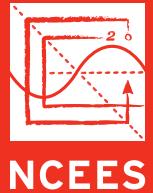


Licensure EXCHANGE

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DAVID COX
NCEES CHIEF
EXECUTIVE OFFICER



HEADQUARTERS UPDATE

NCEES moving ahead with COVID-19 response and headquarters relocation

The coronavirus disease 2019 (COVID-19) pandemic has been a disruption to NCEES services and a significant concern regarding the safety of our staff, volunteers, examinees, and meeting attendees. NCEES staff and leadership have worked diligently to develop and execute plans that focus on the safety of individuals as well as continuity of service for NCEES programs. Our guide in all deliberations on the COVID-19 response has been determining the right thing to do for the least impact on our various stakeholders, including examinees, customers, and employees.

As we move through stages of responding to this crisis, some recent developments give cause for optimism.

Pencil-and-paper exam administration

In response to the crisis, NCEES canceled the April 2020 administration of its pencil-and-paper exams across the United States and abroad. NCEES automatically refunded fees that registered examinees had paid to NCEES.

Exams that are offered only once per year in April will be offered during the October 2020 administration. We expect to have a significant increase in the number of examinees for the October administration. NCEES staff has been working with member boards and test sites to ensure that we have the appropriate capacity to accommodate the extra examinees and the necessary space for proper social distancing. We have added an extra day—Thursday, October 22—to the October 2020 pencil-and-paper exam administration to accommodate more examinees. We also opened registration for the October exams two weeks early, on June 1, to allow examinees extra time to register.

Computer-based testing (CBT)

Pearson VUE canceled computer-based exams at its professional test centers across the United States and Canada from March 17 to April 30. These closures affected the administration of NCEES computer-based exams, including the Fundamentals of Engineering (FE), Fundamentals of Surveying (FS), and Principles and Practice of Surveying (PS) exams as well as five Principles and Practice of Engineering (PE) exams.

However, Pearson VUE began administering exams related to essential services—including engineering and surveying—at some of its U.S. and Canadian professional

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FROM THE PRESIDENT



DEAN RINGLE, P.E., P.S.
NCEES PRESIDENT

NCEES leadership responds to criticism over efforts to support surveying licensure

IN THE LAST COUPLE OF YEARS, MANY STATES HAVE had ramped up threats to public protection through attacks on professional licensure. The good news is that we have had to seriously reflect on what we do as an organization, making sure that our vision and mission statements are valid and relevant and that our efforts mirror them. Sometimes, we can get sidetracked by what others think we should be as an organization or even as a profession. Sometimes, we sidetrack ourselves.

Recently, a critical article was published that caused us to contemplate the who, what, and why of NCEES. We looked at why we were created and how we have evolved to meet present-day needs for both the engineering and surveying professions. We looked at our involvement and relationships with other engineering and surveying professional organizations, including those in education and those in the experience areas of our professions. Several members of NCEES contributed to writing a response to the article. We thought it would be appropriate to share with our members.

The following article is scheduled to be printed in the June issue of Point of Beginning magazine and is currently posted on the POB website, pobonline.com.

NCEES thanks Jeffery Lucas, P.L.S., Esq., for his recent article raising points on the role of surveying in public protection and the activities included in the regulation of the practice of surveying (“Traversing the Law: The Surveying Profession and the Defense of Property Rights, *POB*, April 2020). With that in mind, we wish to provide a few points of clarification for all professional surveyors—not simply to address Mr. Lucas’ conclusions.



Delegates prepare to begin the business sessions of the 2019 NCEES annual meeting. The member licensing boards of NCEES meet once per year to debate and vote on issues of importance to the organization and engineering and surveying licensure, including revisions to the Model Law.

NCEES Model Law

First, it is important to be clear on what the NCEES *Model Law* is, how it is developed, and its role for member licensing boards.

NCEES serves as an organization through which its members—the engineering and surveying licensing boards in all U.S. states and territories—can counsel and act together to better discharge their duties as individual, autonomous regulatory agencies. One of the primary ways that NCEES fulfills its vision and supports its mission is by providing the *Model Law*.

The *Model Law* reflects best practices as determined by the NCEES member boards and is a model for state practice legislation. It is designed to assist legislative counsels,

legislators, and NCEES member licensing boards with preparing new legislation or amending existing legislation.

Changes to the *Model Law* typically go through a two-year process of committee study and Council vote. The members of these committees are a combination of professional engineers, professional surveyors, and member board staff, such as administrators or attorneys. When a committee recommends changes to the *Model Law*, it is presented to the Council—the member licensing boards of engineering and surveying in the United States. These boards meet once per year to debate and vote on motions such as these. A majority vote of member boards is required to modify the *Model Law*.

