



**INTEGRITY**  
STANDING FOR SOMETHING

## 2013 Annual Report



**NBOME**

NATIONAL BOARD OF OSTEOPATHIC MEDICAL EXAMINERS



# Contents

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<b>2</b>	<b>Message from:</b> Wayne R. Carlsen, DO, Board Chair and John R. Gimpel, DO, MEd, NBOME President/CEO
<b>5</b>	<b>Tributes to Our Leadership</b>
<b>8</b>	<b>NBOME Board of Directors</b>
<b>10</b>	<b>Feature:</b> Sharing Our Information through Research
<b>14</b>	<b>COMLEX-USA Examination Series:</b>
15	COMLEX-USA Cognitive Evaluation
16	COMLEX-USA Level 2-Performance Evaluation
<b>18</b>	<b>Reports from the NBOME Departments:</b>
18	Clinical Skills Testing Jeanne M. Sandella, DO, Vice President
19	Cognitive Testing Bruce Bates, DO, Senior Vice President
23	Continuous Professional Development and Innovations Dot Horber, PhD, Director
25	Client Services Sandra Waters, MEM, Vice President for Collaborative Initiatives
26	Administration Joseph Flamini, MBA, FACHE, Vice President and COO
27	Finance Joseph Cruitt, MBA, CPA, CGMA, Vice President and CFO
28	Human Resources Maya Johnson, MBA, SPHR, Director
<b>29</b>	<b>Community Support</b>
<b>30</b>	<b>NBOME National Faculty</b>
<b>34</b>	<b>NBOME Committees</b>
34	Board Committees
35	Operational Committees
36	Subcommittees and Task Forces
<b>42</b>	<b>Item Writers and Case Author of the Year</b>
<b>43</b>	<b>NBOME Item Writers Listing</b>
<b>47</b>	<b>A Key to Colleges of Osteopathic Medicine</b>

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# MESSAGE FROM NBOME BOARD CHAIR AND PRESIDENT/CEO

*“Persons of integrity do not just act consistently with their endorsements, they stand for something: they stand up for their best judgment within a community of people trying to discover what in life is worth doing.”*

—Cheshire Calhoun, *Journal of Philosophy*

NBOME’s compelling mission of protecting the public by providing the means to assess competencies for osteopathic medicine and related health care professions is grounded on a foundation of core values: patient safety, integrity, accountability, collaboration, and excellence. Of these, integrity took center stage in 2013, which we define as “doing the right thing, the right way.” The Merriam Webster dictionary equates integrity to “incorruptibility, soundness, and completeness . . . the quality or state of being complete or undivided.” By all meanings of the word, the staff and governance of the NBOME choose it as one we live by.

The year 2013 brought significant advancements with the work of our Blue Ribbon Panel (BRP) on Enhancing COMLEX-USA, helping to ensure that the osteopathic physician licensure examination continues to remain at the cutting edge of relevancy in meeting the NBOME mission, the needs of the public, and the state medical licensing boards. At the same time, giving due consideration to other important COMLEX-USA stakeholders and uses including candidates, colleges of osteopathic medicine (COMs), and graduate medical education (GME) programs, also remained a key focus. The BRP’s elite membership of those from COMs, GME, licensing boards, the profession, and leading experts in assessment have come forth with new recommendations for an enhanced COMLEX-USA that continues to evolve. However, more substantive

changes targeted for 2018-2019 include a new and distinctive competency-based, clinical presentation-oriented design and further harmonization with existing assessment checkpoints and milestones in medical education and training. The BRP will issue a report of this new structure and timing by the summer of 2014. Their recommendations are consistent with the consensus statement from the 2012 Osteopathic Medical Regulatory Summit: patients are best served by seeking care from osteopathic physicians who are qualified to practice osteopathic medicine, including the credentials earned by completing the COMLEX-USA examination series. The distinctive elements of osteopathic medical practice are well recognized and at the very core of the profession’s own integrity.

In 2013, the NBOME Department of Cognitive Testing added considerable depth and experience in psychometrics as well as test development expertise, adding to the capabilities necessary for quality and quality assurance as well as research necessary to meet the needs for COMLEX-USA. Concurrently, the department worked diligently on expanding the COMAT program and the many other important specialty board and specialty college examinations developed and delivered in collaboration with key partner organizations in osteopathic medicine and related health care professions. For the COMAT examinations, almost universal engagement across the nation’s 30 COMs



on 41 clinical campuses has allowed for robust and meaningful data for COMs and students, and for continued enhancements and delivery options for the program. The COMAT-Emergency Medicine committee continued their work in 2013 and this new examination is expected to be available in July 2015.

With all of our examinations, test integrity includes security, data forensics, and rigorous protocols as appropriate for the nature of the assessment. The completion of the leadership model for the transformation of our NBOME National Faculty (NF) in 2013, now with 32 department and division chairs and over 900 credentialed DOs and other professional members, was another important milestone. These leaders and subject matter experts help to assure that COMLEX-USA and other NBOME

assessments remain valid, reliable and defensible for their important purposes.

Integrity is at the heart of our management and financial stewardship as well in matters both internal and external to the organization. Minimal examination fee increases have been implemented in recent years, and at significantly lower rates than increases that occurred in relative areas such as tuition at COMs. Internally, deployment of an anonymous hotline in 2013 provided NBOME staff an opportunity to report any suspected financial fraud and abuse, consistent with this focus on integrity. Additionally, hiring a full-time Director for Human Resources enhanced accountability as an organization, and underscored efforts to engage our workforce.

The NBOME's stellar clinical skills examination,

**Wayne R. Carlsen, DO**  
*Board Chair*

**John R. Gimpel, DO, MEd**  
*President and CEO*

# 2013

## MESSAGE FROM NBOME BOARD CHAIR AND PRESIDENT/CEO

the COMLEX-USA Level 2-PE, continues to lead the way in research, integrity in clinical documentation (during the post encounter SOAP note), and transition to computer keyboard entry for the SOAP note (eSOAP) planned for a July 2014 implementation. Peer-reviewed manuscripts as well as abstracts and other presentations internationally continue to further the field of assessment in medical education and training.

Over the past decade in particular, the osteopathic medical profession and our colleagues across the house of medicine worldwide have been working to enhance the continuous professional development initiatives and continuous quality improvement activities for physicians, including initiatives in continuing medical education (CME), the American Osteopathic Association's (AOA's) osteopathic continuous certification (OCC), and maintenance of licensure (MOL).

For NBOME, our Department of Continuous Professional Development and Innovations (CPDI) expanded in 2013 and released its first two prototypes "Osteopathic Performance Assessment and Improvement Modules" (OPAIM), achieving approval status by the AOA-Bureau of Osteopathic Specialists (AOA-BOS) for Osteopathic Continuous Certification (OCC) Component 4. Several osteopathic specialty boards, including the American Osteopathic Board of Emergency Medicine (AOBEM), the American Osteopathic Board of Internal Medicine (AOBIM) and the American Osteopathic Board of Pediatrics (AOBP) endorsed the OPAIM module to meet OCC requirements. In addition, NBOME's collaboration with the University of North

Texas Health Sciences Center, Texas College of Osteopathic Medicine and the Reynolds Foundation on modules for inter-professional care of elders and safety, as well as being awarded official CME sponsor's designation for CME by the AOA's Council on CME, were significant highlights in this arena.

Throughout the year, discussions of aligning GME accreditation for AOA-accredited residency programs with ACGME-accredited residencies were indeed paramount for many NBOME stakeholders, and most significantly the osteopathic medical students. With 77% of residency program directors in ACGME-accredited programs, and 100% of those in AOA-accredited programs already utilizing COMLEX-USA performance in the resident selection process, the newly proposed single unified GME accreditation system promises to provide further clarity that COMLEX-USA is part of the "DO credential," not just for licensure in all 50 states and graduation at the COMs, but for other secondary uses as well. Representatives from the ACGME and the Organization of Program Director Associations (OPDA) from the "ACGME world," as well as those from the osteopathic GME community, are part of the NBOME National Faculty and Blue Ribbon Panel on Enhancing COMLEX-USA. These leaders have assured the NBOME that COMLEX-USA remains highly regarded; that eligibility criteria for GME applications, including the DO degree and COMLEX-USA, are not being modified as part of the newly proposed single unified GME system and, that even more opportunities for sharing information about DOs and COMLEX-USA with all residency program directors nationwide will be availed.

*Integrity. It is at NBOME's core. It means standing for something. It is why we are part of the equation that allows society to entrust the osteopathic medical profession and individual DOs with the privilege of being someone's physician. We take this responsibility seriously, and pledge to continue to work just as ardently to maintain this sacred trust. Thank you for your continued interest in the NBOME.*

*Sincerely,*

*Wayne R. Carlsen, DO | Board Chair*

*John R. Gimpel, DO, MEd | President and CEO*

# TRIBUTES TO OUR LEADERSHIP



**Janice A. Knebl, DO, MBA**  
Executive Committee Member,  
Immediate Past Chair

It's not often an organization has the privilege of being steered by a such a distinguished and tireless leader as **Janice A. Knebl, DO, MBA**, one of the nation's leading medical educators in geriatrics.

Dr. Janice Knebl is a native of Philadelphia who moved to Fort Worth in 1988 to become Chief, Division of Geriatrics at the University of North Texas-Health Sciences Center-Texas College of Osteopathic Medicine (UNTHSC-TCOM). Currently, she is Professor of Internal Medicine and Geriatrics at TCOM and Principal Investigator for the Reynolds Geriatric Education and Training in Texas (GET-IT) Program, which is designed to train medical students and physicians in the care of the geriatric population.

Dr. Knebl began her service to the NBOME as a test question item writer in the late 1980s, becoming a COMLEX-USA Level 2-CE Test Review Committee participant and Chair during the 1990s. She was appointed to the NBOME Board of Directors in 1999, elected to the Executive Committee in 2003, and served as Secretary/Treasurer from 2005 to 2009,

...serving two terms in that role and establishing the quarterly meeting practices for the Finance Committee in place today. She was elected Vice Chair of the Board in 2009, and was installed as Chair in December 2011. Though she passed the Board Chair gavel to Dr. Wayne Carlsen in December 2013, Dr. Knebl remains Chair of the NBOME's Blue Ribbon Panel on Enhancing COMLEX-USA.

Dr. Knebl is the recipient of numerous awards and honors including: Top Doc every year since 2004, Fort Worth Magazine; 2010 and 2011 UNTHHealth Top 90% Club, Excellence in Patient Satisfaction; 2011 and 2012 Texas Super Doctors, Texas Monthly Magazine; and 2010 Outstanding Citizen for Seniors Award, Senior Citizen Services of Greater Tarrant County, Inc. She has and continues to enjoy participating in local, statewide, and national organizations that promote health and quality of life for older adults. She has a passion for osteopathic medical education and for positively influencing the future practice of American medicine. Her

exuberance for life and her devotion to her profession are always evident making it a privilege to work with Dr. Knebl. Dr. Knebl was honored at the 2013 Annual Board Meeting for her outstanding leadership and tireless devotion to the organization.

