

**Principles of Fairness:  
An Examination Guide for  
Credentialing & Registration Boards**



The Council on Licensure, Enforcement & Regulation



## Introduction

---

Certification and licensure examinations (or generically, credentialing/registration examinations) may be subject to professional standards set forth in the following key documents:

- *Standards for Educational and Psychological Testing*, developed jointly by the American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement and Education (NCME), which applies to testing in general, and includes a chapter on testing in employment and credentialing.<sup>1</sup>
- *Standards for the Accreditation of Certification Programs*, developed by the National Commission for Certifying Agencies, the accrediting body of the Institute for Credentialing Excellence, for the approval of certification programs.<sup>2</sup>
- *Guidelines for Computer-Based Testing*, developed by the Association of Test Publishers for those developing and administering computer based tests.<sup>3</sup>
- *Code of Fair Testing Practices in Education*, developed by the Joint Committee on Testing Practices.<sup>4</sup>

*Principles of Fairness: An Examining Guide for Credentialing & Registration Boards* has been developed to address the specific needs of credentialing/registration examinations. Whether a test is developed and administered by the board itself or by an outside testing company, and whether a test is written, practical (i.e., performance), or oral format, the principles listed are designed to be reasonable and, in many cases, based on common sense. Their purpose is to facilitate boards in promoting fairness.

*Principles of Fairness* recommends testing procedures and practices designed to enable the candidates to fully demonstrate their competence by means of an examination (i.e., on a test). Emphasis is placed on providing essential information to prepare the candidates before the test, providing a test administration environment and procedures conducive to good performance during the test, and providing timely and accurate scoring, standard setting, and reporting after the test. The sequence of before (I), during (II), and after (III) is the basis for the major divisions of this document. Fairness is also a central issue when developing the test. Guidance on test development is presented in Development, Administration, Scoring, and Reporting of Credentialing/registration Examinations: Recommendations for Board Members (CLEAR, 2015)<sup>5</sup>.

Credentialing/registration examinations are high stakes tests, intended to assure that individuals have adequate knowledge and/or skill to perform competently and protect the public from harm. Therefore, the primary responsibility of credentialing/registration boards is to ensure the validity, reliability, security, and integrity of examinations. However, these are high stakes tests for candidates as well. For many individuals, a long-term investment of time, money, and effort has been expended to prepare for a particular profession or occupation.

Failure to pass a credentialing/registration examination may be a major career setback. Considerable financial loss and, perhaps, the need to change careers may result. Therefore, failing an examination should be the result of only one phenomenon: inadequate knowledge or skill. Failure based on inadequate information about the testing process, for example, is unfortunate for both the candidate, in terms of lost income, and for the public, in terms of lost access to a competent professional. Thus, candidates, the public, and the professions are beneficiaries of a fair testing process.

*Principles of Fairness* is a product of review and input by many individuals affiliated with CLEAR. The principles presented are those for which there appears to be a general consensus of professional opinion.

This document was originally developed in 1993, underwent review and revision in 2002 and again in 2015. This document is expected to be reviewed and updated periodically in response to new

developments and new thinking in the field of credentialing/registration examinations.

CLEAR wishes to encourage credentialing/registration boards to promote test fairness assertively. Boards that wish to obtain copies of *Principles of Fairness* should contact CLEAR (859/269-1289). The document is also available at the CLEAR web site.

### **Primary Authors**

Leon J. Gross, Ph.D.

Director of Psychometrics and Research National Board of Examiners in Optometry  
Commissioner, National Commission for Certifying Agencies, National Organization for  
Competency Assurance

Barbara Showers, Ph.D.

Director of Examinations

Wisconsin Department of Regulation and Licensing

Member, Board of Directors, Council on Licensure, Enforcement, and Regulation

### **2002 Review and Edits**

Cynthia D. Woodley, Ed.D.

Vice President, Operations Professional Testing, Inc.

Member, Examination Resources and Advisory Committee, Council on Licensure, Enforcement,  
and Regulation

### **2015 Review and Edits**

Daniel H. Breidenbach

Program Director

Applied Measurement Professionals, Inc.

Steve Nettles

Program Director

Applied Measurement Professionals, Inc.

Cynthia Woodley

Vice President of Operations

Professional Testing, Inc.

