Advancing the Assessment of Competence®

TestPoints®

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The Mission Statement of the NBEO is to serve the public and the profession of optometry by developing, administering, scoring, and reporting results of valid examinations that assess competence.

The purpose of TestPoints® is to share with the various optometric communities the news, events, and changes that are happening at the National Board of Examiners in Optometry (NBEO). Comments and questions may be directed to nbeo@optometry.org.

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A Note from the NBEO CEO … Authenticity versus Standardization in Part III CSE

An optometry college dean and I recently discussed the concept that Part III CSE performance possibly could correlate more precisely with academic or clinical performance demonstrated at the school or college. The thought was shared that the unspontaneous nature of the Part III CSE appears to reward candidates who memorize and are obedient to the necessarily conditioned NBEO Part III testing methodology, rather than rewarding examinees who collect data in a less structured, more experienced fashion that naturally rounds corners relative to the more entry-level Part III instructions.

I presented this thought to our external psychometrician, Dr. Brett Foley (Senior Psychometrician, Alpine Testing Solutions, Inc.), who provided invaluable insights toward the analysis of this noteworthy topic. As the discussion ensued, it became apparent that, in regard to clinical performance exams, tradeoffs between authenticity and standardization are unavoidable.
A Note from the NBEO CEO ... Authenticity versus Standardization in Part III CSE (continued)

To provide our 4th-year students with an ‘authentic’ exam, there could be no standardized patients. Rather, impromptu exam patients possibly would be recruited from an eye care facility located on South College Street in Charlotte, on the day of the exam. These patients would present for diagnosis and management of a current eye problem they were experiencing. One Part III candidate could find himself assessing a patient with proliferative diabetic retinopathy while another examinee could encounter a patient who presents with simple myopia. How would these widely dissimilar exam experiences be graded? Obviously, the fairness and sameness of the exam would be wholly sacrificed.

On the other hand, if the NBEO is overly enthusiastic in its drive to generate a ‘standardized’ exam, the testing situation becomes uselessly unrealistic and the benefits of conducting a clinical performance exam are lost. If, for example, Part III CSE candidates were to arrive at the NCCTO just to recite a single memorized script that is taken from the NBEO website, there would be no need for a performance exam.

Therefore, reliable, meaningful clinical assessment examinations must attempt to strike a reasonable balance. Relevant task objectivity is scorable and must be achieved; task subjectivity is not scorable and necessarily must be avoided. NBEO (like all testing organizations) has a responsibility to ensure that candidates are treated fairly and tests are scored reliably. To meet these goals, there needs to be a sufficient degree of standardization to first, ensure that all candidates are given relevant tasks that are equally challenging, and second, to ascertain that candidate skills that are video-recorded can be scored consistently, with the maximal amount of precision that is humanly possible.

The National Board continually works with its exam development committees, councils, and psychometrician to maintain this balance over time. Rubrics and scoring procedures are reviewed to identify areas that can be clarified to improve scoring consistency. Individual tasks are re-evaluated to ensure that they are still germane to safe and effective practice. Candidate guides are revised to increase the transparency with respect to what evaluators expect candidates to demonstrate. The tested clinical skills are updated to ensure that they remain aligned with current expectations for best practice. The NBEO also regularly adds new technologies that offer opportunities to add greater authenticity to the assessment process (e.g., updated training arms and revised simulation software).

The resulting Part III CSE is based on the most optimal blend of authenticity and standardization possible. Because of the conditions necessary to promote standardization, with their sequential effects on the exam’s potential to be authentic, candidates do need to preview and become comfortable with the methodology provided within the study guide on the website. One-site CSE history has shown that occasionally, accomplished 4th-year student-candidates fail to review the CSE study guide before CSE testing and subsequently do not do well on the exam. For the reasons previously described, the Part III exam does necessitate a return to the basics of optometric procedures and evaluation. The second time these competent candidates take the exam, they generally do well, as they typically have studied the pre-test information prior to their re-test.

This is why the NBEO strongly recommends that all Part III candidates, even those who perform impeccably in their clinical rotations, spend sufficient time reviewing all of the CSE information on the NBEO website prior to the first CSE appointment. Doing so is likely to avoid a second trip to the NCCTO, for the accomplished 4th-year optometry student.

The ultimate purpose of the Part III CSE is to identify those relatively few students who need to significantly improve their clinical skills before they take their places among practicing optometrists. This is the primary public-protection objective of the NBEO Part III CSE, and the examination performs this function very well.

- Jack E. Terry, MS, OD, PhD, FAAO

NBEO Representation at the American Academy of Optometry

The 2016 American Academy of Optometry (AAO) meeting was held November 9-12, 2016 at the Anaheim Convention Center in Anaheim, California. Academy conferences are widely known to offer practitioners, educators, administrators, scientists, and all related eye care professionals the latest clinical and scientific vision care research through courses, posters, group meetings, and exhibits that cover the most current optometric educational and professional information. Topics include general optometry as well as specific fields of glaucoma, anterior and posterior segment disease, contact lenses, low vision, binocular vision/pediatrics, refractive surgery management, systemic/ocular disease, neuro-optometry, peri-operative management of ophthalmic surgery, pharmacology, and jurisprudence. Workshops, grand round sessions, and SIG presentations also were offered to conference attendees.
Several NBEO staff members traversed the country to participate in the 2016 Academy conference. These individuals included Dr. Lyndon Wong (Director of NBEO Clinical Skills Testing), Ms. Whitnie Foster (NBEO Program Manager), and Mr. Tyler Parker (NCCTO Operations Assistant).

The NBEO was invited to present at the ASCO Clinical Optometric Methods & Procedures Instructors Special Interest Group (SIG). Dr. Lyndon C. Wong addressed the group of clinical instructors from all of the optometry schools and colleges across the Americas. Topics that were discussed included the NBEO’s Injections Skill Examination (ISE), the new Laser and Surgical Procedures Examination (LSPE; under development), and the factors involved in the assessment of slit lamp evaluation (SLE) skills during the Part III Clinical Skills Exam. Various other topics were discussed and the presentation was well received.

The 2016 AAO event also afforded the NBEO and NBEO-BC the opportunity to showcase their information in their joint exhibit hall booth. Attending the AAO conference provided participants with a chance to interact with NBEO office staff and vice versa. This year’s booth attracted many visitors as students and practitioners from all across the U.S.A. approached Ms. Foster and Mr. Parker with questions regarding the Continued Professional Development in Optometry (CPDO) self-assessment and the specifics involved in participation in the NBEO-BC board certification program.

It seemed a positive experience all around as NBEO/NCCTO staff members were able to intermingle and network with their visitors. It was a pleasure meeting those who attended these events, and we look forward to seeing you at the 2017 Academy Conference in Chicago, Illinois!

To the right, Drs. Nancy Peterson-Klein and Lyndon Wong converse in front of the NBEO/NBEO-BC Academy booth.

Mr. Tyler Parker, NBEO NCCTO Operations Assistant (above left), and Ms. Whitnie Foster, NBEO Program Manager (above right), at the NBEO-BC/CPDO self-assessment exam booth in the AAO meeting Exhibitor Hall.
In early November 2016, Dr. Jack Terry, NBEO CEO, was honored to represent the National Board through participation in the 2016 ICE (Institute for Credentialing Excellence) Exchange Conference in Colorado Springs, Colorado. Dr. Terry, Dr. Brett Foley, and Mr. Jared Zurn hosted a panel discussion entitled ‘Communication Strategies for Improving Stakeholder Buy-In.’ Dr. Foley of Alpine Testing Solutions, Inc. serves as the NBEO’s external psychometrician and Mr. Zurn is the Director of the Examination at the National Council of Architectural Registration Boards. The panel’s presentation was followed by a lively question-and-answer session.

Dr. Foley, PhD  
Jack Terry, MS, OD, PhD, FAAO  
Jared Zurn, BArch

The Mission of ICE is to advance credentialing through education, standards, research, and advocacy to ensure competence across professions and occupations. This Institute, an independent organization that is not affiliated with any government agency, is a non-profit group dedicated to providing educational, networking and advocacy resources for the credentialing community. ICE is accredited by the American National Standards Institute (ANSI) as a Standards Developer. ICE’s accrediting body, the NCCA, evaluates certification organizations for compliance with the NCCA Standards for the Accreditation of Certification Programs.