NCEES has been providing the *Model Law* as a resource for member boards and state legislators since 1932, updating it as needed to align with current practices. It provides this document as a model for individual state or territorial practice legislation in an effort to promote uniformity and simplify the interstate licensure of engineers and surveyors.

NCEES member boards dedicate a great deal of time and energy to maintaining the manual and carefully consider each amendment. But the *Model Law* is just that—a resource. The state and territorial licensing boards work together to maintain this publication for their individual jurisdictions to use as they see fit.

Regulating surveying for public protection

One of the issues that the article raises relates to the following *Model Law* sentence: “In order to safeguard the health, safety, and welfare of the public, the practice of engineering and/or surveying in this jurisdiction is hereby declared to be subject to regulation in the public interest” (Section 110.10, General Provisions). The phrase “safeguard the health, safety, and welfare of the public” was adopted in the *Model Law* in 2014, replacing “safeguard life, health, and property and to promote the public welfare.” NCEES made the change to provide consistent phrasing regarding public protection throughout the NCEES *Model Law*, *Model Rules*, *Continuing Professional Competency Guidelines*, and *Manual of Policy and Position Statements*. The phrase “health, safety,

and welfare of the public” is used in the NCEES vision and mission, and therefore was chosen for these documents to provide consistent wording.

The decision to remove the word “property” was not made lightly. Two different committees considered the issue, but ultimately, they felt that “life” and “property” could be removed and the definition streamlined because those issues were covered under the umbrella of “health, safety, and welfare.” NCEES member boards debated this issue and likewise ultimately agreed that considerations for life and property were adequately covered in the term “health, safety, and welfare.”

Several of the committee members who studied this issue, including the chair, were licensed professional surveyors. The member licensing boards who voted to change the language included, among others, professional surveyors. While Mr. Lucas may disagree with the choice of wording, we respectfully take issue with the assertion that the NCEES member licensing boards—which count many professional surveyors among their members—do not understand why surveying is regulated.

Defining the practice of surveying

The article further argues that the activities listed under the definition of surveying in *Model Law* Section 100.20 B.4, for the most part, are not related to the protection of property and associated rights and therefore are not related to core issues of surveying. We contend that all seven activities do, in fact, relate to the practice of surveying.

The practice of surveying is composed of multiple disciplines, or specialty areas, and the activities in the *Model Law* definition of surveying ensure that the public is protected when any professional surveying services are provided.

The current definition of surveying included in the *Model Law* is the result of much deliberation among professional surveyors, member licensing boards, and surveying societies. It involved several years of research and study by NCEES committees and task forces, which included the

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MEMBER BOARD BRIEF



LANCE KINNEY, PH.D., P.E. | TEXAS BOARD OF PROFESSIONAL ENGINEERS EXECUTIVE DIRECTOR

PATTY MAMOLA, P.E. | NEVADA STATE BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS EXECUTIVE DIRECTOR

Emerging technologies shape the future of regulating engineering licensure

THE FUTURE OF ENGINEERING LICENSURE AND HOW to best regulate new disciplines of engineering are major issues that NCEES, each state board, and other engineering organizations are currently wrestling with. It is much more than just an academic exercise. What we do going forward will have a large impact on the engineering profession in the United States.

In the June 2019 issue of *Licensure Exchange*, we shared information about the Engineering Change Lab USA (ECL-USA), a group of engineering professionals and leaders from around the United States who are working on these and other big-picture issues. At last year's NCEES annual meeting, we presented a workshop on licensing emerging disciplines that challenged each of us to rethink the purpose and methods of engineering licensure, given changes in technology and policy. In March, we had the opportunity to share this same message in Atlanta with the NCEES Participating Organizations Liaison Council.

Also in March, we attended the ECL-USA Summit 8, held in Houston at the Texas Medical Center Innovation Institute. At the summit, the group explored the future of engineering through the lens of biomedical engineering and the stewardship role of engineers with respect to climate and extreme weather challenges. We continue to attend ECL-USA summits because we believe it is important to continue the dialogue around licensing engineers as the future of engineering evolves with the rapid emergence of new technologies.

Real innovation comes from the type of change that is transformational, revolutionary, and disruptive.

As regulators of the engineering profession, we should all keep two questions in mind with everything we do:

- What is the purpose of regulation?
- What is the best way to regulate?

As we consider the evolution of engineering with the rapid emergence of new technologies, we should contemplate another set of questions:

- If a regulator's role is to protect public health, safety, and welfare, if engineering is integral to technology and technology changes, and if the current model for licensure does not work for rapidly emerging technologies (as demonstrated by the NCEES PE exam and licensure model for software engineering), should we regulate engineering integral to emerging technologies?
- If the answer is yes, how do we do it?

