

NASBA

REPORT OF THE **CPA EXAMINATION REVIEW BOARD**

**On the 2021-2022 Uniform CPA Examination
and International Qualification Exam**





CPA EXAMINATION REVIEW BOARD

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REPORT OF THE CPA EXAMINATION REVIEW BOARD

To the Boards of Accountancy of the Fifty-Five Jurisdictions of the United States of America:

We have evaluated the significant adherence with policies and procedures utilized in the preparation, grading and administration of the Uniform CPA Examination and the International Qualification Examination for the licensing of certified public accountants from January 1, 2021 through the date of this report. Our procedures included observation of processes, inquiry, and inspection of pertinent records.

Based on our evaluation, nothing came to our attention that would prevent the Boards of Accountancy from relying on the Uniform CPA Examination and the International Qualification Examination in carrying out their licensing responsibilities.

This report is intended solely for the information and use of the Boards of Accountancy, and is not intended to be and should not be used by anyone other than the specified parties.

CPA Examination Review Board

CPA Examination Review Board
September 30, 2022



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UNIFORM CPA EXAMINATION

The Uniform CPA Examination (Examination) is administered pursuant to a contract among the National Association of State Boards of Accountancy (NASBA), on behalf of its constituent members (Boards of Accountancy), the American Institute of CPAs (AICPA), and Prometric.



NASBA acts as the central clearinghouse to which all Boards of Accountancy or their designee submits information on eligible candidates and from which all Boards of Accountancy receive advisory scores and other Examination data.



The AICPA determines the content of the Examination, prepares the items/simulations, determines the method of scoring the Examination (including the choice of psychometric model), performs and coordinates the scoring of all test item formats including simulations and constructed response exercises, provides all quality control systems for test scoring, prepares advisory scores, and conducts statistical analyses of Examination results.



Prometric operates a network of computer-based test centers where candidates take the Examination and is responsible for examination delivery at authorized test centers.



CPA EXAMINATION REVIEW BOARD

Committee Charge

The ERB shall review, evaluate and report on the appropriateness of the policies and procedures utilized in the preparation, grading and administration of the Uniform CPA Examination and other examinations in general use by the Boards of Accountancy for the licensing of Certified Public Accountants. In carrying out its responsibilities the ERB shall examine such records and make such observations, inspections and inquiries, as it deems necessary. The ERB shall report annually to the Boards of Accountancy.

Creation & Purpose

Few Boards of Accountancy have the resources to evaluate the psychometric quality and content of a licensing examination or to review its preparation, scoring and administration. Moreover, few Boards of Accountancy have the resources to evaluate the security and integrity of the electronic architecture and data communications surrounding a computer-based test (CBT). Because such evaluations and reviews are highly technical and time-consuming activities, they can be performed more effectively by a single agency acting on behalf of all Boards of Accountancy. Recognizing this need, the CPA Examination Review Board (ERB) was established as a committee of NASBA and reports directly to the Boards of Accountancy.

DESCRIPTION OF EXAMINATION REVIEW BOARD PROCEDURES



DEVELOPMENT

The Examination is developed by the AICPA Examinations Team (Examinations Team) in accordance with blueprints established by the AICPA Board of Examiners (BOE). The blueprints used in the 2021-2022 Examination are based on the 2019 Practice Analysis. Examination content is reviewed and modified by the Content Preparation Subcommittees and is given final approval by the Content Committee. We reviewed and evaluated the development of the Examination. Our review included conferences with members of the Examinations Team, observations of the activities of the BOE, its Content Committee and Content Preparation Subcommittees, and interviews with the Examinations Team leadership and staff. We reviewed and evaluated systems security controls and compliance with certain administrative policies and procedures.

We compared test items to the blueprints to determine compliance with the approved guidelines.

