Licensure **EXCHANGE**

An official NCEES publication for the exchange of information, opinions, and ideas regarding the licensure of engineers and surveyors



Headquarters Update

Preparing for the annual business meeting

DAVID COX | NCEES CHIEF EXECUTIVE OFFICER

AS WE MOVE CLOSER TO THE UPCOMING annual business meeting, I want to share some insights on how to best prepare. This meeting is an essential event for our organization, providing a forum for members to discuss and vote on important issues.

It is important to take a few key steps to ensure you are well-prepared and fully engaged. Here are some tips and guidelines to help you get ready.

Attend State of the Council meetings

The June 7 State of the Council meeting is an essential pre-meeting event that provides an overview of all the motions to be discussed during the annual business meeting. As the CEO, I will present alongside our chief operating officer, Davy McDowell, P.E., to provide a detailed review of these motions. Attending this meeting is crucial to understanding the motions and participating effectively during the annual business meeting.

For the July 12 State of the Council, we will review parliamentary procedures that will be used during the business sessions. Understanding our rules for proposing, amending, and voting on motions will allow the meeting to run more smoothly and help make the debate more effective.

Review the Action Items and Conference Reports

The Action Items and Conference Reports is a comprehensive document that contains all the committee reports and motions for the upcoming meeting. It is important to review this document carefully to understand the issues that will be discussed and the actions that will be taken. It will be available by June 30, giving you ample time to review it before the annual business meeting. I recommend that each member board reviews this document and reaches a preliminary decision on each motion before coming to the annual meeting.

Understand the consent agenda process

More routine items will be bundled together as part of a consent agenda. This allows the meeting to proceed more efficiently by addressing these items quickly and without discussion. However, member boards can pull any items they wish to discuss further. There will be time during the first business session for this process. I ask that you let us know in advance of any items you plan to pull and why, along with any alternate language you would like to propose. Please contact us at dcox@ncees.org or dmcdowell@ncees.org.

continued on page 3



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COMMITTEE FOCUS



DAVID BEASLEY, PH.D., P.E. ENGINEERING LICENSURE MODEL TASK FORCE CHAIR

Task force develops concept for new licensing model

THE ENGINEERING LICENSURE MODEL TASK FORCE was established in 2020 to determine whether the current professional engineering model was accurate or if the organization should explore a more comprehensive model that could include a tiered licensing system.

In the committee's first two years, it reviewed licensing models for other professions, including the medical and dental fields. It also researched the engineering licensure systems for a range of other countries across the globe.

After evaluating these models, the task force decided that a tiered model was not the best fit for NCEES. It recommended the current licensure model be updated to provide multiple paths to licensure through enhancing experience and lifelong learning.

NCEES President Christopher Duhamel, P.E., P.L.S., chose to continue the Engineering Licensure Model Task Force to review the current NCEES engineering licensure model and establish a more detailed framework for developing an updated licensure model.

Duhamel charged the task force with developing a rubric to track and identify key skills and competencies from graduation to first license and to provide a strategy to build a new licensure model, along with developing a framework for standing committees and key stakeholders to work with in the future.

The use of rubrics will provide NCEES and member jurisdictions with a consistent and objective method to review experience. The rubric will also provide applicants, mentors, and employers with a structure to follow during The full Engineering Licensure Model Task Force report will be included in the 2023 Action Items and Conference Reports. This publication will be posted on the NCEES website by June 30.

pre-licensure work experience. In addition, the rubrics may be used to address differences in the competencies needed for professional practice, which vary from discipline to discipline.

The strategy needs to accommodate multiple pathways to licensure, as determined appropriate by the Council or individual licensing jurisdictions, and be more inclusive by removing unnecessary barriers to licensure while still protecting the health, safety, and welfare of the public.

Through robust discussions and brainstorming sessions, the task force developed a conceptual licensure model that allows for different pathways yet maintains the rigorous expectations for licensure. The conceptual licensure model is one of stacking boxes, where the various components of licensure add up to a level of education, experience, and examination to demonstrate the qualifications necessary to practice competently and safely.