Steven Edwards, chair and chief executive officer of Black & Veatch, an employee-owned engineering firm in the Kansas City metropolitan area, said, "We can't expect for the same things we've done for the last 100 years to work for the next 100 years."

As we celebrate NCEES' centennial in 2020, it's an opportunity for us to look back at the last 100 years as well as look forward to the next 100. It's easy to become entrenched in our institutionalized organizational means, methods, and processes. It took a lot of hard work and time to get where we are today, and it can be challenging to expand our vision and consider a broader perspective and possible different future.

Change comes in many types. Some involve small-scale changes to current thoughts or practices and are somewhat comfortable and satisfying. This type of change makes incremental progress but rarely modifies the underlying structure or challenges the status quo. For the most part, this is the kind of change we undertake at NCEES and at our state boards—and for good reason. However, this type of change rarely brings about real innovation.

Real innovation comes from the type of change that is transformational, revolutionary, and disruptive. It can be messy and very uncomfortable. In a governmental framework, it can be rather risky and frowned on. But this is the type of thinking we believe is necessary to move the profession forward.

Unprecedented advances in technology are transforming the way individuals and societal groups live, work, and interact. In the World Economic Forum article "The Fourth Industrial Revolution: what it means, how to respond," founder and executive chair Klaus Schwab makes the case for needing new principles, protocols, rules, and policies to accelerate the positive and inclusive impacts of these technologies, while minimizing or eliminating their negative consequences. Now is an opportune time to be open to new thoughts and the ideas of others and even to contemplate "regulatory blasphemy," which are new models and frameworks for engineering that don't look much like what we know today.

Institutions such as governments, companies, and engineering societies and organizations have traditionally had the responsibility of shaping the societal impacts of the

technologies emerging during this current Fourth Industrial Revolution, which is a way of describing the blurring between physical, digital, and biological worlds. These institutions are struggling to keep up with the rapid change and exponential impact of this revolution.

Uber is a great example. The taxi industry is highly regulated. Uber, a software platform and business model that connects riders with drivers, came into existence essentially unregulated. It challenged the status quo and changed the face of transportation, and governments raced to catch up and understand exactly what to do with this new animal.

In the engineering realm, software platforms are emerging that will revolutionize how our world is engineered—the internet of things, big data, artificial intelligence, block chain, automated systems. New industry is asking for a framework of regulation. Sundar Pichai, CEO of Alphabet Inc.—the parent company of Google and several former Google subsidiaries—said in a January 27, 2020, *Wall Street Journal* article, "There is no question in my mind that artificial intelligence needs to be regulated." A paradigm shift is needed to begin to have a conversation around emerging technologies and the future of engineering regulation.

Recently, technology has impacted the practice and regulation of other professions. Telemedicine challenged traditional medical delivery models, and now, in the current COVID-19 world, this paradigm shift has come to the forefront. For example, Nevada Governor Steve Sisolak waived and exempted licensing for medical service providers holding a license in good standing from another state or country. Should we, society and regulators, wait for a catastrophic event to force us to change? Or can we choose to recognize the changes happening in engineering and engineering education and proactively choose to adapt so that we continue to protect the public from engineering catastrophes resulting from emerging technologies and lack of regulation?

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WENDY AMANN, P.E.

NCEES COMMITTEE ON EDUCATION CHAIR

NCEES considers equivalency of degree programs from Washington Accord signatories

PRESIDENT DEAN RINGLE, P.E., P.S., CHARGED THE 2019–20 Committee on Education to work with the Committee on Member Board Administrators (MBA) to evaluate how NCEES addresses programs from Washington Accord signatories and to recommend revisions as appropriate.

The Committee on Education’s report explains the committee’s process to ultimately reach its recommendations regarding this issue. Since this is an important topic for member boards, I would like to give some highlights from that report and also provide additional background information.

The Washington Accord is an international agreement between bodies responsible for accrediting engineering degree programs. Currently, 20 signatories make up the Washington Accord. ABET is its U.S. representative.

The committee started its deliberations with dialogue on how member boards can endorse Washington Accord signatories for licensure in the United States. The committee requested information from the NCEES Credentials Evaluations service regarding foreign degree applicants, including those with degrees from Washington Accord programs. The results were interesting in that some of these degree programs met the *NCEES Engineering Education Standard* while many other programs did not meet the standard. The gaps in the data show a number of unknown areas, such as the number of hours required for graduation, that made it difficult to determine equivalency of programs.

In addition to the gaps, the information received showed that the term “substantially equivalent” is not equivalent

when referring to actual degrees even if accreditation processes are equivalent to the processes used by ABET.

The issue has two sides: determining whether a program truly falls under the Washington Accord and determining whether a board will accept it to satisfy the education requirement for engineering licensure if a program is deemed to fall under the Washington Accord.