PRACTICE ANALYSIS

The Practice Analysis Oversight Group established by the BOE designed and carried out an updated Practice Analysis, which was completed in 2019 as a basis for the blueprints used in the version of the Uniform CPA Examination launched in July 2021. In connection with our evaluations completed from January 1, 2021 through the date of this report, we monitored and reviewed each major stage of the Practice Analysis, including the overall framework for this update and its oversight, the technical research design of the study, the sampling procedures used including defining the target population and the sampling frame, the design and use of the matrix sampling methods, the planning and execution of the computer-based survey, and the statistical analysis of the survey results and reporting thereof.

We evaluated the statistical quality indices for the results, such as the standard errors of the ratings, for the main sample and additional subsamples. We monitored and reviewed the work of the Content Committee, which used the Practice Analysis results to recommend revisions and additions/deletions to the blueprint. Finally, we reviewed the work of the BOE in finalizing the updated content and skill statements based on all of this empirical and judgmental Practice Analysis work.

STANDARD SETTING

The AICPA conducted passing score studies to establish new standards for the Examination launched in 2017. In determining the new passing scores, the AICPA used sound scientific standard setting methods based on solid research; the methods used have a long history of use by high-stakes testing agencies and had no obvious bias. The data were collected systematically, and statistical analyses were performed by psychometricians to ensure that the standard-setting data were accurate and reproducible. The panel of experts who participated in the studies recommended a passing score for each section to the BOE. The BOE thoroughly discussed the panelists' recommendations and approved new passing scores.

The ERB performed a review of the standard setting process during the 2017 review. We reviewed the standard setting plan and design, observed the structure of the process, attended several standard setting panel discussions as well as the BOE deliberations and approval of the new passing scores. In addition, we reviewed the standard setting technical report in support of the passing scores.

DESCRIPTION OF EXAMINATION REVIEW BOARD PROCEDURES



NATIONAL CANDIDATE DATABASE

NASBA receives candidate information from Boards of Accountancy, or their designee, authorizing the candidate to test, and maintains such information in the National Candidate Database (NCD). We reviewed and evaluated the security policies and procedures related to the NCD and the Gateway System. Our procedures begin with testing the accuracy of the database processes and receipt of information into this database and end with the release of the advisory score.

DELIVERY

The Examination is delivered at Prometric test sites located throughout the jurisdictions of the Boards of Accountancy as well as selected international locations. We reviewed and evaluated Prometric policies, procedures and security controls relative to the Examination. We observed the delivery of the Examination for selected domestic and international Prometric sites. We also reviewed and evaluated security controls and compliance with administrative policies and procedures.

SCORING

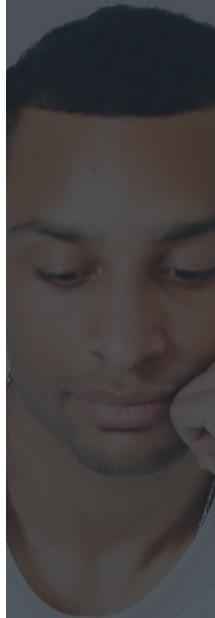
We reviewed and evaluated the policies and procedures followed in the scoring and reporting of results of the Examination; we performed procedures related to the scoring of a selected sample; and we traced a sample of scores through to the NCD. In addition, the psychometric consultant reviewed and evaluated the validity evidence for the Examination, including psychometric data from the tests, quality control policies and procedures, and statistical analyses of the Examination results.

PSYCHOMETRIC ASSESSMENT

Psychometric Consultants assisted us in reviewing and evaluating the policies and procedures employed by the Examinations Team in preparing and scoring the Examination. We evaluated the psychometric model used to calibrate and score the computer-adaptive tests and many other important psychometric characteristics of the Examination such as the psychometric properties of simulations, candidate ability routing through adaptive testlets, the standard setting methods utilized by the BOE, and the passing scores established thereby. We also reviewed the rater reliability of those constructed response written communication exercises which were scored by human raters, the accuracy and consistency of the computer scoring of these written communication exercises, the correlations among test sections and item formats, and many other sources of validity evidence of the Examination. The Psychometric Consultants also assisted us in reviewing and evaluating the policies, procedures and controls for the Examination.