In a nutshell, ICE promotes best practices for the credentialing community. The National Board is privileged to be associated with the Institute for Credentialing Excellence.

9-Digit SSN No Longer Used in NBEO Database

Several months ago, the National Board adopted a revised registration procedure that allows individuals to create a new user account without the use of the 9-digit social security number. Specifically, new National Board registrants now provide only the last 4 digits of their SSNs. In addition, the 9-digit SSNs belonging to existing NBEO registrants were replaced with only the last 4 digits. The new process protects personal identifiers as it continues to maintain a database that prevents duplication among registrants. The possibility that two individuals will enter the same five identifiers is extremely unlikely.
President William Rafferty called to order the 2016 Annual Board of Directors Meeting of the National Board of Examiners in Optometry on Friday afternoon, December 9, 2016, with all board members in attendance. President Rafferty then welcomed the Board members, participating staff, and other meeting participants.

**BoD meetings:** As the 2016 *mid-year meeting* of the Board was held in St. Louis, Missouri, and included a tour of the University of Missouri–St. Louis (UMSL) College of Optometry, it was decided that the 2017 mid-year meeting will convene in Worcester, Massachusetts, with a tour of the School of Optometry at the Massachusetts College of Pharmacy and Health Sciences. The 2018 mid-year meeting was scheduled in Waterloo, Ontario in Canada. The Board of Directors will tour the School of Optometry at the University of Waterloo.

It was agreed that the 2017 and 2018 *annual meetings* of the NBEO Board of Directors will be held in the NBEO office in Charlotte, North Carolina.

**Reports:** Dr. Rafferty delivered the *President’s report*. Among other topics, he summarized the presentation of the Norman E. Wallis Award to Dr. Juan Ding, third-year student at the New England College of Optometry. Dr. Terry presented the *CEO’s report* and commented on how well the December 2016 targeted administration of Part II PAM/TMOD had been delivered at Pearson VUE Testing Centers. Mr. Erick Henderson provided the AOSA (*American Optometric Student Association*) *President’s report* and described the very positive student reaction to the new NBEO policy that eliminates the use of the 9-digit social security number when establishing a National Board database profile. The *AOSA Communications Committee report* was provided by Drs. Rafferty and Martinson-Redekopp. The *Examination Committee and Councils Liaison Reports* were offered by Drs. Rafferty, Hoppe, Martinson-Redekopp, Richt, and King. Additional topics: A variety of focus areas were discussed and summarized during the annual meeting, including the August 2016 IOCCC (Inter-Organizational Communications and Collaboration Committee) meeting held in Denver, Colorado during which the various optometric groups met to communicate and manage issues common to the several professional organizations. The NCCA (National Commission for Certifying Agencies) application process was explained and its standards were reviewed. Updates needed for the NBEO Ethics video were described. Dr. Terry spoke about his experience at the November 2016 ICE (Institute for Credentialing Excellence) conference in Colorado Springs, Colorado. Dr. Rafferty encouraged board members to attend future ICE meetings. Dr. Terry noted that Dr. Kenneth Myers, the Executive Director of the American Board of Certification in Medical Optometry (ABCMO) visited NBEO/NCCTO in June 2016.

**NBEO/state board/organization interactions:** Several recent interactions between the NBEO and various state optometric organizations were described during the board meeting. Because the West Virginia Optometric Association celebrated its 40th ‘Anniversary of Therapeutics’ in October 2016, Dr. Terry shared a congratulatory letter with the WV Association. The California Board of Optometry recently communicated with Dr. Rafferty.
and Dr. Terry with questions about the Part II exam, Part III scoring, exam security, and forensics. The NBEO provided meeting space for the September 2016 continuing education meeting of the North Carolina Chapter of the American Academy of Optometry. The Piedmont Optometric Society presented its continuing education program at the NBEO office in mid-December 2016.

**NBEO/optometry school/college communications:** Interactions with institutions of optometric education included a College Liaison Webinar in June 2016 which was well attended and generated good discussion. It was noted during the board meeting that an optometry school dean had contacted the NBEO several months ago to express interest in the LSPE. Faculty members from Western University of Health Sciences College of Optometry visited NBEO/NCCTO in mid-December 2016. A joint meeting between the National Board and ASCO (Association of Schools and Colleges of Optometry) was scheduled in Santa Fe, New Mexico for March 2017. Discussion topics will include the Job Task Analysis, the Injections Skills Exam, the LASER and Surgical Procedures Exam (LSPE), and concerns about test security in regard to unlimited examination retakes.

**Job Task Analysis:** During a mid-board-meeting conference call with the BoD, Dr. Brett Foley presented the updated results of the Job Task Analysis (JTA). Dr. Foley of Alpine Testing Solutions, Inc., serves as the National Board’s lead psychometrician multiple times each testing year. The Board accepted the Job Task Analysis results for posting on the NBEO website. It was recommended by the BoD that the JTA results be published in a peer-reviewed journal.

**NBEO examination updates:** Various NBEO examination issues were covered during the annual Board of Directors meeting and are summarized below:

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<td>• Proposed dates for the 2018 Examination Calendar were submitted for consideration.</td>
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<td>• An update was provided regarding the inaugural administration in March 2017 of the Part I ABS as a Computer-Based Test (CBT).</td>
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<td>• A Part I ABS standard setting event is slated for April 2017.</td>
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<td>• The Part II PAM/TMOD Case-Authoring Webinar of February 2016 and subsequent Case-Authoring Workshop in June 2016 were revisited. The effort to produce high-quality new exam material was decidedly successful and resulted in the generation of many new cases.</td>
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<td>• The Part III CSE was represented during the ASCO SIG at the American Academy of Optometry meeting in Anaheim, CA in November 2016 as Dr. Lyndon Wong (Director of Clinical Testing) presented to the participants and answered their questions.</td>
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<td>• The Online State Law Examinations (OSLE) program recently added the state of Nevada to its roster of OSLE states.</td>
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<td>• Progress made on the LSPE (LASER and Surgical Procedures Examination) and its associated NBEO website video were outlined; both the LSPE and its associated video are currently under development.</td>
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The financial aspects of the past year and projected future years were presented and considered by the Board of Directors.

The Board of Directors Nominating Committee provided the Board with a slate of candidates recommended for election to the 2017 NBEO BoD. The full Board elected Dr. Marla Moon of ARBO and Dr. Karla Zadnik of ASCO as the new BoD members, to replace retiring members Dr. Alan King of ARBO and Dr. Melvin Shipp of ASCO. The new terms began on January 1, 2017. The Committee also elected Dr. Jill Martinson-Redekopp as the new NBEO BoD President, while Dr. Elizabeth Hoppe was elected Vice President of the Board. Dr. Jerry Richt took his place as Secretary-Treasurer.

Expressions of gratitude were rendered to Drs. Alan King and Melvin Shipp for their membership and valued assistance over the past 8 years. President Rafferty thanked staff and board members for their hard work throughout 2016.

The meeting adjourned on Saturday afternoon, December 10, 2016.
**The NBEO Thanks Drs. Alan King and Melvin Shipp for Their Service to the NBEO**

**Dr. Alan King** is a native of Grand Forks, North Dakota. Inspired by optometrists as he worked with them as a medic in the U.S. Army, Dr. King graduated from the Illinois College of Optometry in 1976. He relocated to Dickinson in 1979, founded the Visionary Eye Care office, and has been providing eye care for southwest North Dakota ever since. Though Dr. King sees patients of all ages, his special interest is in diseases of the eye as well as systemic diseases, such as diabetes, that dramatically can affect the eye and vision.

Dr. King served on the Board of Directors of the North Dakota Optometric Association. He also has been a member of the North Dakota Board of Optometry since 1984, serving as President for five years and then continuing as Secretary since 1994. He continues to function as the Executive Director of the ND Board. Dr. King also is the co-author of the King-Devick test which rapidly is becoming the standard for football sideline concussion testing. Mayo Clinic has now partnered with Drs. King and Devick and plans to market this testing procedure worldwide.

