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OKLAHOMA STATE BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND LAND SURVEYORS EXECUTIVE DIRECTOR



MEMBER BOARD BRIEF

Member boards respond to global pandemic

MEMBER BOARD ADMINISTRATORS ARE administrative experts in the regulation of engineering and surveying professional practice. One similar trait of administrators is that we are planners. We strive to plan for the long-term and short-term; we engage in strategic planning and develop disaster recovery plans. The national health emergency caused by the COVID-19 virus has tested those plans, especially in terms of disaster recovery. Keeping the old adage "man plans, and God laughs" in mind, member board administrators have noted strengths and weaknesses in their master planning and some unexpected successes.

What we do know

In the beginning, as each member board was formed, it adopted basically the same mission—to safeguard the health, safety, and welfare of the public in the regulation of each professional practice. While model laws and rules were written, member boards adopted different versions for each jurisdiction. Member boards have also always been diverse in geography, culture, size, and structure. These diversities created some administrative difficulties, but they have also made NCEES stronger as a national organization. Member boards have also benefited from engaging with other member boards that are very different from their own.

And then one day, we found ourselves in the middle of a worldwide pandemic. NCEES pencil-and-paper exams were canceled, computer-based testing sites were closed, and board and NCEES offices were shut down, with employees being sent home to work. Many professional engineers and surveyors found themselves without employment, and they needed our assistance. Because of our diversity, some jurisdictions were immediately thrust into the worst public health crisis imaginable, while others were self-quarantining in an effort to avoid such a frightening situation for their state or territory.

What we have learned

Once again, the diverse situations in which member boards found themselves led to diverse solutions.

From the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors' perspective, in short, we were not prepared for telework. While Oklahoma was not one of the original hot spots, our governor issued executive orders that immediately affected the way our agency functioned. We first had to determine whether or not our state considered engineering and

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MEMBER BOARD BRIEF

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surveying essential functions and then communicate this information to our licensees to help them determine whether or not they could remain open. The state allowed us much flexibility regarding how to fulfill our statutory duties, including whether or not to use telework, open our offices to the public, or close our offices to the public. IT issues were our biggest challenge. Our state's IT department was quickly overwhelmed, resulting in a backlog of agencies trying to get assistance with setting up for telework. Requirements that blocked our ability to successfully convert to telework had to be addressed, and luckily our state government delivered for the agencies. It hasn't been perfect, but once the roadblocks were removed, we were able to keep our heads above water in our most essential functions. Some employees chose to work in our offices, and some preferred to work from home. Our most vulnerable employees were basically required to work from home for two months. Now that we have successfully incorporated telework into our daily processes, I am certain that we will continue to use some form of this process in the future. Being thrust out of our comfort zones moved us forward quickly in this capacity, which I'm sure otherwise would have taken many years to accomplish.

Our state board was not alone in trying to quickly adapt and respond to the pandemic while continuing to deliver services. In fact, some state boards found that the new processes resulted in better results. David Jackson, Esq., executive director of the Maine State Board of Licensure for Professional Engineers, reported that the board's online application process was expedited because of the pandemic. Moving applications online resulted in reduced paperwork, staff time, and mail, while producing quicker results.

Jon Wilbeck, executive director of the Nebraska Board of Engineers and Architects, also reported that his board used electronic-based applications and were able to smoothly process applications. The board reviewed its administrative processes and converted those as best it could to be performed electronically. Conducting board "We can actually work very efficiently from home. The lore was always that we need to be in the office from eight to five no matter what. Turns out, we don't."

meetings via conferencing software went more smoothly than he anticipated, including the need to go into executive sessions.

Heather Richardson, director of the Arkansas Board of Licensure for Professional Engineers and Professional Surveyors, said that a constantly evolving work schedule, limited state support resources, and no personal protective equipment provisions made it challenging for directors and administrators to conduct business. Richardson was required to determine if staff members were essential and to report to work, essential and to work from home, or nonessential and to stay at home. To address concerns about the politics around these issues, all staff were finally deemed essential and to report to work. All board staff returned to the office May 4.

Lance Kinney, Ph.D., P.E., executive director of the Texas Board of Professional Engineers and Land Surveyors, noted that even though the Texas board was prepared with proper IT equipment and online processes, there were still stresses. In the very beginning, the board had a scare with the health of an employee, so the offices were completely shut down for two weeks and professionally cleaned. Kinney offered the following advice:

Take care of your people, physically and mentally. We started using Zoom and not just for interteam communication. We've had a few casual get togethers opportunities to just chat with each other watercooler style. This is very helpful for those that need some human interaction. We also have been trying to support the home office concept, and we're going to start supplying equipment to folks that need things like second monitors, better Wi-Fi hot spots, and ergonomic desks. We also made some online space via Microsoft Teams for folks to just chat, post pics, memes, etc., so people can "hallway talk" online. Finally, we still have holidays where you don't have to get online. While it's strange to not go anywhere, a long weekend is still a long weekend and very important.