TECHNOLOGY ASSESSMENT

ERB technology assessment relied upon consultant reports prepared by third-party vendors on behalf of NASBA, AICPA, and Prometric. Reports included but were not limited to SOC 2, AT101, and ISO 27001.





IQEX PROCEDURES

Beginning with the November 2012 administration, the IQEX transitioned to a new format that uses an administration of the Uniform CPA Examination's Regulation section as the required examination.

As part of the transition, the IQEX no longer has a dedicated content specification outline (CSO) and instead adopts the content outlined in the Regulation section of the Uniform CPA Examination Blueprint. Therefore, we reviewed and evaluated the same procedures for IQEX as we did for the CPA Examination. We also reviewed and evaluated the IQEX candidate application and approval process, which is performed by NASBA, and the 2021 IQEX technical report, which was prepared by NASBA to provide validity evidence for the use of IQEX.



INTERNATIONAL QUALIFICATION EXAMINATION

The purpose of the International Qualification Examination (IQEX) is to facilitate the U.S. CPA qualification process for those accounting professionals from other countries whose professional bodies have entered into Mutual Recognition Agreements (MRAs) with the U.S. accounting profession and to provide reasonable assurance to boards of accountancy that those who pass the examination possess the level of technical knowledge and skills necessary for licensure to protect the public interest.

The International Qualification Appraisal Board (IQAB), a joint body of the AICPA and NASBA, is charged with overseeing, on behalf of the U.S. accounting profession, the preparation of MRAs with the accounting profession in countries seeking mutual recognition of accounting qualifications. Education, examination, and experience are the principal elements considered in granting a professional accounting designation to perform the attest function. In preparing an MRA, IQAB reviews the education requirements, the required body of knowledge, and the required standards of professional practice with respect to the granting of the professional accounting designation.

IQAB has currently established MRAs with the following professional bodies:

- Chartered Accountants Australia and New Zealand (CAANZ)
- CPA Australia (CPAA) – effective June 2018
- Chartered Professional Accountants Canada (CPAC)
- Hong Kong Institute of Certified Public Accountants (HKICPA)
- Chartered Accountants Ireland (CAI)
- Institute of Certified Public Accountants in Ireland (CPA Ireland)
- Instituto Mexicano De Contadores Públicos (IMCP)
- Institute of Chartered Accountants of Scotland (ICAS)
- South African Institute of Chartered Accountants

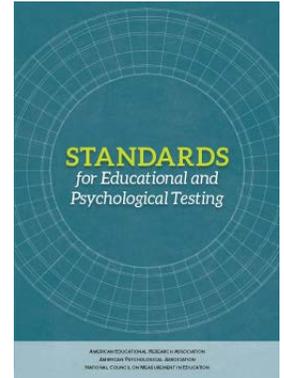
The intent of IQEX is to test the differences between the Federal Taxation, Business Laws, and Ethics practices of the United States and the relevant practices of the MRA countries. Accounting professionals from the MRA countries have already demonstrated competence in the areas that are the same in the candidate's home country and the United States by virtue of meeting the requirements outlined in the MRA and remaining a Member in Good Standing with the professional accounting body in the candidate's home country.



REVIEW AND EVALUATION FRAMEWORK OF THE EXAMINATION REVIEW BOARD

The “Twelve Components for Effective Test Development” as described in the Handbook of Test Development (Lane, Raymond, & Haladyna, 2016) provide the framework for our review and evaluations. The “Twelve Components for Effective Test Development” are based on the Standards for Educational and Psychological Testing (AERA, APA, & NCME, 2014). These components are described in detail in Exhibit 1.

“The Standards for Educational and Psychological Testing (AERA, APA, & NCME, 2014) represent the consensus opinion concerning all major policies, practices, and issues in assessment. This document, revised every decade or so, is sponsored by three North American professional associations concerned with assessment and its application and practice: The American Educational Research Association (AERA), the American Psychological Association (APA), and the National Council on Measurement in Education (NCME)”.



