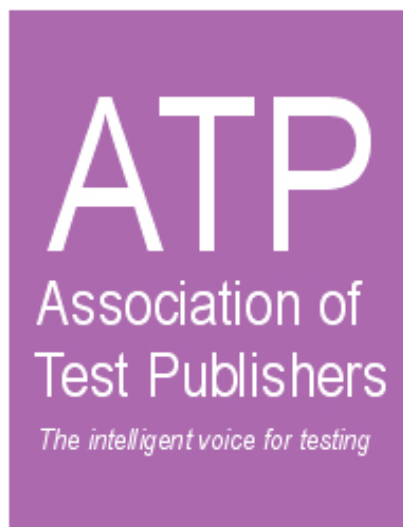


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ASSOCIATION OF TEST PUBLISHERS

*Model Guidelines  
for Preemployment  
Integrity Testing*

*3rd Edition*



Association of Test Publishers  
Washington, DC  
[www.testpublishers.org](http://www.testpublishers.org)

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## ***FOREWARD***

The Association of Test Publishers (ATP) was founded in 1992 as the successor to the Association of Personnel Test Publishers (APTP), and has become the leading international trade association for test publishers during the past 18 years. A complete listing of the 2010 member organizations is provided in Appendix A. The ATP promotes and preserves the general welfare of testing practices. The ATP is also expanding globally with the launch of the first European ATP Conference in 2009. The broad goals of the association are listed below:

1. To promote activities designed to ensure the highest level of professionalism among test publishers and their clients.
2. To cooperate and consult with all professional, legal and business organizations that have an interest in best testing practices.
3. To facilitate the establishment and development of professional standards.
4. To continually seek to improve the public understanding and practice of testing.
5. To ensure that fair and best testing practices are implemented internationally.

Any organization engaged in test publishing or related activities is eligible for membership. To qualify for membership, the organization must have a Ph.D.-level psychologist or comparable measurement specialist on staff or under contract. ATP members must strive for integrity, excellence and professionalism in all aspects of their work. ATP attempts to improve public understanding of professional testing practices and requires that members promote fair and balanced testing practices in the following ways:

- Providing relevant technical information (e.g., reliability, validity, fairness, and legal implications of test use) that test users need in order to evaluate and select the most appropriate tests;
- Providing recommendations to preserve test takers' confidentiality and privacy rights;
- Developing and marketing tests that are fair to all test takers by being appropriately unbiased with respect to race, age, color, gender, national origin, religion, ethnic background or disability;
- Offering tests that are fair to test users by providing accurate, reliable and valid assessments (cf. Sackett, Borneman, & Connelly, 2008);
- Helping test users to interpret and use test results correctly; and
- Providing tests to the public in an accurate and professional manner so that test users know both the advantages and limitations of their use.

The Industrial and Organizational Division of the Association of Test Publishers (ATP) is dedicated to advancing the proper use of employment tests in business and industry. It is committed to providing standards and guidelines for all types of employment tests. It is in this context that the Division formed a taskforce to develop and update the *Model Guidelines for Preemployment Integrity Testing* (hereafter referred to as the *Model Guidelines*) for the creation, publishing, dissemination and use of one type of test, the preemployment integrity test.<sup>1</sup> Psychologists, lawyers, human resource professionals, and trade associations who developed the original guidelines in 1991 and who helped to update these guidelines in 1996 are listed in Appendix B under their original affiliation.

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<sup>1</sup> While the focus of these guidelines is preemployment integrity tests, they are equally applicable to most types of testing.

More specifically, these *Model Guidelines* were originally developed by some of the leading experts in the field of personnel testing. Industrial psychologists, employment attorneys and human resource professionals contributed to these original guidelines. The majority of the contributors are members of the American Psychological Association, the Association for Psychological Science, and the Society for Industrial and Organizational Psychology. The Scientific Affairs Committee of the Society for Industrial and Organizational Psychology provided an unofficial yet well appreciated review of these original guidelines. Core task force members made final decisions about the content of the guidelines. These guidelines were approved by ATP's Standards Committee and Board of Directors. Special contributors made specific suggestions, rather than final decisions, about the content of the guidelines and they helped with the revision and updating of all editions. Finally, ATP solicited input from major trade associations. The trade associations' members are some of the major users of preemployment integrity tests.

The 2010 *Model Guidelines* Revision Committee is presented below. Both the Committee Chair and the Chief Legal Advisor spearheaded the development of both the 1991 and the 1996 versions of the guidelines. Other revision committee members have been active in advancing research on this class of tests in leading professional journals and/or at scientific conferences in order to ensure that these integrity testing guidelines are always consistent with the most current employment laws and professional standards. ATP's Board of Directors, listed below, provided final oversight and approval of these 2010 revised guidelines.

#### **2010 Model Guidelines Revision Committee**

John W. Jones, Ph.D., Vangent, Inc. (Committee Chair)  
David W. Arnold, Ph.D., J.D., Wonderlic, Inc. (Chief Legal Advisor)  
Michael R. Cunningham, Ph.D., University of Louisville  
Reid E. Klion, Ph.D., Performance Assessments Network, Inc.  
Deniz S. Ones, Ph.D., University of Minnesota  
Lance W. Seberhagen, Ph.D., Seberhagen & Associates  
James C. Sharf, Ph.D., Employment Risk Advisors, Inc.  
Vish V. Viswesvaran, Ph.D., Florida International University

#### **2010 ATP Board of Directors**

Marten Roorda, Cito B.V. (Chair)  
Peg Jobst, Assessments, Graduate Management Admission Council (Chair Elect)  
Casey Marks, Ph.D., National Council of State Boards of Nursing, Inc. (Past Chair)  
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Lisa R. Elrich, Ph.D., Measured Progress, Inc.  
John W. Jones, Ph.D., Vangent, Inc.  
Reid E. Klion, Ph.D., Performance Assessment Network, Inc.  
Amy Schmidt, Ph.D., Educational Testing Service  
Eric Shepherd, Questionmark Corp.  
Andrew Wiley, Ph.D., The College Board

# INTRODUCTION

A preemployment “integrity test” is defined as any occupational personality inventory that is intended to predict counterproductive work behavior (e.g., on-the-job theft, violence, illicit drug abuse, harassment, and sabotage). The broad objectives of the *Model Guidelines for Preemployment Integrity Testing* are to provide a better understanding of preemployment integrity tests and to promote good practice in the development, administration, and overall use of integrity tests. Moreover, the *Model Guidelines* are intended to supplement, and be consistent with, generally accepted standards for employment testing (e.g., AERA/APA/NCME, 1999; SIOP, 2003).

The first edition of the *Model Guidelines* was published in 1991 to assist test publishers and their clients. Over 3,500 copies of the first edition were disseminated to both test publishers and users. The second edition of the *Model Guidelines* was released in 1996 and included nearly all of the original text from the first edition. It also included a variety of new material. For example, a new section entitled “Major Reviews of Integrity Testing” summarized the key findings of the American Psychological Association’s review of integrity testing practices along with other comprehensive reviews. New guidelines were also provided to ensure that integrity testing practices complied with the Americans with Disabilities Act of 1990 and the Civil Rights Act of 1991. Finally, a number of new testing issues were addressed, such as ensuring that confidentiality is maintained with facsimile-based scoring systems and distinguishing between job-relevant integrity testing and clinically-oriented personality testing.

This 2010 revision of the *Model Guidelines* accomplishes a number of goals. First, the research review section of the *Model Guidelines* is updated to summarize the most important research reviews and analyses across the past 14 years. This includes descriptions of new types of integrity tests that have entered the market place. References are also added that reflect how the *Model Guidelines* are consistent with other new testing standards that have been released in the past decade and any new legislation that governs preemployment testing in general. A major addition to the 2010 edition of the *Model Guidelines* addresses international compliance issues when adopting preemployment integrity tests for the global market place. Finally, a number of new testing issues are addressed related to web-enabled integrity testing.

These revised 2010 *Model Guidelines* are to be used in conjunction with other professional and legal guidelines for the proper implementation of personnel tests. The Association of Test Publishers developed these *Model Guidelines* to ensure that both test publishers and test users adhere to generally accepted integrity testing practices in the following areas: (1) test development and selection; (2) test administration and scoring; (3) test use and decision making; (4) test fairness and confidentiality; (5) public statements and test marketing practices; and (6) international considerations.

The document is divided into three major sections. The first section provides an overview of preemployment integrity testing practices. The second section summarizes current research on preemployment integrity tests with an emphasis on independent research reviews and large scale meta-analytic investigations. The third section contains the *Model Guidelines* for both test publishers and test users. Test publishers and test users familiar with the history, scientific underpinnings and practice of preemployment integrity testing can proceed directly to the third section. An updated glossary of key test and measurement terms is provided at the end of these sections to facilitate both the understanding and the use of the *Model Guidelines*.