To the first point, determining whether a degree is from a program that falls under the Washington Accord is not a simple task. Twenty countries are signatories to the Washington Accord. To find if a program truly falls under the accord, one must go to each country’s website through the International Engineering Alliance website and search for the information. Finding the relevant information is problematic. If a member board or NCEES cannot determine if a program falls under the Washington Accord and therefore does not accept it for licensure purposes, it might put pressure on the other signatories to get their information more organized and accessible.

This leads to the second point: If that information can be found, are member boards willing to accept that a degree from a Washington Accord signatory satisfies the education needed to be licensed as a professional engineer in the United States? While accreditation processes may be similar across accord signatories, degrees may not be equal. That, however, is also an issue within each signatory. Not all engineering degrees are the same.

The committee reached a general consensus that accepting degrees from a Washington Accord signatory would be “checking a box.” Therefore, the Education Committee is unwilling to recommend accepting Washington Accord

signatory accreditations as equivalent to ABET-accredited programs, given the information that is currently available—especially when a process is already in place, through NCEES Credentials Evaluations, to compare non-ABET degrees to the *NCEES Engineering Education Standard*.

The committee had significant discussion regarding several pieces of NCEES correspondence related to this issue.

In 2005, the then-current NCEES executive director sent a letter to MBAs cautioning member boards that Washington Accord programs are compatible but not equivalent. It said that the accreditation policies and procedures of Washington Accord signatories—not the programs—are substantially equivalent. The letter quoted a 1995 ABET document that said, “The Accord is based on substantial equivalency of policies, criteria, and procedures used to accredit those engineering programs. The signatories agreed that the programs they accredited ... were compatible—not equivalent.” The letter cautioned member boards against routinely treating degrees from Washington Accord programs as equivalent to ABET-accredited programs without a third-party evaluation.

The next letter was from 2018–19 President James Purcell, P.E., in July 2019. Purcell wrote to ABET regarding confusion over the years about the mutual recognition agreements (MRAs) to which ABET is signatory—including the Washington Accord—as well as the substantial changes that the Washington Accord has undergone over the past decade and ABET’s evolution of its own description of the meaning of MRAs. In the letter, he asked ABET to explain this evolution and reaffirm the organization’s position that it recognizes “the substantial equivalence of mature accreditation systems and programs accredited by signatory organizations within their jurisdictions” and that “signatories of MRAs agree that the graduates of programs accredited by the accord’s signatories are prepared to begin practice of the profession at the entry level” (as noted on ABET’s website).

ABET President Michael Milligan, Ph.D., P.E., responded in August 2019, stating in part, “[W]e are confident all current accord signatory members have accreditation systems

that are substantially equivalent to our own, and that the programs they accredit produce graduates that are prepared for entry into the professional workplace.” As the letter did not explicitly state assurance that the programs are substantially equivalent, the committee was reluctant to assume this connection.

After consideration of these communications, the committee did not change its thoughts on how to proceed. It does recommend that NCEES leadership consider sending a new letter to MBAs to help them understand changes that have occurred since the 2005 letter.

Some committee members were unsure why there is the push to accept signatory applicants. As previously stated, many licensure applicants with degrees from programs that are not ABET accredited must go through a degree evaluation through NCEES; there is no lag time in getting these evaluations completed. The importance of recognizing Washington Accord signatories comes down to threats to licensure and whether NCEES and member boards are putting a barrier in place for applicants with degrees from other countries. As the process currently stands, the Education Committee does not feel that there is a barrier. NCEES has reviewed 4,500 foreign degree records over the last three years. This indicates that such applicants can get licensed. Because a well-defined pathway exists right now, the committee recommends making no revisions to the current process.

The committee recognizes that questions remain, however. Therefore, it recommends that a future Education Committee be given a more specific charge on this issue. Additionally, the MBA Committee is recommending in its report that NCEES either provide additional guidance on determining if a program falls under the Washington Accord or create a central database to assist MBAs with accepting degree programs from Washington Accord signatories.

The full report of this charge and the committee’s other charges will be included in the 2020 *Action Items and Conference Reports*, which will be available on the NCEES website by the end of June.

ENFORCEMENT BEAT



WILLIAM (RICK) HUETT

ALABAMA STATE BOARD OF LICENSURE
FOR PROFESSIONAL ENGINEERS AND
SURVEYORS EXECUTIVE DIRECTOR

Preparation is key for expert witness testimony

AS PART OF MY DUTIES AS EXECUTIVE DIRECTOR OF the Alabama State Board of Licensure for Professional Engineers and Surveyors, I file charges against individuals and firms with regard to violations of the licensing law and administrative rules. These charges usually result in a hearing that is much like a court trial, with the board members serving as the jury.