Dr. King was a Clinical Examiner for the NBEO clinical exam for many years, ultimately functioning as a Chief Examiner at nearly all of the testing sites, from 1993 until the Part III was centralized by relocating to Charlotte, North Carolina. Following the opening of the NBEO’s NCCTO (National Center of Clinical Testing in Optometry) in 2011, Dr. King served on the NBEO’s Part III Exam Development Committee. Dr. King also was active in ARBO (Association of Regulatory Boards of Optometry) in various capacities, including the performance of COPE (Council on Optometric Practitioner Education) reviews and participation on NBERC (National Board of Examiners Review Committee).

During the nearly 4 decades that Dr. King has been practicing in Dickinson, he has been very engaged in civic activities, to include the Dickinson Hockey Club, the Dickinson Park Board, the Blue Hawk Booster Club, the Community Concert Association, and the Cabin Fever Committee, which raises money for the Ronald McDonald House in Bismarck and provides financial assistance to families in Southwest North Dakota who have children with medical needs. Dr. King and his wife have five grown children and 15 grandchildren.

**Dr. Melvin Shipp** was a member of the NBEO Board of Directors from 2009–2016. His was a familiar face to the NBEO when he began his term on the BoD as he previously had participated in the Clinical Skills Assessment Project in 1986-1987 and later returned to serve on the NBEO Public Health/Legal and Ethical Issues Committee from 1994-2002.

In 1972, Dr. Shipp received the Doctor of Optometry (OD) from Indiana University. A Master of Public Health (MPH) degree from Harvard University followed in 1980, and the Doctor of Public Health (DrPH) from the University of Michigan in 1996. As he compiled his considerable academic achievements, Dr. Shipp also served in the Naval Reserves from 1972-2001, retiring as a Captain (0-6).

From 1976-2004, Dr. Shipp was a member of the faculty at the University of Alabama at Birmingham School of Optometry (UABSO). From 1980-1986 he served as the Assistant Dean for Clinical Services and Director of Clinics. From 2004-2014, Dr. Shipp functioned as Dean of The Ohio State University College of Optometry in Columbus, Ohio. During this time interval, Dr. Shipp also served as President of the Association of Schools and Colleges of Optometry as well as President of the American Public Health Association. As a Fellow and Diplomate of the American Academy of Optometry, he served on and chaired a variety of Academy committees. Dr. Shipp was involved in funded research grant activities from 1978–2007.
At TOSU, Dr. Shipp’s research interests included the evaluation of the impact of vision-related public policy and traffic safety, the reduction of racial and ethnic eye and vision health disparities, and relationships between blood homocysteine levels and premature presbyopia. Throughout his career, Dr. Shipp advised and served on several federal institutions, including the Food and Drug Administration, the Health Resources and Services Administration, the National Eye Institute of the National Institutes of Health, and the Centers for Disease Control and Prevention.

In 2014, Dr. Shipp retired and moved to Arizona. He and his wife Michele are enjoying the food and culture of the Southwest as they live near their daughters and their families in the Phoenix area.

Dr. William Rafferty, NBEO 2016 BoD President, thanks departing BoD members Drs. Alan King and Melvin Shipp

The National Board expresses the deepest appreciation to departing members Dr. Alan King and Dr. Melvin Shipp for their eight years of service to the NBEO Board of Directors. Board President Bill Rafferty presented the NBEO Service Recognition Award to the retiring BoD members at the conclusion of the December 2016 board meeting. Drs. King’s and Shipp’s collegial companionship, insights, opinions, and leadership will be missed by the remaining members of the Board.

Drs. Marla Moon and Karla Zadnik Elected to the NBEO Board of Directors

Two new members of the NBEO Board of Directors were elected during the December 2016 annual board meeting, including Drs. Marla Moon and Karla Zadnik.

Dr. Marla Moon is a graduate of the Pennsylvania College of Optometry, where she also was on the Board of Trustees from 2002 to 2008. She completed a residency in pediatrics and binocular vision in 1983 at The Eye Institute in Philadelphia, PA. She qualified as a Fellow of the American Academy of Optometry in 1995.

Dr. Moon was appointed by the governor to the Pennsylvania Board of Optometry and served for the past eight years. She was Chair of the Board for five years and headed various committees. Dr. Moon has been a member of the Pennsylvania Optometric Association since 1978 and served as President in 2002. She served on several committees of ARBO (Association of Regulatory Boards of Optometry), and chaired the ARBO National Board of Examiners Review Committee (NBERC).

Dr. Moon has practiced optometry for more than three decades as one of four founding partners of Nittany Eye Associates in State College, Pennsylvania. This multi-doctor, multi-location private practice was founded in 1997. She has spent considerable time publishing and lecturing over her professional career, recently focusing on such topics as traumatic brain injury and related visual consequences, common pediatric ocular conditions, and low vision/rehabilitation therapy.
Dr. Karla Zadnik received her OD and PhD degrees from the University of California, Berkeley School of Optometry. She is now the Dean and Glenn A. Fry Professor of Optometry and Physiological Optics at The Ohio State University College of Optometry, and Executive Dean for the Health Sciences at Ohio State. She has been actively engaged in National Eye Institute-funded research since 1990, including multicenter clinical studies investigating the natural history of keratoconus and risk factors for juvenile onset myopia.

Dr. Zadnik has received many honors and awards from a wide variety of organizations and is most proud of the Glenn A. Fry Award from the American Optometric Foundation, a Distinguished Scholar award from The Ohio State University, and the Alumnus of the Year recognition from her alma mater.

Dr. Zadnik currently serves as the President of ASCO (Association of Schools and Colleges of Optometry) and recently completed a term as President of the Faculty Club at The Ohio State University. She is a past-president of the American Academy of Optometry and chair of the American Optometric Association’s Council on Research.

Dr. Zadnik is a native Buckeye, having spent her childhood in Kent, Ohio. Her paternal grandfather was an optometrist in Stow, Ohio for decades. She is married to Kurt Zadnik, managing editor of Optometry and Vision Science, and they have two grown daughters.

Pearson VUE to Send Helpful Reminder Notes Regarding Parts I & II Appointments

An occasional NBEO computer-based test (CBT) candidate forgets about his/her board exam appointment or presents at the wrong testing center on the exam date. To assist in preventing these occurrences in the future, Pearson VUE has consulted with the National Board regarding development of a simple Pearson reminder system that should eliminate any confusion and misunderstanding among NBEO CBT candidates. Pearson will implement the release of testing appointment reminder emails for the NBEO Part I ABS administration in March 2017, as well as for the Part II PAM/TMOD event in April 2017. Candidates who have changed their email address from the e-address of record at NBEO and Pearson should ensure that the new e-address is provided to both organizations in timely fashion so that the reminder email is deliverable.

In addition to the basic registration information and appointment date, time, and location, the reminder emails will include the same admission policy, reschedule policy, and cancellation policy that are spelled out on the confirmation email that candidates receive when the appointment is scheduled, rescheduled, or cancelled.

To alleviate confusion on the part of exam candidates that may develop due to the impending 4 separate targeted Part I test dates and 1 non-targeted Part II test date, Pearson VUE will send reminder emails to these candidates slightly before the March 2017 Part I and April 2017 Part II exam. Candidates are advised to promptly notify NBEO and Pearson VUE regarding any changes in their email address.

The reminders will be sent to candidates a few business days prior to the actual Part I or Part II appointment date. It should be noted that candidates who schedule or reschedule within 5 days of the appointment will not receive the reminder.

Pearson VUE's goal is to make the NBEO exam experience as pleasant as possible. Appointment reminder emails will offer an effective means to avoid the stress caused by forgotten appointment dates, times, or locations.
A Visit from the Western University of Health Sciences College of Optometry

In early December, 2016, Dr. Lyndon Wong, Director of Clinical Skills Testing, welcomed Drs. Linda Pang, Thomas Wong, and Munish Sharma to the offices and testing center of the National Board of Examiners in Optometry. Dr. Wong’s visitors were faculty members from the Western University of Health Sciences College of Optometry in Pomona, California. Their goal was to observe a live administration of the Part III Clinical Skills Examination (CSE) and then to share with their students any insights gained.