## Background of Project

These *Model Guidelines* have been prepared for publishers and users of preemployment integrity tests. Preemployment integrity tests are occupational personality inventories designed to predict on-the-job theft and other types of counterproductivity (cf. Berry, Sackett & Weiman, 2007; O'Bannon, Goldinger & Appleby, 1989; Sackett, Burris & Callahan, 1989). The use of preemployment integrity tests in the workplace spans more than 55 years (cf. Ash, 1988). Integrity tests are used by both private and public sector organizations, in conjunction with other procedures, to screen out job applicants who are likely to engage in counterproductive behavior at work. Examples of counterproductive employee behavior are provided in Table 1. Likewise, preemployment integrity tests are used in conjunction with other procedures to help companies identify dependable, reliable and productive employees.

Employee counterproductivity has historically been a very costly problem facing corporations (Arthur Young, Inc., 1988; Caprino, 1989; Carey, 1989; Ernst & Young, 1989; Lipman & McGraw, 1988). The average admitted dollar loss per employee theft incident has recently been reported at \$1,442.67 (Hollinger & Adams, 2008). Moreover, "shrinkage" is traditionally defined as stock loss from crime, waste, or errors, expressed as a percentage of sales. Retailers in the Hollinger-Adams study attributed 44% of their inventory shrinkage to employee theft which translated into \$15.31 billion lost to employee theft just in the U.S. retail sector.

Mitigating employee counterproductivity is also a global affair (cf. Coyne & Bartram, 2002; Fortmann, Leslie, & Cunningham, 2002). In a recent global study of 4,200 major retailers representing 41 countries and regions, the total cost of shrinkage equaled \$114.8 billion, or an average of 1.43 percent of global retail sales (Goodchild, 2009). Using the 44% rule of thumb from the Hollinger-Adams (2008) study, one can estimate that the worldwide cost of employee theft in the retail industry alone is \$50.5 billion annually. It is therefore no surprise that employers oftentimes rate honesty and integrity as the most important characteristics in their employees (cf. Bartram, Lindley, Marshall, & Foster, 1995; Coyne & Bartram, 2002).

The average percentage of employees who steal and engage in counterproductivity ranges from 20% to 40%, depending upon the industry examined, the survey methods used and the type of criteria studied (cf. Clark & Hollinger, 1983; Hefter, 1986; Hollinger & Clark, 1983; Jones, 1991). While the exact amount of employee theft needs to be confirmed through additional research, the existence of costly amounts of employee theft is widely accepted by both security researchers (e.g., Slora, 1989) and human resource professionals (e.g., American Management Association, 1977). Moreover, the risk of employee theft and counterproductivity increases materially during economic downturns (Goodchild, 2009; Jones, 2009a, b).

**Table 1. Illustrative Types of Counterproductive Behavior on the Job**

Low productivity	Low concern about work quality
Breaking rules	Intentional damage and waste
Disrespect for authority	Sabotage and tampering
Disruptive customer relations	Turnover for cause
Harassment and intimidation	Unauthorized use of company information
Employee conflict	Theft of cash, merchandise, and property
Physical assault	Theft of company data and information
Vandalism and graffiti	Theft of time (e.g., extended breaks)
Preventable accidents	False reporting and record keeping
Alcohol and illicit drug abuse	Organized crime

## **Purpose of Model Guidelines**

These particular *Model Guidelines* are limited to preemployment integrity testing programs and practices, although they are equally applicable to most types of employment selection procedures. Some of the historic strengths and limitations of various preemployment integrity screening methods currently available to business and industry are listed in Table 2 (cf. Jones & Terris, 1989). This table has been updated to include general personality tests as potential predictors of employee counterproductivity based on findings reported by Jones and Arnold (2008). Preemployment integrity tests are one of the most widely used methods to screen for employee counterproductivity. Both integrity test publishers and users can benefit from guidelines that will help to ensure effective and professional testing practices.

The purpose of this document is to promote guidelines with respect to ethical, scientific and practical issues that arise in the course of the development, validation and implementation of preemployment integrity testing programs. The guidelines are intended to cover both existing and future applications and will be revised as necessary. These guidelines are designed to provide:

1. Guidance to industrial/organizational psychologists, personnel selection professionals and others involved in the development, validation and use of preemployment integrity testing programs;
2. Information to organizational decision makers deciding whether to implement an integrity testing program;
3. Instructions to those in charge of administering and using preemployment integrity tests;
4. Recommended best practices for the proper use, dissemination, storage and protection of all information obtained in the assessment process;
5. Guidelines for advertising and marketing practices; and
6. Guidance on how to ensure that an integrity testing program complies with international testing standards and employment laws. Guidance to test developers and users on the requirements of international legal standards and available international guidance documents.

**Table 2. Preemployment Integrity Screening Methods Available to Business and Industry**

<b>Screening Method</b>	<b>Convenience Issues</b>	<b>Main Challenges</b>	<b>Main Advantages</b>
Integrity Tests	Can easily be made part of the usual screening procedure	Company representative(s) must be trained to appropriately use test scores  Not all integrity tests are thoroughly validated  Should not be confused with clinical personality testing	Validity evidence exists  Generally not offensive  No adverse impact (meets EEOC guidelines)  May discourage dishonest applicants from applying
Personality Tests	General personality tests are routinely used in employment settings	General personality tests have not been reliable predictors of employee theft and deviance  The job relevancy of all personality items and subscales is not always obvious and therefore applicants could be offended by some of the questions asked  Invasive clinical test items need to be avoided in pre-offer settings (Jones & Arnold, 2008)	Job-related personality tests are useful predictors of job-related behaviors such as service, teamwork, and leadership potential  Multidimensional personality tests typically include a Conscientiousness Factor which oftentimes is positioned as a personality based predictor of integrity
Personal Interviews	Usually part of hiring procedure  Often time consuming	No evidence of validity with theft criteria  Difficult to determine applicant's truthfulness in discussing theft and counterproductivity  Can create adverse impact	Inexpensive (already part of hiring procedures)  Structured interviews show more promise than traditional interviews in terms of validity and fairness
Reference Checks	Often time consuming	Little evidence of validity  Most misconduct is undetected  Company reluctant to give negative information	May increase truthfulness of applicants  Verifies information provided on application forms and resumes
Criminal Background Checks	Commonly available, yet lengthy turnaround required	Very few convictions compared to criminal acts  Hit rate much lower than base rate of theft in organizations  Generally exhibits adverse impact	Very complete and verifiable data can be obtained if available
Credit Checks	Quick, but somewhat costly	Relevance to theft not clear  Generally exhibits adverse impact	Obtains information relevant to financial need and fiscal responsibility

(Adapted from Jones & Terris, 1989; Expanded based on the Jones-Arnold [2008] article)

## Complementary Professional and Legal Guidelines

The *Model Guidelines* have been developed to be used in conjunction with, and not as a replacement for, the documents listed below. These guidelines are intended to be consistent with generally accepted professional and legal standards but also to provide more detailed guidance in the specific area of pre-employment integrity testing. Test publishers and test users should comply with the *Model Guidelines* and with other professional and legal standards as appropriate. Test publishers should strive to consistently adhere to all of the relevant guidelines listed below.

The *Model Guidelines* are recommended to test publishers and test users who want to engage in professional integrity testing practices. The title *Model Guidelines* permits quick and easy distinction of this document from those listed below:

- American Educational Research Association, American Psychological Association and National Council on Measurement in Education. (1999). *Standards for Educational and Psychological Testing*. Washington, D.C.: American Psychological Association.
- American Psychological Association. (2002). *Ethical Principles of Psychologists*. Available at: <http://www.apa.org/ethics/code2002.html>.
- *Code of Fair Testing Practices in Education*. (1988). Washington, D.C.: Joint Committee on Testing Practices.
- Equal Employment Opportunity Commission, Civil Service Commission, Department of Labor & Department of Justice. (1978). *Adoption of four agencies of uniform guidelines on professional selection procedures*. Federal Register, 43(166), 38290-38313. (See also the Ad Hoc Group on Uniform Selection Guidelines, 1981.)
- Eyde, L.D., Moreland, K.L., Robertson, G.J., Primoff, E.S. & Most, R.B. (December, 1988). *Test user qualification: A data-base approach to promoting good test use*. Washington, D.C.: Science Directorate, American Psychological Association.
- International Test Commission. (2008). *International Guidelines for Test Use*. Available at: <http://www.intestcom.org/guidelines>.
- Society for Industrial and Organizational Psychology, Inc. (2003). *Principles for the validation and use of personnel selection procedures* (4<sup>th</sup> Ed.). Bowling Green, OH: SIOP.
- U.S. Equal Employment Opportunity Commission. (1992). *A technical assistance manual on the employment provisions (Title I) of the Americans with Disabilities Act*. Washington, DC: U.S. Government Printing Office.
- U.S. Equal Employment Opportunity Commission. (May 19, 1994). *Enforcement guidance on preemployment disability-related inquiries and medical examinations under the Americans with Disabilities Act of 1990*. EEOC Order 915.002, Volume II of Compliance Manual. Washington, DC: U.S. Government Printing Office.
- U.S. Equal Employment Opportunity Commission. (October 10, 1995). *ADA enforcement guidance: Preemployment disability-related questions and medical examinations*. Section 902, Volume II of Compliance Manual. Washington, DC: U.S. Government Printing Office.
- U.S. Equal Employment Opportunity Commission. (July 27, 2000). *EEOC enforcement guidance on disability-related inquiries and medical examinations of employees under the Americans with Disabilities Act (ADA)*. EEOC Order 915.002. Volume II of Compliance Manual. Washington, DC: U.S. Government Printing Office.