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Former NBOME Board Chair (2009-2011), **John E. Thornburg, DO, PhD**, was also honored at the 2013 Annual Board Meeting for a history with the organization that spans more than 25 years. Dr. Thornburg began as a test question item writer and served as the first Coordinator of COMLEX-USA Level 1. Subsequently, Dr. Thornburg served as Chair of the Product Committee, a member of the Clinical Skills Testing Advisory Committee, and was elected to the Board of Directors and then to the Executive Committee. He was elected Vice Chair of the NBOME Board of Directors before assuming the role of Chair in December 2009. Now completing his term as Immediate Past Chair, Dr. Thornburg moves off of the NBOME Board of Directors. However, in 2014 he assumes the position of Chair of COMLEX-USA Level 1 and the Department of Foundational Biomedical Sciences.

Dr. Thornburg began at Michigan State University

(MSU) in 1970 as a postdoctoral fellow in the Department of Pharmacology and Toxicology after receiving a PhD in Pharmacology and Toxicology from Purdue University. He has been a faculty member at MSU's College of Osteopathic Medicine since 1977 and achieved Emeritus status in January 2010. Dr. Thornburg has received numerous teaching awards and has published seven book chapters and more than 35 papers. For his outstanding work with the NBOME, he was awarded the American Osteopathic Association's (AOA) highest honor, the Distinguished Service Certificate, in October 2012. The award recognizes leaders of the osteopathic medical profession who have made outstanding accomplishments and meritorious service in scientific, educational, or professional affairs. Dr. Thornburg says that involvement with the NBOME has been a highlight of his career. We at the NBOME say, the pleasure of working with Dr. Thornburg is all ours.

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**John W. Becher, DO**, is Professor and Chairman of the Department of Emergency Medicine at the Philadelphia College of Osteopathic Medicine (PCOM). He is also the Director of Osteopathic

**John E. Thornburg, DO, PhD**  
*Former NBOME Board Chair*







**John W. Becher, DO**  
*Executive Committee Member*

Medical Education at the AtlantiCare Regional Medical Center in Atlantic City, New Jersey. He is a member of the Board of Trustees of the American Osteopathic Association and past treasurer and member of the American Osteopathic Board of Emergency Medicine.

Known by his former residents and students simply as “the chief,” Dr. Becher recently retired from active emergency medicine practice and was recognized on the floor of the United States Congress by a former resident who also happens to be Nevada Congressman Joseph Heck, DO, who read a citation honoring Dr. Becher. Dr. Becher is considered the “grandfather of the specialty of emergency medicine” in the osteopathic medical profession, serving as the pioneer helping to create the specialty. He truly is a giant in the history of the NBOME and our profession.

Dr. John Becher first became involved with the NBOME more than twenty years ago as a test question item writer for COMLEX-USA. He has chaired several committees for the organization, and served two terms as NBOME’s Secretary/Treasurer.

As Chair of the Clinical Skills Testing Advisory Committee (CSTAC), Dr. Becher was instrumental in developing policy and procedures for COMLEX-USA

Level 2-Performance Evaluation. He was a pioneer in his efforts to convert the American Board of Emergency Medicine into a nationally administered, computer-based certifying examination. Working with the NBOME, he was able to develop and implement the new emergency medicine certification examination, and in 2009, introduced the recertifying examination in that specialty in the same format. Dr. Becher’s participation in the Physician Alliance for Physician Competence (the precursor to what is now known as the Coalition for Physician Accountability) and as the NBOME’s representative to the Federation of State Medical Boards Implementation Group on Maintenance of Licensure is evidence of his passion for improving medical education and promoting physician competence.

While Dr. Becher’s service as a member of the NBOME Board of Directors ended in 2013, he currently serves on the important Blue Ribbon Panel on Enhancing COMLEX-USA and as Chair of the COMAT Emergency Medicine Committee. It was announced in late 2013 that Dr. Becher will be the 2014 nominee for the position of AOA President-Elect, and we wish Dr. Becher all good things as he leads the AOA in the exciting years ahead.

# 2013

## NBOME BOARD OF DIRECTORS



**Wayne R. Carlsen, DO**  
Executive Committee Member, Board Chair  
Athens, Ohio  
(Installed Dec. 2013)



**Gary L. Slick, DO, MA**  
Executive Committee Member, Vice Chair  
Tulsa, Oklahoma  
(Installed Dec. 2013)



**Dana C. Shaffer, DO**  
Executive Committee Member,  
Secretary/Treasurer  
Pikeville, Kentucky (Installed Dec. 2013)



**John W. Becher, DO**  
Executive Committee Member  
Newtown Square, Pennsylvania  
(Outgoing EC Dec. 2013)



**Gary Clark**  
Executive Committee Member  
Jefferson City, Missouri  
(Appointed to EC Dec. 2013)



**J. Michael Finley, DO**  
Executive Committee Member  
Tustin, California  
(Appointed to EC Dec. 2013)



**Janice A. Knebl, DO, MBA**  
Executive Committee Member,  
Immediate Past Chair, Fort Worth, Texas  
(Outgoing Board Chair Dec. 2013)



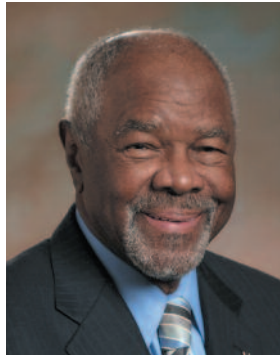
**Rich LaBaere, II, DO, MPH**  
Executive Committee Member  
Ortonville, Michigan  
(Appointed to EC Dec. 2013)



**John E. Thornburg, DO, PhD**  
Executive Committee Member  
Okemos, Michigan  
(Outgoing EC Dec. 2013)



**Peter B. Ajluni, DO**  
Bloomfield Hills,  
Michigan  
(Appointed Dec. 2013)



**William G.  
Anderson, DO**  
Detroit, Michigan



**James M.  
Andriole, DO**  
Sarasota, Florida



**Susan Belanger,  
PhD, RN**  
Silver Spring, Maryland



**Ronald R. Burns, DO**  
Winter Park, Florida



**Millicent King  
Channell, DO, MA**  
Philadelphia,  
Pennsylvania



**H. Timothy  
Dombrowski,  
DO, MPH**  
Stratford, New Jersey



**Lori Kemper,  
DO, MS**  
Glendale, Arizona



**Michael K.  
Murphy, DO**  
Charlotte, North Carolina



**Geraldine T.  
O'Shea, DO**  
Jackson, California



**Deborah Pierce,  
DO, MS**  
Fort Washington,  
Pennsylvania



**Anita Showalter, DO**  
Yakima, Washington



**Karen Snider, DO**  
Kirksville, Missouri



**Roberta Wattleworth,  
DO, MHA, MPH**  
Des Moines, Iowa



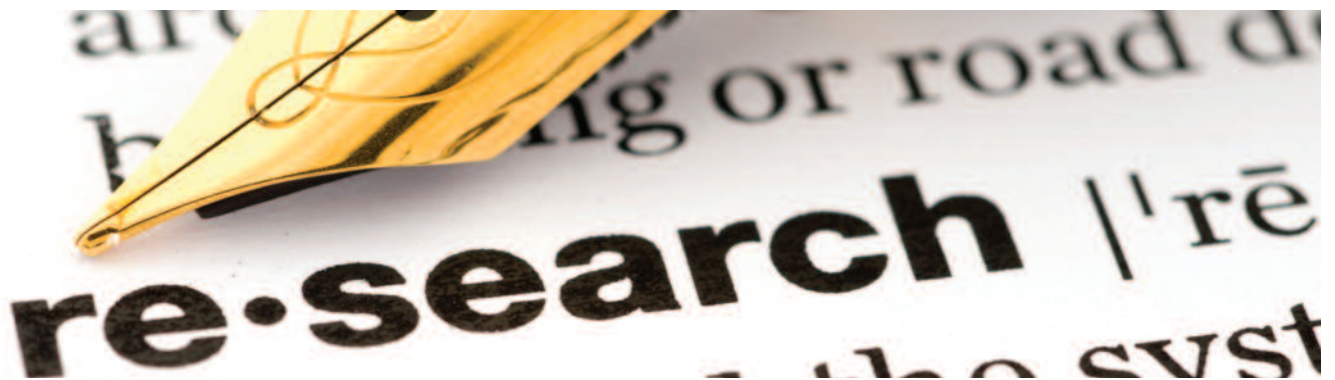
# NBOME Organizational Research Summary for 2013

BY JEANNE M. SANDELLA, DO | VICE PRESIDENT FOR CLINICAL SKILLS TESTING

The NBOME continues to conduct research on various topics in assessment, with a focus on the validity and reliability of COMLEX-USA, novel assessment formats for medical education and continuous professional development. Under the leadership of the departments' directors, Dr. Hao Song, Dr. William Roberts, and Dr. Dot Horber, the staff of NBOME meet monthly to discuss ongoing projects and to brainstorm about collaborative research initiatives. Together, the departments have been published in peer-reviewed journals such as the *Journal of the American Osteopathic Association (JAOA)*, *Advances in Health Sciences Education*, and *Applied Psychological Measurement*. They have represented the NBOME around the globe through presentations that disseminate innovative and substantive work in the field of assessment. Additionally, the Research Team continues to collaborate with affiliate organizations such as the American Osteopathic Association (AOA), the American Association of Colleges of Osteopathic Medicine (AACOM), and the specialty college and specialty board clients such as the American Osteopathic Board of Emergency Medicine (AOBEM) on projects that provide ongoing validity evidence for our assessment portfolio.

In November 2013, the NBOME exemplified its leadership in the field of research in assessment by convening a Research Advisory Forum. Representatives from the NBOME, the AACOM, the AOA, the National Board of Medical Examiners (NBME), the Education Commission for Foreign Medical Graduates (ECFMG), the American Association of Medical Colleges (AAMC/MCAT), the American Board of Internal Medicine (ABIM), colleges of osteopathic medicine, and other independent researchers in assessment assembled at the NBOME Philadelphia office to discuss current research regarding issues of timing in assessment, including construct issues, examination purpose, knowledge fluency and the concept of examination speededness. The group heard presentations from the NBOME, the NBME, the National Commission on Certification of Physician Assistants and others, and discussed future directions for research in these areas. This forum was an excellent opportunity for collaboration and sharing and the attendees were universally positive about the program, developed under the leadership of Donald Sefcik, DO, 2013 Chair.

The following is a summary of the research disseminated by the NBOME Research Team in 2013.



## JOURNALS/PUBLICATIONS

### PUBLISHED

- › Gimpel JR. The privilege and responsibility of self-regulation for physicians: A “win-win” for the physician community and our patients. *Osteopathic Family Physician*; 5(5): 191-194.
- › Levy D, Dvorkin R, Schwartz A, Zimmerman S, Li F. How does the Osteopathic Emergency Medicine Resident In-Service Examination correlate with the American Osteopathic Board of Emergency Medicine Part I board certifying examination? *Western Journal Emergency Medicine*. In press.
- › Zhang X, Roberts WL. Investigation of standardized patient ratings of humanistic competence on a medical licensure examination using many-facet measurement and generalizability theory. *Advances in Health Sciences Education* 2013 Dec; 18(5): 929-44. Doi: 10.1007/s10459-012-9433-5.