Drs. Pang, Wong, and Sharma spent the morning at the National Center of Clinical Testing in Optometry (NCCTO) observing a Part III Clinical Skills Examination (CSE) in progress. They monitored the live exam from the facility’s control room and watched the video screens as cameras recorded the testing session taking place in each CSE Exam Room. They were able to observe the state-of-the-art digital technology that makes it possible to capture the various fundus views required during the exam.

From left to right, Drs. Thomas Wong, Lyndon Wong (Director of Clinical Skills Testing), Linda Pang, and Munish Sharma in the NCCTO lobby

In addition, the visiting faculty members were shown the new Laser Exam Room at the NCCTO that will serve as the testing site for the Laser and Surgical Procedure Skills Examination (LSPE), currently under development and slated to be available for use by candidates in late 2017 to early 2018.

The NCCTO invites all optometry schools and colleges to send representatives to Charlotte, North Carolina to visit the testing center and experience a behind-the-scenes Part III clinical exam. Though the pre-testing information available to Part III candidates on the NBEO website is thorough and fully prepares examinees for testing, it can be helpful when faculty members view an actual exam. Thereafter, they can more accurately describe the testing process to their students and also may find it easier to answer students’ many questions about the exam.

Data Breach Investigation Update

Reports of identity theft and fraud among optometrists have created concern within the profession and at its educational and professional organizations. NBEO undertook an investigation as to whether a security compromise of personal information within NBEO’s care had occurred. A thorough forensic investigation into this issue has found NO EVIDENCE of a compromise of personal information within NBEO’s care. Regular monitoring of financial accounts and personal credit files for suspicious activity is advisable for us all. If you have experienced actual or suspected identity theft or fraud, you should immediately report it to law enforcement.
Several months ago, a 3rd-year optometry student presented us with good questions about the scoring of the March 2016 Part I ABS exam as compared to the August 2016 Part I exam. This student commented:

'Many students are very confused about the pass cut-off number. I was wondering if you can explain to me how the cutoff score is determined. Comparing the numbers from March to August, the average was lower in August but the cut score was higher. This resulted in an overall pass rate drop of almost 30% (69% to 42%). I performed better in August, higher than the average for the test. However, I was still shy of the cut score both times.

Obviously, the goal is to do the best we possibly can, but it's hard to understand how NBEO justifies these cut scores when they change every time. And I don't understand how a score is determined where only 42% pass.

I hope this question isn't too much of a burden to answer. We students would just like some clarification.'

The NBEO explains:

We appreciate questions like these and the opportunity to explain, and we understand your confusion and concern.

1) Let us focus first on the question, 'How is the Part I cutoff score determined?'

To start at the beginning, the NBEO, like nearly all other organizations involved in professional credentialing, applies the concept of 'criterion-referenced' assessment (sometimes referred to as 'domain-referenced'). In this type of examination, each individual candidate's performance is compared to an absolute standard and not to the performance of other candidates. The criterion-referenced method is appropriate for licensure and professional certification examinations because there is no limit to the number of candidates who can pass, or fail. All candidates (also called examinees or test-takers) who demonstrate sufficient knowledge in the 'domain,' or in other words, the 'field of optometry,' pass the examination. If all candidates meet this standard, then 100% pass. If none of the candidates meet the standard, then all fail the exam.

In contrast to criterion-referenced assessment is norm-referenced assessment, in which a given percentage of candidates always pass and always fail based on the decision of what percentage of candidates should pass and fail (e.g., when a university decides to accept the top 20% of applicants each year). This is a type of scoring that students may encounter throughout their school years, and involves the widely known bell-shaped curve. In norm-referenced assessment, candidate's scores are compared to those of other candidates, as opposed to comparing the scores to an absolute standard.

In essence, the absolute standard needed for criterion-referenced testing is determined by the identification of how much knowledge is 'just enough' to pass an examination.

In standard setting, the hypothetical candidate who possesses this 'just enough' amount of knowledge is referred to as a minimally qualified candidate (MQC).

Standard setting is the process of translating a qualitative criterion (i.e., the collective knowledge and skill possessed by the MQC) into a quantitative criterion (i.e., the passing score on the exam). The NBEO utilizes a standard setting process to establish an appropriate cutoff score for all of its examinations.
The cut score for the Part I NBEO exam is determined with input from a panel of optometrists from all walks of optometric life. Many diverse demographics are represented on the panel, in regard to such issues as locale, gender, race, type of professional or academic situation, and years since graduation from an optometry school/college. These individuals are charged with the laborious consideration of test difficulty, in relation to the professional knowledge base typical of an MQC.

In the modified Angoff scoring method, a panel of standard setting ‘judges’ estimates the likelihood that a Minimally Qualified Candidate (MQC) from the relevant test population would be able to correctly answer each item on a test. These item-level judgments are aggregated across items for each judge. The combined recommendations across all judges are used to determine the passing score for the exam.

The panel members consider each question in the standard setting exam, one by one, to predict whether or not an MQC would answer the question correctly. The standard setters reflect on many aspects of the testing of the MQC, including the format and content of the exam, the candidate population, the necessary level of knowledge in the field, and the implications of various decision points and scores. Because these are high-stakes examinations, the NBEO uses only long-standing, well-researched psychometric practices to set its standards and to maintain the integrity of the scores.

Based on the standard setters’ collective determination of what constitutes the minimum amount of knowledge required to pass that particular exam, the cut score is identified as a raw score, or percent of items that MQCs are expected to know. This cut score is expected to result in fair, appropriate, pass/fail decisions. The goal is to minimize the erroneous failing of qualified candidates at the same time that it minimizes the erroneous passing of unqualified candidates.

Once the raw cut score is calculated, raw scores are converted to scaled scores that range from a minimum of 100 to a maximum of 900, with 300 always representing the cut score. Scaled scores from 100 to 299.99 fail the exam while scaled scores from 300.00 to 900 pass the exam. Percentage-wise, a candidate can earn a raw score of zero, but his/her scaled score will still be 100, the lowest possible scaled score that a candidate can receive. The conversion from raw to scaled scores is a simple mathematical process (similar to converting between Fahrenheit and Celsius temperature scales). The scaled score is useful because it is consistent over time, whereas raw cut scores can change from form to form (for reasons described in the next section).

To ensure that the definition of the MQC and the cut score continue to reflect current expectations for the profession, standard setting studies are conducted every few years and/or when tests undergo significant design changes. The next standard setting study for the Part I Applied Basic Science (ABS) examination will occur in April 2017. The cut scores from this standard setting will be used in the scoring of the March 2017 exams forms.

Effectively, the goal of criterion-referenced testing is to determine how much knowledge is ‘just enough’ in order to pass an exam, and by extension, to demonstrate that the examinee who passes the exam possesses sufficient optometric knowledge to qualify for licensure and therefore, to competently practice optometry.

2) The NBEO uses different standard setting methods appropriate to the distinct formats of Parts I, II and III to determine each cut score. The last standard setting for the Part I Applied Basic Science (ABS) examination was performed for the March 2011 administration. This brings us to the process that will explain the question, ‘How does NBEO justify these cut scores when they change every time?’