The *Model Guidelines* and the various documents listed above serve different but complementary purposes. For example, the AERA-APA-NCME's *Standards* set forth the professionally accepted constructs and procedures to be followed in developing psychological tests, determining their reliability and validity, implementing their use and setting forth research results. The Society for Industrial and Organizational Psychology's *Principles* is a supplement to the *Standards*, intended to be fully compatible with the *Standards*, but specifically limited to business and industrial personnel selection procedures.

The federal *Uniform Guidelines on Employee Selection Procedures* were issued pursuant to the Civil Rights Act of 1964. The *Uniform Guidelines* address a central civil rights question: Does a particular employee selection procedure (e.g., application blank, interview or test) result in adverse impact against protected subgroups within the population. The *Uniform Guidelines* describe federal civil rights policy for any selection procedure that has an adverse impact on the basis of race, color, gender, religion or national origin. The *Uniform Guidelines* incorporate by reference the AERA-APA-NCME *Standards* for the technical and scientific methodology to be employed in demonstrating "job-relatedness" or "validity." It is important to note that the *Uniform Guidelines* do not mandate that all selection procedures be job-related, only those that are shown to result in adverse impact.

The *Code of Fair Testing Practices in Education* is a simplified statement of the main points of the *Standards*, written to be understood by the general public, particularly test takers. The *Code* is primarily focused on tests used in and by educational institutions; primarily professionally developed tests such as those sold by commercial test publishers or used in formally administered testing programs. Since, like major educational testing programs, the administration, scoring and interpretation of preemployment integrity tests is in most cases under the control of the test publisher, many of the elements of this *Code* also seem relevant to integrity testing practices.

A model test user qualification system has been developed and field-tested by a task force of the Joint Committee on Testing Practices (Eyde, Moreland, Robertson, Primoff & Most, 1988). This system applies primarily to individual purchasers of non-proprietary psychological tests (see following section). Some of the principles, however, are relevant to organizations that purchase preemployment integrity tests.

The *Model Guidelines* are intended to be fully consistent with generally accepted professional standards, which may exceed but may not fall below prevailing governmental and legal standards (e.g., guidance provided by the U.S. Equal Employment Opportunity Commission on how to comply with the Americans with Disabilities Act). An attempt has been made to identify and organize both test publisher and test user obligations in the particular context of preemployment integrity testing (cf. the *Code*). Basic legal and scientific requirements must be met by all those who use psychological tests, but additional requirements may be identified in specific sub-areas of testing such as preemployment integrity testing.

## Non-Proprietary versus Proprietary Tests<sup>2</sup>

In the field of psychological testing, two quite different strategies exist for the development, research, scoring, interpretation and dissemination of psychological tests. Both strategies and their relevance to preemployment integrity testing practices are briefly discussed below.

The first strategy involves the distribution of *non-proprietary* tests by test publishers and/or test authors. The publishers sell the test, the scoring key and the manual, which, if it follows the AERA-APA-NCME Standards, includes norms, interpretation guidelines and reports on the test's reliability and validity.

Historically, test publishers have evaluated the credentials of potential users to ensure that the purchaser or purchasing organization has appropriately trained and qualified personnel to administer, score and interpret the non-proprietary test results. For example, some publishers utilize a three-level credentialing system. At the least restrictive level, customers can buy simple mental ability and skills tests on a company purchase order form. Registration is generally not required. At the most restrictive level, only individuals with specific training and experience in a relevant area of assessment are able to acquire the tests. This usually includes members of professional organizations (e.g., the American Psychological Association) and/or professional licensees (e.g., State licensed psychologists). Users of non-proprietary tests have full responsibility for the demonstration of reliability, validity and compliance with relevant employment laws and so on.

The second category involves *proprietary* tests, which are developed, normed, scored and researched by the test publishers, who provide continuing service to clients. The largest group of proprietary tests includes educational and professional credentialing tests. Examples of this type of test include the Scholastic Aptitude Test, the Graduate Record Examination, the Medical College Admission Test, the Law School Admission Test and state bar and medical examinations. Any school, university or state may purchase the services of these test publishers. The test users are responsible for test administration, test security and decisions based upon the test results. Parenthetically, although proprietary test publishers assume responsibility for offering valid assessment systems, they still encourage research that is conducted by reputable independent psychologists.

Ideally, users of proprietary tests will have an in-house testing specialist or an outside consultant available to monitor the test user's testing program(s). Proprietary test publishers may have their professional staff (e.g., psychologists, psychometricians) serve as the testing specialists to their clients. For example, psychologists on the staff of leading integrity test publishers provide ongoing psychological expertise to their clients. Proprietary test publishers should clearly communicate their responsibilities to their clients as test publishers as well as their clients' responsibilities in the testing process.

Nearly all preemployment integrity tests are proprietary tests. For these tests, the publisher, not the user, has responsibility for test development, scoring and general research, although end users that employ psychologists routinely conduct local, company-specific validation studies to complement the test publisher's existing research base. This being the case, users of proprietary tests are not required to be credentialed by the publishers, although users should understand the fundamental concepts regarding the development and interpretation of psychological tests. Therefore, these guidelines recommend that test publishers provide training and/or guidance to test users on how to properly implement and use an integrity testing program. Test publishers employ reasonable efforts to assist test users in properly implementing and using integrity tests. Under no circumstances do test publishers knowingly condone misuse of their tests.

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<sup>2</sup> The use of the terms "*non-proprietary*" and "*proprietary*" in the integrity testing context refers to ownership of test scoring, reporting, and researching responsibilities and not ownership of the actual assessments. Users of the non-proprietary tests have full responsibility for the demonstration of reliability, validity, and legal compliance, in contrast to the users of proprietary tests where the publishers typically assume these responsibilities.

## OVERVIEW OF CURRENT INTEGRITY TESTING RESEARCH

Preemployment integrity tests are classified as occupational personality tests. Ones and Viswesvaran (1988) referred to integrity tests as criterion-focused occupational personality tests. Anastasi (1997) indicates that in conventional psychometric terminology “personality tests” are instruments for the measurement of attitudinal, motivational, interpersonal, and emotional characteristics, as distinguished from abilities. Personality tests can therefore be classified on a number of dimensions, including the specific trait or characteristic measured.

Personality test items can be classified as “clear-purpose” versus “disguised-purpose” (cf. Cronbach, 1970; Guion, 1965). With clear-purpose items, the examinee can readily see what the item is measuring. The examinee generally cannot determine what is being measured with a disguised-purpose item. Some integrity tests include more clear-purpose items, and some include more disguised-purpose items. All integrity tests typically include a mixture of both.

### Types of Integrity Tests

Preemployment integrity tests have been subdivided among: (1) overt integrity tests; (2) personality-oriented tests; and (3) multidimensional test batteries. (These three subdivisions represent the most common classifications of integrity tests. Their existence does not preclude the development or current availability of tests that may contain mixtures of all three types or totally new types.) According to Sackett, Burris and Callahan (1989):

*Two distinct types of [preemployment integrity] tests have emerged: overt integrity tests, which inquire directly about attitudes toward theft and about prior dishonest and illegal acts, and broader, personality-oriented measures, the purpose of which is not as transparent to job applicants, and which view theft as but one aspect of a broader syndrome of deviant behavior at work. (p. 492)*

Overt integrity tests assess job applicants’ attitudes toward and opinions about a wide range of on-the-job theft and other counterproductive behavior at work. Hence, they ask job-relevant questions. Many of the overt integrity tests also include a subsection that assesses admissions of past theft. Overt integrity tests are consistent with the congruence theory of attitude-behavior relationships (cf. Jones, 1989, 1991). Overt integrity tests typically include more clear-purpose items.

Personality-oriented measures of integrity typically do not contain many, if any, items that make direct reference to theft behavior. This type of test is often developed by empirically keying a set of items to a criterion measure of general counterproductivity. An index of theft is sometimes included in this measure of general counterproductivity. Personality-oriented measures typically include more disguised-purpose items. A recent review by Berry, Sackett and Weiman (2007) indicates that the distinction between overt and personality oriented integrity tests still holds true.