### SUBMITTED

- › Becker BJ, Wu H. Accuracy of formulas for estimating variances and covariances of correlation coefficients. *Journal Research Synthesis Methods*. 2013. In review.
- › Helstrom J, Langenau EE, Sandella JM, Mote B. Keyboard data entry: Use among osteopathic medical students and residents. *Journal of the American Osteopathic Association*. Accepted.
- › Kalinowski KE, Natesan P, & Henson RK. Stratified item selection and exposure control in unidimensional adaptive testing in the presence of two-dimensional data. *Appl Psych Meas*. 2013. Accepted.
- › Li F, Gimpel J, Arenson E, Song H, Bates B, Ludwin F. The relationship between COMLEX-USA scores and performance on the American Osteopathic Board of Emergency Medicine Part I Certifying Examination. *Journal of the American Osteopathic Association*. Revision accepted for publication in 2014.
- › Li F, Kalinowski KE, Song H, Bates B. Investigating relationships within the Comprehensive Osteopathic Medical Achievement Test (COMAT) subject examinations and COMLEX-USA Level 2-CE examination. *Journal of the American Osteopathic Association*. Revision accepted for publication in 2014.
- › Sandella JM, Smith L, Gallagher LA, Langenau EE.

Patterns of misrepresentation of clinical findings on patient notes during a clinical skills licensing examination. *Journal of the American Osteopathic Association*. Accepted for publication in 2014.

- › Sandella JM, Smith L, Dowling D. Consistency of inter-rater scoring of student performances of osteopathic manipulative treatment on the COMLEX-USA Level 2-PE. *Journal of the American Osteopathic Association*. 2013. In review.

### CONFERENCE ORAL AND POSTER, WORKSHOP AND SYMPOSIA PRESENTATIONS

#### PRESENTED

- › Dugosh J, Song H, Ostrem W. Examining differential functioning of geriatric medicine certification exam items for international and US medical graduates. Poster presented at the 2013 Annual Meeting of the Association of American Medical Colleges (AAMC).
- › Goldstein L, Langenau E, Horber D. Web-based performance assessment and improvement module. Oral presentation at MedBiquitous Annual Conference. Baltimore, MD, April 2013.
- › Kachur E, Altshuler L, Langenau E, Zabar S. Creativity in simulation-based education: Let’s keep the juices flowing! Workshop presented at 2013 International Meeting on Simulation in Healthcare, Orlando, FL, January 2013.
- › Kachur E, Langenau E, Horber D, Sandella J. Remote standardized patients (RSPs): Clinical encounters and feedback via Skype. Poster presented at the 2013 Annual Meeting of the American Association of Medical Colleges (AAMC).
- › Kachur E, Schroeder L, Langenau E, Altshuler L, Zabar S, Aeder L. Preparing standardized patients to become standardized healthcare providers and confederates. Workshop presented at 2013 International Meeting on Simulation in Healthcare, Orlando, FL, January 2013.
- › Korber K, Langenau E. CME on the Internet: Osteopathic approach to pain management using Skype and remote standardized patients. Workshop presented at 19th Annual AOA Category 1 CME Sponsor Conference, Scottsdale, AZ, January 2013.
- › Langenau E, Horber D, Kachur E. Investigation of web-based formative assessment of communication

## JAN. 2013

NBOME’s Dr. Erik Langenau and Ken Korber, PA, MHPE, the National Director of Education & Development for the American College of Osteopathic Family Physicians, presented their co-sponsored pilot project to assess web-based communication using Remote Standardized Patients (RSPs) and Skype.

# 2013

## SHARING OUR INFORMATION THROUGH RESEARCH

### FEB. 2013

NBOME launches new website to become a critical vehicle of communication to its stakeholders.

- skills using Remote Standardized Patients (RSP). Oral presentation at Association of Standardized Patient Educators. Atlanta, GA, June 2013.
- › Langenau E, Kachur E, Horber D, Gimpel J, Sandella J. Skype as a tool to provide feedback to resident learners. Oral presentation at Association for Medical Education in Europe (AMEE), Prague, Czech Republic, August 2013.
  - › Langenau E, Kachur E, Horber D, Goldstein L. Instruction and assessment of doctor-patient communication skills: A novel web-based approach. Oral presentation at MedBiquitous Annual Conference 2013. Baltimore, MD, April 2013.
  - › Langenau E, Kachur E, Horber D. Using Skype and remote standardized patients (RSPs) for teaching and assessing communication skills. Workshop presentation at Association of Standardized Patient Educators. Atlanta, GA, June 2013.
  - › Langenau E, Turner M. Continuous professional development in patient safety. Oral presentation at 23rd Osteopathic Medical Education Leadership Conference, Scottsdale, AZ, January 2013.
  - › Langenau E. Web-based instruction and assessment of doctor-patient communication skills, cooperative experience. Oral presentation at Drexel University Learning Technologies Advisory Board Semi-annual Meeting. Philadelphia, PA, May 2013.
  - › Li F, Robert B. Measuring medical students' academic growth by growth percentiles: Two applications at aggregated level. Paper presented at the 2013 Annual Meeting of American Educational Research Association, San Francisco, CA, April 2013.
  - › Li F, Song H, Gimpel J, Ludwin F. The relationship between COMLEX-USA scores and performance on the American Osteopathic Board of Emergency Medicine Part I Certifying. Poster presented at the 2013 Annual Meeting of the Association of American Medical Colleges (AAMC).
  - › Montrey D, Sandella JM. Harder, better, faster, stronger – How to train good SPs in half the time. Presentation at the Association of Standardized Patient Educators Meeting, Atlanta, GA, June 2013.
  - › Papa F, Kalinowski KE, & Smith M. Comparison of a system 1 versus system 2 approach to diagnostic training. Paper presented at the annual meeting of the Association for Medical Education in Europe (AMEE), August 2013, Prague, Czech Republic.
  - › Roberts WL, Zairul Nor Deana Md D. Multivariate repeated ratings of aspects in humanism on a clinical skill medical licensure examination. Presented at the American Educational Research Meeting, San Francisco, CA, April 2013.
  - › Sandella JM, Roberts WL, Langenau EE. Assessment of doctor-patient communication, interpersonal skills and professionalism among trainees in postgraduate medical education. Poster presentation at the International Meeting on Simulation in Healthcare, Orlando, FL, January 2013.
  - › Song H, Hess B, Lipner R. Reporting subcontent scores on a medical certification examination. Paper presented at the 2013 Annual Meeting of American Educational Research Association, San Francisco, CA, April 2013.
  - › Wu H & Almond R. Comparing the general diagnostic model (GDM) and bayesian networks using a simulated diagnostic test. Paper presented at the 2013 Annual Meeting of the American Educational Research Association, San Francisco, CA.
  - › Wu H, Liang X, Yurekli H, Becker BJ, Paek I, Binici S, Kim S. An application of the DINA model to a large scale assessment. Paper presented at the 2013 Annual Meeting of the American Educational Research Association, San Francisco, CA, April 2013.
- ### ACCEPTED
- › Chen H, Li F, Song H. Investigation on the performance of different test speededness detection methods. Accepted for presentation at the 2014 Annual Meeting National Council on Measurement in Education, Philadelphia, PA.
  - › Gallagher LA, Sandella JM, Wilson CD. Put down your pens! eSOAP has arrived: Electronic data entry for documentation of post-encounter notes in clinical skills assessment. Accepted for presentation at the 2014 AACOM meeting, Washington DC.
  - › Kalinowski KE, Song H, Lukasik M. Differential item functioning in the COMAT series of subject examinations. Accepted for presentation at the 2014 AACOM Meeting, Washington, DC.
  - › Langenau E, Kachur E, Horber D, Ruggiero J, Montrey D, Sandella J. How to organize remote standardized patient (RSP) encounters using Skype. Workshop accepted for presentation at the 2014 Annual Meeting of the Society for Simulation in Health Care.
  - › Natesan P, Kalinowski KE. Item selection and

exposure control in unidimensional calibration of multidimensionality. Paper accepted for presentation at the 2014 Annual Meeting of the National Council on Measurement in Education (NCME), Philadelphia, PA.

- › Sandella JM, Roberts WL. Longitudinal evaluation of doctor-patient communication, interpersonal skills and professionalism among osteopathic medical trainees. Accepted for presentation at the 2014 Ottawa International Meeting on Clinical Competence, Ottawa ON, Canada.
- › Sandella JM, Smith LA. Build a better checklist: Comparing expert consensus checklist development with evidence based checklist creation for performance assessment activities. Accepted for presentation at the International Meeting on Simulation in Healthcare, January 2014.
- › Smith L, Roberts WL. Test-taking strategy as a threat to validity in performance assessments with checklist components. Paper accepted for presentation at the 2014 Annual Meeting of the American Educational Research Association, Philadelphia, PA.
- › Turner M, Song H, Horber D. What we are looking for in selection of item bank system vendor: One medical licensure board's perspective. Paper accepted for presentation at the 2014 Innovations

in Testing Meeting of Association of Test Publishers.

- › Wu H, Arenson E, Song H. Potential impact of item parameter drift on ability estimation. Paper approved for presentation at the 2014 Annual Meeting, National Council on Measurement in Education, Philadelphia, PA.
- › Wu H, Almond R. A comparison of general diagnostic models and bayesian networks. Paper accepted for presentation at the 2014 Annual Meeting of the National Council on Measurement in Education, Philadelphia, PA.

#### **SUBMITTED**

- › Chuck K, Song H, Waters L. Validity and test timing: A new index to determine speededness. Submitted to 2014 Innovations in Testing Meeting of the Association of Test Publishers.
- › Horber D, Langenau E, Kachur E. Teaching and assessing doctor-patient communication using remote standardized patients and Skype: Feedback from medical residents. Submitted to the 2014 Annual Meeting of the American Educational Research Association, Philadelphia, PA.
- › Kachur E, Langenau E. Overcoming geographic barriers in performance-based assessment: Remote standardized patients (RSPs). Submitted to the 2014 Ottawa Conference.

## **MAR. 2013**

NOVA Southeastern College of Osteopathic Medicine (COM), William Carey University-COM, and Touro University Nevada COM join 22 main campus osteopathic colleges in adding NBOME's COMAT examinations to their educational programs for end-of-clerkship/clinical rotation student assessment. The COMAT program now engages all of the osteopathic medical schools except two.



# COMLEX-USA<sup>®</sup>

## National Board of Osteopathic Medical Examiners

COMLEX-USA is the NBOME's examination series that provides the pathway to licensure for osteopathic physicians in the United States. It is also recognized in many international jurisdictions. The development and administration of the COMLEX-USA series requires the expertise, hard work, intellect and dedication of the many NBOME staff members, as well as our highly qualified and committed National Faculty, which includes committee members, item writers, case authors, raters, etc.

The COMLEX-USA examination series encompasses both cognitive testing and clinical skills testing. Cognitive testing is delivered via computer

by the NBOME's testing partner, Prometric, at hundreds of testing sites around the United States and in Canada. Clinical skills testing is conducted at the NBOME's National Center for Clinical Skills Testing in Philadelphia. Post-examination surveys of candidates indicate high degrees of satisfaction with the COMLEX-USA series, particularly with respect to examination administration. The NBOME regularly assesses candidate feedback as a means to improve all aspects of the COMLEX-USA series.

This section of the annual report summarizes the key data and developments related to the COMLEX-USA series in 2013.



THE COMPREHENSIVE OSTEOPATHIC  
MEDICAL LICENSURE EXAMINATION OF  
THE UNITED STATES – COMLEX-USA

### PATHWAY TO LICENSURE

- › COMLEX-USA Level 1
- › COMLEX-USA Level 2-Cognitive Evaluation
- › COMLEX-USA Level 2-Performance Evaluation
- › COMLEX-USA Level 3

The COMLEX-USA examination series is designed to assess the osteopathic medical knowledge and clinical skills considered essential for osteopathic generalist physicians to practice osteopathic medicine without supervision.