Jim Zukowski

Consultant

360training

## **Before the Test**

---

The foundation of test fairness is understanding the nature of the terms and conditions that govern the test. Candidates should have this information before the test in order to plan and prepare adequately. Credentialing/registration boards should publish and distribute a candidate handbook that contains all of the following information.

### **Job- or practice-related test content**

A test content outline or blueprint conveys the scope and emphasis of the examination. The outline should list the major content headings of the test and the percentage of items (i.e., questions) administered in each. Test content should focus on the competence required for effective practice. The basis for the test content outline (e.g., a job or practice analysis) should be described.

### **Test characteristics**

Credentialing/registration boards should specify whether the format of the test is written, oral, practical (i.e., performance), or computer-based. A sample test item representing each item format, and a sample answer sheet should be provided where applicable. When the examination is administered on computer, information should be provided about the computer interface including sample screens and information regarding opportunities to practice using the computer.

### **Test preparation strategies**

This information overlaps with the use of the test content outline and test blueprint. Study references may be listed, as well as possible test-taking strategies (e.g., use of test time).

### **Change of test content**

Candidates should be informed in advance regarding when and how a test changes in content, format, difficulty, or length. Changes should be based on changes in practice and based on evidence. (See the Job- or practice-related test content section above.)

### **Test question evaluation**

Credentialing/registration boards should indicate how test items, particularly those used for the first time, are evaluated. Board policies for identifying and handling flawed or defective test items should be indicated.

### **Bias**

Credentialing/registration boards are responsible for assuring that the test is fair to population subgroups. Policies employed to address this issue should be indicated.

### **Time Limits**

Candidates should be informed about the amount of testing time provided for each portion of the examination. Where test times may vary (e.g., in computer adaptive testing), candidates should be provided sufficient information regarding the length of the exam and why test times vary.

## **Scoring**

Information about scoring should include whether items are equally weighted and whether there are penalties for incorrect responses. The types of test results reported should be indicated (i.e., number correct, percentage, scaled, or pass-fail only). If non-scored trial items are administered, their inclusion should be noted.

## **Pass-fail standard**

There are three important issues here. First, candidates should be informed of the pass-fail standard in advance of the test, if possible. Second, the basis or procedure for determining the pass-fail standard should be provided. This includes the type of judgment used, and the types of participants involved in the process (e.g., practitioner, academician). The standard should be based on a reasonable level of performance judged to be needed for competent and safe practice. Third, information should be given regarding the existence of one or multiple pass-fail standards and options available to failing candidates for repeating portions of multi-part examinations, rather than the entire examination.

## **Reporting test results**

Credentialing/registration boards should indicate when test results will be released to candidates and the nature of the results reported. The test result information should include the pass-fail outcome and pass-fail standard. The information may include the total test score obtained, the scoring scale (if applicable), and whether any subscores or other related information is reported.

These latter data should be provided to all failing candidates and may be reported to passing candidates. However, some boards have observed that these data have been used inappropriately by third parties in evaluating the credentials of passing candidates. Therefore, despite the desirability of test and subscore disclosure to all candidates, test results reported to passing candidates need not be as extensive in detail as the results reported to failing candidates.

## **Registration**

Credentialing/registration boards should announce and disseminate information about registering for the examination well before any deadline dates. Procedures for applying and scheduling, including deadlines, eligibility criteria, availability of reasonable accommodations for persons with disabilities, fees, cancellation, refunds, and test center locations, should also be provided.

## **Test administration**

Candidates should be informed when to arrive at the test center, the amount of time required for checking in, when the test actually begins and ends, permitted and prohibited items, whether breaks are allowed, and policies for late admission. Credentialing/registration boards should be aware of days of religious observance and avoid scheduling tests on those days, when possible. Alternate test dates for religious observers may also be needed.

## **Test center services**

Candidates should be informed in advance about availability of services at the test center (e.g., parking, food concessions).

## **Candidate identification**

Candidates should be informed about what proof of identity is required at the examination site. Commonly, two forms of identification are required, one of which must include a photograph of the candidate.

## **Security**

Candidates should be informed of their obligations regarding test security. Candidates should specifically avoid any collaborative or disruptive behavior during the test, removal of test material, reproduction of test material, and discussion of test material after the test. Duplicating test material may violate copyright laws. In addition, candidates should be informed of their obligations to report a suspected violation. Finally, candidates should be informed of score cancellation policies that the board may exercise if a security breach is suspected or revealed.