12 COMPONENTS BASED ON STANDARDS FOR EDUCATION AND PSYCHOLOGICAL TESTING

1. Overall Plan
2. Content Definition and Claims Statement (Practice Analysis)
3. Content Specifications
4. Item Development
5. Test Design and Assembly
6. Test Production
7. Test Administration
8. Scoring Test Responses
9. Establishing Passing Scores (Standard Setting)
10. Reporting Test Results
11. Test Security
12. Test Documentation



MEMBERS OF THE CPA EXAMINATION REVIEW BOARD



RUBEN DAVILA, CPA, CFF, ESQ.
Chair, ERB

Ruben Davila, CPA, CFF, Esq. is a Professor at the University of Southern California's Marshall School of Business and Leventhal School of Accounting. He has a forensic accounting and litigation support practice and has served as an expert witness on several high-profile complex business lawsuits. Professor Davila currently serves as on the CalCPA Society's Education Foundation Board of Trustees and Pipeline Committee. He has served as a member of the California State Board of Accountancy (CBA), the AICPA/NASBA Board of Examiners (BOE), the BOE FARS Content Subcommittee, the AICPA/NASBA International Qualifications Appraisal (IQAB), along with the Nominating, State Board and Education Committees. He is actively involved in university and corporate governances and currently serves on the executive board of the PAC 12 Academic Leadership Coalition, the USC Academic Senate and board of directors of an award-winning entertainment firm and an investment firm. Professor Davila is passionately involved with DEI issues and has developed multiple events for young professionals and students in partnership with universities, community colleges, high schools professional societies and local communities. Mr. Davila was also a co-star in the 2021 Oscar-nominated short-film "Please Hold."

DOUGLAS W. SKILES, CPA
Past-Chair, ERB



Douglas W. Skiles, CPA, Past-Chair of the ERB. Douglas Skiles is currently a shareholder with Skiles, Loop, Bremer & White, CPA's PC. He served on the NASBA Board of Directors and was a NASBA Central Regional Director, Past Chair of NASBA's Relations with Member Boards Committee, a NASBA representative on the Board of Examiners' Practice Analysis Sponsor Advisory Group (SAG), Past Chair of the CBT Examination Administration Committee, and a member of NASBA's Audit Committee and Education Committee and NASBA Enforcement Committee. He served on the Nebraska Board of Public Accountancy from 2003-2013, with three years as its Chair. He chaired the Nebraska Board's Education & Examination Committee, Educational Advisory Committee, Legislative Committee, and served on the Board's Quality Enhancement Program Committee. During 2011-2013, he chaired the Experience Work Group, a collaboration between the Board, State Society and other stakeholders, which successfully passed new experience requirements in 2013 for Nebraska CPA candidates. He served as an accounting instructor for the University of Nebraska-Kearney and McCook Community College.



C. JACK EMMONS, CPA, CFE

Jack is a Certified Public Accountant and Certified Fraud Examiner with over fifty years of experience providing audit, tax, consulting and forensic accounting services for governmental entities, not-for-profit entities, businesses, and individuals. In addition, for nine years he was an adjunct professor at the University of New Mexico teaching auditing. His significant responsibilities included: managing audit engagements, providing audit, review, tax and related services for governmental entities, school districts, not-for-profit entities and other commercial clients; preparing tax returns for individuals and small businesses. Jack has experience investigating fraud cases and preparing for court testimony. He was the Mexico Deputy State Auditor for a year. Jack retired in 2019. Jack is past chair of the CBT committee, held the southwest regional director position for three years, and a member of NASBA's Board of directors. Jack has been chair of the New Mexico Board of Public Accountancy for seven years. In 2020, Jack was appointed to the NASBA CPA Examination Review Board.