The last time the Part I ABS exam underwent this type of standard setting event was 2011 (using a process like the one described above). Since 2011, all subsequent Part I exam forms have been constructed using different items from the 2011 standard setting version of the exam. Each Part I ABS exam form is developed to the highest standards possible, in alignment with the Exam Content Outline. However, the overall difficulty distribution may be slightly higher or lower than the original exam form on which the standard setting was conducted. How then, does NBEO maintain fairness over time when form difficulty changes? The process that brings successive exams into equal focus of interpretation is called equating.
The equating process unfolds in the following manner. Although Part I exam forms have been constructed using different items than were used in the 2011 standard setting version of the exam, a small but critically important overlap from exam to exam is built into each new exam form through the use of pre-tested items. These special items, called equating items, provide the essential basis for comparison of exam form difficulty levels. This allows the process of equating to maintain exam equivalency from administration to administration. The raw score to pass is adjusted so that the level of performance necessary to pass is equivalent to the standard setting ABS exam form, after adjusting for any differences in exam form difficulty. Because of this adjustment, the raw score required to pass will somewhat vary from form to form, but the level of challenge is always equivalent to the original 2011 ABS standard setting form. In this way the NBEO maintains fairness for all Part I examinees, regardless of which form of the exam they take.

<table>
<thead>
<tr>
<th>Test ‘equating’ refers to the statistical process of determining comparable scores on different forms of an examination.</th>
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</table>

Looking to the future, four exam forms have been generated for the March 2017 administration. These forms will be presented to candidates on March 21, 22, 23, or 24, 2017. As noted above, a standard setting study will be performed in April 2017. The standard setting panel will determine the passing score for one of the forms, which is called the base form. The other three forms, although very similar, unavoidably will differ slightly in difficulty from each other. To adjust for this and to maintain the validity of the test score and ensure fairness, the other three forms will be adjusted through the equating process so that the passing score for all forms reflects the same level of performance as the base form. Therefore, the cut score based on raw points will be slightly different for each exam to adjust for a form being easier or harder in comparison to the base form. The scaled version of the cut score will be 300 for all forms, which renders scaled scores more useful for comparisons than raw scores. In the same way, this base form will serve as the baseline for the statistical process of equating for future ABS forms. This will ensure that a score on one form of the exam has the same interpretation and meaning as a score on another form of the exam.

<table>
<thead>
<tr>
<th>The calculation to determine the equated cut score (in raw points) is accomplished totally irrespective of pass rate. In addition:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The National Pass Rate is the number of candidates who achieved a scaled score of 300 or higher divided by the total number of candidates.</td>
</tr>
<tr>
<td>• The Institution Pass Rate is the number of candidates attending that institution who achieved a scaled score of 300 or higher divided by the total number of candidates from that institution.</td>
</tr>
</tbody>
</table>

3) Next, let us address the concern raised in regard to ‘Comparing the numbers from March to August, the average was lower in August but the cut score was higher. This resulted in an overall pass rate drop of nearly 30% (69% to 42%). How is a score determined when only 42% pass?’

This issue largely pertains to exam cohort. That is, all high-volume March ABS administrations are taken primarily by the general, targeted group of nearly all 3rd-year students, most of whom pass the exam. The August ABS exams are taken by a much smaller group of candidates who nearly all are retaking the exam. There typically are a few first-time candidates, but the August examinees are predominantly repeat candidates. Unfortunately, it generally turns out that the pass rate is much lower for this group of examinees, who often again are unable to pass the exam. This single factor accounts for the low 42% pass rate for the August 2016 ABS exam.

4) In the comment about the comparison of the specific March 2016 and August 2016 scores, it was felt that the candidate ‘performed better in August, higher than the average for the test. However, I was still shy of the cut score.’

Some candidates do feel that they perform better in August, from a relative perspective. This is partially because they previously took the exam in March and thus, the exam format is more familiar in August. The issue of exam cohort also is again relevant to this discussion. That is, among mostly repeat exam takers, an individual may fare better by comparison to mostly other repeat exam takers. But in a criterion-referenced exam, it is the comparison to the cut score that matters.
As was discussed in the previous article, since the ABS is a criterion-referenced exam, candidates are not compared to each other. There is no ‘bell curve’ of scoring of NBEO exams. The concept of knowing ‘just enough’ remains in place when the August Part I exams are scored. If all August candidates know the exam material tested, all will pass; if no examinees know the material, none will pass.

Thus, unfortunately, even though a candidate may score relatively better in the non-targeted August Part I ABS exam in comparison to the score achieved in the targeted March exam, it is still necessary to meet or exceed the cut score to pass this criterion-referenced exam.

We hope this explanation is helpful in understanding the multiple psychometric processes that are used to determine NBEO exam scores. The National Board strives diligently to assure the appropriateness of exam material and to ensure scoring fairness, equivalency, and validity.

To complement the scoring procedures and methods that have been described, the article immediately below will attempt to answer two candidates’ questions regarding their potential study efforts as we approach the March 2017 Part I ABS exam.

### How to Put the NBEO Part I ABS Score Report to Good Use

*As the time approaches for the next Part I ABS exam administration date, we commonly receive inquiries from students and graduates, first-time Part I takers and repeat Part I takers, asking for study guidance. One candidate commented:*

'I just don’t understand what we as students need to aim for when taking this exam.’

*Another candidate shared:*

'I am requesting any insights you may provide in the matter of studying for the Part I exam as I very much would like to pass this exam this time so I can become licensed. Optometry is my passion; being an optometrist would allow me to help people to receive much needed vision care. I am determined to succeed, get my license, and serve those in need. I look forward to your assistance and clarification so that I can pass the upcoming re-take of the ABS exam.‘

1) For those candidates who plan to re-take the Part I exam, the **Diagnostic Scoring Report** on Page 2 of the Part 1 ABS score report is designed to make candidates aware of their subject-matter strengths and weaknesses. This report can be invaluable in pointing repeat candidates toward topics that may need the most concentrated study attention before re-taking the ABS exam.

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#### Applied Basic Science (ABS)

<table>
<thead>
<tr>
<th>DISCIPLINE / SUB-DISCIPLINE</th>
<th>Cat / Tot</th>
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<tbody>
<tr>
<td>A. Anatomy</td>
<td>39 / 72</td>
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<tr>
<td>1. Gross</td>
<td>27 / 50</td>
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<tr>
<td>2. Neuroanatomy</td>
<td>6 / 6</td>
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<tr>
<td>3. Histology</td>
<td>2 / 6</td>
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<tr>
<td>4. Development</td>
<td>1 / 2</td>
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<tr>
<td>B. Biochemistry / Physiology</td>
<td>20 / 52</td>
</tr>
<tr>
<td>1. Biochemistry</td>
<td>7 / 10</td>
</tr>
<tr>
<td>2. Physiology</td>
<td>19 / 42</td>
</tr>
<tr>
<td>C. Immunology / Microbiology/Pathology</td>
<td>77 / 138</td>
</tr>
<tr>
<td>1. Immunology</td>
<td>2 / 4</td>
</tr>
<tr>
<td>2. Microbiology</td>
<td>1 / 4</td>
</tr>
<tr>
<td>3. Pathology</td>
<td>74 / 150</td>
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<tr>
<td>D. Optics</td>
<td>59 / 172</td>
</tr>
<tr>
<td>1. Geometrical</td>
<td>5 / 15</td>
</tr>
<tr>
<td>2. Physical</td>
<td>2 / 4</td>
</tr>
<tr>
<td>3. Optometric</td>
<td>21 / 55</td>
</tr>
<tr>
<td>4. Physiological</td>
<td>70 / 121</td>
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<tr>
<td>E. Pharmacology</td>
<td>38 / 59</td>
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</table>

**Content Area / Condition**

<table>
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<tr>
<td>A. Refractive / Scleral / Ciliary</td>
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<td>1. Aniseikonia</td>
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<td>2. Optical Aberrations / Simulations</td>
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<td>3. Contact Lenses</td>
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<td>4. Low Vision</td>
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<td>5. Accommodation / Vaginal C/other</td>
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<tr>
<td>6. Amblyopia / Strabismus</td>
</tr>
<tr>
<td>7. Perceptual Function / Color Vision</td>
</tr>
<tr>
<td>8. Visual and Human Development</td>
</tr>
<tr>
<td>B. Normal Health / Disease / Trauma</td>
</tr>
<tr>
<td>1. Urolithiasis / Lachrymal / Oral</td>
</tr>
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<td>2. Conjunctivitis / Cornea / Refractive Surgery</td>
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<tr>
<td>3. Lens / Cataract / IOL / Pre &amp; Post-Op Care</td>
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<td>4. Blepharitis / Sclera / Anterior Uvea</td>
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<td>5. Vitreous / Retina / Choroid</td>
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<tr>
<td>6. Optic Nerve / Neuro-ocular Pathways</td>
</tr>
<tr>
<td>7. Streaker</td>
</tr>
<tr>
<td>8. Retinopathy / Trauma</td>
</tr>
<tr>
<td>9. Systemic Health</td>
</tr>
</tbody>
</table>

**Totals:** 275 / 493

**Your Raw Score:** 276
How to Put the NBEO Part I ABS Score Report to Good Use (continued)

As shown on the previous page, the Part I diagnostic report information is displayed in two groups of columns:

- The left half of the report shows the number of items answered correctly (Cor) for each general discipline and more specific sub-discipline, as compared to the total number of scored items (Scr) included within that discipline and subdiscipline.
- The right side of the report displays the correctly answered items (Cor) and total number of scored items (Scr) covered within each general content area and more specific condition.
- The number of total correct items is compared to the total scored items for each half of the chart.
- The raw score is given in the bottom left corner of the screen.