The third type of integrity measure is the multidimensional assessment battery. It typically includes either an overt- or personality-based measure of integrity as one subscale in a multiscaled battery. The integrity subscale is still used to predict one’s propensity to engage in on-the-job counterproductive behavior, including employee theft in the workplace. These multidimensional batteries also contain additional subscales which predict other job-relevant behavior (e.g., productivity, tenure, service, safety).

One caveat is worth noting at this point. Preemployment integrity testing should not be confused with clinically-oriented personality testing. The most commonly used integrity tests were specifically designed and researched to be non-invasive and to assess clear-cut workplace attitudes and behavior. Preemployment integrity tests are therefore pre-job-offer assessments. Clinical personality tests, on the other hand, are historically designed for health care applications and are typically used to assess personal maladjustment and psychopathology. Clinically-oriented personality tests are therefore administered post-conditional-job offer in order to be in compliance with the Americans with Disabilities Act (ADA) and the ADA Amendments Act of 2008. Test users should consult with a qualified expert if they desire more information on this point.

In summary, a preemployment integrity testing program is designed to assess a job applicant's propensity for engaging in on-the-job theft and other counterproductive behavior at work. Conversely, it also predicts productive and dependable behavior. The test can be an overt integrity test, a personality-based measure, an integrity subscale (or set of subscales) within a multi-scale assessment battery or some combination of the above. Test users and/or their consultants must evaluate the reliability, validity and appropriateness of specific individual tests for application to their particular organization. Contemporary job analytic tools like the U.S. Department of Labor's online O\*NET system can be used to help confirm the job relevancy of integrity tests (O\*NET Dictionary of Occupational Titles, 2004).

## **Independent Research Reviews**

The validity and operational issues associated with the use of self-report integrity tests have been examined in a series of reviews by independent personnel psychologists (Berry, Sackett, & Weiman, 2007; Coyne, & Bartram, 2002; Murphy, 1993; O'Bannon, Goldinger & Appleby, 1989; Sackett, Burris & Callahan, 1989; Sackett & Harris, 1984; Sackett & Wanek, 1996). These reviews indicate that professionally developed integrity tests are routinely confirmed to be job-relevant, yield useful levels of validity and are fair to protected subgroups within the population. In addition, these reviews point out some of the inherent difficulties in validating self-report integrity tests, and they offer information relevant to properly evaluating, selecting and implementing this type of employment testing program. The U.S. Equal Employment Opportunity Commission lists integrity testing as a viable assessment procedure when the aim is to predict the likelihood that a person will engage in misconduct such as workplace theft (EEOC, 2009).

The Office of Technology Assessment (OTA, 1990) published a background paper on integrity testing that conveyed a number of accurate findings, including the following: (1) business has a definite need for integrity tests, (2) favorable scholarly reviews exist for this class of tests, (3) integrity tests are fair to protected groups, and (4) no better alternative selection procedures exist (cf., Jones, Arnold & Harris, 1991). There also were some misleading conclusions contained in the OTA report (Camara & Schneider, 1994).

The American Psychological Association (APA) task force conducted a more definitive study of preemployment integrity testing practices than that offered by the OTA (Goldberg, Grenier, Guion, Sechrest & Wing, 1991). The APA task force, composed of prominent psychologists, conducted extensive research which included reviewing more than 30 tests, more than 300 research studies, and a number of scholarly summaries on the topic. In addition, the APA task force met with testing experts and circulated a draft report to approximately 100 qualified reviewers to solicit feedback prior to final publication of its findings. The APA task force concluded that preemployment integrity tests may provide organizations with the best method for identifying the potential for dishonest behavior, as well as offering one form of protection against claims of negligent hiring. The task force further concluded that integrity tests are among the best predictors of integrity-related behavior in the workplace, supporting the effectiveness and impact of preemployment integrity testing.

## Meta-Analytic Investigations

Although the APA report concluded that integrity tests seem better than any alternative, the report noted that no test is perfect, and warned against an over-reliance on the results of integrity tests alone. Employers were encouraged to use the results of an integrity test to supplement other sources of information (for example, interviews, application blanks, reference checks) when making personnel selection decisions. The report also was consistent with existing research regarding the fairness of integrity tests. The APA task force concluded that all of the available evidence indicates that integrity tests do not have any adverse impact on any protected social group. A subsequent comprehensive meta-analysis documented that integrity tests involve negligible race differences (i.e. “*No differences have been found in mean test scores of minorities and Whites*”, Ones, Viswesvaran, and Schmidt, 1993, p. 695), but women score a bit higher than men (between .11 and .27 standard score units higher, depending on the test), which is consistent with gender differences in the frequency of criminal behavior (Ones, Viswesvaran, and Schmidt, 1996). Similarly, persons over 40 score slightly *higher* (.08 *SD*) than persons under 40, which also is comparable with criminal justice outcomes (Ones & Viswesvaran, 1998). The APA task force also addressed the question of “faking” on integrity tests and concluded that this does not appear to be a threat (cf. Cunningham, Wong & Barbee, 1994; Van Iddekinge, Raymark, Edison & Putka, 2003).

The APA taskforce concluded that there is no sound basis for ever limiting the use of integrity tests, because this “would only invite alternative forms of preemployment screening that would be less open, scientific and controllable” (p. 26). Research conducted following the APA report continued to support the value of integrity tests (Berry, Sackett, & Weiman, 2007). Ones, Viswesvaran and Schmidt (1993) conducted a comprehensive meta-analysis of 665 validity coefficients from 25 different integrity tests across 576,460 research subjects. Their study was primarily designed to determine if integrity test validities are generalizable across situations and settings and to determine if differences in validity due to moderating influences exist. The authors distinguished between Overt integrity tests, which are clearly focused on job related honesty and counterproductivity, and Personality Based (PB) integrity tests which typically focus on employee reliability and dependability.

Ones, Viswesvaran and Schmidt (1993) documented that Overt and PB tests correlated, on average, at the .56 level. Their findings revealed that preemployment integrity test validities are substantial for predicting counterproductive employee behavior. Overt and PB integrity tests predict theft and counterproductivity, on average, at .33 (.47 when fully corrected for various sources of unreliability), with Overt tests producing somewhat higher coefficients than PB tests (.39/.55 vs. .22/.32)<sup>3</sup>, although the differences may be due to different methodologies. Those results indicate that both Overt and PB integrity tests are effective in identifying prospective employees who are likely to engage in theft, illicit drug abuse, gross misconduct, and other counterproductive behaviors that reduce organizational effectiveness.

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<sup>3</sup> The uncorrected coefficient is always presented first, followed by the corrected coefficient.

In fact, the levels of validity found for integrity tests were higher than the validities of many other personnel selection procedures. Overt and PB integrity tests predict overall job performance at comparable levels (Overt .20/.33; PB .22/.37). A thorough meta-analytic review was conducted on the strongest scientific research reports involving integrity tests, and the validity of integrity tests to predict supervisor's ratings was an outstanding .41 (Ones, et al, 1993). A separate meta-analysis showed that integrity tests also reliably predicted the criterion of absenteeism, with PB tests doing better than overt tests (Ones, Viswesvaran, & Schmidt, 2003). Similarly, Schmidt and Hunter (1998) identified integrity tests as the personnel selection method with the greatest incremental validity in predicting job performance over cognitive ability. Moreover, despite the influence of moderators, the obtained results strongly supported validity generalization across jobs, settings and organizations. Conceptually, this means that the results of a validity study obtained in one situation may be applied to other situations without revalidation.

## **Psychometric Research Advances**

With the validity of integrity tests firmly established, researchers addressed other questions, such as the factor structure of integrity tests. Reliable factor structures were published for individual measures (Cunningham & Ash, 1988; Harris & Sackett, 1987), and efforts were made to determine a set of underlying dimensions that generalize across integrity scales (e.g., Murphy & Lee, 1994; Ones & Viswesvaran, 1996). The results suggested that leading integrity tests assess: (1) occupationally-oriented antisocial behavior, with an emphasis on theft, breaking rules, and wrongdoing; (2) socialization, including achievement/success orientation, internal locus of control, extraversion and emotional stability; (3) positive outlook, including optimism about supervisors, the honesty of others, and safety; and (4) orderliness and diligence, including a focus on conscientiousness and following procedures (Wanek, Sackett, & Ones, 2003). Individual integrity tests vary in the degree to which they sample such dimensions, and it is not yet clear which dimensions are most related to the various types of counterproductive work behavior, including organization deviance, which adversely affects the business, and interpersonal deviance, which is directed toward other employees (Bennett & Robinson, 2000; Berry, Ones, & Sackett, 2007).

