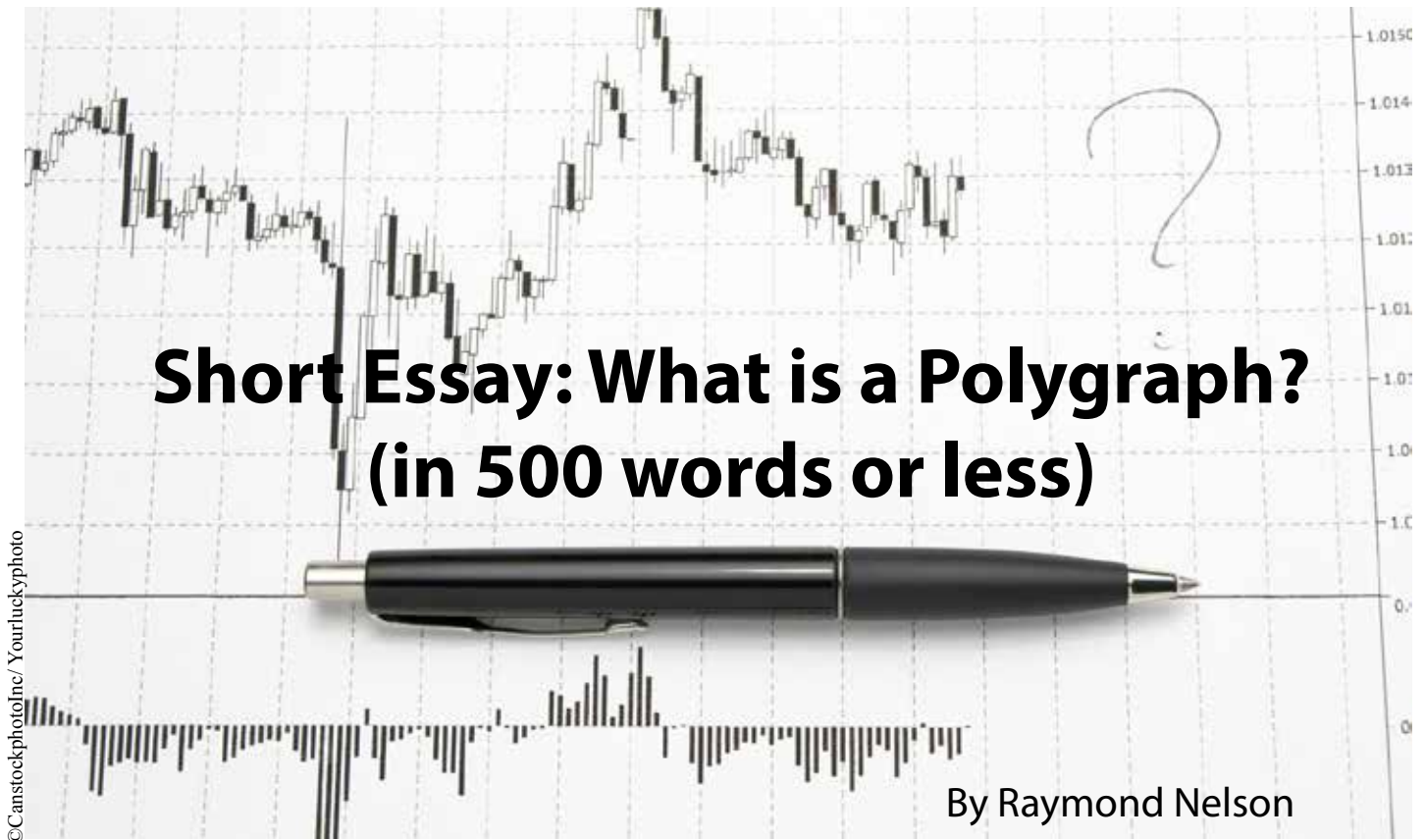




Polygraph testing is sometimes referred to as lie-detection as a term of convenience. It is a standardized, evidence-based test of the margin of uncertainty or level of confidence surrounding a categorical conclusion of truth-telling or deception - or the possession of knowledge or information - regarding a test target issue. Test data are a combination of physiological proxies that have been shown to vary significantly with different types of test stimuli as a function of deception or truth telling in response to the relevant investigation target stimuli. The psychological basis of responses to polygraph stimuli is thought to in-

volve attention, cognition, emotion, and behavioral conditioning.

The polygraph test must be completed in a standardized manner, in context in which the examinee can adequately concentrate on and attend to the test stimuli. Test data must be analyzed in a manner for which categorical and probabilistic conclusions are replicable - not mere conjecture or subjective opinion. The polygraph test can take upwards of 90 minutes to complete and consists minimally an interview phase to clarify the issue under investigation and related test questions, a data acquisition phase during which physiological responses to test stim-

uli are permanently recorded, and an analysis phase during which differences in responses to different types of test stimuli are numerically quantified to calculate a statistical classifier for deception or truth telling. The test can also include additional discussion to clarify or resolve any remaining inconsistencies.

Polygraph sensors record autonomic nervous system responses to test stimuli in addition to information about behavioral cooperation and the interaction of the examinee with the examiner. The polygraph test includes mechanisms and procedures to identify countermeasures intended to defeat or alter the test result.

Suitability for polygraph testing requires that an individual is functioning within reasonably normal limits. Norm-referenced probabilistic computations may not apply to individuals who are functioning outside normal limits. Most persons who can work, drive, attend school, live and function independently are suitable for polygraph testing.

Mean accuracy rates of single-issue polygraphs range from the high .80s to low-mid .90s, with a lower limit of accuracy in the low to mid .80s. Mul-

tiple-issue screening tests are both statistically and psychologically more complex than single-issue tests, with mean accuracy in the mid .80s. Like other scientific test results, polygraph test results are a description of the margin of uncertainty or level of confidence associated with a categorical conclusion about a person's credibility regarding a target issue under investigation.