In late 2019, the board held a hearing regarding a professional engineer who had placed his signature and professional seal on multiple engineering design plans for a project. He was accused of submitting structural, civil, mechanical, and electrical engineering design drawings that contained violations of the standards of practice for professional engineers in the state of Alabama.

As part of the board's evidence presented at the hearing, board counsel questioned the board's expert witnesses who had reviewed the design plans sealed by the professional engineer. Two of the board's experts outlined small issues with the design plans, and their testimony was presented with little cross examination by the respondent's team of attorneys.

The other two experts differed in their findings, noting significant issues in the design plans that they reviewed. These two experts were subjected to a much different style of questioning by the respondent's lead attorney. During their testimony, both experts appeared to become agitated with the attorney and engaged in a confrontational, back-and-forth style of dialogue.

At the conclusion of the hearing, it was apparent to me that these two experts had not anticipated the style of questioning presented by the attorney and may have allowed themselves to become too confrontational. In my opinion, our investigative staff could have provided them

In the future, my board will provide expert witnesses with a better understanding of what to expect during a hearing process and will refer to the NCEES *Investigative Training Manual* as the guide to provide that understanding.

a better understanding of what possibilities to expect during the hearing process.

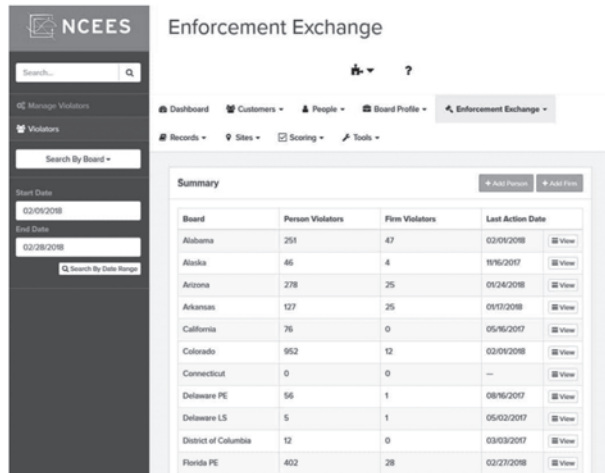
To avoid this outcome in the future, we will provide our experts with information regarding the hearing process and what they may encounter. An informative source on the hearing process and what to expect is the NCEES *Investigative Training Manual*, a best-practice manual for enforcement training. It includes a chapter on testifying, complete with guidance for investigators and expert witnesses. The chapter highlights important factors such as how to conduct oneself on the witness stand, how investigators should interact with the judge and court personnel, how to present effective testimony, and how testimony should only pertain to the facts of a case.

For example, in terms of conduct on the witness stand, the manual states, "When called to testify, investigators should approach the witness stand in a businesslike manner. They should position themselves in the witness stand in such a way that they have full view of the jury or hearing members and the attorneys, and they should sit erect with their feet on the floor and their hands on the chair arms or in their laps." This may seem like common sense, but nerves can

Enforcement Resources

Law enforcement is a key part of how boards regulate licensure

NCEES ENFORCEMENT EXCHANGE CAN HELP



Board	Person Violators	Firm Violators	Last Action Date
Alabama	251	47	02/09/2018
Alaska	46	4	11/16/2017
Arizona	278	25	01/24/2018
Arkansas	127	25	01/12/2018
California	76	0	05/16/2017
Colorado	952	12	02/09/2018
Connecticut	0	0	--
Delaware PE	56	1	08/16/2017
Delaware LS	5	1	05/02/2017
District of Columbia	12	0	03/03/2017
Florida PE	402	28	02/27/2018

Enforcement Exchange is a nationwide, web-based database that allows NCEES member boards to enter disciplinary actions taken against violators and to review disciplinary actions posted by other jurisdictions. Boards can use this members-only database to screen licensure and exam applicants for disciplinary actions and to verify that their licensees have not committed violations in other jurisdictions.

Using Enforcement Exchange keeps your board and staff connected with current disciplinary actions nationwide. It strengthens your board's role in safeguarding the health, safety, and welfare of the public—and improves the mobility of the engineering and surveying professions.

Log in to Enforcement Exchange.

[Enforcement Resources](#)

The Enforcement Resources section of [ncees.org/resources](https://www.ncees.org/resources) houses a number of NCEES resources for member board enforcement staff, including the Investigative Training Manual. Enforcement Resources is part of the members-only Member Resources section of the NCEES website.

affect anyone. It is prudent to take this extra care with preparation, as evident in the earlier example.

The investigative staff can set the tone for a hearing process, steering it toward a positive or negative experience. Because of this, it is imperative that investigators are courteous when addressing the judge or court personnel. The investigator is the fact finder of the hearing; therefore, all of the investigator's testimony should be factual, with no prejudice against the defendant or defense counsel. In our case above, the defense attorney successfully provoked two experts into becoming verbally confrontational, which does not make for a successful hearing process. The manual states, "When this kind of tactic is employed, the investigator must exercise verbal control by remaining calm and replying in a straightforward manner."