# COMLEX-USA Cognitive Examinations

The chart below represents candidate performance on the COMLEX-USA cognitive examinations. These are COMLEX-USA Level 1, Level 2-Cognitive Evaluation (CE) and Level 3. The information presented represents complete testing cycles, which run mid-year to mid-year.

## CANDIDATE PERFORMANCE ON COMPUTER-DELIVERED COMLEX-USA COGNITIVE EXAMINATIONS

	YEAR	N 1st Exam/Total Exams	PASSING RATE 1st Exam	PASSING RATE Total Exams
<b>LEVEL 1</b>	2010-2011	4611/5428	87.6%	83.7%
	2011-2012	4853/5429	91.8%	89.4%
	2012-2013	5056/5722	90.6%	87.1%
<b>LEVEL 2-CE</b>	2010-2011	4195/5134	86.5%	82.1%
	2011-2012	4569/5465	86.8%	82.9%
	2012-2013	4866/5617	89.4%	86.7%
<b>LEVEL 3</b>	2010-2011	3660/4136	91.4%	88.4%
	2011-2012	4357/4741	95.0%	92.8%
	2012-2013	4118/4426	95.1%	93.6%



**APR. 2013**

The NBOME launches two interactive and formative Osteopathic Performance and Improvement Modules (OPAIMs) – Medication Safety Communication and OMT for Lower Back Pain during Pregnancy. The AOA-Bureau of Osteopathic Specialists (AOA-BOS) approves the NBOME OPAIM for component 4 requirements of the AOA's osteopathic continuous certification (OCC) program.

## COMLEX-USA Level 2-Performance Evaluation

*THE DATA SHOWN BELOW INCLUDES HISTORICAL INFORMATION AS A MEANS TO ILLUSTRATE TRENDS.*

The total number of candidates who took the COMLEX-USA Level 2-Performance Evaluation (PE) for each of the three testing cycles from 2010-2013 is shown in the chart below. This cohort includes both first-time takers and repeat takers.

The number of COMLEX-USA Level 2-PE examinations administered in the most recent cycle – 5,412 – is the largest number in a cycle since the inception of the National Center for Clinical Skills Testing in 2004. It represents a 7.6% (408) increase over the previous year.

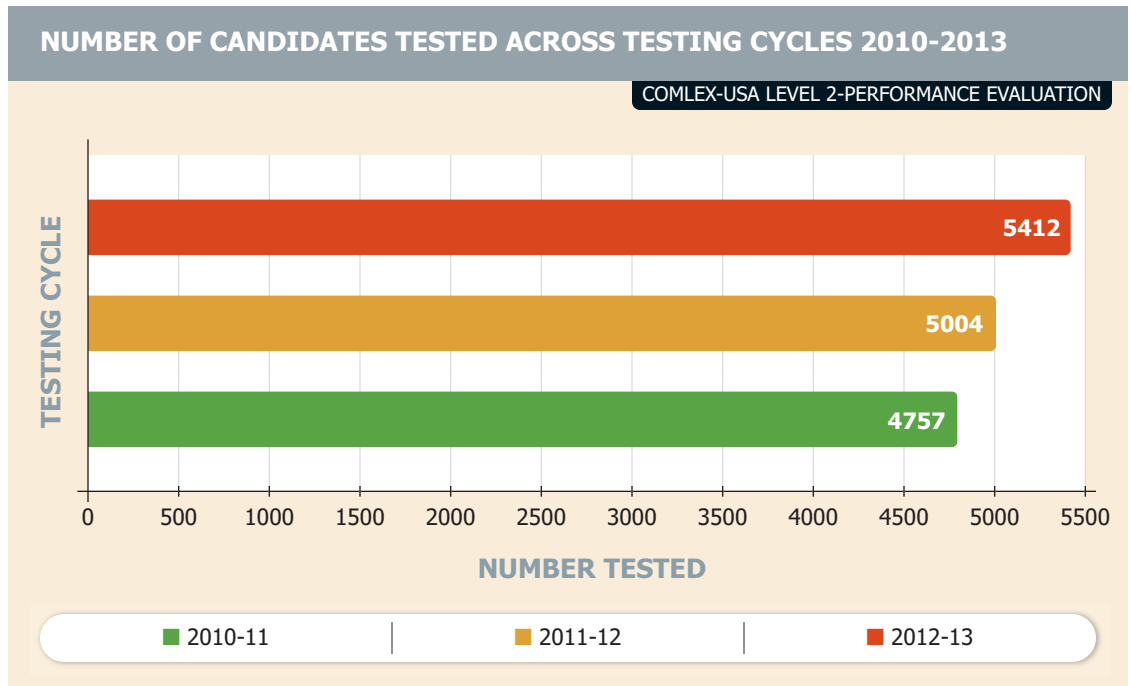
The COMLEX-USA Level 2-Performance Evaluation consists of two domains: humanistic (physician-patient communication, interpersonal skills, and professionalism) and biomedical/ biomechanical (osteopathic principles and osteopathic manipulative treatment, history-taking and physical examination skills, integrated differential diagnosis and clinical problem-solving, written communication and synthesis of clinical findings).

Consistent with many other national high-stakes

examinations for physician licensure worldwide, the NBOME follows industry-standard best practices in determining pass/fail standards for its COMLEX-USA examinations, and for periodic resetting of the standards. Periodic review and resetting of the pass/fail standards for COMLEX-USA examinations ensures the standards of osteopathic medical licensure assessment reflect current medical education and medical practice.

In the first quarter of 2013, two panels of osteopathic physicians and other subject matter experts convened at the NBOME's National Center for Clinical Skills Testing in Philadelphia to review the standards for the Biomedical/Biomechanical Domains of the examination. The NBOME Board reviewed their recommendations along with other stakeholder survey data and implemented a new pass/fail standard for this domain in July 2013.

The table on the right shows the pass/fail rate for first-time takers by testing cycle, with additional data on each of the domains.



## PASS/FAIL RATE FOR FIRST-TIME TAKERS BY TESTING CYCLE

### COMLEX-USA LEVEL 2-PERFORMANCE EVALUATION

		N	%A	%B
<b>2010-2011</b>	PASS	4385		<b>96.1</b>
	FAIL	179		<b>3.9</b>
	Humanistic Domain	105	58.7	2.3
	Biomedical Domain	59	33.0	1.3
	Both Domains	15	8.4	0.3
	<b>GRAND TOTAL</b>	<b>4564</b>		
<b>2011-2012</b>	PASS	4513		<b>95.0</b>
	FAIL	236		<b>5.0</b>
	Humanistic Domain	156	66.1	3.3
	Biomedical Domain	60	25.4	1.3
	Both Domains	20	8.5	0.4
	<b>GRAND TOTAL</b>	<b>4749</b>		
<b>2012-2013</b>	PASS	4827		<b>94.1</b>
	FAIL	300		<b>5.9</b>
	Humanistic Domain	200	66.7	3.9
	Biomedical Domain	85	28.3	1.7
	Both Domains	15	5.0	0.3
	<b>GRAND TOTAL</b>	<b>5127</b>		

**A** Total fail rate is the base for calculating percentages. **B** Total tested is the base for calculating percentages.



## DEPARTMENT OF CLINICAL SKILLS TESTING

BY JEANNE M. SANDELLA, DO | VICE PRESIDENT FOR CLINICAL SKILLS TESTING

### MAY 2013

NBOME addresses its strategic objective to increase engagement in the workforce by publishing an enhanced employee handbook to outline policies, procedures and benefits for its growing staff.

The Department of Clinical Skills Testing encompasses the COMLEX-USA Level 2-Performance Evaluation (PE) examination development, registration, administration, scoring, and research initiatives, as well as management of the National Center for Clinical Skills Testing (NCCST) in the greater Philadelphia area.

The department continues to demonstrate excellence in the administration of an assessment of osteopathic clinical skills that is valid, reliable and fair.

#### COMLEX-USA LEVEL 2-PE ADMINISTRATIONS

In the 2012-2013 testing cycle, the NBOME tested 5,412 candidates at the NCCST. This represents a 7.6% increase from the previous test cycle. Starting in July 2013, initial test appointments for the examination were opened on a rolling basis one year from the examination date on the first Monday of each month. Additional test sessions are provided throughout the year to accommodate candidate demand.

#### NBOME'S ENGAGED WORKFORCE

We involve many members of the National Faculty as physician examiners for both SOAP notes and Osteopathic Manipulative Treatment (OMT). In addition, committees including the Case Development Workshop and Committee, Clinical Skills Testing Advisory Committee, the Subcommittee for SOAP Note Misrepresentation, and Standard Setting panels provide leadership and guidance for the examination.

The staff at the NCCST provides assessment services to candidates every month of the year. From scheduling assistance to travel recommendations to examination day support to scoring concerns, the NCCST staff maintains professional and fair standards for candidates and school representatives. The addition of several professional staff in 2013-2014 will provide the resources necessary to

meet the demand for more examination administrations and continued research in clinical skills assessment. Key system updates have included the integration of new customized software for management of the examination, as well as the acquisition of software and hardware necessary to implement the transition to electronic computer keyboard entry of the post-encounter SOAP notes, called eSOAP, planned for July 2014.

#### COLLABORATION AND INTERNATIONAL GROWTH AND DEVELOPMENT

NCCST staff has collaborated with the AOA and the AACOM on the "Osteopathic GME Match Report 2012" publication, and submitted a proposal to the National Commission on Certification of Physician Assistants for a pilot examination for clinical skills of Physician Assistants. In addition, we are now providing additional administrative assistance for the AOBEM Oral Board (Part II) Examinations for certification and recertification, and are beginning the process of working on a psychometric review of this examination as well.

Staff from the NCCST were visible on a national and international level in 2013 at various conferences including the International Meeting on Simulation in Healthcare, American Educational Research Association/National Council of Measurement and Education, the Association for Standardized Patient Educators, the Meeting of the Association of Medical Educators of Europe, the American Association of Medical Colleges, the American Association of Colleges of Osteopathic Medicine Meeting and the OMED conference. Researchers at the NBOME continue to add to the body of evidence to support the validity, reliability and fairness of the COMLEX-USA Level 2-PE with 2013 publications and presentations. A list of the research activities is provided in this publication.

# DEPARTMENT OF COGNITIVE TESTING

BY BRUCE BATES, DO | SENIOR VICE PRESIDENT FOR COGNITIVE TESTING

The Department of Cognitive Testing is charged with the responsibility of developing and evaluating effective, valid and reliable assessment services to advance osteopathic medical education, osteopathic professional development, and support licensing boards in protecting the public.

This responsibility is met through a dedicated staff, a cadre of highly qualified, credentialed national faculty serving as subject matter experts, and collaborative relationships with testing center vendors working together to deliver high quality assessment products. The department conducts more than 35 National Faculty meetings each year to create, assess and review cognitive assessment products across the spectrum of professional development. Additionally, the department conducts and publishes research to validate the assessments, provide continuous quality improvement, and develop valid and reliable novel test formats.

In 2013, the department developed and administered approximately 49,000 examinations across more than 150 administration dates comprised of: COMLEX-USA Level 1, Level 2-Cognitive Evaluation (CE) and Level 3 for the purpose of initial osteopathic medical licensure; COMSAE for self-assessment by osteopathic medical students and colleges of osteopathic medicine (COMs); COMAT subject exams used principally as end-of-clinical rotation/clerkship achievement examinations for COMs; COMVEX for variable purposes related to previously licensed physician's re-entry to practice; client examination development, review and psychometric analysis for eight specialty boards, specialty colleges and related clients.