## **Supplies/equipment/human subjects brought to the test**

Candidates should be informed about their obligations and options for supplies, equipment, and human subjects brought to the test. Candidates should be informed about what resources are available and/or provided at the site, if any. Written examinations may require candidates to bring #2 pencils with erasers; some test providers supply pencils. Some examinations allow candidates to bring calculators and/or reference books. For these tests, candidates need to know which types of calculators and/or reference books are permissible and which are considered unacceptable. For performance tests (i.e., practical examinations), candidates may be required to bring certain types of equipment or human subjects.

Credentialing/registration boards should inform candidates of the consequences of failure to bring needed supplies, equipment, or subjects. Finally, candidates should be informed of any items not permitted, any prohibitions against sharing equipment or supplies, and the consequences of incidents during the test, such as malfunction or breakage of equipment.

## **Candidates with disabilities**

Credentialing/registration boards should comply with the Americans with Disabilities Act (ADA)<sup>6</sup> of 1990 as amended in 2008<sup>7</sup> and the Canadian Human Rights Act<sup>8</sup>. These acts obligate boards to provide accessible test sites to candidates with documented disabilities and reasonable accommodations of test administration procedures to enable such candidates to demonstrate accurately their knowledge and skill. Credentialing/registration boards should refer directly to the acts for details regarding compliance.

## **Candidate challenges and appeals**

Candidates should be informed of what decisions are subject to appeal (e.g., decisions on eligibility). Candidates should be informed of methods for commenting on or challenging specific items, as well as what to expect after doing so. Most often, examination materials are confidential, and candidates do not have the opportunity to review their test or their responses. Comments and challenges are typically reviewed by the credentialing/registration board or their designees, but specific replies about particular items are not sent to candidates.

Other available types of score verification, such as hand verification of computer scoring, should be described. Retest policies and procedures should be provided also.

## During the Test

---

The primary goal of fairness during the test is to enable candidates to demonstrate fully their knowledge and skill. To promote this goal, care must be taken to ensure that the environment and testing procedures are conducive to good performance.

### Physical site

The test center should be well lit, ventilated, free of distracting noises, and have conveniently located restrooms. Upon request, the test center should be accessible to candidates with disabilities. For written examinations, candidates should be provided smooth writing surfaces and adequate space to work. In addition, sufficient space should be provided between candidates to promote privacy and prevent collaboration.

### Personnel

Proctors and examiners should be impartial and well trained in the test procedures so that candidates are treated alike. Proctors and examiners should provide uniform and clear instructions to all candidates and be trained carefully to distinguish acceptable from unacceptable issues that may be discussed with candidates. The ratio of proctors and examiners to candidates should be sufficient for effectively monitoring the test examination environment.

For some practical (performance) examinations, additional human subjects participate as patients or clients. Care should be taken to assure the safety and dignity of the subject and the candidate. In addition, the subjects' physical or physiological characteristics should be comparable, such that candidates are not disadvantaged by a specific participant. Subjects should be impartial and trained for their specific roles to avoid facilitating or hindering any candidate.

### Security

Security policies and procedures should be designed to prevent premature access to test questions, collaboration during the test, or unauthorized notes from being used or taken. These occurrences may invalidate test scores and jeopardize the integrity of the test. Appropriate procedures include secure storage of tests, secure packaging and shipping, careful and continuous proctor observation, policies for handling suspected cheating on site, and procedures for distributing and collecting test materials to minimize the potential opportunities for theft and loss. Steps should be taken to prevent access to mobile phones and other electronic devices during the examination.

Computer-based testing raises an analogous set of security concerns. Transmittal of examinations and candidate results must be encrypted. Computers and file-servers must be protected from physical or electronic tampering. Systems and procedures must be in place to address technical or operational problems in examination administration.

More information about test security can be found in *Development, Administration, Scoring, and Reporting of Credentialing/Registration Examinations: Recommendations for Board Members* (CLEAR, 2015).

### Test materials and equipment

Test booklets and answer sheets should be easy to read and understand. Candidates should be instructed to verify that all pages are present. Examiners' evaluation sheets for practical or performance examinations should document scoring criteria clearly, and should be formatted to mini-

mize the potential for tabulation errors. If equipment is provided to candidates for use during the test, it should be in proper working condition, with suitable replacement if breakage or a malfunction occurs. Candidates should be allowed to become familiar with the operation of the equipment.