We can actually work very efficiently from home. The lore was always that we need to be in the office from eight to five no matter what. Turns out, we don't.

Zana Raybon, executive director of the Florida Board of Professional Engineers, reported positive experiences with telework. Board employees have been working remotely since the beginning of April, and she has found that employees are getting the work done and meeting deadlines. Even while working remotely, they meet once a week via Zoom for a staff meeting, and some quality time is set aside via Zoom to get to know each other better. With their positive results and staff feeling safer and appreciated, Raybon noted that working remotely may be permanent for the Florida engineering board.

The Louisiana Professional Engineering and Land Surveying Board also experienced positive outcomes in regard to working remotely. Donna Sentell, executive director of the Louisiana board, shared their experiences:

The public health emergency sent us home to be in isolation in an effort to keep people healthy and limit exposure to COVID-19. The thought of working from home and monitoring staff productivity—all while providing services to our applicants, licensees, and the public—seemed like an overwhelming and daunting task. By week two of working at home, it was incredible to see the staff's work productivity. It was also amazing to see no decrease in the number of applications and renewals we were receiving. Aside from the concern we were all feeling, it was evident that people were still going about their lives and looking toward the future and applying to get a license. When we started this remote work effort, I was skeptical and wondering if we could make this happen. How wrong I was!

What we do now

Each member board has its own day-to-day routine and its own way of planning. With that said, we all have one thing in common—safeguarding the health, safety, and welfare of the public. The global pandemic has brought to the forefront many different ways that each board is continuing to serve licensees while keeping the common mission at the center of each diverse response. Some boards may look different moving forward. Some boards may continue to look the same. All boards, no matter the diverse needs, will continue to serve engineering and surveying professional practice.

Hart is executive director of the Oklahoma board and a member of the 2019–20 NCEES Committee on Member Board Administrators.

HEADQUARTERS UPDATE



DAVID COX NCEES CHIEF EXECUTIVE OFFICER

NCEES welcomes new staff to coordinate advocacy efforts and surveying outreach

NCEES RECENTLY ADDED TWO NEW STAFF POSITIONS to better address a couple of NCEES strategic initiatives. Because these are new positions for our organization, I want to introduce the staff members and explain the work that they will be doing.

Advocacy and external engagement

As threats against licensure's public protections have increased, NCEES has been supporting the work of member boards through its participation in the Alliance for Responsible Professional Licensing (ARPL). NCEES is also now helping member boards combat threats to public protection with more direct assistance.



To this end, NCEES hired an advocacy and external engagement strategist—Joshua Twitty—in July. Twitty will coordinate our organization's work with ARPL, track bills within state legislatures, and work with member boards seeking assistance on legislative issues. He will guide internal and

external communication efforts to promote public sector understanding of the importance of professional licensure for engineers and surveyors.

Twitty's experience in government affairs will be a useful asset to NCEES and its member boards. After serving in the United States Air Force for six years, he worked as a legislative analyst for the Arkansas Bureau of Legislative Research. In this position, he was responsible for tracking legislation and developing content to educate stakeholders.

Surveying marketing and outreach

The promotion of licensure is a core strategic initiative for NCEES. One metric of particular interest to NCEES is the number of individuals taking the Fundamentals of Surveying and the Principles and Practice of Surveying exams. NCEES has supported—and will continue to support—surveying outreach initiatives spearheaded by other organizations, and it will continue to develop and lead its own. As NCEES has increased its outreach efforts, it has become clear that more staff is needed to best manage outreach opportunities.

At its August 2019 meeting, the board of directors reviewed a request for \$1.3 million over four years to support the development of Surveying Candidate Objectives for Recruitment and Education (SCORE), a regional pilot program to promote the geomatics profession. SCORE was devised by a coalition of surveying societies—including the National Society of Professional Surveyors, Maryland Society of Surveyors, North Carolina Society of Surveyors, Surveying and Mapping Society of Georgia, Tennessee Association of Professional Surveyors, and Virginia Association of Surveyors. These organizations are working together to address recruitment in the geomatics profession—including the recruitment of women and racial minorities, who are underrepresented in the field, as well as engineers who may become dual licensees—and thereby to strengthen licensed professional representation in an evolving geospatial world. The coalition requested the funding to support the study and implementation of recruiting, marketing, and public relations strategies for the geomatics profession.