## REORGANIZATION

The department instituted a reorganization of its staff into product-related teams. This matrix approach is intended to produce greater cross-functionality and productive and efficient use of skills and knowledge, leading to enhanced customer service for our many

stakeholders. The department welcomed several new employees in 2013, adding considerable assessment expertise and experience: Mark Dawley, MBA, Sr. Managing Director; Marc Lukasik, PhD, Senior Test Development Specialist; Mary Browne, MA, Director of Test Development; Kevin Kalinowski, PhD, Psychometrician; Eric Przybylski, Test Publishing Specialist; and, Haiyan Wu, PhD, Research Associate.

## ITEM BANK SOFTWARE REPOSITORY DEVELOPMENT

While reorganization and the addition of talented expertise were important accomplishments, the selection of a new item bank repository system was a critical next step for the Department of Cognitive Testing. Initiated in 2012, the effort accelerated in 2013 under the direction of Melissa Turner, MS, Senior Director, Quality and Examination Integrity, and Sandra Waters, MEM, Vice President for Collaborative Initiatives, with a competitive Request for Proposal (RFP) process and the selection of the new item bank repository vendor. The new item bank will allow for more efficient and accurate item selection, coding and test form creation. It will facilitate test item writing, statistical information, and, importantly, examination integrity and security.

## TEST ADMINISTRATION VENDOR: REQUEST FOR PROPOSAL

The high-stakes NBOME cognitive examinations, including COMLEX-USA, have been administered since 2005 at secure Prometric Testing Centers nationwide. Overall, examinee and other stakeholder satisfaction with the NBOME and the Prometric partnership for delivery of these examinations has been good. Quality metrics have continued to be followed and analyzed. With the current contract up for renewal and as a standard part of good business practice, the organization issued a RFP to national testing delivery companies interested in providing secure computer-based testing administration

## JUN. 2013

NBOME in partnership with the University of North Texas Health Sciences Center-Texas College of Osteopathic Medicine (UNTHSC-TCOM) is awarded a five-year grant from the Donald W. Reynolds Foundation's Aging and Quality of Life program for the development of e-learning-based, geriatric-focused, Interprofessional Communication Improvement Modules (ICIMs).

# 2013

## REPORTS FROM THE NBOME DEPARTMENTS

services to NBOME. A complex formal process resulted in the consideration of alternate vendors. A recommendation will be made to the NBOME Board of Directors in early in 2014.

### STANDARD SETTING

In keeping with the best practices in professional assessment, the NBOME reviews the standard for passing the COMLEX-USA examinations on a regular basis. It is used to define a “cut-score” that serves to classify examinees into those who meet or exceed the cut from those who do not. Periodic review and resetting of the pass/fail standards for COMLEX-USA examinations ensures the standards of osteopathic medical licensure assessment reflect current medical education and medical practice. This is central to the mission of the NBOME to protect the public. In 2013, the NBOME saw the planning and recruitment of qualified and representative panelists who will be engaged in Standard Setting meetings in 2014 for COMLEX-USA Level 1, Level 2-CE and Level 3.

### COMLEX-USA

The COMLEX-USA licensure series remains the foundation of NBOME’s mission to protect the public. The department continues to work to advance and

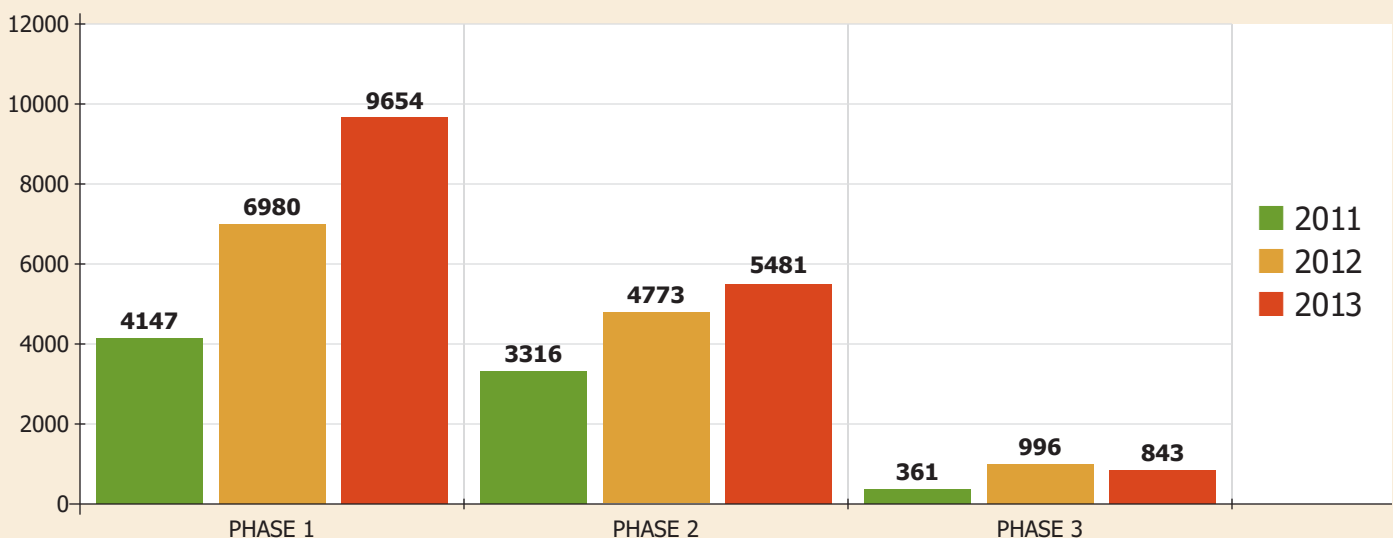
enhance the series by adding new test item formats, new technology, and “authenticity” with updated exhibits and item enhancements (e.g., video clips, audio components) to the assessment. In 2013, 16,500 Level 1, Level 2-CE and Level 3 examinations were administered, which represents a 17% increase over the previous year. An expanded and credentialed National Faculty serves to create, review and validate the performance of items.

Internal and published research remained a focus for the department. Validation and reliability studies continue to show COMLEX-USA to meet standards expected for such a high-stakes examination with reliability in the various level exams of .85 -.92, and first-time taker pass rates of 89% to 95%.

### COMSAE PROGRAM

An option for a three-phase self-assessment product, COMSAE continues to experience growing acceptance by COMs and students since its inception in 2008. Each phase corresponds to a COMLEX-USA Level. Phases 1 and 2 have multiple forms of their respective exam. Almost 10,000 students took one or more of the Phase 1 examinations. It is noteworthy that the previously observed moderate correlation of COMSAE with COMLEX-USA performance continues to be seen

INCREASE IN NUMBER OF CANDIDATES TAKING THE COMSAE – 2011 TO 2013



when the examination is taken in a timed and proctored setting.

### COMAT EXAMINATION PROGRAM

Initiated in 2008, these end-of-clinical rotation/clerkship examinations in seven disciplines continue to show expanding use and importance across the COMs. In the first half of the 2013 testing cycle there was an additional 29% growth among total osteopathic medical students taking COMAT examinations. The COMAT test teams continue efforts to standardize the blueprint formatting across the disciplines. Electronic score reporting has improved communications with COMs. Under the direction of John Becher, DO, and in response to interests expressed in previous COM surveys, an Emergency Medicine COMAT exam is in development with a target implementation date for July 2015. The most recent annual COM survey for COMAT reveals continued high satisfaction for COMs and students. The most recent survey explored new discipline exams and the optional use of secure testing centers and iPad technology for COMAT examinations.

### CLIENT EXAMINATION SERVICES

The department provides test development and

psychometric services to eight clients involving 10 separate examinations:

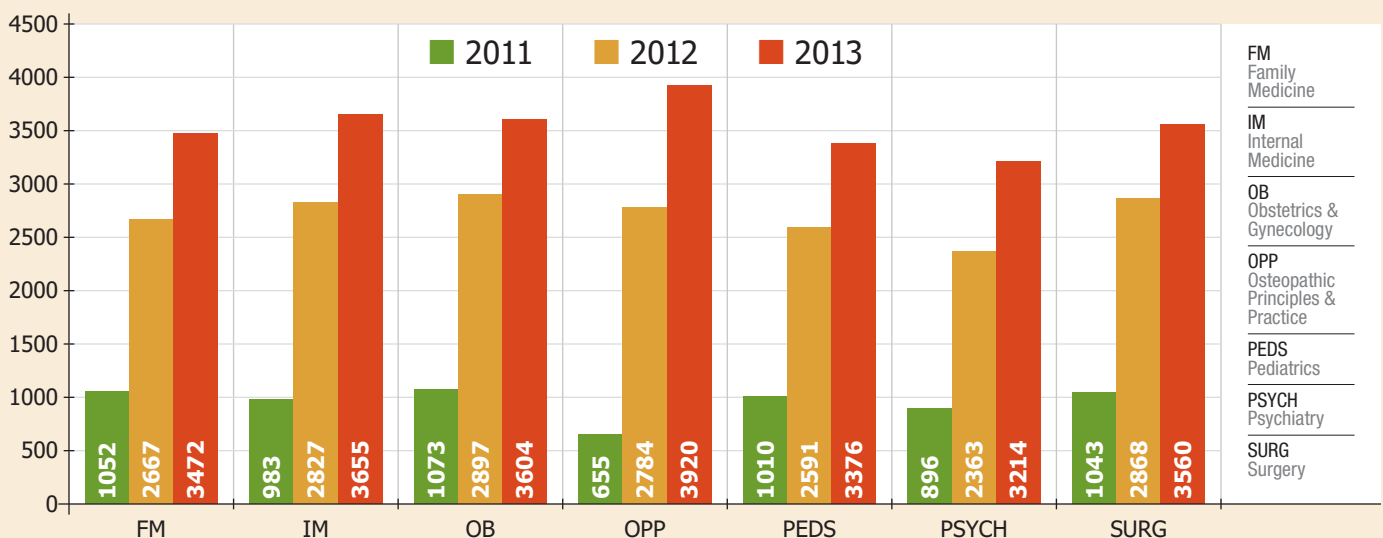
- > Six resident in-service examinations, in partnership with specialty colleges
- > Two board certification examinations, in partnership with specialty boards
- > Two board recertification examinations, in partnership with specialty boards.

The department is assisting clients in a variety of ways including independent consultation, blueprint development, item writing workshops, test publishing, web-based or secure test center-based administration, the transition to computer-based examinations, and psychometric reviews of candidate performance, testing difficulty, discrimination, validity and reliability.

In 2013, the American Academy of Pediatric Dentistry (AAPD) successfully transitioned its resident in-training examination to web-based administration with the NBOME. Also in 2013, the American College of Osteopathic Pediatricians (ACOP) launched its web based resident in-service examination. The department continues to develop and enhance services to organizations (see table on page 22). Discussions continue with potential new

Analysis of COMAT and COMLEX-USA performance indicates a moderate correlation of the two examinations. Students who took COMAT discipline assessments showed a higher performance in the COMLEX-USA Level 2-CE examination.

NUMBER OF COMAT EXAMINATIONS GIVEN FROM 2011 TO 2013



### JUL. 2013

NCCST entered its 10th year in administering the COMLEX-USA Level 2-PE examinations.

clients to expand the quality of assessments across a broader field of practice in osteopathic medicine and related health professions.