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The conceptual model can accommodate

- New degree types
- Different education experiences
- Specialization of practice
- Emerging technologies
- Areas of practice without applicable exams
- Changing regulations
- Proliferation of certifications

Many jurisdictions have various pathways to licensure that currently fall outside the requirements for licensure as a professional engineer as outlined in the *Model Law*. This conceptual model accommodates diverse licensure approaches and provides a more comprehensive model to be used by all jurisdictions.

Proposed new committee

The component requirements for licensure are interconnected and should be considered together when developing and evaluating a future licensure framework. To that end, the task force has concluded that NCEES would best be served by establishing a new standing committee: the Committee on Licensure. The Engineering Licensure Model Task Force is planning to present the following motion at the NCEES annual meeting in August:

Move that a Special Committee on Bylaws be charged with developing a new standing Committee on Licensure and proposing amendments as needed to *Bylaws* Section 7 to establish the committee.

Costs for this committee should be commensurate with the existing task force and other standing committees. Therefore, the financial impact for adding a standing committee on licensure is approximately \$20,000 per year.

Licensure is an interconnected endeavor, and it is important for all the components to be considered holistically. A standing committee on licensure would be a valuable addition to NCEES and would help to ensure that the licensure process is consistent and comprehensive.

Beasley is chair of the 2022–23 Engineering Licensure Model Task Force and a member of the Arkansas Board of Licensure for Professional Engineers and Professional Surveyors.

HEADQUARTERS UPDATE

continued from cover

Send questions in advance

If you have questions or concerns about any of the motions being discussed during the annual business meeting, please notify us in advance of the meeting. This will give us time to prepare a response and provide any additional information that may be needed. It also allows staff to have slides prepared in advance for any amendments.

Come prepared to participate

It is important to come to the annual business meeting prepared to participate fully. This means being familiar with the motions and issues at hand, understanding the procedures for voting and discussion, and being ready to contribute your insights and opinions. By doing so, you will It is important to take a few key steps to ensure you are wellprepared and fully engaged.

help ensure that our organization continues to be strong and effective.

In conclusion, preparing for the annual business meeting requires time and effort, but it is vital to our organization's governance and decision-making process. By following these tips and guidelines, you will be well-equipped to participate fully and contribute to our future. If you have any further questions or concerns, please don't hesitate to contact us at dcox@ncees.org or dmcdowell@ncees.org.

FROM THE PRESIDENT



CHRISTOPHER DUHAMEL, P.E., P.L.S. NCEES PRESIDENT

New initiatives and continued work support our mission and vision

THE 2023 NCEES COMBINED ZONE INTERIM MEETING

was a success, and we are moving full speed ahead toward the annual meeting in August. There are new initiatives on the horizon, along with our continued work supporting the mission and vision. I wanted to share some of this work with you.

Highlights from zone interim meeting

The combined zone interim meeting in Houston proved to be a great and valuable experience. The business sessions unveiled the important work of the NCEES committees. Each committee and task force chair presented reports summarizing the hard work since their August 2022 organizational meetings.

A few highlights included Committee on Examinations for Professional Surveyors Chair Joe Flynn, L.S., presenting a solution to add a PLSS module to the PS exam. Committee on Finances Chair Larry Smith, P.E., along with NCEES Treasurer Paul Tyrell, P.E., P.L.S., presented a trimmed budget to address the concern of reduced examinee volume from the implementation of computer-based testing for the PE Civil exam. The proposed budget for Council consideration advances the NCEES operations and mission while protecting the fund reserves.

The committee chair reports demonstrated the endless hours that members have contributed. The Council is well served by this year's committees.