Research is also being conducted into alternate ways of measuring job-related integrity. One alternate approach is the use of "conditional reasoning" tests, which focus on the justifications that individuals use to explain their behavior. This approach currently focuses on justifications for interpersonal deviance, such as aggression, rather than organizational deviance, such as dishonesty (James, McIntyre, Glisson, Green, Patton & LeBreton, 2005). Conditional reasoning measures showed some promising correlations with counterproductive work behavior and job performance, although no better than current integrity tests (Berry, Sackett, & Tobares, 2007). Other efforts are underway to create prototypical integrity tests using forced choice response, biodata, and interview formats (Berry, Sackett, & Weiman, 2007).

Other developmental efforts include the adaptation of integrity tests into other languages, and the determination of whether the tests still exhibit the same psychometric properties. Fortmann, Leslie, and Cunningham (2002) translated an overt measure of integrity for use in Argentina, Mexico, and South Africa. These researchers found that the scale means, standard deviations, rates of admissions of counterproductive behaviors, and correlations with criteria were comparable across those three countries, and also similar to results obtained in the United States. Jones, Joy and Dages (2009) found similar results when they validated an overt integrity test using call center applicants working in the United Kingdom. Other investigators translated a German integrity test into English and administered it to both German and Canadian samples and found that the results were equivalent (Marcus, Lee, & Ashton, 2007).

The Association of Test Publishers continues to encourage test publishers and client organizations to work cooperatively to ensure that integrity tests are used properly in employment settings. As the use of integrity tests spreads to other countries, extra efforts may be necessary to ensure that their use is understood and accepted by respondents, and properly handled by administrators, using procedures and controls consistent with the *Model Guidelines*. Additional assessment of the validity and reliability of the culturally adapted instruments, and their freedom from adverse impact and acceptance by job applicants in new countries, will make a valuable contribution to the growing database of studies supporting the effectiveness of preemployment integrity tests.

Current reviews of the integrity testing literature continue to support the American Psychological Association's 1991 report that concluded that properly developed integrity tests are effective in predicting counterproductive behavior in the workplace and are fair and helpful from a societal perspective (Berry, Sackett, & Weiman, 2007). Yet, in order for employers to recognize the importance of administering integrity tests properly, the APA urged all test publishers to accept the responsibility for training test users. The APA report also stressed the importance of having integrity tests (or any other test) administered appropriately. Finally, the report encouraged test users to utilize resources like the *Model Guidelines* where relevant.

# TECHNICAL AND PROFESSIONAL GUIDELINES

Integrity test publishers develop and make available preemployment integrity tests and also establish guidelines for implementing the use of the tests as part of a particular personnel selection program. Integrity test users select, administer and use integrity tests to help them make selection decisions. Both publishers and users play a vital role in ensuring the quality and fairness of preemployment integrity testing practices.

This section describes professional guidelines which, if followed, will better ensure the proper development and implementation of preemployment integrity tests. These *Model Guidelines* are limited to preemployment integrity testing practices. Separate guidelines exist for test publishers and test users. There are six subsections for each set of guidelines: (1) test development and selection; (2) test administration and scoring; (3) test use and decision making; (4) test fairness and confidentiality; (5) public statements and test marketing practices; and (6) international considerations. In order to facilitate the use of these guidelines, key measurement terms are defined below in the “Glossary of Key Terms” section.

## A. Model Guidelines for Test Publishers

### 1. Test Development and Selection

Tests should be developed to comply with all relevant legal and professional standards. Integrity test publishers should provide accurate information that test users need to select the appropriate test for their purposes.

*Test Publishers Should:*

- a. Describe to prospective users what the integrity test purports to measure and for what applications it has been designed. Describe the test populations for which the instrument is appropriate.
- b. Explain to users all relevant testing and measurement concepts at the level of detail that is appropriate for the intended audience.
- c. Provide scientific evidence (e.g., test manuals, technical reports, conference presentations, journal publications) documenting that the integrity test is appropriate for its intended purposes. Accurately represent research on the psychometric properties (e.g., reliability, validity, norms) of the integrity test.
- d. Provide specimen tests, directions, answer sheets, manuals, administration guides, score reports and research studies to qualified users and prospective users.
- e. Inform user representatives that no selection test is a perfect predictor of behavior. Inform test users of the strengths and limitations of all procedures used to select dependable employees, including preemployment integrity tests, interviews, reference checks, credit checks, criminal background checks, and all other direct or indirect measures of integrity (e.g., preemployment drug tests).
- f. Use professionally accepted validation research designs with well-defined integrity-related criterion measures. Provide raw data to responsible investigators in order to confirm results when appropriate.

- g. Follow technical standards and principles for test validation such as the *Standards for Educational and Psychological Testing*, the *Principles for the Validation and Use of Personnel Selection Procedures*, and comparable international standards. Support local validation studies and independent research where appropriate. Help users gather and analyze information to show that the test is meeting its intended purpose(s).
- h. Support the presentation or publication of validation results at professional conferences and in peer reviewed journals.
- i. When possible, report the psychometric information that would assist in on-going analyses (e.g., meta-analyses) of integrity test validities. Relevant information that should be reported or kept on file in primary validation studies includes the sample size, means and standard deviations of scores on all predictor and criterion measures, a description of the integrity scale and the criterion measures used in the validation studies, and the validation strategies utilized, to name a few (cf. Ones, Viswesvaran & Schmidt, 1993).
- j. Assist user representatives who are evaluating and judging materials from test publishers.

## **2. Test Administration and Scoring**

Test publishers should provide test users with the level of training and supervision required to make reasonable efforts to ensure that test users are properly qualified to administer and use the integrity testing program. Accurate scoring systems should be provided. Professional staff should be available to assist test users with all test administration and scoring issues.

### *Test Publishers Should:*

- a. Provide sufficient training and research materials to ensure that test users have a thorough knowledge and understanding of the integrity testing program, including a description of the test scales, relationship of test scores to integrity-related job performance, restrictions on how test data are to be used and how to maintain confidentiality of scores and answers.
- b. Train test users on how to administer, score and interpret integrity tests properly. Specify that only qualified test users receive test results. Train users on any other important skills including providing appropriate feedback to applicants.
- c. Provide test users with a standard set of instructions for administering the integrity test.
- d. Train users on how to reasonably accommodate applicants who have a physical or mental disability covered by the Americans with Disabilities Act and the ADA Amendments Act, including use of accommodations approved for specific tests by the publisher.
- e. Provide information on the test's required reading level. Inform test users that the test should be readable not only for applicants taking the test, but for the entire population of applicants potentially eligible to apply for the position.
- f. Provide scoring systems (e.g., scoring software, templates, phone-in, fax, and online scoring services) that ensure accurate results. Train qualified users on proper procedures for entering item responses and checking data entries.

- g. Avoid separate scoring equations, norms and procedures for different protected subgroups of the population and other related activities that may lead to or result in violations of the Civil Rights Act of 1991.
- h. Provide timely, easily understood and accurately scored test reports to properly trained and qualified users. Make users aware of the limitations of reported scores (e.g., errors in measurement) and that any labeling of job applicants as “dishonest” or “counterproductive” based on their test scores is unacceptable.
- i. Have professional staff available to assist test users with the scoring process.

### **3. Test Use and Decision Making**

Test publishers should encourage consistent and appropriate testing practices by training test users in the proper use and evaluation of test scores for decision making. Test publishers should have professionals available to help test users with their understanding of all relevant aspects of the integrity testing decision making process.

#### *Test Publishers Should:*

- a. Describe the relevant norm group(s) to test users and inform users whenever the norms are updated or changed.
- b. Consult with test users on how to properly incorporate the test into the entire selection program.
- c. Encourage users not to replace other useful selection procedures with an integrity test alone, but instead adopt a multiple measures approach by adding the integrity test to the overall selection system as another source of job-relevant information.
- d. Thoroughly instruct test users to avoid using integrity tests for purposes not supported by empirical research.
- e. If cut-off scores are used, provide information that helps test users appropriately set and consistently apply these scores. If a compensatory scoring system is used to make hiring decisions, inform users how to incorporate the integrity test score into their overall scoring formula.
- f. Ensure that test results are clearly and accurately reported. Encourage users to use test results in a manner that minimizes errors in measurement, maximizes fairness to protected groups and meets desired staffing levels.
- g. Have professional staff available to help test users with interpretation of results when necessary.

#### **4. Test Fairness and Confidentiality**

Integrity test publishers should develop and market tests that are appropriately fair to statutorily protected groups. Test publishers should provide research that documents compliance. Publishers should encourage test users to take reasonable steps to ensure the confidentiality of all test takers by implementing all reasonable and legally necessary security procedures to protect all test reports and related data.