### **Administration**

Examinations should be administered at the scheduled time with as few delays as possible. Policies and procedures concerning late admission and required identification should be followed consistently. Candidates should be apprised of procedures governing checking in and exiting, procedures during a possible emergency, and location and use of restrooms.

Examination instructions should be presented in a clear and straightforward manner, and all candidates should be allowed to ask questions for clarification. The instructions should include procedures for handling claims of examination error but note that candidate questions regarding specific test content that are not appropriate to answer.

Finally, starting and ending times should be identified clearly and enforced stringently. Where possible, a clock displaying the correct time remaining should be available throughout the test and announced periodically, particularly near the conclusion of the test.

## **After the Test**

---

The testing process continues after the test is administered. The scoring, standard setting, and reporting tasks should be handled in a timely manner, yet be subjected to thorough quality control. Failure to handle these procedures properly can undo all preceding efforts to promote fairness.

### **Timeliness of reporting test results**

Test results should be reported as soon as reasonable after the administration of the test, as professional plans may be contingent on the results. Reporting deadlines listed in the candidate handbook should be met.

### **Accuracy of scoring**

Test scores must accurately reflect candidates' performance on the test. Candidates should be able to request verification of their scores, such as by hand scoring or review of test performance. Scoring alterations as a result of a candidate's identification of an error should be applied to all candidates whose pass-fail status may be affected, not only to the candidate who discovered the error.

### **Confidentiality of test results**

Credentialing/registration boards or their agents should release test results only to the candidate and only in writing. Policies should be in place to ensure that no other individuals or institutions receive the scores identified by candidate name without the candidate's written permission.

### **Use/misuse of test results**

Credentialing/registration boards are responsible to promote the use of results only for their intended purposes. Most credentialing/registration exams are intended to compare a candidate's performance against a standard criterion (i.e., to make a pass/fail decision). Using scores from such an examination to rank order examinees (e.g., for employment selection) is a misuse of that test score.

Information regarding appropriate use of test results should be provided to those who receive the data. Researchers and program evaluators should be made aware of the purpose and design of the test if results are provided to them.

### **Record retention**

Candidates should be made aware of retention policies. Notice should be provided to the candidate if examination performance records will become unavailable after a certain time, as this may affect legal documentation and one's credentialed status. Original documentation of examination performance, such as answer sheets and product fabrications (for practical examinations), should be retained for at least as long as the candidate has a legal right to challenge the examination results. Subsequently, answer sheets and grading forms (for practical examinations) may be stored in archival form (e.g., as microfiche).

### **Re-examination**

Failing candidates should be permitted the opportunity to be re-examined at a future date and should be informed of the procedures for doing so. The test for repeating examinees should be parallel in content and difficulty to the test for first-time candidates and meet the same standards for development and administration.

Repeating examinees should be expected to meet the same test performance standards as first-time examinees, but should not be identified as repeaters at the examination, if possible. If a practical (performance) examination is administered, different examiners than those who evaluated the candidate's prior performance should serve, if possible.

### **Candidate challenges and appeals**

Candidates should be informed in advance of policies related to challenges, comments, and appeals. Once candidates receive their results, it is extremely important to follow and enforce those policies consistently. Refer to the Candidate challenges and appeals section on page 5.

### **Reporting summary of test results**

The credentialing/registration board should provide statistical data highlighting important test outcomes. These data, including overall pass-fail rate (i.e., the percent of candidates who pass) and the number of newly credentialed individuals, should be available to candidates, the public, and the profession.

## **Endnotes**

---

1. American Educational Research Association, American Psychological Association, and National Council on Measurement in Education (2014). *Standards for educational and psychological testing*. Washington, DC: American Educational Research Association. (American Educational Research Association, 1430 K Street, NW, Suite 1200, Washington, DC 20005).
2. National Commission for Certifying Agencies (2004). *Standards for the Accreditation of Certification Programs*. Washington, DC: NCCA. (Mailing address: NCCA, 2025 M Street NW Suite 800, Washington DC 20036).
3. Association of Test Publishers (2002). *Guidelines for Computer-Based Testing*. Washington, DC: ATP (Mailing address: ATP, 601 Pennsylvania Ave., N.W. South Building, Suite 900, Washington,

DC 20004).