Key takeaways from POLC meeting

I attended the 2023 Participating Organizations Liaison Council (POLC) meeting in Scottsdale, Arizona. NCEES President-Elect Laura Sievers, P.E., and NCEES Chief Operating Officer Davy McDowell, P.E., attended as well. POLC consists of 27 member organizations that represent engineers and surveyors through specific societies. This was the group's first in-person meeting in two years. Member organizations provided reports on the challenges they are facing and on their strengths. The focus was on how they are advancing the protection of public health, safety, and welfare through their initiatives and actions.

The American Society of Civil Engineers and the American Society for Engineering Education (ASEE) discussed initiatives that involve licensed university faculty promoting engineering licensure. The faculty serve as an example of the importance of licensure to the profession.

What's next?

The board of directors is considering a more focused method to meet the NCEES mission and vision in the form of a charitable foundation.

CEO David Cox has proposed a foundation that would be charged with vetting funding requests for initiatives that align with the mission and vision of NCEES, with funding approved by the full Council under the annual budget. More work to flesh out the details is needed before this can be implemented, but advancement of and commitment to the NCEES mission and vision are the primary focus of the board in these deliberations.

I look forward to seeing you at the 2023 annual meeting in Boston, Massachusetts, and as always, thank you for your service.

MEMBER BOARD BRIEF



DONNA SENTELL

LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD EXECUTIVE DIRECTOR

NCEES zones join together for combined interim meeting

THE 69 MEMBER LICENSING BOARDS OF NCEES ARE divided into four zones: Central, Northeast, Southern, and Western. Generally, these zones meet twice a year—at the annual meeting in August and at the zone interim meeting in the spring. This year was the first combined zone interim meeting that included all four zones.

Originally scheduled for April 2020 and postponed due to the COVID-19 pandemic, the combined zone interim meeting was held in Houston, Texas, April 27–29. The gathering included cowboy hard hats, Tex-Mex cuisine, and beautiful springtime weather.

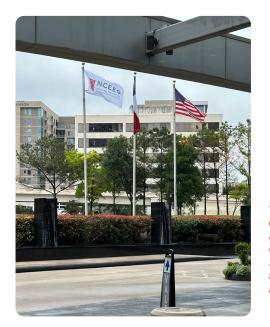
The event was attended by more than 300 delegates, including guests and NCEES staff members. The three-day event was filled with combined business sessions, where we all heard the same reports given by the same person at the same time, and individual zone sessions, where we conducted zone-specific business. We were also able to enjoy the cultural attractions in the Houston area, including the Galleria, Union Station, the Astro's Minute Maid Park, Space Center Houston, and Galveston's Historic Strand District.

Pros and cons to combined format

Were there advantages and disadvantages to having a combined zone interim meeting? Yes, but the advantages outweighed any negatives.

Advantages included

- Combined sessions allowed continuity in presenting committee reports.
- It was beneficial to see and to connect with people from other zones.



The NCEES flag flies outside of the Royal Sonesta Houston Galleria where the 2023 combined zone interim meeting was held April 27–29.

- The schedule provided adequate time for each zone to meet separately and conduct business.
- Each zone held elections and presented Distinguished Service awards to deserving individuals.

And disadvantages included

- Some prefer having a zone meeting in a smaller city.
- Fewer people in attendance provides a more intimate gathering.
- Some had to travel farther than usual for a zone meeting.
- The combined interim meeting felt like a condensed annual meeting.

I suspect the topic of whether we have a combined zone interim meeting again will be analyzed and debated. But for the foreseeable future, it appears each zone will return to hosting meetings in our respective geographic areas. During our breakout zone meetings, each zone selected site locations for future meetings.

continued on page 7

ENFORCEMENT BEAT



BOB HERBERT

ALABAMA STATE BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND SURVEYORS CHIEF SPECIAL INVESTIGATOR

Solving an ongoing problem in the surveying community

OVER THE LAST SEVERAL YEARS, THERE HAS BEEN A decrease in the number of licensed professional surveyors in Alabama and throughout the United States. In Alabama, the decrease seems to have leveled out, and recently our licensing numbers have started to increase.

