the age-old process of assessing the veracity of a witness." However, an invasion of privacy may be found where the examiner asks intrusive questions about a subject's sexual activity, pregnancy, or abortions. 173

#### C. Arbitration

Cases involving polygraphs in arbitration can be divided into two categories: those using polygraph test results as evidence and those involving an employee's refusal to submit to a polygraph examination.

<sup>168.</sup> Hepburn v. Alioto, No. C-71-2309 (N.D. Cal. Nov. 21, 1974). An equal protection claim was similarly rejected in Civil Serv. Ass'n v. Civil Serv. Comm'n, 139 Cal. App. 3d 449, 188 Cal. Rptr. 806 (1983). More common than equal protection challenges have been arguments from public employees, as well as their counterparts in the private sector, that their rights under Title VII of the Civil Rights Act of 1964 have been violated. See, e.g., Brown v. State, 693 F.2d 600 (6th Cir. 1982) (failure to submit to a polygraph may be a legitimate nondiscriminatory reason for dissimilar treatment); Ramirez v. City of Omaha, 678 F.2d 751 (8th Cir. 1982) (use of admissions made during a polygraph test as a factor in an employment decision held not discriminatory in a disparate impact case); United States v. City of Miami, 614 F.2d 1322 (5th Cir. 1980) (upholding consent decree limiting polygraph tests to job-related questions and providing that test results may not be sole qualifying factor).

<sup>169.</sup> Hermann, supra note 97, at 127.

<sup>170.</sup> Comment, Privacy: The Polygraph in Employment, 30 ARK. L. REV. 35, 44 (1976). Relying upon dictum in Schmerber v. California, 384 U.S. 757 (1966), the author also asserts that the invasion of privacy argument may be intertwined with an argument based on the right against self-incrimination. Comment, supra, at 43-44. In Schmerber, the Court noted that "lie detector tests...may... [elicit] responses which are essentially testimonial... [and that is sufficient] to evoke the spirit and history of the Fifth Amendment." 384 U.S. at 764.

<sup>171.</sup> Fichera v. State Personnel Bd., 217 Cal. App. 2d 613, 32 Cal. Rptr. 159 (1963).

<sup>172.</sup> Id. at 614, 32 Cal. Rptr. at 164.

<sup>173.</sup> See Thorne v. City of El Segundo, No. 80-5618 (9th Cir. Dec. 7, 1983).

## 1. Use of Polygraph Tests as Evidence

Arbitrators have generally been reluctant to rely upon polygraph evidence because of their doubts about its reliability.<sup>174</sup> Arbitrators have refused to accept polygraph test results as evidence in the following instances: 1) when both parties have not agreed to the admissibility of the results,<sup>175</sup> 2) when the polygraph operator did not use all of the indicators on the machine,<sup>176</sup> 3) when the examiner was inexperienced,<sup>177</sup> 4) when an examiner had testified in only one or two arbitration cases,<sup>178</sup> and 5) when an arbitrator concluded that an employee had not submitted voluntarily to the polygraph test.<sup>179</sup>

Several cases, however, have permitted the consideration of test results. In a widely cited case, a truck driver who was discharged for failing to report an accident subsequently submitted to a polygraph. The arbitrator held that "the results . . . standing alone would not justify the discharge but they provide helpful supplemental evidence." Several other cases have considered polygraph test results when they were supported and corroborated by other evidence. Standing alone, however, they are generally regarded as insufficient evidence to warrant a discharge for theft. 182

<sup>174.</sup> Dennehy, The Status of Lie Detector Tests in Labor Arbitration, 31 Lab. L.J. 430, 431 (1980); Miller, Worker Privacy and Collective Bargaining, 33 Lab. L.J. 154, 160 (1982).

<sup>175.</sup> Kisco Co., 75 Lab. Arb. (BNA) 574 (1980) (Stix, Arb.). This case contains an extensive review of the use of the polygraph in arbitration.

<sup>176.</sup> Grocer's Supply Co., 59 Lab. Arb. (BNA) 1280 (1972) (Taylor, Arb.).

<sup>177.</sup> Holytex Carpet Mills, Inc., 79-1 Lab. Arb. Awards (CCH)  $\P$  8181 (1979) (Anderson, Arb.).

<sup>178.</sup> Golden Pride, Inc., 68 Lab. Arb. (BNA) 1232, 1235 (1977) (Jaffee, Arb.); see also Brinks, Inc., 78-1 Lab. Arb. Awards (CCH) ¶ 8235 (1978) (Pinkus, Arb.) (examiner found not to be a "persuasive witness").

<sup>179.</sup> Southern Biscuit Co., 74-2 Lab. Arb. Awards (CCH)  $\P$  8386 (1974) (Brewer, Arb.) (employee was told that he would not be discharged for damage that he allegedly caused if a polygraph test cleared him of the misconduct).

<sup>180.</sup> Bowman Transp., Inc., 64 Lab. Arb. (BNA) 453, 457 (1975) (Hon, Arb.). See also Nettle Creek Indus., 70 Lab. Arb. (BNA) 100 (1978) (High, Arb.) (employer had just cause for discharge of worker where primary evidence used to establish guilt was testimony of coworker and not lie-detector test).

<sup>181.</sup> City of Benton Harbor, 78-2 Lab. Arb. Awards (CCH) ¶ 8337 (1978) (Roumell, Arb.); American Maize-Prods. Co., 71-1 Lab. Arb. Awards (CCH) ¶ 8265 (1971) (Larkin, Arb.); Koppers Co., 68-1 Lab. Arb. Awards (CCH) ¶ 8084 (1968) (Kates, Arb.).