4. *Code of Fair Testing Practices in Education*. (2004). Washington, DC: Joint Committee on Testing Practices. (Mailing Address: Joint Committee on Testing Practices, Science Directorate, American Psychological Association, 750 First Street, NE, Washington, DC 20002-4242). [www.apa.org/science/programs/testing/fair-code.aspx](http://www.apa.org/science/programs/testing/fair-code.aspx)
5. Council on Licensure, Enforcement & Regulation (2015). *Development, Administration, Scoring, and Reporting of Credentialing/registration Examinations: Recommendations for Board Members*. Lexington, KY: CLEAR. (Mailing address: CLEAR, 403 Marquis Ave., Ste. 200, Lexington, KY 40502).
6. Americans With Disabilities Act of 1990, Pub. L. No. 101-336, 104 Stat. 328 (1990). [www.ada.gov](http://www.ada.gov)
7. ADA Amendments Act of 2008, Pub. L. No. 110-325 (2008).
8. Canadian Human Rights Act, R.S.C., (1985), c. H-6

## **Committee Members and Participants**

---

*Principles of Fairness* is a product of the contributions of many individuals. The first joint organizational meeting for this project, an open session held at the mid-year CLEAR meeting in January 1992, was attended by the following individuals from both organizations. These individuals provided direction for the structure and content of the document.

Nadine Davis  
President  
National Organization for Competency Assurance  
Liaison Council for Certification for Surgical Technologists

Michael Hamm  
Executive Director  
National Organization for Competency Assurance

Leon Gross  
Director of Psychometrics & Research  
National Board of Examiners in Optometry

Norman Hertz  
Manager, Testing Unit  
California Department of Consumer Affairs

Brad Mallon  
Director of Policy & Research  
Colorado Department of Regulatory Agencies

Steve Nettles  
Director, Research & Development  
Applied Measurement Professionals

Lila J. Quero-Munoz  
Executive Director of Testing  
Georgia State Examining Boards

Kara Schmitt  
Director, Testing Services  
Michigan Department of Commerce

Lee Schroeder  
President  
Applied Measurement Services

Barbara Showers  
Director of Examinations  
Wisconsin Department of Regulation & Licensing

Eric Werner  
Director of Examination Services  
Colorado Department of Regulatory Agencies

Kate Windon  
Assistant to the President  
Applied Measurement Services

Jim Zukowski  
Assistant Director, Professional Licensing Division  
Texas Department of Health

Prior to the review and approval by the respective boards of CLEAR and NOCA, written comments and suggestions in response to initial drafts were solicited. Drafts were mailed to staff and board members of national and state credentialing boards and related associations affiliated with either CLEAR or NOCA. Written responses were received from the following individuals.

Jennifer Bosma  
Executive Director  
National Council of State Boards of Nursing

Joan M. Bruening  
Associate Coordinator  
Cardiovascular Credentialing International

Steven K. Bryant  
Executive Director  
National Board of Respiratory Care

Janet H. Ciuccio  
Director of Professional Ethics  
American Speech Language Hearing Association

Patricia A. Clark  
Registrar  
Governing Board of Denture Therapists

Jerry L. Cripe  
Education Director  
State of Oregon

David R. Denton  
Director, Health & Human Services Programs  
Southern Regional Education Board

Phyllis Endrich  
Director of Candidate Relations  
Board for Certification in Pedorthics

Henry Fernandez  
Commissioner for the Professions  
New York State Education Department

James R. Fiedler  
Director of Testing & Competency Assurance  
American Medical Technologists

Charles Friedman  
Assistant Vice President  
American College Testing

Barbara Gabier  
Licensing Supervisor  
State of Alaska, Division of Occupational Licensing

Stephen L. Garrison  
Association of Engineering Geologists

Madelaine Gray  
Executive Director  
American Occupational Therapy Certification Board

Donald Ross Green  
CTB MacMillan/McGraw-Hill

J. Patrick Jones  
Vice President of Programs  
Professional Examination Service

Deborah Marquis Kelly  
Psychological Association

Alan G. Kraut  
American Psychological Association

Barbara Bloom Kreml  
Director, Department of Human Resources  
American Hospital Association

Mary Lunz  
Board of Registry  
American Society of Clinical Pathologists

William L. Marcus  
Deputy Attorney General  
California Department of Justice

Virginia M. Maroun  
Executive Director  
Commission on Graduates of Foreign Nursing Schools