A corresponding issue that exacerbates this situation is the need for more technicians in the field to assist the professional land surveyor community.

In recent discussions with different authorities in this field, there seems to be a consensus that the drastic downturn of employable technicians is a detriment in completing surveying projects. Many believe that this is a more pressing issue than the decrease in licensees.

In general, the public believes that the surveyor does all the work in the field. There are more people involved in producing an accurate survey. With more technicians in the field, professional surveyors can review more projects this is a definite workforce multiplier.

Increasing technicians in the field

Many things can be done to improve the number of technicians.

Connecting to the next generation is critical to increasing the surveying workforce. We must go into the community and educate youth clubs and associations such as the National FFA Organization, 4-H, and others. We can talk to them about education and activities that will expose them to surveying career options. Hands-on experiences with the equipment are vital in getting them interested in surveying. They are the future of the profession. With more technicians in the field, professional surveyors can review more projects—this is a definite workforce multiplier.

Education brings awareness to the profession. We can reach out to middle and high schools in our areas to provide information to students at career days and fairs, focusing on the potential wages available in the surveying field. There is also a push to get an associate degree in the community college system that would help lay a foundation for surveying.

A good foundation is also needed for those seeking upward mobility in the surveying community. There have been discussions of getting more applicants into the technician certification course sponsored by the Alabama Society of Professional Land Surveyors. This is one way we can help build that foundation.

As you can see, there is no clear path on what it will take to reach the future generation of surveying technicians or professional surveyors. Still, it will certainly take extra effort to bring this information to the forefront for these young people to hear about a profession that is a great career path. We will need to work hard to get the information out and reach these potential workforce applicants.

Herbert is chief special investigator for the Alabama board and a member of the 2022–23 NCEES Committee on Law Enforcement.

NCEES launches redesigned website

NCEES HAS LAUNCHED A REDESIGNED website to streamline the user experience and reflect modern brand standards. Optimized for search engines, the site will allow users to more quickly and easily find information.

The new site offers clear and concise navigation paths and a consistent interface across desktop and mobile devices. Dropdown menus at the top of each page serve to guide users to five broad topic areas exams, licensure, NCEES services, outreach, and about (a general information area). MyNCEES, the members-only section of the website, continues to provide advocacy, board, enforcement, new member orientation, and volunteer resources.

NCEES Chief Communications Officer Nina Norris stated, "A primary goal of the previous site was to make sure examinees were provided information and supporting



resources based on an exam's format as we transitioned to computer-based testing. With the transition essentially complete, we've been able to take a more holistic approach to the user experience."

MEMBER BOARD BRIEF

continued from page 5

Thanks to NCEES staff

A very special thank you to NCEES Manager of Meetings Trish McAlister, the Meetings team, and all the NCEES staff for their years of planning and excellent execution in pulling off the first combined zone interim meeting. Although most of us are never aware of the behind-the-scenes snafus or ruffled feathers, the NCEES staff handles these matters professionally, discreetly, and graciously.

Kudos to those of you who ventured out to travel to Houston. It's nice to be able to gather again and discuss the issues related to the engineering and surveying professions. For those of you who were unable to attend, you were missed, and we hope to see you in Boston this August at the annual meeting.

Sentell is executive director of the Louisiana board and chair of the 2022–23 NCEES Committee on Member Board Administrators.



The next great generation of problem solvers is already here

MICHAEL MILLIGAN, PH.D., P.E. | ABET CHIEF EXECUTIVE OFFICER

The following article was originally published on Medium and is reprinted with permission.

IF YOU MISSED THE 10TH INTERNATIONAL

Conference on Transformations in Engineering Education (ICTIEE-2023), you missed out on a special event! Indo Universal Collaboration for Engineering Education (IUCEE) was formed in 2008 by academic and industrial experts in India and the U.S. "to improve the quality and global relevance of engineering education in India." ICTIEE is just one IUCEE program created to connect industry and academia to achieve their mission.