2) For all first-time and repeat ABS examinees, the NBEO Content Matrix (shown below and available on the NBEO website) is supportive in pointing out which subject matter topics are represented by the greatest number of items. As time is apportioned for studying, heavier weighted areas possibly merit the greatest proportion of preparation time.

![Content Matrix Diagram]

3) The NBEO Part I ABS Content Outline (links shown below, from NBEO website) provides another useful starting place to help determine in which subject areas intensive study efforts should be directed, by both first-timers and repeat examinees. Candidates retaking the exam can use the Content Outline in conjunction with their Diagnostic Score Reports to indicate significant gaps in knowledge. The Content Outline is reviewed yearly by Examination Development Committees and Councils. A great amount of effort is expended by members in debating if an item is entry-level and relates to an important condition that an optometrist is likely to diagnose and manage, or to a condition that is critically important, but not often encountered in practice. If consensus is lacking regarding difficulty level, likelihood of encounter in practice, or criticality of topic, items are not selected for use in the exam.

![Content Outline Link]
4) Classroom notes are another excellent source of study material. It may be of interest to repeat ABS candidates that while stable exam topics, such as Anatomy, possibly be serviced through use of older class notes, ever-changing subjects, such as Pharmacology, should be studied from more current information gleaned from classroom lectures. If at all possible, contemporary classroom material should be acquired from a candidate’s school or college as the graduated candidate prepares for another Part I administration.

5) Another source of knowledge can be gained from high-quality continuing education courses that pertain to topics tested in the Part I exam. Again, it is especially important that study information be current in dynamic subject-matter areas, such as Pharmacology, in which previous exam performance has been weaker.

The National Board sincerely hopes that this collective information may be of assistance to its first-time and repeat Part I ABS exam candidates, and best wishes are extended to all for success during the March 2017 ABS testing event.

**State-of-the-Art Candidate ID for Part I, Part II, TMOD, ACMO, and CPDO Exams**

**Palm vein pattern recognition for NBEO examination administrations at Pearson VUE Test Centers**

The palm vein reader is part of an ongoing joint effort by the National Board and Pearson VUE to maintain test integrity and ensure that NBEO exams provide a fair measure of each candidate’s identity-specific competence. This state-of-the-art system offers a comprehensive level of security for the NBEO examinations that is quick and simple to use. Palm vein recognition examines the unique pattern of a candidate’s palm veins using a safe, near-infrared light source like that used in television remote controls.

This new technology is fast, highly accurate, and secure, with many safeguards built in to protect the user’s privacy. The palm vein reader biometric technology ensures that each test taker has a single NBEO record in the Pearson VUE system. Pearson VUE has adopted palm vein recognition because it offers a form of positive identification that is much more accurate than older identity verification technologies, such as digital fingerprinting. Because vein patterns exist inside of the body, it is practically impossible to re-create another person’s biometric template. Palm vein recognition allows the National Board, through Pearson VUE, to accurately identify people who may attempt to take an exam under assumed test takers’ identities. By preventing proxy testers, the technology helps NBEO maintain the integrity and validity of the examinations which contributes toward the NBEO Mission to protect the public.

The palm vein recognition process takes only seconds, yet represents the most advanced authentication technology available in high-stakes testing. A candidate’s hand veins are scanned, creating a digital template that represents the pattern of veins. As pictured to the left, the examinee simply places his/her hand on the guide above the instrument’s sensor. The scan takes less than a second.

The scanned vein pattern is stored as a digital template. The system checks for a matching pattern when a candidate returns to testing after a break or when the candidate presents for another exam. The vein pattern is also compared with those of other test takers to allow Pearson VUE to determine if individuals have tested under multiple names or identities.

This enhancement to secure testing is used at all Pearson VUE Test Centers, and is applicable to the National Board’s Part I ABS, Part II PAM, TMOD, ACMO, and CPDO exams.

**LASER and Surgical Procedures Examination (LSPE) Update: Phase II Pilot Study**

The National Board hosted the third meeting of the Laser and Surgical Procedures Examination (LSPE) Development Committee in mid-January 2017. This new elective, stand-alone exam will offer a standardized, national credentialing examination for any practitioner who performs or wishes to perform specific laser procedures and certain ocular surgical procedures.
The LSPE will be given at the NBEO’s National Center of Clinical Testing in Optometry (NCCTO) in Charlotte, North Carolina. The committee has definitively decided that the exam will consist of two parts:

1) LSPE examinees will sit for a computer-based test (CBT) of 75-100 multiple-choice items that cover the conceptual knowledge required for competent performance of laser/surgical procedures. Candidates will take this CBT segment of multiple-choice items in the test center’s OSLE Room (online state law exam).

2) Then, candidates will move down the test center hall to the Laser Room. Here they will demonstrate their practical expertise in each of the laser and surgical skills included within the exam. The committee has worked diligently to outfit the Lumenis Selecta® Duet™ laser with models eyes on which candidates will be able to exhibit their laser skills.

Both LSPE segments will be taken on the same test day, in the NBEO NCCTO.
LSPE research and development took major steps forward during the January committee gathering as the multiple-choice items for the CBT portion of the LSPE were further refined and the Phase II Pilot Study was conducted. As was true of the August 2016 Phase I Pilot Study, this second trial run provided a significant number of invaluable developmental insights and feedback, applicable to both exam components and exam procedures, that will facilitate the committee's continuing perfection of the overall exam process.

Pictured are Ms. Sarah Hart (NCCTO Site Coordinator), Dr. Lyndon Wong (Director of Clinical Skills Testing), and pilot study ‘candidates’ Drs Larry Henry, Jason Ellen, David Fisher, and Ian McWherter

While the NBEO and LSPE Committee remain highly appreciative of the efforts and contributions of the Phase I pilots, to emulate first-time exam candidacy, Phase II Pilot candidates consisted of a fresh group of ODs. The NBEO was fortunate to host pilot examinees Drs. Jason Ellen, Ian McWherter, Larry Henry, and David Fisher. These ‘candidates’ took the exam as if they were standard NCCTO Part III CSE examinees, complete with white coats, armbands, and identity checks. Their clinical-segment exam performances were video-recorded and will assist in all phases of clinical exam development, including the LSPE scoring process.

The 2-Part Laser and Surgical Procedures Examination (LSPE) Summary:

- A computer-based test segment of 75-100 multiple-choice items to cover the fundamental knowledge that must underlie competent performance of laser/surgical procedures

- A clinical-skills-based test on model eyes and model skin tissue to assess the competency required for successful performance of the following laser and surgical procedures skills:
  - Selective laser trabeculoplasty (SLT)
  - Peripheral iridotomy
  - YAG capsulotomy
  - Chalazion Excision
  - Suturing

- Candidates will take both sections of the LSPE on the same test day, in the NBEO NCCTO

It is anticipated that the Laser and Surgical Procedures Examination (LSPE) will be ready for use in late 2017 to early 2018. As tentative details are firm ed up, the information will be posted on the NBEO website as well as in future issues of the NBEO newsletter, TestPoints. All eye models and equipment ultimately chosen for use in this exam will be posted on the LSPE Site Information and Equipment List on the NBEO website prior to the first administration of the examination. Any questions or comments may be emailed to nbeo@optometry.org.
The Twenty Fourth Annual Examination Councils Meeting was held October 21-23, 2016 in the NBEO headquarters in Charlotte, North Carolina. NBERC and ASCO representatives were invited to the Councils meeting to observe the exam production process. The meeting kicked off early on Friday morning as breakfast was served in the NBEO hospitality area. Breakfast was followed by a plenary session in the conference room during which introductions were made, welcoming remarks were rendered, and the work to be accomplished during the meeting was outlined.