*Test Publishers Should:*

- a. Develop tests and related materials that avoid content or language that may disparage protected groups. Develop tests that do not include items that are overly invasive.
- b. Provide adverse impact analyses for major protected groups (e.g., racial minorities, women, and people 40 and over).
- c. Regularly conduct adverse impact studies for all major protected groups. Offer to conduct test fairness studies for test users.
- d. Offer non-English language test versions where appropriate and feasible. At the very least, tests should be translated and adapted by trained experts followed by re-validation when feasible.
- e. Require that test users have an established procedure for ensuring the confidentiality of test data (e.g., an applicant's answers to individual items and an applicant's test scores).
- f. Provide test scores to appropriate company representatives on a demonstrated "need to know" basis. Never release scores to unauthorized individuals.

#### **5. Public Statements and Test Marketing**

Integrity test publishers should strive to maintain the highest standards of ethical test marketing practices, including: (1) the creation and dissemination of advertisements in the professional, commercial and lay press; (2) the preparation and distribution of marketing brochures; (3) the presentation of their test products at trade shows, conferences and other public occasions; and (4) direct sales approaches to clients and prospects.

*Test Publishers Should:*

- a. Provide a clear statement of each test's purpose and a clear description of the strengths and limitations of each instrument.
- b. Institute training procedures for their sales and marketing representatives, in consultation with a psychologist, to ensure that these representatives promote their products and services fairly and accurately, avoiding misrepresentation, exaggeration, sensationalism or superficiality. Carefully train sales and marketing personnel in the following areas: (1) understanding basic test and measurement concepts as they apply to integrity tests, and (2) presenting technical reports and validation research clearly enough for lay people to understand.
- c. Ensure that public statements include clear and appropriate use of technical terms. For example, make sure a careful distinction is made between "reliability" and "validity."

- d. Include only documented, accurate summaries of the test’s reliability, validity, freedom from adverse impact and related characteristics in advertisements, marketing brochures and similar documents.
- e. Refrain from using “satisfied customer” testimonials as a replacement for research that clearly documents a test’s reliability, validity, fairness and utility.
- f. Accurately and without exaggeration present the qualifications of personnel involved in the publisher’s research and development program.

## **6. International Considerations**

Integrity test publishers should become familiar with relevant international testing standards and guidelines (e.g., International Test Commission, 2008) and follow them in the conduct of any global business activities. Integrity test publishers acknowledge that they need to consider socio-cultural, language, regulatory, and legal differences in the countries in which the integrity testing is taking place and/or where the test results are being used.

### *Test Publishers Should:*

- a. Design international versions of integrity tests that meet both the standards set by the country’s relevant professional societies and the legal requirements of the country in which the integrity testing will take place.
- b. Ensure that all translations and cultural adaptations are based on best practices and methodology.
- c. Document that the international versions of tests are supported by evidence of reliability and validity.
- d. Establish the appropriateness of the norm group, establishing country-specific norms where feasible.
- e. Acknowledge that there is variability across countries in terms of test users’ qualifications and competencies, and therefore international versions of integrity testing programs should be consistent with country-specific requirements for test users.
- f. Ensure that the test administration, scoring, reporting and data storage and transmittal processes and procedures address and are consistent with all international and country-specific data protection guidelines and laws.
- g. When providing Internet-based preemployment integrity testing services, take into account country differences in Internet connection speeds, quality of computer technology, keyboard layout and even access to web-enabled testing services in an effort to ensure fairness across job applicant groups in different countries. In addition, feedback to test takers should be consistent with country-specific requirements.

## B. Model Guidelines for Test Users

### 1. Test Development and Selection

Integrity tests are typically used by companies with a definite exposure to employee theft and other forms of counterproductive employee behavior. Integrity test users should review, evaluate and select a test that is job-relevant and appropriate for the intended purpose. Test users should utilize a local testing specialist (e.g., an Industrial-Organizational Psychologist or comparable expert), as needed, to provide technical advice and training on the proper selection, administration, and use of preemployment integrity tests. Test users should become acquainted with the key measurement terms listed below in the “Glossary of Key Terms.”

*Test Users Should:*

- a. Document the business-relatedness of their integrity testing program and how it is relevant to predicting essential job functions and behavior. When necessary, conduct a systematic job analysis and/or risk exposure analysis to show that the testing program is job-relevant.
- b. Become familiar with how the test was conceptualized, developed and validated. Request research reports describing successful applications of the test in business settings, and do not rely on anecdotal evidence. Ask to see scientific studies that support all claims made by integrity test publishers.
- c. Read independent evaluations of the test. Retain a consulting psychologist or similar professional to provide an evaluation if an independent review is not available from the publisher.
- d. Read and critically evaluate all support materials provided by test publishers, including, but not limited to, test specimens and validation studies. Examine samples of test items, directions for use, answer sheets, manuals, administration guidelines, score reports and all test fairness research before selecting an integrity test. Avoid using integrity tests for which incomplete information is provided. A list of relevant support materials that should be available from reputable test publishers is provided in Table 3.

**Table 3. Materials Needed to Review an Integrity Test**

Test booklet	Description of test scales
Description of norms	Scoring procedures
Interpretation guidelines	Administration guide
Reading level documentation	Sample test reports
Validation studies	Examiner’s manual
Adverse impact studies	References
Test user training program	Ongoing professional support services
Test publisher’s staff credentials	International test adaptation research (if relevant)

- e. Identify the population of job applicants to be tested. Select an integrity test that is appropriate for the intended job applicants.
- f. Ensure that key decision makers review and support the proper use of the integrity testing program.
- g. When appropriate, include labor union representatives in the selection of an integrity test.
- h. Select and implement an integrity testing program that is professionally developed and validated and that meets all state and federal guidelines, including the Americans with Disabilities Act, the ADA Amendments Act of 2008, and the Civil Rights Acts of 1991 and 1964.
- i. Select an integrity test that has a reading grade level or educational level requirement appropriate for the population of potentially eligible job applicants.
- j. Select a test publisher that will provide relevant research (e.g., validation and adverse impact studies) and appropriate ongoing expert support.
- k. Use a personnel selection program to control workplace theft and counterproductivity in conjunction with other systematic approaches, such as training programs designed to teach current employees how to exhibit the highest level of integrity and ethics when faced with various workplace pressures and temptations to engage in on-the-job theft (e.g., peer pressure, easy access to cash and merchandise).

## **2. Test Administration and Scoring**

Test users should be qualified to administer and use the integrity testing program. Only trained staff should be involved in the testing process.

### *Test Users Should:*

- a. Establish and implement a policy on the proper use of the preemployment testing program.
- b. Allow only properly trained personnel to administer integrity tests. This should include training on how to handle applicants with disabling conditions who request an accommodation. Establish procedures so that only qualified personnel receive test results and make appropriate use of these results with appropriate supervision when making personnel decisions.
- c. Require all personnel involved in administering and using integrity tests to have the necessary knowledge, skills and abilities for proper test use. A training checklist for test users is summarized in Table 4.
- d. Use the integrity test only for the purposes for which it was designed and validated.
- e. Make reasonable accommodations for applicants with disabilities who report that their physical or cognitive limitations prevent them from completing a standard integrity test under typical testing conditions. Reasonable accommodation refers to a modification of the personnel selection process (e.g., providing readers, providing additional time, using large print and Braille versions) that would allow an individual with a disability to apply for a job.

**Table 4. Training Topics for Integrity Test Users**

How to maintain consistency in the testing process	How to properly score the test
How to ensure confidentiality of test results	How to ensure scoring accuracy
How to protect sensitive employment data	How to use test scores properly and consistently
What the test specifically measures	Where to go with questions and to receive supervision and retraining
How test results are used in the overall selection process	How to provide feedback to applicants
Understanding of test manual and/or administration guide	How to detect language and/or reading problems
Importance of a quiet, well-lighted and comfortable test-taking environment	How to establish a supportive and inoffensive testing climate
What to say and not say to job applicants	How to establish recordkeeping, test-retention and security practices
How to answer applicants' questions	Procedure for retesting applicants

- f. Inform applicants that the integrity test is only one part of the overall selection process when that is the case. Encourage applicants to ask questions if they are unclear about how to follow instructions or answer a question.
- g. Require applicants to follow the standard set of instructions that accompanies the test. When appropriate, request that applicants sign an informed consent agreement acknowledging that they have carefully read the instructions and that they authorize the employer and/or test publisher to review and evaluate their answers and make these answers known to appropriate employer representatives on a “need to know” basis.
- h. Never de-emphasize the importance and sensitivity of the testing program.
- i. Never coach applicants on how to answer the test to achieve a desired score.
- j. Administer the integrity test consistently and uniformly to all applicants for a particular job.
- k. For onsite assessments, administer the testing program in a quiet, comfortable and well-lighted environment.
- l. For remote, web-enabled assessments, utilize professionally acceptable procedures that ensure a user friendly online testing experience for designated job applicants. The remote online screening experience can be supplemented by confirmatory and complementary on-site screening procedures when appropriate.
- m. Store testing materials in a manner whereby unauthorized access to tests and scoring keys and software is prevented.
- n. Ensure that the job applicants correctly mark their answers according to instructions. Check and continually monitor all phases of the test scoring process to confirm that the job applicants' answers and responses are accurately collected, scored, reported and interpreted. Finally, ensure that the responses are accurately transmitted to and received from the scoring service.