I have been attending—and presenting at—ICTIEE since its inception ten years ago. Since I usually speak about the importance of sustainability in education, I was delighted to see this year's theme, "Transforming Engineering Education for Sustainable Development," as it was the first time sustainability was identified as the major theme for this conference.

My fellow keynote speakers were impressive, with their focus on solar energy and other tactics for sustainable development. What impressed me the most, however, was the IUCEE Annual Student Forum (IASF), which was held alongside ICTIEE. At the IASF, students from across India gathered to build models for sustainable awareness. The students formed teams led by United Nations Climate Ambassadors to work on one of five United Nations Sustainable Development Goals. During the three-day forum, students analyzed the challenges, developed solutions and then presented proposals for helping to achieve their team's SDG.

I was impressed by the students' potential solutions to the challenges they were presented. Their ideas were unique

and authentic. Their excitement was refreshing. It gave me hope for the future to see the genuine, original designs these young adults came up with in only three days.

Student Connection

IASF was a great reminder that college students are the next generation of great problem solvers, and connecting with students is essential to achieving the SDGs. At a time of climate emergency, it is essential that we embrace the contributions—and enthusiasm—of college students. If we don't encourage this next generation of problem solvers, we are missing out on talent and opportunities to achieving the SDGs.

This is evident in the priorities that Gen Z tends to hold as adults. 32% of Gen Z adults participated in activities aimed at addressing climate change in 2020, more than any other generation. In fact, the percentage of those participating in the fight against climate change has risen with each generation. So, it's clear today's student are engaged.

Where do we go from here?

Each generation has abilities based on their experiences both different from those who came before them and those who will come after. We frequently talk about diversity in terms of gender, race or culture but not as often when it comes to age. This needs to change. Current and future college students have grown up in a world in a climate emergency, giving them a different perspective on the world than their parents or grandparents. It's this kind of diverse thought we need for creative solutions to our sustainability challenges.

We can do this by listening to their needs, whether through analyzing data or talking directly with students.

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We know that Gen Z tends to be passionate about sustainability and that we are coming to the point of no return in terms of climate change. From what I saw at IASF, if we don't include them in sustainable discussions, we are leaving potential solutions on the table while our world continues to deteriorate.

College students may be inexperienced, but they have amazing desire to contribute to solutions for global

problems if we provide them with opportunities to develop their ideas. After seeing the results during IASF, I'm inspired to connect with students more often. I think that if more of us connected with this upcoming group of STEM professionals, we could be one step closer to achieving the SDGs.

NCEES zones honor distinguished service

As part of their 2023 interim meeting, the four NCEES zones honored several individuals for distinguished service. The meeting was held April 27–29 in Houston, Texas. The recipients were honored for their service to their zones, their boards, and the professions of engineering and surveying.

Central Zone

2023 Central Zone Distinguished Service Award Kevin Skibiski, P.E., S.E., P.L.S. | *Missouri board member*

Northeast Zone

2023 Northeast Zone Distinguished Service Award John Mettee III, P.L.S. | *Maryland surveying board member*

Southern Zone

2023 Southern Zone Distinguished Service Award Doyle Allen, L.S. | Virginia board member Ivan Hoffman Jr., P.S. | Former Arkansas board member (posthumously) Christopher Knotts, P.E. | Louisiana emeritus board member

Western Zone

2023 Western Zone Distinguished Service Award Jeffrey Jones, P.L.S. | *Wyoming board member* Sean St. Clair, Ph.D., P.E. | *Oregon board member* Perry Valdez | *New Mexico board executive director*

OUTREACH

The following are upcoming NCEES outreach activities to promote engineering and surveying licensure. For the latest outreach news, follow NCEES on Facebook, Twitter, and LinkedIn. Visit ncees.org for links to its social media pages.