#### ADVANCED AND NOVEL TEST ITEMS

The further development of static and video images incorporated into the examinations has helped to enhance authenticity to exam items. The heart/lung sounds have complemented the items and expanded the ability to assess competency subset.

#### CLINICAL DECISIONS MAKING (CDM)

CDM cases (testing “key features”) are another exciting potential novel test format for the NBOME. Employed in Canada, Germany, Australia and

elsewhere, the concept of key features in Clinical Decision Making is an integral component of licensure and other physician assessments in these jurisdictions, and also may potentially expand the competency elements assessed by the NBOME. Directed by John Goudreau, DO, PhD, CDM cases began initial pilot testing targeted for COMLEX-USA Level 3. The format uses short answers and extended menu lists rather than the traditional multiple choice questions to measure points of critical decisions in clinical presentations, assessment, and patient management. Further expanded pilot testing in 2014 will help to determine if CDM cases will be incorporated into COMLEX-USA Level 3 or other NBOME assessments by 2018.

### 2013 NBOME CLIENTS FOR ASSESSMENT SERVICES

American Academy of Pediatric Dentistry (AAPD)	In-service examination
American College of Osteopathic Emergency Physicians (ACOEP)	In-service examination
American College of Osteopathic Family Physicians (ACOFPP)	In-service examination
American College of Osteopathic Internists (ACOI)	In-service examination
American College of Osteopathic Pediatricians (ACOP)	In-service examination
American College of Osteopathic Surgeons (ACOS)	In-service examination
American Osteopathic Board of Emergency Medicine (AOBEM)	Certification and Recertification examinations
American Osteopathic Board of Pediatrics (AOBP)	Certification and Recertification





# DEPARTMENT OF CONTINUOUS PROFESSIONAL DEVELOPMENT AND INNOVATIONS

BY DOT HORBER, PHD | DIRECTOR FOR CONTINUOUS PROFESSIONAL DEVELOPMENT AND INNOVATIONS

The primary role of the Continuous Professional Development and Innovations (CPDI) Department is to generate advanced resources and assessments for the ongoing professional development of osteopathic physicians and other health care professionals. CPDI accomplishes its mission through initiatives that include the Osteopathic Performance Assessment and Improvement Module (OPAIM) program and support of continuous medical education (CME) initiatives. Additionally, CPDI provides assistance to other NBOME teams by providing assistance with instructional design to learning technologies and audiovisual services. Another key role for CPDI is to facilitate the efforts of the Blue Ribbon Panel (BRP) on Enhancing COMLEX-USA, whose focus is the outlining and implementation of an enhanced two-decision point, competency-based COMLEX-USA that is consistent with NBOME's mission.

With regard to developing innovative resources and assessments for the ongoing professional development of osteopathic physicians and other health care professionals, the CPDI team has accomplished the following during 2013.

## OPAIM DEVELOPMENT

OPAIM is a collection of learning technologies using a web-based, asynchronous platform that is convenient, meaningful and relevant to osteopathic practice, cost-effective, defensible and osteopathically distinctive. Each OPAIM module contains didactic presentations, expert videos and case studies offered in a user-friendly and interactive format that incorporates formative assessment from actual performance in practice.

The OPAIM prototype was developed and two OPAIM modules, Medication Safety Communications and OMT for Low Back Pain during Pregnancy, were launched in April 2013. In preparation for its official release in October at the 2013 OMED Conference, the

OPAIM prototype was refreshed and updated to be more interactive and user-friendly and to include expert videos. Great interest was expressed in the modules and in 2013, three osteopathic Specialty Boards approved the Medication Safety Communications module for satisfying AOA-BOS' OCC Component 4 requirements, including the AOBP (Pediatrics), the AOBIM (Internal Medicine) and the AOBEM (Emergency Medicine). Several other Boards are likely to partner with the NBOME in creating new modules or by adding the currently available OPAIM modules or additional ones to their "libraries" to expand choices for their diplomates in satisfying the AOA's OCC.

As the content of an OPAIM can be customized to the needs of individual specialty boards or colleges, the NBOME looks forward to partnering with Boards and other societies such as the American Association of Physician Assistants who have expressed significant interest in using the NBOME's product and customized modules for their Certification Maintenance program.

## CONTINUING MEDICAL EDUCATION

In line with its role in facilitating continuous professional development for the osteopathic medical profession, the NBOME received approval in 2013 as an accredited AOA Council on CME sponsor. In the NBOME's first independent CME activity, CPDI will provide assistance to the NBOME Clinical Skills Department in early 2014 for a seven-credit hour workshop program on clinical skills case development.

## LEARNING TECHNOLOGY AND VIDEO PRODUCTION SERVICES

CPDI continues to partner with other NBOME teams including the Cognitive Testing Department to provide video production services for multi-media test items. Similarly, CPDI provided support for the Clinical

## AUG. 2013

NBOME introduces EthicsPoint Hotline encouraging employees to report any suspected behavior related to financial fraud, dishonesty and unethical conduct.

The American Osteopathic Association-Bureau of Osteopathic Specialists (AOA-BOS) Standards Review Committee grants approval for the physicians of three osteopathic certification boards – Pediatrics, Internal Medicine and Emergency Medicine – to use NBOME Medical Safety Communication OPAIM to satisfy AOA-BOS Osteopathic Continuous Certification (OCC) Component 4.

# 2013

## REPORTS FROM THE NBOME DEPARTMENTS

### SEP. 2013

3,859 COMAT examinations administered in the 2013-2014 academic year at 24 colleges of osteopathic medicine plus two additional branch campuses.

Skills Department in the development of the e-SOAP note training video in preparation for the transition from written SOAP notes to electronic computer keyboard entry of SOAP notes launching in 2014.

#### REYNOLDS GRANT PARTNERSHIP WITH UNTHSC-TCOM

Using its expertise with learning technologies and instructional design, CPDI began partnering with UNTHSC-TCOM in a five-year grant provided by the Donald W. Reynolds Foundation designed to improve the quality of life among the elderly through better physician education in geriatrics. In fulfillment of this grant, the UNTHSC-NBOME team has begun the development of an Elder Safety Inter-professional Communication Improvement Module (ICIM) focusing on Fall Risk Education and Assessment, with future ICIMs dealing with Elder Maltreatment, Advanced Care Planning and Medication Reconciliation. The ICIM is planned to be an interdisciplinary, formative assessment web-based module primarily designed to improve elder safety. One of the unique aspects of these modules is their inter-professional focus, particularly essential in caring for the elderly population who typically require the coordination of a number of health care professionals.

#### BLUE RIBBON PANEL ON ENHANCING COMLEX-USA

Initiated in May 2010, the Blue Ribbon Panel on

Enhancing COMLEX-USA was charged with researching and outlining a plan to implement a two-decision point, competency-based COMLEX-USA examination that is consistent with NBOME's mission. In addition, the Blue Ribbon Panel was asked to consider the primary purpose of COMLEX-USA, as well as its important secondary uses of the examinations.

During 2013, the BRP made great progress toward achieving its goal. Much of the work of the Blue Ribbon Panel and its Blueprint Workgroup Sub-Committee focused on finalizing and refining the new COMLEX-USA Blueprint with its two dimensions, Competency Domain and Clinical Presentation. Building on previous accomplishments of its 2012 meeting, the Blueprint Workgroup met in May to focus on defining the Clinical Presentation dimension. The outcome of this meeting was development of a proposed Introduction to the Clinical Presentation dimension and its high-level categories, their nomenclature, together with proposed weighting.

During its meeting in November, the Blue Ribbon Panel made substantial progress in finalizing the new Blueprint and in considering a future vision of COMLEX-USA as a whole. A report of these recommendations, with a planned implementation of an expanded two-day COMLEX-USA Level 3 examination in 2019, is expected to be released in April 2014.



November 2013 meeting of the Blue Ribbon Panel on Enhancing COMLEX-USA

# DEPARTMENT OF CLIENT SERVICES

BY SANDRA WATERS, MEM | VICE PRESIDENT FOR COLLABORATIVE INITIATIVES

In 2013, the client services team supported over 65,000 candidates who applied for and completed assessments for COMLEX-USA, COMAT, COMSAE, and/or the board and resident in-service examinations the NBOME administers. Client services continues to take center stage to ensure exceptional customer service and that candidates can register for their examinations, schedule times and locations, and receive results efficiently.

## EXPANDING COMMUNICATION CHANNELS

In response to the growing number of candidates and the need to support the primary communication channel, NBOME client services representatives have extended telephone availability from 7AM to 7PM (ET) during business days to provide live customer service. In addition, improvements were made to the format and content of the NBOME website for individuals seeking self-service. Efforts began for the development of a mobile application, to provide candidates and stakeholders with a tool for converting COMLEX-USA 3-digit standard scores to percentile scores.

## CANDIDATE FEEDBACK

New reporting mechanisms implemented in the fall have increased organizational knowledge and improved the team's ability to anticipate and respond to candidate issues efficiently and effectively. Key examples include daily reviews of upcoming test schedules and analysis of test center incident reports. This approach has helped the NBOME ensure appropriate staffing levels and enabled timely review of any testing site incidents.

During the summer, the NBOME launched an ongoing candidate survey to acquire feedback on the COMLEX-USA registration process, which is completed through the NBOME portal. Candidates are granted access by their college or specialty college/board, pay an administration fee and select

testing dates. Feedback has been provided by candidates on the tutorial, date and site location selection process, scheduling timing as well as client services customer interaction. Although numerous respondents commented positively on the NBOME client services team, the data will help drive continuous improvement of resources, practices and processes with the aim of improving the overall candidate experience.

## STRATEGIC BUSINESS PARTNERS

The NBOME continued to refine its interaction with strategic business partners by implementing bi-weekly team calls and quarterly business reviews with each strategic supplier. This approach enables the NBOME to proactively identify issues and effectively resolve them in a timely manner. Additionally, it provides a forum for broader strategic discussions to enable continuous improvement.

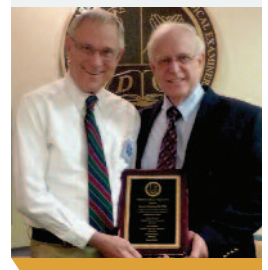
## SERVING THE OSTEOPATHIC MEDICAL COMMUNITY

In July, the NBOME team completed its portion of the Electronic Residency Application Service (ERAS) system reengineering effort that was orchestrated and managed by the American Association of Medical Colleges (AAMC). NBOME joined the National Board of Medical Examiners and the Educational Commission for Foreign Medical Graduates in completing this initiative in advance of the August 2013 deadline. This new web-based platform delivers residency applicants real-time service, assuring that COMLEX-USA scores are seamlessly distributed to residency program directors.

The NBOME attended the Administrators in Medicine (AIM) annual meeting in the spring and the regional meetings in the fall. Founded in 1984, the mission of AIM is to assist and support administrators for medical licensing and regulatory authorities to achieve administrative excellence and ultimately advance public safety. Participation in

## OCT. 2013

The NBOME honors retiring James J. Rechten, DO, PhD, for his dedicated leadership and service as Department Chair of the COMLEX-USA Level 1 and Foundational Biomedical Sciences of NBOME's National Faculty. Dr. Rechten has served the NBOME for many years, and is retiring from the Michigan State University College of Osteopathic Medicine.