### 3. Test Use and Decision Making

Test users should ensure proper test use and should be trained to use test scores and reports appropriately in making personnel selection decisions.

*Test Users Should:*

- a. Avoid using tests that are based on norm groups that are inappropriate for the intended purpose. Use a common set of norms or standards for all applicants regardless of race, gender, religion, national origin and color in a manner consistent with the Civil Rights Act of 1991.
- b. Refrain from using integrity tests for any purposes not specifically recommended by the test publisher unless scientific evidence is available supporting the application.
- c. If cut-off scores are used, take necessary steps to ensure that the established cut-off scores are consistently used throughout the organization. Know and understand how both the scoring system and the cut-off scores were established. If integrity test scores are to become part of a compensatory scoring formula, make sure that the test scores are properly incorporated into the equation.
- d. Avoid replacing other useful selection procedures with the integrity test.
- e. Avoid labeling applicants as “dishonest,” “undependable,” “irresponsible,” etc. based on their test scores since some errors in prediction will occur with any selection procedure, including psychological tests.
- f. Conduct a local validation study if insufficient evidence of validity exists.
- g. Consult with test publishers on how to properly use test scores for personnel decisions.
- h. Document that the test is meeting its intended purpose(s). Implement methods to evaluate the program’s effectiveness in controlling counterproductivity and enhancing performance.
- i. Develop and document policies for responding to questions from job applicants concerning the screening process.
- j. Consult with your test publisher to establish procedures for referring a test taker to the professional staff of the publisher when the test taker wants more detailed feedback concerning the nature of the screening procedure or the use of his/her test scores.

#### 4. Test Fairness and Confidentiality

Test users should select tests that minimize inappropriate adverse impact on protected groups. Test users should preserve the confidentiality of an applicant's completed test items, answer form and test report. Users should be fully committed to protecting all forms of personnel data.

*Test Users Should:*

- a. Select integrity testing programs that are fair to protected groups. Continually monitor the testing program for fairness to protected groups.<sup>4</sup>
- b. Maintain records so that adverse impact analyses can be conducted when necessary.
- c. Use language versions other than English where appropriate and feasible.
- d. Carefully select and supervise employees who handle sensitive test data. Establish procedures that help ensure that all parties involved in this process are properly trained and supervised in their particular function with a specific focus on confidentiality.
- e. Provide and enforce written policies on all matters related to test security and data protection.
- f. Train qualified staff to protect all forms of employment data, including integrity test scores.
- g. Never share individual test scores with inappropriate parties, such as unauthorized company employees, employees of other organizations or general business databases.
- h. Disclose test information only to authorized parties.
- i. Establish a secure system of inventory control for both used and unused test materials. Secure all scoring system material (e.g., scoring templates, software disks).
- j. Take precautions to ensure the security of all test data and reports when automated scoring and reporting systems of any kind are used. Ensure that all automated systems being used in the test scoring and reporting process are properly secured during the time of data transmittal and report transfer.
- k. Whenever test scores are included in a company's automated corporate database, ensure that data protection policies and/or automated data security features are being followed to control access to test scores.
- l. Consult with test publishers to ensure that all steps are being taken to protect job applicants' privacy rights.
- m. Periodically conduct an audit to ensure that all policies are being followed which ensure the confidentiality of applicants' completed test booklets, answer forms and test results.

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<sup>4</sup> Test users need to understand the complexity of implementing *any* personnel selection program that is fair to all interested parties. They must recognize that: "Test fairness involves psychometrics, but also involves a number of important judgment calls about test design, development and administration; the meaning of test scores; how test scores are used; and the implications, risks and rewards for test score use within a complex organizational legal and social context" (Hough, Oswald & Ployhart, 2001, p. 190; See Ployhart & Holtz, 2008, for strategies for addressing adverse impact in selection).

## 5. Public Statements and Test Marketing

Test users should: (1) carefully read and understand all test marketing information; (2) ask for clarification when confronted with unfamiliar information; and (3) seek independent professional consultation when promotional or marketing materials are unclear or seem to be ambiguous, misleading or deceptive.

### *Test Users Should:*

- a. Carefully read and understand all sales, marketing and other promotional material.
- b. Recognize the inherent limitations of predicting human behavior. Realize that some errors in prediction are an inevitable aspect of all personnel decision-making systems, whether these are interviews, background investigations, reference checks or employment tests.
- c. Avoid evaluating a selection instrument against an absolute standard of perfection or perfect accuracy. Instead, compare the cost, potential error rate and expected utility of a selection instrument against the cost, potential error rate and expected utility of alternate screening approaches or against the use of no formal procedure.
- d. Be skeptical of any test publisher claiming near-perfect accuracy from a personnel selection instrument. Be aware that reputable test publishers will frankly admit the limitations of their instruments and that unprofessional test publishers may attempt to meet a prospective client's demand for perfection with unrealistic claims.
- e. Be aware that an integrity test does not measure an applicant's knowledge, skills and abilities and that such outcomes must be assessed with other validated assessment procedures.
- f. Consult with an independent psychologist or attorney, preferably one who specializes in psychometrics and employment testing, when questions arise about unrealistic claims made by sales representatives or in promotional literature.

## 6. International Considerations

Test users should make sure that any integrity test that they utilize complies with the laws of the country in which the preemployment integrity testing program is being implemented, and also meets the standards set by that country's relevant professional societies, associations, and governing bodies.

### *Test Users Should:*

- a. Ensure that the preemployment integrity test is acceptable socially, politically, and culturally, and that the country-specific translation and adaptation of the integrity test meets professional standards and best practices.
- b. Use preemployment integrity tests for making personnel selection and placement decisions and should guard against any unsanctioned use of test scores that could have unintended consequences.
- c. Only implement preemployment integrity tests that are supported by relevant evidence of reliability and validity, which may include local in-country validation studies.

- d. Only have qualified and trained staff administer the preemployment integrity testing programs, and ensure that test administrators can communicate in the language in which the integrity test is being administered.
- e. Ensure that test takers are proficient in the language in which the preemployment integrity test will be administered and ensure that they possess the proper reading level to complete the assessment.
- f. Respect all copyright laws with respect to the integrity test, including prohibitions against unsanctioned copying and transmittals of test forms, materials and reports.
- g. Ensure that all internationally-sponsored test administration, scoring, reporting and data storage services comply with all country-specific data protection policies and laws, especially those related to the storage of personal data.
- h. Provide job applicants with compatible computer technology and Internet access when using an international provider of internet-based preemployment integrity testing services. In addition, test takers should be given contact information for technical support regardless of where the web-enabled testing service is hosted.

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## GLOSSARY OF KEY TERMS

**Accuracy.** The degree to which an assessment procedure predicts employee performance and conveys technically adequate information about the qualification and performance of an examinee.

**Adverse impact.** Evidence of adverse impact generally exists when the selection rate of one group is less than 80.0 percent of the selection rate of another group and the differences between groups is statistically significant. Also called disparate impact.

**Battery.** A combination of two or more test scales, instruments or procedures.

**Clinical assessment.** A psychological evaluation that provides evidence that could lead to identifying a mental or emotional disorder or impairment as listed in a diagnostic manual (e.g., the DSM-IV TR).

**Compensatory score.** A composite score that might be derived by using a weighted average of scores from a variety of different assessment procedures (e.g., multiple tests, interview results, resume ratings, etc.). Sophisticated statistical procedures (e.g., multiple regression) can also be used to establish a compensatory score based on scores from different assessment procedures.

**Correlation.** A measure of the extent to which two sets of numbers (e.g., test scores and criterion ratings) vary together. A correlation coefficient may range from +1.0 to 0.0 to -1.0.

**Criterion.** A standard against which test results can be compared. A measure of on-the-job behavior, such as productivity, accident rates, absenteeism or theft. Also includes subjective measures such as supervisory ratings.

**Cross validation.** The application of a scoring system or set of weights empirically derived in one sample to a different sample from the same population to investigate the stability of relationships based on the original weights.

**Cut-off score.** A point in a predictor distribution above or below which an examinee is considered to have met (or failed to meet) a relevant criterion.

**Disparate impact.** See Adverse impact.

**Employee selection procedure.** Any assessment device that is used as the basis for making an employment decision. For example, employee selection procedures include minimum qualifications, written tests, interviews, work sample tests, simulation exercises, and physical ability tests, to name a few.

**Examinee.** The one who is assessed on the basis of the test.

**Fairness.** Ensuring equitable treatment of all job candidates (e.g., using standardized testing procedures with all applicants) in addition to utilizing valid and reliable assessments that are compliant with the Equal Employment Opportunity Commission (EEOC) guidelines.