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FROM THE PRESIDENT



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

The next generation of professional engineers and surveyors

WHO WERE YOUR MENTORS? AS PROFESSIONAL

engineers and surveyors, we know that we didn't get to this point in our careers by ourselves. The jobs we have had through the years, our education, licensure—all are the result of hard work and determination, but we also have had many people influence and guide us to get to where we are today. I challenge you to take a few minutes and reflect on your career path and remember those key people who came along in your life at just the right time: family members, neighbors, teachers—maybe even someone you didn't know but you watched, listened to them, and thought, "I want to be just like you when I grow up."

I have a few career-influencing points in my life. By no means is it all-inclusive, but as I look back, these people all affected who I am and where I am today. Yes, my earliest influences were my parents, who gave me the love of the outdoors (an important trait for a surveyor and construction engineer). My father was a metallurgical engineer who was excited to share new inventions from his work. From my early grade school years of playing with Tonka construction trucks and building structures out of metal Erector Sets as well as navigating in the woods with and without a compass, my life paths began to be charted.

Later, teachers from elementary school through college encouraged me in my math and science acumen and gave me sage advice to absorb. In particular, two college professors, both licensed professionals, guided me into the dual paths of civil engineering and land surveying during those late teenage years of "what do I really want to do with my life" thoughts. We need to constantly show that our professions are not just scientific in nature but also have the elements of doing good in and for this world we live in. Actions may speak louder than words, but both will influence the generations following us.

One of my earliest employers during the summers in college was a licensed professional engineer and surveyor who personally talked with me about the importance of licensure—to not give up during the tough times because there was no better honor than achieving professional licensure and then using it to improve the world.

So, who has influenced and mentored you? It is important to reflect on those times in our own lives because it can give us a better understanding of how we can influence others, even if it is as simple as an encouraging talk or sharing the excitement of something newly created.

Someone is watching you

We may watch others, but others are watching us. Are we being the best influence we can be? Do we present our professions as interesting, exciting, fun, and important? Like us, the next generation wants to do good things and make this world a better place. Are we showing them that the professions of engineering and surveying do just that?

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ENFORCEMENT BEAT



KARL TONANDER, P.E. NEW MEXICO BOARD OF LICENSURE FOR PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS MEMBER

Expungement in the digital age

THE CONCEPT OF EXPUNGEMENT ESSENTIALLY ALLOWS someone to have a clean record or fresh start after making a relatively minor lapse in judgment. Often these mistakes are just an aberration on an otherwise spotless career, so it is understandable that removing a small blemish is an interest. The relevance of a minor infraction, such as a short-term licensure lapse or an erroneous corporate authorization, is arguably insignificant relative to 20 years of sound professional practice. What purpose is served by having that lapse recorded on a state record and possibly NCEES Enforcement Exchange for posterity? That depends on who is using the information and for what purpose.

With respect to protection of the public, having accessible information on violations is imperative. While a variety of for-profit online evaluation and recommendation services are becoming popular, there is no real substitute for a regulatory record search that affirms the licensing status of a practitioner. Much like running a background check prior to hiring an employee, understanding the history of licensure of a professional can provide a sense of security that the patron's interests are being properly managed on a project. The challenge is whether a public user of the information can distinguish between a minor infraction and something more serious. If the user is unable to distinguish between the two, there is a real possibility that the professional may be unreasonably stricken for issues that don't pertain to the services offered. This seems to be the best argument in support of an expungement option, at least for the licensee if not the public.

With regard to a board's use of disciplinary action records, expungement may be a harder argument to justify. What might have been viewed as an isolated incident may begin to form a narrative. While what happens in Vegas may Perhaps the better approach is to help educate the public about the severity of infractions and how the infractions can essentially take two forms: administrative and professional practice.

stay in Vegas, neighboring boards may consider frequent lesser infractions as an indication of a licensee playing fast and loose with licensing, or worse, with design or data collection. An infraction that might have warranted just a warning if isolated may become actionable to a higher degree if repeated. Some boards also rely on complete disciplinary records for determinations of expedited comity. The omission of recent infractions could change the decision on whether to issue a license without further review of an applicant. Both of these issues suggest that expungement is not a good alternative from a board perspective.