## REPORTS FROM THE NBOME DEPARTMENTS

these meetings facilitated NBOME interaction with the executive directors of medical licensing and regulatory boards across the nation. Key topics included the role of COMLEX-USA in assessing licensure applicants, physician professionalism and standards of conduct, use of social media, telemedicine and physician mobility.

Colleges of osteopathic medicine throughout the nation continue to use COMSAE to prepare students for the COMLEX-USA series, and over 90% of eligible schools use one or more of the available COMAT examinations.

The NBOME's support of specialty boards and colleges and related health care providers for the administration of resident in-training and specialty

board examinations continues to grow. The NBOME now supports five of the largest specialties to deliver board certification, recertification and residency in-training examinations. Some organizations had been providing their examinations via paper and pencil, but by the end of 2013, all of the NBOME's specialty college partners had completed voluntary conversion to secure proctored web-based delivery. Several other specialty affiliates are in discussions with the NBOME to provide similar services. The increasing interest stems from the desire to reduce administrative burden and leverage the NBOME's experience implementing high quality and secure examinations that advance the mission of public protection.

## DEPARTMENT OF ADMINISTRATION

BY JOSEPH FLAMINI, MBA, FACHE | VICE PRESIDENT FOR ADMINISTRATION & CHIEF OPERATING OFFICER

The Department of Administration is integrated into the fiber of the NBOME, operating as both a liaison and guide in conjunction with the executive leadership team, department managers, Board, and external partners and clients to ensure the day-to-day, month-to-month, and year-to-year continuity of our work.

As an assessment agency, the NBOME fundamentally develops and delivers high-stakes examinations and evaluations for the osteopathic medical community. In order to design, manage and continuously improve these products, the NBOME utilizes a comprehensive test development process and relies on support from strategic planning efforts, workforce development, client services, information technology, financial systems, strategic partners, and innovation.

Accordingly, the Vice President for Administration/COO directly oversees the departments of Marketing and Communications and Information Technology, which by their nature also

touch and support each NBOME department.

In 2013, these two areas underwent major, strategic transformation to support the organization's growth, especially with regard to staffing. Up until this time, the NBOME's communication's director was responsible for developing all internal and external communications. As the need arose to embrace Social Media to maintain relevance among candidates – especially the millennial demographic – and to address political and environmental changes evolving in the house of medicine, the NBOME recognized a need to be proactive in the marketing and communication of its products and services. As a result, the department was reorganized and renamed "Marketing and Communications" to include a newly hired director, a dedicated associate, and shared coordinator support position. This department continues to be responsible for all internal and external communications, but also encompasses tactical advertising, public relations, and marketing to meet

the NBOME strategic initiatives and implement guidance from our Board.

Likewise, the Information Technology Department experienced transformation in 2013 in order to support the ever-changing technological needs necessary to provide outstanding high-stakes assessments in the 21st century. Some of the IT operations that had been previously outsourced to contractors were converted to fulltime internal positions this year, growing to a total of 14 IT staff

members. Collectively, the complementary skill sets of this team merge to provide the organization with infrastructure, security, interfaces, electronic delivery systems, wireless and internet support, programming, database development and maintenance, migration to new systems, and more.

Indeed 2013 was a year of growth for the NBOME, and with strategic direction from both executive leadership and the Board of Directors, the organization charted a course for future success.

## DEPARTMENT OF FINANCE

*JOSEPH W. CRUITT, MBA, CPA, CGMA | VICE PRESIDENT FOR FINANCE & CHIEF FINANCIAL OFFICER*

Through the financial oversight of the NBOME Board of Directors, Finance Committee and Audit Committee, the NBOME remains a financially stable organization committed to providing sustainable resources for the fulfillment of its mission to protect the public while maintaining the integrity of the organization. The continued integration of financial acumen and strategic objectives is an important goal for the NBOME. The five-year strategic plan includes key strategic directives related to the advancement of accountability for financial matters, as well as the long-range financial planning for evaluation of all NBOME assets including leased space. The NBOME Finance Department helps serve a role in creating an environment that raises the financial awareness of the organization through the reporting and budgeting process.

Some department highlights this year included implementing reporting on quarterly financial measures for the balanced scorecard, incorporating benchmarks on operating reserves as key criteria in investment and budget management, and documenting NBOME financial systems to evaluate that the structures that generate financial results provide reasonable assurance that the information is accurate, timely and consistent.

A year-end audit was completed with an

unmodified "clean" opinion as a result. In conjunction with the NBOME Audit Committee, a third party hotline for confidential reporting related to financial fraud, dishonesty and unethical behavior was implemented as mentioned elsewhere in this report.

Additionally, the department completed the training and implementation of positive pay and ACH approval tools related to banking transactions to enhance internal controls, and an upgrade of the financial system with enhanced network and reporting capabilities. These items and more were presented at September 2013 Senior Management Retreat with the goal of increasing the awareness of key financial indicators among the organization's leadership, along with enhanced investment monitoring reports to measure NBOME's total investment portfolio performance.

In conjunction with the NBOME Finance Committee, the department initiated a request for proposal process resulting in the selection of new fixed income managers. We also developed and disbursed budget reporting processes by department, which provided transparency for management and finance to interact in order to raise awareness of financial matters and improve overall reporting.

### NOV. 2013

The American Osteopathic Association (AOA) Council on Continuing Medical Education (CME) approved the NBOME application as a recognized, AOA Category 1 CME Sponsor.

## DEPARTMENT OF HUMAN RESOURCES

BY MAYA JOHNSON, MBA, SPHR | DIRECTOR FOR HUMAN RESOURCES

### DEC. 2013

The NBOME presented its "Santucci Award" for outstanding contributions to the organization's mission to Boyd R. Buser, DO, Dean at the University of Pikeville-Kentucky College of Osteopathic Medicine, and previous NBOME Board Chair (2003-2005).



In efforts to meet NBOME's strategic objectives for the engaged workforce, a full time human resources director was hired in 2013 and operates as an integral member of the organization's executive leadership team.

Since joining NBOME, the Director for Human Resources and the team she oversees have steered and implemented significant investments in employee welfare and engagement programs and policies including the renewal of NBOME's existing medical plan. Maintaining this plan was an important goal involving competitive analysis while meeting a critical objective in allowing employees to continue relationships with their current medical providers. Additionally, NBOME offered and advocated free flu shots for all staff and promoted wellness through the staff monthly newsletter, *InTouch*.

Employees promoted breast cancer awareness by participating in Lee's National Denim Day, as well as raising donations to benefit ongoing cancer research totaling \$865 for the American Cancer Society. In the same spirit of giving, NBOME staff members at holiday time participated in the Salvation Army's Angel Giving Tree, which helps children in need; and, in Bringing Hope Home's Adopt-A-Family program that provides support to families with someone battling cancer.

As indicated in our balanced scorecard, we continued to see an increase in employee participation in internal and external professional development activities. The monthly "Food for the Mind" series continued with a variety of sessions including workplace safety, innovations in testing,

retirement savings and OPAIM initiatives.

In the area of employee communication, new human resources bulletin boards have been posted in common areas throughout each of our locations as another way to ensure employees stay informed of programs available to them and upcoming activities. Development of a dedicated human resources section of the monthly newsletter was initiated that features a Department Spotlight; information on the current month's Gold Star, Peer-to-Peer Recognition Employees; an Employee News section where employees can share special announcements with the NBOME family; and, a Wellness Works section with information on overall well-being.

Recruitment efforts peaked in 2013 with over 20 new, full-time hires, five of whom are department directors. The volume of new hires this year provided an opportunity to refine our overall screening and interviewing process, and to ensure an effective method of identifying high-quality candidates.

The human resources team has been working diligently on a standardized NBOME Onboarding Program that will ensure that all new hires get a uniform orientation experience respective of the location and department they are joining. This new program will extend the current two-week, formal orientation schedule to include "HR Check-In" meetings with new hires at three-month intervals throughout the employee's first 12 months at NBOME.

As the NBOME continues to grow and expand its staff, many opportunities arise for increased programs like these to retain, enrich, and support employee loyalty and engagement.





## Community Support

On December 6, 2013, many NBOME staff and Board members paused to remember and celebrate the life of Mia Solomon, PhD, who ended her more than 10 year battle with cancer over the Thanksgiving weekend.

Dr. Solomon was influential in the development of the COMLEX-USA Level 2-PE examination as she served as Coordinator of Doctor-Patient Communication Training at the NBOME from 2004-2013. She was also instrumental in the development of the GPA tool and its use for assessment of doctor-patient communication, interpersonal skills and professionalism.

As a result of her contributions, the NBOME Board of Directors voted to approve a \$1,000 in-memoriam donation to the Mia Solomon Fund at Bryn Mawr Family Practice as one way in which NBOME will attempt to memorialize Dr. Solomon's contributions to the NBOME.

In addition, the NBOME contributes to its

stakeholder groups and communities nationally and locally in Chicago and Philadelphia in many ways throughout the year. However, one very special tradition that staff leads each year is that of teaming up to give to families in our communities who are in need, most notably at the holiday time in December. Together, NBOME staff contributed over \$1,000, to directly benefit families in Philadelphia and Chicago as mentioned in the Human Resources section of this report.

Other regional and national sponsorships in 2013 included:

- › The Advocates for the AOA Fit for Life Run benefitting student scholarships
- › The American Cancer Society
- › Diamond Sponsor of the Annual Meeting of the American Association of Colleges of Osteopathic Medicine (AACOM), and
- › Gold Sponsor of the Federation of State Medical Boards Annual Conference.

# NBOME National Faculty

2013 was the inaugural year for the implementation of the restructured NBOME National Faculty, led by 32 Department and Division Chairs. The concept of a transformed National Faculty was developed to assure the highest quality subject matter experts are engaged in the processes required for development and quality assurance for NBOME's examinations. These Chairs credential, mentor and recruit faculty, serve as trusted advisors, and lead by example the many meetings involved in test item or case authoring, examination review, and the like. These valued contributors are core to the credibility required for the NBOME to fulfill its mission. A kickoff

orientation meeting of the Chairs convened in early 2013 to set principle accountabilities and objectives.

The recruitment and credentialing of a National Faculty saw over 900 professionals reviewed and accepted for participation with the NBOME as test item writers, physician examiners, case authors, examination reviewers or committee members. Highly representative of the osteopathic medical profession, COMs, and teaching hospitals throughout the United States, the NBOME National Faculty boasts a number of professionals involved with state licensing boards as well as participation for those involved in private clinical practice.