Effective testimony is at the heart of all hearings. Delivery of that testimony is a key component. The *Investigative Training Manual* details how an investigator's voice, style, and speed can impact testimony. The manual recommends, "Investigators should speak in moderate

tones, but loudly enough so that all jurors or hearing members can hear. Investigators should speak to both the attorneys and the jury or hearing members and maintain eye contact with all appropriate parties."

Another key to effective testimony is sticking to the facts of the case. Investigators should listen carefully to what is being asked and only respond to those specific questions. Straying from the questions asked could lead to other factors that could negatively impact the hearing process. These factors can make the difference between effective and ineffective presentation delivery.

In the future, my board will provide expert witnesses with a better understanding of what to expect during a hearing process and will refer to the NCEES *Investigative Training Manual* as the guide to provide that understanding. Member boards can find the *Investigative Training Manual*, along with other enforcement-related guidelines and articles, in the Enforcement Resources section of [ncees.org/resources](https://www.ncees.org/resources). I encourage you to take a moment to browse the site. You will find something that can be of benefit to you and your board.

HEADQUARTERS UPDATE

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test centers on May 1. Capacity at all test centers has been reduced to comply with social distancing requirements, but at least we are moving in a positive direction. In the first two weeks of resumed testing, our CBT exams were administered to 1,030 examinees at 242 test centers in 47 states, the District of Columbia, Alberta, and South Korea.

Appointments at the professional test centers are limited and available on a first-come, first-served basis. Test centers must operate in compliance with local guidelines and restrictions. In most cases, test centers require examinees to provide their own face mask for admittance.

Pearson VUE select test centers on college and university campuses have been subject to closure at the school's direction, as these institutions own and operate these test centers. Many Pearson VUE test centers outside the United States and Canada have also limited or suspended their testing capacity in response to local COVID-19 circumstances.

CBT examinees impacted by Pearson VUE test center closures can request a refund or reschedule exam appointments at no charge. The data to properly assess the financial impact of these closures is not yet available. However, from March 17 to April 15, approximately 7,000 appointments at Pearson VUE professional test centers were rescheduled or canceled.

NCEES meetings

To protect the safety of volunteers and staff, NCEES canceled meetings from March 15 to at least August 31. This includes more than a dozen exam development meetings and the combined zone interim meeting, as well as the 2020 competitions for the NCEES Engineering Education Award and Surveying Education Award. Regarding exam development activities, staff exam development engineers are working with their committees on how best to complete critical tasks.

Due to conditions created by the COVID-19 pandemic, NCEES will not be able to conduct its traditional in-person annual meeting this year. Therefore, at its June 12 meeting,

the NCEES board of directors will be approving an alternate annual meeting structure, including a virtual business session on August 27. We will send more details about the structure, procedures, and agenda in June, and the latest information will be posted online at ncees.org/annual_meeting. While we are disappointed to not see representatives of our member boards in person this year, we are committed to conducting a meeting that addresses essential Council business to help safeguard the health, safety, and welfare of the public.

NCEES operations

To help contain the spread of the virus, all staff have been working remotely since NCEES headquarters closed on March 18. NCEES remote operations are continuing through at least June 15. We continue to serve our stakeholders and customers through the chat feature of our NCEES website and via email.

While we certainly did not envision a global pandemic impacting our operations, NCEES reserves will help us weather the financial losses. Having a healthy reserve fund has allowed NCEES to refund more than \$5 million to examinees for the April pencil-and-paper exam administration, and, if needed, it will allow the organization to continue day-to-day operations during a period of reduced cash receipts. This crisis has shown the wisdom of preparing for disasters that seem more likely—such as an exam breach—as well as those that seem unthinkable. With our healthy reserves, NCEES can withstand a sustained, multifaceted crisis or even more than one crisis at a time.

Headquarters relocation

We received the certificate of occupancy for the new headquarters building in Greenville, South Carolina, and officially moved our headquarters from Clemson the week of May 25. The COVID-19 pandemic created some supplier delays, but we were fortunate that the move was only delayed about three weeks due to the great work of NCEES staff, LS3P Associates LTD (our architects), and Denham-Blythe Company Inc. (our general contractor).

The previous headquarters building in Clemson is being sold to an entity associated with Clemson University. The closing is scheduled for June 30. NCEES must have the building cleaned and prepped for transfer no later than July 15.



NCEES moved into its new headquarters in Greenville, South Carolina, in May. Staff are currently working remotely in response to the COVID-19 pandemic, but they will begin working in the new headquarters building when safety allows.