Dr. Terry spoke of several National Board initiatives during the plenary session. These included updates within the NCCTO, comments about the Part II PAM computer-based testing (CBT) exam, information regarding the Injections portion of the Part III CSE, and the latest news regarding the progress made by the NBEO Laser Committee in its development of the LSPE (Laser and Surgical Procedures Exam). The role of ARBO’s National Board Examination Review Committee (NBERC) also was defined.

Candidate performance on the 2016 Parts I, II, and III exams were discussed by Dr. Brett Foley, the NBEO’s senior psychometrician from Alpine Testing Solutions, Inc. Dr. Foley also covered the updated findings revealed by the 2016 National Board Job Task Analysis.

Following the conclusion of the plenary session, the individual exam councils met. Mr. Richard Present served as NBEO staff for the Part I Applied Basic Science (ABS) Council while Dr. Nicole Stefani staffed the Part II Patient Assessment & Management (PAM) Council. Dr. Lyndon Wong led the Part III Clinical Skills Examination (CSE) Council, assisted by fellow staff members Sarah Hart, Monica Oberthaler, and Tyler Parker. Dr. Al King served as Board liaison to the Part I ABS Council. Dr. Jill Martinson-Redekopp was Board liaison to the Part II PAM Council, and Dr. Jerry Richt represented the NBEO Board of Directors for the Part III CSE Council.
The Part I Applied Basic Science (ABS) Examination: The seven-member Part I ABS Council had an unusually heavy workload this year, because the Council had to review four different forms of the March 2017 ABS exam. The March exam will be administered on four different dates (March 21, 22, 23, or 24) due to seating limitations at Pearson VUE testing centers near some of the schools and colleges of optometry. A different form of the exam will be administered on each day. The exam is two sessions in length, each session consisting of 185 items. Candidates will have four hours to complete each session. The morning session includes an additional 15 minutes devoted to a tutorial and the reading and signing of a non-disclosure agreement (NDA). There is an optional break of up to 45 minutes between the morning and afternoon sessions.
Part II Patient Assessment & Management (PAM) Council members Drs. Marc Taub, Nicole Stefani (PAM/TMOD Director), Matt Cordes, Joan Miller, Trey Sullins, Dawn Pewitt, and William Denton

The Part II Patient Assessment and Management (PAM) and Therapeutic Management of Ocular Disease (TMOD) Examination: The six members of the Part II PAM/TMOD Exam Development Council received preparatory material several weeks prior to the meeting, along with their assigned exam entities for review. During the meeting both Disease and Refraction cases were reviewed, selected, and prepared for insertion into the December and April 2017 exam forms.

Seated are NBEO staff members Ms. Sarah Hart, Ms. Monica Oberthaler, and Mr. Tyler Parker. Standing are Part III Clinical Skills Examination (CSE) Council members Drs. Rex Ballinger, Brian Kawasaki, Gregory Zink, Kim Even, Chris Lievens, James Aylward, Lyndon Wong (CSE Director) and Jerry Richt (NBEO Board Liaison)

The Part III Clinical Skills Examination (CSE): The CSE Council concentrated its efforts on the future of the Part III CSE. The Council was charged with the responsibility of reviewing each individual skill to determine if in the future it should be the same, revised, or removed. Furthermore, the Council spent significant time discussing the future addition of new skills. No changes were implemented for the 2017-2018 Part III CSE except for the equipment updates, which are available on the NBEO website and previously were described in the Fall 2016 TestPoints.
Association of Schools and Colleges of Optometry (ASCO): The National Board was pleased to welcome to the Councils Meeting Dr. David Damari, President-Elect of ASCO and Dean of the Michigan College of Optometry at Ferris State University, and Dr. Karla Zadnik, President of the Association of Schools and Colleges of Optometry (ASCO) and Dean at The Ohio State University College of Optometry.

To the left are Association of Schools and College of Optometry (ASCO) representatives Drs. David Damari (Michigan College of Optometry at Ferris State University) and Karla Zadnik (The Ohio State University)

ARBO National Board Examination Review Committee (NBERC) participants Dr. Clay McLaughlin (Oklahoma), Dr. Thomas Bobst (Ohio), Dr. Mary Lou French (Illinois), Mr. Ron Cassel (Charlotte; ARBO staff representative), Dr. Gary Avallone (Louisiana), and Dr. Patrick O’Neill (Minnesota; ARBO Board liaison)

The National Board Examination Review Committee (NBERC): Members of NBERC, a committee of the Association of Regulatory Boards of Optometry (ARBO), were pleased to attend the National Board of Examiners in Optometry (NBEO) Examination Development Councils Meeting in Charlotte, North Carolina, in October 2016. The NBERC representatives were given access to their own private office for the duration of the meeting. Members divided their time among the various exam councils and the NBERC office where they met to share their observations.

NBERC’s primary purpose is to review and ensure that the content of the National Board examination process is current and appropriate for ARBO Member Boards. NBERC is charged with reviewing and validating the examination process on behalf of the jurisdictional boards which use the exams for initial licensure.

Most of the NBERC members used their initial experience from last year to plan their analysis this year. Rather than having members rotate from exam to exam as was done in 2015, this year’s structure allowed committee members to remain with one specific exam council during the entire meeting. This yielded a more focused and concentrated review from each NBERC participant.

NBERC was extremely impressed with the ‘brainpower’ that was assembled for the meeting, and the dedication to the details and demands of the examination development process. Dr. Terry assisted the NBERC group as the NBEO staff resource person. He also escorted the committee through a tour of the National Center of Clinical Testing in Optometry (NCCTO), including a preview of the new Laser Room. It was explained that the Laser Room is central to the Laser and Surgical Procedures Examination (LSPE) which is currently under development.
The NBERC members shared that they appreciated the NBEO’s hospitality and openness during the Examination Councils Meeting. The Committee is preparing a detailed report of the Councils event and will present the report at the ARBO Annual Meeting in June 2017.

The National Board is greatly indebted to the 2016 NBEO Exam Development Council members for their irreplaceable contributions to the Parts I, II, and III NBEO board exams. Sincere thanks are extended to the council members for their subject-matter expertise and the significant amount of time and effort they spend on preparing the best board exams possible.

The National Board also greatly appreciates the time and attention of the NBERC members, as well as the participation by ASCO representatives.

**By attending the Twenty Fourth Annual Examination Councils Meeting in October 2016, attendees demonstrated their sincere commitment to the future of the optometric profession and its high-quality service to the public.**

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**Part I ABS: March 2017 Administration Update**

Although the regular deadline for registering for the March 2017 Part I ABS exam has passed, late registration for the exam will continue through February 10, 2017. Candidates who apply for late registration will incur a $400 late fee charge. Candidates should also be aware that seating at some test centers is already filled.

The March exam will be the first-ever computer administration of the Part I ABS. All candidates will take the March exam at Pearson VUE testing centers. The exam is 1 day in length, but is being offered on 4 separate days (with a different form of the exam being administered on each day) specifically due to space limitations at some testing centers. The exam will be offered on March 21, 22, 23, and 24.

There are 350 scored items and 20 non-scored pre-test items on the ABS examination. Candidates will not know which items are scored and which are pre-test. The exam is 2 sessions in length, each session consisting of 185 items. Examinees will have 4 hours to complete each session. The morning session includes an additional 15 minutes devoted to a tutorial and the reading and signing of a non-disclosure agreement (NDA). There is an optional break of up to 45 minutes between the morning and afternoon sessions.