FAYE D. MILLER, CPA

Faye D. Miller, CPA, has served on the CPA Examination Review Board since 2021 on the AICPA review team. Miller has spent her career working in industry and currently is the chief auditor of Basin Electric Power Cooperative. She was elected director-at-large of NASBA's 2021-2022 Board of Directors and appointed chair of the Communications Committee. Miller has served as NASBA's Central Region Director and chaired NASBA's Audit Committee. She has also been a member of NASBA's Administration and Finance, Relations with Member Boards and CPE Committees. Miller is a past board member of the North Dakota State Board of Accountancy. She has also served on the AICPA Board of Directors, AICPA Council member-at-large, and member of the AICPA Business & Industry Executive, Audit and Political Action Committees and the BEC subcommittee. She previously served on the North Dakota CPA Society Board of Directors and chaired many of the society's committees, including the CPE and Industry Committees.



DOLLY LALVANI, CPA

Dolly Lalvani, CPA, is a director within the tax practice at PricewaterhouseCoopers LLP. Ms. Lalvani has previously held several positions in public accounting at KPMG, Ernst & Young, and multiple local firms during her 30-year career. She was previously the chair of the Pennsylvania State Board of Accountancy. She is a member of the American Institute of CPAs and the Pennsylvania Institute of CPAs. She has also previously held the treasurer position at the Girls Scouts in the Heart of Pennsylvania and assistant treasurer at the Foundation for En-

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Members (continued)

DOLLY LALVANI, CPA (CONTINUED)

hancing Communities. She is currently on the board of trustees at Harrisburg University and a board member at United Way of the Capital Region. She is a resident of Harrisburg, PA, formerly of Laredo, Texas. Ms. Lalvani earned a Bachelor of Business Administration from Texas A&M International. She was recently appointed to the NASBA CPA Examination Review Board.



A. CARLOS BARRERA, CPA

A. Carlos Barrera, CPA, serves as NASBA past chair and chair of NASBA's Nominating Committee and Past Chair Advisory Council for 2021-2022. Barrera served as the chair of NASBA for 2020-2021. A member of the NASBA Board of Directors since 2013, Barrera previously served as Southwest Regional Director, Director-at-Large, and Board Treasurer. He is a former chair of NASBA's Administration and Finance, Board Effectiveness and Legislative Support, CPE, Global Strategies and Standard-Setting and Professional Trends Advisory committees. He also served on the AICPA's Professional Ethics Executive Committee from 2014-2019. A retired audit partner of the firm Carr, Riggs & Ingram, LLC, Barrera is a member of the American Institute of CPAs and the Texas Society of CPAs. From 2007- 2013, he served on the Texas State Board of Public Accountancy, with two years as treasurer and two years as presiding officer. A new resident of Dripping Springs, TX, formerly of Brownsville, Barrera earned a Bachelor of Business Administration degree from the University of Texas at Austin and a Master's degree from the University of Texas at San Antonio.

CONSULTANTS



SUZANNE LANE, PH.D.

Suzanne Lane, Ph.D. Consultant to the ERB since 2015. Professor, Research Methodology Program, School of Education, University of Pittsburgh. Past President of the National Council of Measurement in Education. Past Vice President of Division D (Methodology and Measurement) of AERA. Member of AERA, APA, NCME Joint Committee for the Revision of the Standards for Educational and Psychological Testing (1993-1999). Management Committee Member for the Revision of the 1999 Standards. Publications in Journal of Educational Measurement, Applied Measurement in Education, Educational Assessment, and Educational Measurement: Issues and Practice. Editorial Board member for Journal of Educational Measurement, Applied Measurement in Education, Educational Assessment, Educational Researcher, and Educational Measurement: Issues and Practice. Past chair of the AICPA Psychometric Oversight Committee. Technical Advisory Committee member for the College Board, ETS, PARCC, PSI, U.S. Department of Education, NCEO and state assessment programs (DE, KY, NJ, NY, PA, SC, TN, TX). Member of the National Assessment Governing Board (NAGB).

STAFF



SHEENA MURPHY, CPA

Sheena Murphy, CPA, is the CPA Exam Review Board Director. She completes the planning, supervising, and conducting the engagement, and is the primary contact for all reviews. She is a former Accounting Manager at Qualifacts Systems, Inc. and is a former Senior Auditor in the financial institution division of Crowe Horwath LLC. She has prior experience with CPAES, NCD, and Finance departments of NASBA. She currently serves as treasurer and board member of Tennessee Coalition to End Domestic & Sexual Violence. Murphy earned a Bachelor of Business Administration degree from Berea College.