The ribbon-cutting ceremony to celebrate the new NCEES headquarters was originally planned for May 28. In light of the COVID-19 response, we postponed this event. We are planning to reschedule the ceremony for this fall.

We look forward to settling staff into the new space and to welcoming others, including our member boards and exam development volunteers, at our new headquarters soon.

Centennial celebration

The COVID-19 pandemic has altered many of our plans for marking the 100th anniversary of the founding of NCEES. Nevertheless, we intend to continue to honor this important milestone as well as the accomplishments of NCEES and its member boards over the last 100 years.

We have been acknowledging the centennial and significant moments in our history through a social media campaign and *Licensure Exchange* articles in 2020. NCEES staff is designing a 100th anniversary website that will launch this winter. The

site will highlight the accomplishments of NCEES over the last century. Staff is also spearheading efforts to publish a new edition of the *History of NCEES*, which is being updated to include Council activities from 2005 to 2020. It is scheduled to be published this winter. Finally, we are creating an NCEES history traveling exhibit, which will be available in 2021.

All of these activities depend on developments regarding COVID-19. Plans may have to be altered in response to the pandemic, but we will find ways to mark this important point in our organization's history and to honor the contributions of its members over the years to fulfill its mission.

As we proceed with plans to celebrate the centennial of the founding of NCEES and prepare for fresh opportunities in our new headquarters, we look forward to moving into our second century of advancing licensure for engineers and surveyors.

FROM THE PRESIDENT

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expertise of many professional surveyors. It was developed in consultation with member licensing boards as well as a multiorganizational task force of surveying societies, including the American Congress on Surveying and Mapping, the American Society for Photogrammetry and Remote Sensing, and the National Society of Professional Surveyors, among others. This definition was approved by a vote of the NCEES member boards.

Each activity included in the definition of surveying requires the knowledge of measurement science and the expertise of a licensed professional (as demonstrated through education, examination, and experience), no matter what area of surveying practice is being performed. The goal of the *Model Law* is to develop recommended language to regulate professional practice, not the tools or methods used to produce the final work product.

NCEES *Model Rules* provides further guidance on the definition of the practice of surveying. The publication, also developed and maintained by the member licensing boards of NCEES, is available for boards to use as a guideline for engineering and surveying licensing laws and ethics.

Model Rules Section 210.25 contains Inclusions and Exclusions to the Practice of Surveying. This section, which was developed based in large part on recommendations from the previously mentioned multiorganizational task force, provides a more defined outline of what activities are within the definition of surveying and what activities are not within the definition of surveying and not regulated.

The *Model Rules* also contains a Rules of Professional Conduct section, which defines the licensed professional's ethical obligations to the public to safeguard their health, safety, and welfare when providing professional services.

Contributions of surveying professionals and licensing boards

The men and women who make up the U.S. boards of licensure for engineering and surveying are dedicated in their commitment to advancing licensure in order to protect the public. They devote thousands of hours each year at the state and national level to support licensure and uphold its safeguards for the American public. We welcome debate on the language included in the *Model Law*—or indeed any NCEES policies or best-practice manuals. We also acknowledge the energy and expertise given by member board members and staff across the United States through their work with NCEES and their individual boards.

Dean Ringle, P.S., P.E.
2019–20 NCEES President

David Cox
NCEES Chief Executive Officer

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MEMBER BOARD BRIEF

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NCEES delegates participate in a workshop on licensing emerging disciplines at the organization's 2019 annual meeting. Lance Kinney, Ph.D., P.E., and Patty Mamola, P.E., led this discussion on the future of regulating engineering licensure.

What we are suggesting is for NCEES members to have a conversation around regulatory disruption, not just small-scale regulatory changes. This disruption envisions new things beyond the old things and is a discussion about what regulation would look like in the future. It considers things such as

- Continued use of exams
- Phased licensing
- Tiered licensing
- Old engineering model
- New engineering model
- License for ethics not competency
- Competency by degree and experience
- Licensure of only legacy disciplines
- Regulation of teams/projects not individuals

We can start the disruptive conversation and consider the engineering realm where new technologies are emerging and revolutionizing how our world is engineered by asking the following question: How do we as regulators best protect the communities we serve?

We look forward to continuing this important conversation and exploring the answers to these questions and more through our work together.

Kinney is a consultant to and Mamola is a member of the 2019–20 NCEES Committee on Member Board Administrators.

Moments in NCEES history



As part of its ongoing centennial celebrations, NCEES is featuring moments in the organization's history in each 2020 issue of Licensure Exchange.

This issue's historical focus is the adoption of the Model Law. This publication is a model for state practice legislation. It reflects best practices as determined by the NCEES member boards.