ABS test takers will have access to an on-screen scientific calculator (TI-30XS) throughout the ABS exam. However, candidates should note that all Optics items on the exam are designed such that the correct answer can be determined *without* the use of trigonometric functions. The scientific calculator is provided to give candidates the option of using trigonometric functions should they choose to do so.

**Candidates are asked to note that the Part I Applied Basic Science (ABS) examination now uses the non-possessive form of eponymous terms (e.g., Horner syndrome rather than Horner’s syndrome, and Descemet membrane rather than Descemet’s membrane). This usage is in accordance with the growing trend in medical and scientific writing to replace possessive forms of eponyms with the non-possessive forms.**

As was the case with the paper-and-pencil version of Part I, candidates will have the opportunity to critique the test items on the computer-administered version of the exam. Candidates will be able to click on a *Comments* tab and type in their critiques at any time during the exam, as well as while exiting the exam. In addition, test takers will be given a marker and booklet of pages that can be used as scratch paper. If candidates use up all booklet pages originally provided, the Test Administrator can furnish them with another booklet, if needed.

The same tutorial that is presented at the beginning of the exam soon will be offered on the NBEO website. Candidates are highly encouraged to go through the tutorial once it becomes available on the website to become comfortable with the mechanics of taking the computer version of the exam.
William David ‘Trey’ Sullins III, OD will be greatly missed in his roles on the Part II PAM Exam Development Committee and Council. He served in these functions from 2000 to 2016. Dr. Sullins was a prolific author of a variety of patient cases, mainly covering ocular disease topics. Moreover, he uniquely functioned as the generous supplier of an enormous wealth of ocular images over the years that he served at the NBEO. An outstanding ocular and recreational photographer, Trey has used his skills to teach and lecture in various facets of optometry. He provided a substantial number of photos for use in the PAM exam.

Dr. Sullins earned his BS Degree at Auburn University in 1991, followed by a Doctorate of Optometry in 1995 from the University of Alabama at Birmingham School of Optometry (UABSO). Dr. Sullins served as class president, founded and served as the first Vice-President of Pi Epsilon Chi Optometric Fraternity; was a UABSO Student Advisory Committee member; and was an active member of the American Student Optometric Association. Dr. Sullins was president of Students in Optometric Service to Humanity and as a student, participated in three oversees missions.

In 1996, Dr. Sullins completed a multicenter primary care/ocular disease residency in Ft. Lauderdale, Florida, through Nova Southeastern University. Dr. Sullins and his wife, Dr. Christa Sullins, then joined a group private practice started by his grandfather in his home town of Athens, TN. The practice also included his father Dr. David Sullins, Jr. and later, his brother, Dr. Stuart Sullins. A satellite office was opened and Dr. Sullins received active privileges and worked at two area hospitals.

Regarding his many years spent contributing to the National Board in relation to his practice back at home, Dr. Sullins noted that, ‘This experience has been a team effort. I greatly appreciate the support provided to me by my practice partners who helped expand the volume of exam material by sharing their interesting and challenging cases. Also, they provided coverage for patients when I traveled to the NBEO.’ In addition, the office staff took great pride over the years in their role of capturing clinical images. Frequently, a practice technician would ask, ‘Would this make a good board case?’

Dr. Sullins also commented that, ‘I appreciate the opportunity to participate in NBOE PAM development and enjoyed watching it evolve and improve over the two decades. It makes one value the efforts of writing, editing, and reviewing a great board question. The discussions and long hours during the meetings were challenging and equivalent to a lot of continuing education. There was always a nice chemistry within the groups, and we all learned from each other. I’ll miss the fellowship with the fellow committee members, but know the PAM exam will continue forward in excellent hands.’

At the conclusion of the October 2016 Part II PAM Council meeting, Dr. Jack Terry, NBEO CEO, presented Dr. Trey Sullins with the THANK YOU! plaque that is given to members when they cycle off of exam development committees and councils. The National Board greatly appreciates the significant time and effort expended by Dr. Sullins as he authored new exam cases, reviewed and refined existing exam material, assisted in shaping the PAM exam to its current impressive state of sophistication, and for the great number of excellent ocular images that will continue to be used in PAM exams well into the future. Dr. Sullins will be missed!
The Part II Patient Assessment and Management (PAM) was administered on December 6 and 8, 2016 (Form A and Form B, respectively). A total of 1,793 candidates sat for the December 2016 test; 1,501 (83.7%) passed the exam. Of the 1,793 candidates who took the December exam, 1,667 (92.97%) were student candidates taking the test for the first time; 1,460 (81.4%) first-time student candidates passed the examination. Among the 106 repeat student candidates, 33 (31.1%) passed the exam. Of the 125 non-traditional examinees (graduate first-timers, graduate repeaters, and sponsored candidates), 41 (32.8%) passed the Part II PAM exam.

The graph above presents the distribution of scaled scores for the targeted December 2016 Part II PAM exam, in 100-point increments. The distribution reveals that a total of 1,501 candidates achieved a passing scaled score of 300-900 while 292 examinees earned a scaled score of 100-299, with the lowest possible Part II scaled score being set at 100. The peak scoring range was in the 500-599 range, in which 449 candidates scored. A group of 3 examinees earned scores in the interval of 800-900, the highest interval represented in the December 2016 Part II PAM examination.

The scaled score range for each NBEO exam is based on a 100-900 scale, where 100 represents the lowest scaled score and 900 represents a perfect score. In addition, the exam pass-fail cutoff scores are scaled so that they always equal 300. In cases where the scaling procedure results in a raw score being converted to a score of less than 100, a scaled score of 100 is assigned.
The OSLE Program Welcomes the Nevada State Optometry Law Exam

The Nevada State Board of Optometry requires its optometry licensure applicants to take a state optometry law examination, which now is given as a remote OSLE (online state law exam). The Nevada OSLE must be completed within 4 hours, has 100 items worth 1 point each, and the passing score is 75%. Due to the 4-hour time limit, it is recommended that Nevada OSLE candidates study the optometry laws that govern their practices before the exam is initiated.

The exam items cover topics included within the Nevada Revised Statutes, the Nevada Administrative Code, and the Nevada Board Policies that direct the practice of optometry in that state. Links to these laws, plus further information about the Nevada law exam, can be viewed by clicking here.

The National Board began offering the Online State Law Exam (OSLE) program 7 years ago, to assist state boards by administering their optometry jurisprudence exams to their optometry licensure applicants. OSLE information can be reviewed on the NBEO website.

Any state board that would like to become an OSLE state simply should contact the NBEO at nbeo@optometry.org. State boards pay no fee for this service. Candidate exam fees are $25 per remote online exam and $100 per in-house online exam.

CPDO: Michigan ODs Earn 12 Hours of CE for Taking CPDO Exam

The National Board is pleased to announce that effective December 21, 2016, the Michigan Board of Optometry now offers 12 hours of continuing education credit to Michigan ODs who take the CPDO self-assessment examination. These CE hours can be obtained as often as every 2 years when licensed practitioners choose to determine their subject-matter strengths and weaknesses in this fashion.

The new rule is included in the Michigan Board of Optometry General Rules, R 338.323 (m). Practitioners can review this rule by clicking http://w3.lara.state.mi.us/orr/Files/AdminCode/1462_2014-129LR_AdminCode.pdf and scrolling to the very end of Page 14.
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### Contact Information
- National Board of Examiners in Optometry
  - 200 South College Street, Suite 2010
  - Charlotte, NC 28202
- General email: nbeo@optometry.org
- Part III email: nccto@optometry.org
- Phone: 704.332.9565
- Toll-Free: 800.969.3926
- Fax: 704.332.9568
- Website: www.optometry.org

### Next National Board Exams *

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<td></td>
<td>Special, through July 31, 2017</td>
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<td>CPDO</td>
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<td>Part I ABS</td>
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*Additional exam date and registration information is available on the NBEO website (www.optometry.org) and can be located by clicking on the EXAM INFORMATION tab.

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Winter 2017 TestPoints®

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