Advance podcast

In the June podcast episode of *Advance: An NCEES Podcast Series,* Vatsal Shah, Ph.D., P.E., discusses his work as a principal engineer at ANS GEO, Inc. Throughout his career, Shah has focused on the energy sector, including solar, wind, battery storage, and natural gas developments. Episodes are posted at ncees.org/podcast.

ASEE Annual Conference and Exposition June 25-28

NCEES will participate in the 2023 American Society for Engineering Education Annual Conference and Exposition in Baltimore, Maryland, to promote engineering licensure. Volunteers will give a presentation on using the FE exam as an outcomes assessment tool.

ASCA Annual Conference July 15–18

NCEES will participate in the 2023 American School Counselor Association Annual Conference in Atlanta, Georgia, to build awareness for the surveying profession.

NSPECon

August 2–4

NCEES will participate in the 2023 National Society of Professional Engineers Conference in Louisville, Kentucky. NCEES CEO David Cox will give a presentation on meeting the challenges and needs of the engineering workforce.

EVENTS

JUNE 7

Engineering Education Award Jury Meeting Virtual

State of the Council Meeting Virtual

JUNE 7-10

PE Civil Exam Standard-Setting Meeting Greenville, South Carolina

JUNE 8

Surveying Education Award Jury Meeting Virtual

JUNE 15–16 FS and PS Exam Meeting Virtual

JUNE 15-17

PE Electrical and Computer Exam Meeting Greenville, South Carolina

JUNE 22-23

PE Structural Exam Meeting Greenville, South Carolina

JUNE 23-24

PE Mechanical Exam PAKS Meeting Greenville, South Carolina

JULY 12

State of the Council Meeting Virtual

JULY 14-15

PE Metallurgical and Materials Exam PAKS Meeting Greenville, South Carolina

JULY 21-22

PE Civil Exam Meeting Greenville, South Carolina

AUGUST 2

New Member Orientation Virtual

MEMBER BOARD NEWS

Florida PS

Wendi McAleese and Danny Williams are new appointees. Nicholas Campanile and George Grubbs are emeritus members.

Hawaii

Sheena Choy is the new board administrator.

Pennsylvania

Kristel Hennessy-Helmer is the new board administrator, replacing Jeannie Brohnstein.

Vermont PE

Jason Booth and Gary Dillon are new appointees. Bradley Aldrich is no longer a member.

Wisconsin

William Johnson is the new board administrator.

Wyoming

Thomas (TA) Anderson, a member, passed away on May 2, 2023, at the age of 74. He was a long-serving member of NCEES' UPLG and MBA Committees. Christopher Duhamel, P.E., P.L.S. *President* Rhode Island

Laura Sievers, P.E. *President-Elect* Iowa

Brian Robertson, P.E. Immediate Past President Colorado

Paul Tyrell, P.E., P.L.S. *Treasurer* Massachusetts

Janice Bostelman, P.E., PMP *Central Zone Vice President* Nebraska

Thomas Orisich, P.L.S. Northeast Zone Vice President Maryland

Andrew Zoutewelle, P.L.S. Southern Zone Vice President North Carolina

Mohammad Qureshi, Ph.D., P.E. *Western Zone Vice President* California

David Cox Chief Executive Officer South Carolina

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NCEES annual meeting registration opens online



The 2023 NCEES annual meeting will be held August 15–18 at the Westin Boston Seaport District in Boston, Massachusetts.

Registration is now open for the 2023 NCEES annual meeting, which will be held August 15–18 in Boston, Massachusetts.

Council members will convene at the business sessions to decide key engineering and surveying licensure issues. The annual meeting agenda also includes professional workshops and forums as well as social events to network with members and staff of other licensing boards. Those attending the meeting for the first time will meet at the First-Time Attendee Luncheon to get to know NCEES and some of the organization's leaders and to learn more about the important role the annual meeting plays in advancing licensure.

Details of this year's workshops, business sessions, and social events are available on the Member Resources section of ncees.org (see Board Resources, Annual Meeting). Registration will remain open online until June 30. Late registration fees will apply after this date.