ROY HALL

Roy Hall, is the Chief Information Security Officer of NASBA which includes responsibilities for cyber security, IT Risk Management and Compliance. He joined NASBA in 2014. Prior to joining NASBA, Roy provided CISO, audit, ethical hacking and other security design consulting services to banks, healthcare, manufacturing, marketing, and financial institutions. Before starting his own consulting business, Roy had several technical and leadership positions in information technology security, audit, and compliance to include Fresenius Medical, Renal Care Group, Sprint, USAir and Piedmont airlines. Roy also frequently gets invited to speak as an expert in cyber security at public and private speaking events discussing today's most relevant threats and also works closely with the local FBI local cyber security division. He was recently nominated as CISO of the year for the Nashville Technology Council. Roy earned his degree in computer science from Nashville State Technical College, his B.S. degree from Mid America Nazarene College and now specializes in AWS cloud security tools and services.



JULIE JAMES, CPA

Julie James, CPA, is the Associate Director of Risk and Compliance of NASBA, NASBA Diversity Committee co-liaison, and she assists with the Exam Review Board. Julie is a former Managing Consultant within the Risk Advisory Services practice at FORVIS, LLP, Technology & Management Consultant with RSM US LLP, and Senior Internal Auditor with HCA, Inc. and LifePoint Health. She currently serves as a board member for the Tennessee Society of CPAs (TSCPA) Nashville Chapter. Julie earned a BBA in accounting and MAcc from Jackson State University.



EXHIBIT 1: TEST DEVELOPMENT PROCESS

Test Development Components	Test Development Recommendation	Example Relevant Standards
1. Overall Plan	Develop a detailed plan for the entire test development project, including information on all test components, a rationale for each component, and the specific methods to be used to evaluate the validity of all intended test score interpretations and uses and the psychometric quality of the test.	1.0, 2.0, 3.0, 4.0, 5.0, 11.1, 12.2, 13.4
2. Domain Definition and Claims Statement	Name and define the domain to be measured. Provide a clear statement of the claims to be made about examinee knowledge, skills, and abilities (KSAs).	1.0, 4.1, 11.2, 11.3, 11.13, 12.4
3. Content Specifications	Develop content specifications to guide item development, form assembly, score reporting, and other activities.	4.1, 4.2, 11.3, 12.4
4. Item Development	Identify suitable item formats and materials. Develop items and obtain validity evidence to support item use.	3.2, 4.7 -4.14
5. Test Design and Assembly	Design and create test forms based on test specifications; attend to issues related to test content, format, scoring rules, scaling and equating.	4.3, 5.0, 5.1-5.20, 11.15, 12.11, 13.2
6. Test Production	Produce a clear, accurate, and accessible test form.	4.0
7. Test Administration	Administer the test in a standardized way. Avoid threats to validity that may arise during administration.	3.0, 3.4, 4.3, 4.15-4.17, 6.1-6.7, 12.16
8. Scoring	Establish a quality control policy and procedures for scoring and tabulating item responses. Ensure accurate and consistent scoring where judgment is required.	4.3, 4.18-4.23, 6.8-6.9
9. Cut Scores	Establish defensible cut scores consistent with the purpose of the test.	2.16, 5.21-5.23, 11.16
10. Test Score Reports	Develop accessible and understandable test score reports.	2.0, 2.3-2.4, 2.13-2.14, 5.1-5.5, 6.10 -6.16, 8.7-8.8, 12.18
11. Test Security	Establish policies and procedures for ensuring test security during test development and administration.	6.7,6.14, 6.16, 7.9, 9.0, 8.5-8.6, 8.9-8.12, 9.0, 9.21-9.23
12. Test Documentation	Prepare technical reports and other documentation supporting validity, fairness, and the technical adequacy of the test.	4.0, 7.0, 7.1-7.14, 12.6