<sup>182.</sup> See, e.g., Mount Sinai Hosp. Medical Center, 73 Lab. Arb. (BNA) 297 (1979) (Dolnick, Arb.); B.F. Goodrich, 61-2 Lab. Arb. Awards (CCH) ¶ 8497 (1961) (Ryder, Arb.).

## 2. Employee's Refusal to Submit

Most arbitration decisions hold that an employee cannot be penalized for refusing to submit to a polygraph examination, 183 even if the employee had earlier consented to such an examination.184 There are, however, a few frequently cited arbitration cases which support the notion of discipline or discharge for employee refusal to submit to a polygraph examination. One such case involved the suspension of an employee who refused to take polygraphs required of all employees after the discovery of a theft. Although the arbitrator ordered the reinstatement of the suspended employee because the employee had not been warned of the potential consequences of his refusal, the arbitrator nevertheless found that the "Company's request of employees to take the polygraph test was reasonable."185 The arbitrator's opinion stated that the company was justified in using any investigative methods as long as they were not illegal or in violation of a labor contract. 186 In another case, the use of required polygraph tests was upheld as a valid employer investigative device which does not invade privacy, force self-incrimination, or constitute an unreasonable search and seizure.187 The opinion concluded that it was not entirely unreasonable to dismiss an employee for refusing to submit to such a

<sup>183.</sup> Braniff Airways, Inc., 73 Lab. Arb. (BNA) 304 (1979) (Ray, Arb.); Illinois Bell Tel. Co., 39 Lab. Arb. (BNA) 470 (1962) (Ryder, Arb.); Dennehy, supra note 174, at 437.

<sup>184.</sup> In Buy-Low, Inc., 77 Lab. Arb. (BNA) 380 (1981) (Dolnick, Arb.), the arbitrator found a polygraph test consent form contained in an employee's application for employment to have expired at the end of the employee's probationary period. At least one commentator has asserted that "[t]he impossibility of a valid consent to the polygraph test is the best argument for the client who has signed one of these forms." Note, *supra* note 54, at 559.

In a case in which an employee handbook stated that employees "would be expected to submit to a voluntary polygraph examination," an arbitrator concluded that an employee's refusal to submit rendered the examination involuntary and the handbook provision inapplicable. Smitty's Super Value, Inc., 81-1 Lab. Arb. Awards (CCH) ¶ 8209 (1981) (Eckhardt, Arb.). See also Miller, supra note 174, at 160.

<sup>185.</sup> Bowman Transp., Inc., 73-2 Lab. Arb. Awards (CCH) ¶ 8336 (1973) (Whyte, Arb.). 186. *Id*.

<sup>187.</sup> Bowman Transp., Inc., 61 Lab. Arb. (BNA) 549, 555 (1973) (Laughlin, Arb.); see also Bowman Transp., Inc., 64 Lab. Arb. (BNA) 453 (1975) (Hon, Arb.) (employee discharged for failure to comply with company accident reporting rules, when evidence that employee lied when taking lie-detector test contributed to evidence that employee had indeed been in an accident); Warwick Elecs., 46 Lab. Arb. (BNA) 95 (1966) (Daugherty, Arb.) (where contract provided that employees would cooperate fully with employer in investigation of theft, employer was justified in issuing written warnings to employees who refused to submit to polygraph examinations); Allen Indus., 26 Lab. Arb. (BNA) 363 (1956) (Klamor, Arb.) (employee justifiably discharged for failure to cooperate with company investigation of theft by refusing to take lie-detector test).

test. 188

#### VI. Conclusion

This article is intended to serve the several constituencies which must make decisions relating to the use of the polygraph in the workplace—labor counsel, personnel administrators, and corporate security directors. These individuals must be familiar with the legal considerations applicable to most employers—the constitutional challenges of public-sector employees, the legislation prohibiting or limiting employment-related polygraph testing, and the decisions from the National Labor Relations Board and arbitrators concerning the use of the polygraph in unionized settings. In addition, those who must establish and implement corporate policy should be benefitted by a general understanding of the polygraph and the manner in which it is used in employment-related testing.

The author advocates the continued use of the polygraph in employment-related testing. With internal theft a problem of truly staggering proportions, some means of assessing applicants and investigating property losses is essential. The polygraph has proved to be an effective tool in preventing and detecting theft; although it is not one hundred percent accurate, it is indisputably more valid than the innumerable subjective considerations which are permitted to play a role in personnel decisions. Its importance is underscored by the difficulty that employers face in obtaining information about job applicants through other means. For example, an applicant's former employers are generally reluctant to divulge information, and thorough background checks are too expensive to be conducted routinely. The polygraph is also more cost-effective and less intrusive than many alternative security procedures.

When used prudently, as one of several factors in personnel decisions, the polygraph is a reasonable and effective method of reducing internal theft in the workplace, thereby aiding the employer in his effort to provide a secure, financially stable work environment. This writer believes that no individual's "right" to a job is more compelling than an employer's "right" to an honest workforce, and that no one will be more enthusiastic about eliminating polygraph testing than an employer no longer faced with the need for such testing.

<sup>188.</sup> Bowman Transp., Inc., 61 Lab. Arb. (BNA) at 557. The arbitrator saw the matter of required polygraph examinations as an appropriate subject of collective bargaining. *Id.*