Judith Mastrine  
Executive Director  
Board of Dietetics  
Ohio Department of Administrative Services

Bonnie McCandless  
Director of Certification  
AACN Certification Corporation Deputy

Nancy Miller  
National Council of State Boards of Nursing

David Montgomery  
Program Administrator  
Nebraska Department of Health

Donna Mooney  
Discipline Consultant  
North Carolina Board of Nursing

Joseph A. Morrison  
General Counsel  
US Office of Personnel Management Office of the General Counsel

Richard Morrison President  
Executive Director  
Virginia Board of Health Professions

Paul D. Naylor  
Director of Examination Services  
Hoffmann Research Associates

David S. Nelson  
Certification Program Manager  
International Conference of Building Officials

Nancy Roylance  
Executive Director  
American Board of Opticianry American  
National Contact Lens Examiners

Cathy Rooney  
Director  
Health Occupations Credentialing Bureau of Adult & Child Care Department of Health &  
Environment

Gerald A. Rosen  
Vice President  
Professional Examination Service

Lorraine P. Sachs  
Deputy Executive Director  
National Association of State Boards of Accountancy

Kara Schmitt  
Director, Testing Services  
Michigan Bureau of Occupational & Professional Regulation

Craig Schoon  
President  
Professional Examination Service George L. Shevlin  
Commissioner, Bureau of Professional & Occupational Affairs  
Commonwealth of Pennsylvania, Department of State

Benjamin Shimberg  
Educational Testing Service

Kevin P. Sweeney  
Psychometrician, Examinations Division American Institute of Certified Public Accountants

Daniel W. Szetela  
Assistant Commissioner for Professional Credentialing  
The State Education Department/The University of the State of New York

Robert E. Tepel  
Secretary  
Association of Engineering Geologists

Barbara Vilkomerson  
Deputy Director, Teacher Programs & Services  
Educational Testing Service

Stanford von Mayrhauser  
General Council Educational Testing Service

Patricia Wingo-Gass  
Director, Health Related Boards  
State of Tennessee Bureau of Manpower & Facilities

Mimi Wong  
Director of ABC Affairs  
American Board for Certification in Orthotics & Prosthetics

Finally, the authors wish to acknowledge the many individuals who attended sessions for discussion and comment at the CLEAR Annual Meeting in September 1992 in Detroit, and at the NOCA Annual Meeting in December 1992 in Tucson.

The following individuals reviewed and edited the 2nd edition of this document.

Charles Barner  
President  
Regulatory Agency Management Systems

F. Jay Breyer  
Managing Principal  
The Chauncey Group International

Roberta Chinn  
General Partner HZ Assessments

Ida Darragh  
Director of Testing  
North American Registry of Midwives

Charles Friedman  
Assistant Vice President American College Testing

Sandra Greenberg  
Vice President Research & Development and  
Public Service Professional Examination Service

Norman Hertz  
Managing Partner  
HZ Assessments

Jeffrey Kenney  
President  
Professional Development Partners

Casey Marks  
Director of Testing Services  
National Council of State Boards of Nursing

Rose McCallin  
Director Examination Services Colorado Department of Regulatory Agencies  
Division of Registrations

Fae Mellichamp  
Senior Psychometrician  
Professional Testing, Inc.

Paul Naylor  
President  
Gainesville Independent Testing Services

David Nelson  
Certification Program Manager  
International Conference of Building Officials

Steve Nettles  
Vice President, Research & Development  
Applied Measurement Professionals

Shawn O'Brien  
Director Assessment/Research  
National Board for Certified Counselors

Fred Parker  
Executive Director  
Board of Law Examiners

Ron Rodgers  
President  
CTS/Employment Research & Development Institute

Michael Rosenfeld  
Principal Research Scientist  
Educational Testing Service, Inc.

Kara Schmitt  
Consultant KNK Consulting

Barbara Showers  
Director Education & Examinations  
Wisconsin Department of Regulation & Licensing

Rina Sjolund  
Assistant Vice President  
American College Testing

Lynn Webb  
Assessment Consultant

Elizabeth Witt  
Senior Measurement Analyst  
Promissor

Cynthia Woodley  
Vice President for Operations  
Professional Testing, Inc.

Tony Zara  
Vice President, Professional Licensing & Certification  
Pearson Professional Testing

Jim Zukowski  
Division Director  
Texas Professional Licensing & Certification