**Integrity test.** Any occupational personality inventory that is intended to predict counterproductive work behavior (e.g., on-the-job theft, gross misconduct, illicit drug use, workplace violence, harassment, and sabotage).

**Job analysis.** A general term that refers to the study of positions or job classes to provide descriptive information about duties, responsibilities, necessary qualifications, working conditions and/or other aspects of work.

**Job classification.** A group of positions that is similar enough in job duties and necessary worker characteristics that they may be properly placed under the same job title and treated alike for purposes of employee selection and other human resources functions within an organization.

**Meta-analysis.** A procedure to cumulate findings from a number of validity studies to estimate the “true” (i.e., corrected) validity of the procedure for the kinds of jobs, settings and selection instruments included in the studies. (See Validity generalization.)

**Norms.** Statistics that supply a frame of reference by which meaning may be given to obtained scores. Norms are statistics which summarize the test scores of specified groups. Norms are derived from actual scores of applicants in the standardization group(s).

**Position.** A set of duties and responsibilities normally performed by one employee.

**Predictive validity.** A demonstrated relationship between test scores of applicants and some future on-the-job behavior.

**Predictor.** A measure used to predict criterion performance, e.g., scores on a psychological test.

**Proprietary test.** A test for which the test developer or test publisher retains some control over the administration and scoring. Educational and professional tests (e.g., Scholastic Aptitude Test, Graduate Record Exam, Medical College Admission Test) are the most common types of proprietary tests.

**Protected groups.** In this context, job applicant groups protected by legislation against any form of discrimination originating from an employee selection procedure. For example, Federal law prohibits employment discrimination on the basis of race, color, sex, religion, national origin, age, and disability.

**Psychological test.** Any assessment device based on psychological theories and principles that is used to predict human behavior.

**Psychometrics.** Statistical procedures applied to the measurement of psychological characteristics, such as attitudes, personality traits, aptitudes and skills.

**Reliability.** The consistency, dependability or repeatability of test scores. Reliable measurement is necessary but not sufficient for validity.

**Risk exposure analysis.** An analysis to determine if employees are in a position to engage in counterproductive work behavior such as stealing, illicit drug use, vandalism, etc.

**Selection rate.** The proportion of applicants or candidates who are hired, promoted or otherwise selected on the basis of an employment test or other selection procedure.

**Standard error of measurement.** A statistic providing an estimate of the possible magnitude of “error” present in a test score. The larger the standard error of measurement, the less reliable the score.

**Test developer.** The individual or organization that constructs the test and performs the validation research to show that scores from the test are accurate in predicting specific behavior.

**Test manual.** A written document in one or more volumes that contains sufficient information about a test to enable a qualified test user or reviewer to make sound judgments about the quality of a test. This document also includes both a technical section on the validation research and a user guide to explain proper test administration and use.

**Test publisher.** The one who markets and distributes the test to test users. Many test publishers are also involved in the development, validation and scoring of the tests they market.

**Test user.** The one who chooses the test, obtains and uses test scores, and makes personnel decisions, in part on the basis of test results.

**Testing specialist.** A qualified expert who can advise test users about all technical and professional matters relevant to the development, administration and use of an employment test. Necessary minimum qualifications typically include two years or more of experience in employment testing and a master’s degree in an appropriate major (e.g., industrial and organizational psychology). Testing specialists typically have academic training in job analysis, employment testing, psychological measurement, and statistical analysis, at a minimum.

**Utility.** The practical usefulness of a test in terms of the costs and benefits to the test user.

**Validity.** Validation involves the accumulation of evidence to provide a sound scientific basis for the proposed test score interpretations. The AERA/APA/NCME *Standards* view validity as a unitary concept with different sources of evidence contributing to an understanding of the inferences that can be drawn from a selection procedure. Nearly all research evidence about a selection procedure, and inferences about the resulting scores, contributes to an understanding of its validity. The *Standards* discuss five sources of evidence that can be used in evaluating a proposed interpretation of selection procedure test scores for a particular use: (a) relationships between predictor scores and other variables, such as test-criterion relationships; (b) test item content; (c) internal structure of the test; (d) response processes; and (e) consequences of testing. Given that validity is a unitary concept, such categorizations refer to various sources of evidence rather than distinct types of validity. It is not the case that each of these five sources is an alternative approach to establishing job relatedness. Rather, each provides information that may be highly relevant to some proposed interpretations of scores, and less relevant, or even irrelevant to others.

**Validity generalization.** Evidence that the results of validity studies obtained in one or more situations may be appropriately applied to other situations involving the same or similar behavior.

## APPENDIX A

### Association of Test Publishers: 2010 Member Organizations

Academic Therapy Publications	Express Evaluations
A&D Resources	First Advantage Background Services Corp.
AICPA	Global Psychometric Services, Inc.
Alpine Testing Solutions	Graduate Management Admission Council
American Institutes for Research (AIR)	Granite Bay Associates
American National Standards Institute (ANSI)	Hester Evaluation Systems, Inc.
American Printing House for the Blind	Hewlett Packard
ATA Testing Authority, Inc.	Hogan Assessment Systems
Assessment Distribution Services	Hogrefe & Huber Publishers
Assessment Systems	IDS Publishing Corporation
Assessment Systems Corporation	Industrial Psychology International, Ltd.
Autodesk, Inc.	Inscape software
Bay State Psychological Associates, Inc.	Institute for Personality and Ability Testing
Board of Certification for Emergency Nursing	Internet Testing Systems
Cambridge Assessment	Integral 7, Inc.
The Cambridge Don	Integriview
Caveon Test Security	Kryterion Inc.
CASAS	Knapp & Associates International, Inc.
Center for Credentialing & Education, Inc.	Lamark B.V.
Center for Advanced Studies in Measurement and Assessment (CASMA)	Language Testing International, Inc.
Center on Education and Training for Employment	LIMRA International
Certification Management Services	Lotus Development Corporation
Cisco Systems, Inc.	Marcia Andberg Associates LLC
Cito B.V.	Measured Progress, Inc.
The Clark Wilson Group	Measurement Incorporated
The College Board	MeritTrac Services Pvt. Ltd.
Craft Systems Inc.	Meta Metrics, Inc.
Criteria Corporation	MetriTech, Inc.
CTB/McGraw Hill	Microsoft Corporation
Data Recognition Corp.	MindData Systems, Ltd.
Directional Insight International	Morris & McDaniel, Inc.
The Donath Group	Mountain Measurement, Inc.
Educational & Industrial Testing Service	MySQL AB
Educational Testing Service (ETS)	National Council of State Boards of Nursing
edutech	NetApp
EMC Corporation	Nichols & Molinder Assessments
Employment Research & Development Institute	Organization Analysis & Design
Envisia Learning	Pearson Assessments
Exam Design, Inc.	Pearson Educational Measurement
Executive Development Assessment Centre	Pearson VUE
	PEN
	People Focus, Inc.

Performance Assessment Network  
Performance Testing Council (“PTC”)  
Personnel Systems Corporation  
PiCompany  
Professional Credential Services, Inc.  
Professional Examination Service  
Professional Testing, Inc.  
Profiles GB Limited  
Profiles GmbH  
Profiles International Finland  
Profiles International, Inc.  
Profiles Nordic  
Profilinfo S.A.  
Prometric  
PSI Services LLC  
Psychological Services Bureau, Inc.  
Psychometrics Canada Ltd.  
Quality Metric Inc.  
Questar Assessment, Inc.  
Questionmark Corp.  
Ramsay Corporation

RANDA Solutions  
Research in Motion, Ltd.  
The Riverside Publishing Company  
SAP AG  
The SASSI Institute  
Scantron  
ScientificSelection.com, LLC  
SHL  
Sigma Assessment Systems, Inc.  
Storage Networking Industry Association  
Summit Consulting Group  
Targeted Testing, Inc.  
Tests.com  
Tests for Higher Standards  
Vangent, Inc.  
Vantage Learning  
View Assessments, Inc.  
Western Psychological Services  
Wild & Associates  
Winslow Research Institute  
Wonderlic, Inc.

The ATP welcomes any individual, partnership or corporation that is a test publisher or engaged in related activities to apply for membership. The association also encourages prospective test users who are seeking more information on proper test use to contact the association for a list of its members and the assessment products that they offer. ATP is headquartered at 601 Pennsylvania Ave., N.W., South Building, Suite 900, Washington, D.C. 20004. Telephone: 866.240.7909 or +1.717.755.9747.

The *Model Guidelines for Preemployment Testing, 3rd Edition* can be ordered online at [www.testpublishers.org](http://www.testpublishers.org) or by calling the Association of Test Publishers at +1.717.755.9747 (or toll free inside the U.S. & Canada at 866.240.7909).

## **APPENDIX B**

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<sup>5</sup> The original affiliations at the time of the founding of the ATP *Model Guidelines* are presented.