# NBOME 2013 NATIONAL FACULTY LEADERSHIP

## COMLEX-USA TEST COMMITTEE CHAIRS

COMLEX-USA Level 1 & Foundational  
Biomedical Sciences  
**James J. Rechten, DO, PhD**

COMLEX-USA Level 2-CE (Cognitive Evaluation)  
**John L. Goudreau, DO, PhD**

COMLEX-USA Level 2-PE (Performance Evaluation)  
**David Kuo, DO**

COMLEX-USA Level 3  
**Michael F. Oliverio, DO**

Advanced Test Items  
**Robert T. Hasty, DO**

## FOUNDATIONAL BIOMEDICAL SCIENCES – DIVISION CHAIRS

Anatomy  
**Randy J. Kulesza, PhD**

Biochemistry  
**Sean M. Lynch, PhD**

Genetics  
**David P. Gardner, PhD**

Microbiology & Immunology  
**Peter G. Gulick, DO**

Pathology  
**Mary Jo Robinson, DO**

Pharmacology  
**Gerald B. Call, PhD**

Physiology  
**Michael L. Smith, PhD**

## CLINICAL DEPARTMENT CHAIRS

Emergency Medicine  
**Charles A. Finch, DO**

Family Medicine  
**Joshua S. Coren, DO, MBA**

Internal Medicine, Geriatric Medicine & Dermatology  
**Glenn H. Nordehn, DO**

Obstetrics & Gynecology  
**Joseph M. Kaczmarczyk, DO, MPH**

Osteopathic Principles & Practice /  
Neuromusculoskeletal Medicine  
**Randy G. Litman, DO**

Pediatric and Adolescent Medicine  
**Jacqueline M. Kaari, DO**

Preventive Medicine & Health Promotion  
**James E. Foy, DO**

Psychiatry, Neurology & Clinical Neurosciences  
**Jed G. Magen, DO, MS**

Radiology & Diagnostic Imaging  
**Joseph W. Stengel, DO**

Surgery, Surgical Subspecialties & Anesthesia  
**William R. Henwood, DO**

## PREVENTIVE MEDICINE / HEALTH PROMOTION – DIVISION CHAIRS

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**Alan G. Glaros, PhD**

Health Care Delivery & Patient Safety  
**Oliver W. Hayes, III, DO, MHSA**

Medical Ethics, Jurisprudence & Professionalism  
**Jonathan R. King, DO, JD**

Public Health & Preventive Medicine  
**Paul C. Dew, MD, MPH**

## COMAT CHAIRS

Emergency Medicine  
**John W. Becher, DO**

Family Medicine  
**Tracy O. Middleton, DO**

Internal Medicine  
**Gary L. Slick, DO, MA**

Obstetrics & Gynecology  
**Sheryl A. Bushman, DO**

Osteopathic Principles & Practice /  
Neuromusculoskeletal Medicine  
**Karen T. Snider, DO**

Pediatrics  
**Alissa P. Craft, DO**

Psychiatry  
**Ronald R. Paolini, DO**

Surgery  
**Craig A. Gudakunst, DO**

# 2013

## NBOME NATIONAL FACULTY

Alabama  
10

Alaska  
1

Arizona  
60

Arkansas  
1

California  
71

Colorado  
16

Wyoming  
1

Wisconsin  
3

West Virginia  
19

Washington  
18

Virginia  
20

Texas  
35

Tennessee  
19

South Carolina  
5

Rhode Island  
2

Pennsylvania  
102

Oregon  
7

Oklahoma  
23

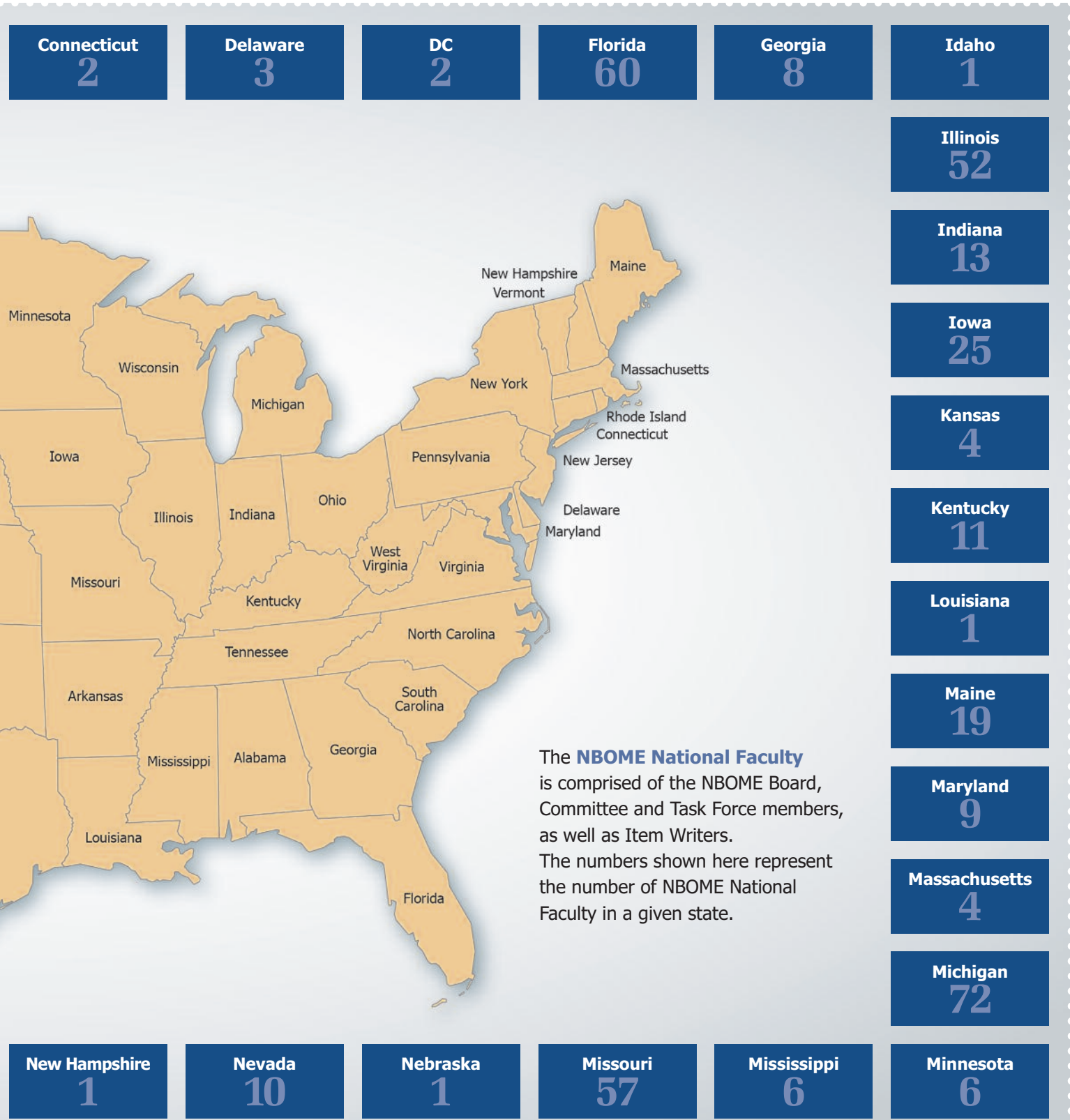
Ohio  
32

North Carolina  
12

New York  
53

New Jersey  
40





The **NBOME National Faculty** is comprised of the NBOME Board, Committee and Task Force members, as well as Item Writers. The numbers shown here represent the number of NBOME National Faculty in a given state.

# NBOME Committees

Hundreds of dedicated individuals all across the country support the NBOME’s mission of protecting the public with their work as part of our committees and task forces. The NBOME is grateful to the members of our National Faculty for their valuable contributions.

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James J. Rechten, DO, PhD	MSUCOM
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Keith Watson, DO	PNWU-COM

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Bruce Dubin, DO	RVUCOM
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Mollie M. James, DO, MPH	
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Robert Lee, DO, MS	Winthrop Pediatric Associates
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John E. Thornburg, DO, PhD	MSUCOM
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Fred A. Lepore, Jr. DO	CCOM/MWU
Kate Mitzel, DO	AZCOM/MWU
Michael Paddock, DO	Cook County Hospital
Deborah Pierce, DO, MS	Albert Einstein Med. Ctr.
Michael P. Seaman, DO	LMU-DCOM
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Cheryl Sellers, DO	LECOM Bradenton

Nicole Shields, MD	LMU-DCOM
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John Grider, DO	ATSU-KCOM
Peter G. Gulick, DO	MSUCOM
Timothy R. Heath, MD	UNTHSC/TCOM
Joanne Kaiser-Smith, DO	RowanSOM
Jonathan Leo, PhD	LMU-DCOM
Thomas Mohr, DO	RVUCOM
Glenn Nordehn, DO	CCOM/MWU
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Matthew Wilkett, DO	OSU-COM

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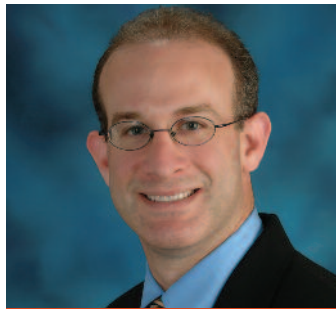


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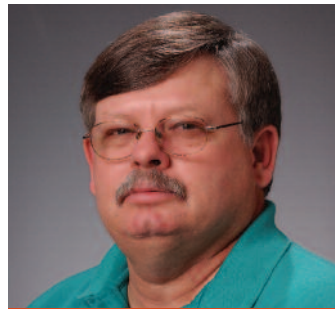


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# A Key to Colleges of Osteopathic Medicine

**ACOM** Alabama College of Osteopathic Medicine

**ATSU-KCOM** A.T. Still University-Kirksville College of Osteopathic Medicine

**ATSU-SOMA** A.T. Still University-School of Osteopathic Medicine in Arizona

**AZCOM/MWU** Arizona College of Osteopathic Medicine of Midwestern University

**CCOM/MWU** Chicago College of Osteopathic Medicine of Midwestern University

**CUSOM** Campbell University School of Osteopathic Medicine

**DMU-COM** Des Moines University College of Osteopathic Medicine

**KCUMB-COM** Kansas City University of Medicine and Biosciences College of Osteopathic Medicine

**LECOM** Lake Erie College of Osteopathic Medicine

**LECOM Bradenton** Lake Erie College of Osteopathic Medicine Bradenton Campus

**LMU-DCOM** Lincoln Memorial University-DeBusk College of Osteopathic Medicine

**MSUCOM** Michigan State University College of Osteopathic Medicine

**MU-COM** Marian University College of Osteopathic Medicine

**NSU-COM** Nova Southeastern University College of Osteopathic Medicine

**NYIT-COM** New York College of Osteopathic Medicine of New York Institute of Technology

**OSU-COM** Oklahoma State University Center for Health Sciences College of Osteopathic Medicine

**OU-HCOM** Ohio University Heritage College of Osteopathic Medicine

**PCOM** Philadelphia College of Osteopathic Medicine

**GA-PCOM** Georgia Campus-Philadelphia College of Osteopathic Medicine

**PNWU-COM** Pacific Northwest University of Health Sciences College of Osteopathic Medicine

**Rowan-SOM** Rowan University School of Osteopathic Medicine

**RVUCOM** Rocky Vista University College of Osteopathic Medicine

**TouroCOM-NY** Touro College of Osteopathic Medicine-New York

**TUCOM-CA** Touro University College of Osteopathic Medicine - California

**TUNCOM** Touro University Nevada College of Osteopathic Medicine

**UNECOM** University of New England College of Osteopathic Medicine

**UNTHSC/TCOM** University of North Texas Health Science Center at Fort Worth Texas College of Osteopathic Medicine

**UP-KYCOM** University of Pikeville Kentucky College of Osteopathic Medicine

**VCOM-CC** Edward Via College of Osteopathic Medicine - Carolinas Campus

**VCOM-VC** Edward Via College of Osteopathic Medicine - Virginia Campus

**WCU-COM** William Carey University College of Osteopathic Medicine

**Western U/COMP** Western University of Health Sciences/College of Osteopathic Medicine of the Pacific

**WVSOM** West Virginia School of Osteopathic Medicine





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