From the Secretary-Treasurer's Report—1926

T. Keith Legaré

If the volume of correspondence and other work handled by the Secretary's office during the past year can be taken as an indication of the usefulness of the Council or of the interest in its work, it can be assumed that we have had a very successful year. We have been in constant communication with the various state boards, committees or individuals working on proposed legislation and, with various engineering organizations. The Council is now evidently recognized as an authority on engineering registration and the Secretary's office is rapidly becoming a clearing house for information on this subject. As an example of the territory covered we will mention that in one mail we received letters from Vermont, California, and Florida, followed the next day by Canada, and Texas. The Secretary has promptly furnished all data requested.

Many requests have been received for a recommended form of registration law and it is the opinion of the Secretary that the best work which can be accomplished by the Council at this time is to compile the law suggested at the last convention. This Suggested Uniform

Registration Law could be used as a guide by states adopting engineering registration in the future and also by those states which wish to revise their present laws.

From the Secretary-Treasurer's Report—1932

T. Keith Legaré

The adoption of a Model Law for the Registration of Professional Engineers and Land Surveyors and the establishment of a National Bureau of Engineering Registration, two important projects proposed and fostered by this Council, have been the outstanding contributions to the engineering registration movement during the past year. Because of the information and services now available it is expected that engineering registration will make extensive progress in the future, resulting in great benefit to the public and to the engineering profession.

From the Secretary-Treasurer's Report—1933

T. Keith Legaré

In a letter dated March 19, 1921 from the first President of the Council, a member of the Louisiana Board, to the first Secretary of the Council, a member of the Iowa Board, it is stated that "... it seems to me that if we are going to make progress towards the goal we all have in mind, which is uniform examination and uniform registration, that it must be done through the agency of the Council," therefore, it is evident that the activities of the Council, such as Model Registration Law, Uniform Examinations for Registration, Accredited Engineering Schools, National Bureau of Engineering Registration, and Engineers' Council for Professional Development, are not only in full accord with the purpose of the Council as set forth in the Constitution, but are also progressive steps toward attainment of the goal visualized by its founders. The time has come when national engineering organizations are no longer assuming the attitude of the ostrich but are working together for the general welfare of the engineering profession.

MEMBER BOARD NEWS

ALABAMA

Emeritus member Michael Arnold passed away November 30, 2019, at the age of 75. Lynn Doyle, Charles Haynes, and Keith King are no longer emeritus members.

ALASKA

Robert Bell, Jeffrey Garness, Loren Leman, and Eric Milliken are new appointees. David Hale, Richard (Vern) Jones, and Colin Maynard are no longer members.

ARIZONA

Clarence McAllister is a new appointee. Jason Madison is no longer a member.

CALIFORNIA

Member Robert Stockton passed away May 13 at the age of 64. This year, he was serving his fourth consecutive term as a member of the NCEES Committee on Finances.

CONNECTICUT

Theodore Barbieri and Donald Poland are no longer members.

IOWA

Michael Beardon is a new appointee.

MAINE PE

Sue Lessard is no longer a member.

MAINE PS

David Titcomb is no longer a member.

MICHIGAN PE AND PS

Brett Dodge and Steven Warren are new appointees.

MICHIGAN PE

James Stevens is no longer a member.

MISSOURI

Michael Freeman is no longer a member.

NEVADA

Matt Gingerich is a new appointee.

OHIO

Emeritus member Lawrence Chamberlain passed away September 13, 2019, at the age of 77. His contributions to NCEES include serving as a member of the Advisory Committee on Council Activities and the Committee on Finances and serving as chair of the Committee on Records Verification. Ferzan Ahmed is no longer a member.

TENNESSEE PS

Jedidiah McKeehan is no longer a member.

TEXAS

Mark Neugebauer and Marguerite McClinton Stoglin are new appointees. Elvira Reyna and Daniel Wong are no longer members.

UPCOMING EVENTS

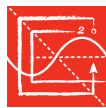
Currently scheduled events may change as NCEES continues to address the COVID-19 pandemic.

June 12

Board of Directors Meeting (virtual)

2020 NCEES annual meeting updates

Member boards can keep up to date with the latest information on the 2020 NCEES annual meeting at ncees.org/annual_meeting.



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Licensure

EXCHANGE

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Remembering Past President Albert Kersich



NCEES Past President Albert Kersich, Ph.D., P.E., passed away March 31 at the age of 90.

Kersich was a former member of the Montana Board of Professional Engineers and Professional Land Surveyors, and he served as president of NCEES in 1981-82.

His service to NCEES includes membership on the Advisory Committee on Council Activities, Committee on Examination Policy and Procedures, and Committee on Uniform Procedures and Legislative Guidelines. He chaired the committees on Awards and Nominations. Kersich was also a past president of ABET.

In recognition of his many contributions to NCEES and the professions of engineering and surveying, he was awarded the NCEES Distinguished Service Award with Special Commendation in 1992.