Another issue is to what degree a licensee must report disciplinary actions if expunged—and then to what degree even those self-reports must themselves be expunged. Consider a case in which State A issues a disciplinary action against a licensee but expunges the infraction a year later. State B has a requirement that licensees report violations and actions taken in other jurisdictions within 30 days, and State C only asks during renewal, which we'll say is biannual. Depending on the timing of the action and expungement, State B may have a permanent note that the licensee had a disciplinary action in State A, even when State A has no record of it (after expungement). State C may never even know there was an infraction.

Another idea is whether true expungement is even possible in the digital age. Once a digital record of an action is created and published, it is unlikely that anyone will ever be able to fully eradicate that record. While the issuing agency can remove the link or the entry, web crawlers and bots quickly gather the information and save it in search engines and other aggregators. With no control over these third-party sites, that immediately sets up a situation in which the records will be unclear. This may work to the detriment of the licensee, as the jurisdiction would no longer have a record of the original infraction. Perhaps the better approach is to help educate the public about the severity of infractions and how the infractions can essentially take two forms: administrative and professional practice. The former, while important to boards, is arguably less likely to represent a risk to public safety or quality of service. The latter is absolutely something that should not be overlooked. In any case, the practicality—as well as the unintended consequences—may not allow expungement to be feasible in our digital age.

Tonander is a member of the New Mexico board and chair of the 2019–20 NCEES Committee on Law Enforcement.

FROM THE PRESIDENT

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Are we being good role models? Are we incorporating ethics in our decision-making process? Are we showing that we care about people and bettering their lives and environment? We need to constantly show that our professions are not just scientific in nature but also have the elements of doing good in and for this world we live in. Actions may speak louder than words, but both will influence the generations following us.

Who are you mentoring?

Our world is grappling with many issues right now. Some are the same concerns we had growing up, while others are different: diversity (in all forms), social injustice, race and gender inequity, a worldwide pandemic, land use and urban sprawl, the environment. Our states, our nation, and our planet have been invaded by a virus that doesn't recognize surveyed or political boundaries. People are needing and searching for hope and solutions, as each generation has done. How do engineering and surveying fit into the world's concerns and issues? We need to clearly show the next generations that our professions are not part of the problem but rather part of the solution. The things we design, the things we build, and the decisions we make should give hope that these issues are not insurmountable and that this world can be better because engineers and surveyors are guiding the solutions.

Whether you work in the private or public sector, are a teacher in a school, a public speaker or a friend in the neighborhood, let others see that you enjoy and embrace your profession. Find a young person or two (or more) to personally mentor. It could also be a recent graduate just starting his or her career. Build a professional relationship with someone who can look at you and say, "I want to be just like you when I grow up." Be a positive influence with this next generation—our professions, and the world, depend on it.

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While the board of directors fully supported the aims of the project, it wanted NCEES to have more direct involvement in such a marketing initiative. Therefore, the board approved \$250,000 for the 2019–20 budget to develop a marketing program to increase the number of licensed professionals in the geomatics field and for NCEES staff to work in conjunction with the National Society of Professional Surveyors and the coalition of state surveying societies to support the initiative.

As part of this commitment to surveying outreach, the board directed NCEES staff to create a dedicated surveying outreach staff position.



Marisa Trzemzalski joined our team as marketing and outreach coordinator for surveying in July. She will work closely with SCORE partners on surveying marketing and outreach projects. Additionally, she will coordinate NCEES marketing activities through print and digital advertising, exhibitions,

and sponsored collaborations. She will market NCEES services, promote the value of licensure, and coordinate K–12 outreach events. She also will work with our Speakers Bureau, fulfilling requests for speakers, updating materials, and assisting speakers.

Katie Kelley will continue as marketing and outreach coordinator for engineering. Having dedicated coordinators for engineering and surveying will allow NCEES to do more in its marketing and outreach collaborations with other organizations and do more to organize its own activities. While working with other organizations allows us to expand our audience reach, developing our own initiatives allows us to tailor programs and activities to our mission and our specific strategic goals. This two-pronged approach is a more effective strategy to advance licensure. While working with other organizations allows us to expand our audience reach, developing our own initiatives allows us to tailor programs and activities to our mission and our specific strategic goals. This two-pronged approach is a more effective strategy to advance licensure.

Trzemzalski has more than 15 years of experience in developing and implementing traditional marketing plans, with a recent emphasis on STEM-related outreach activities through her position as secretary of the Roper Mountain Science Center Association board of directors. This science center, which is located near NCEES headquarters in Greenville, South Carolina, is part of the local school system and focuses on providing hands-on, standards-based activities and learning opportunities for both the school district and general public.

We are excited to see the new initiatives that these staff positions will allow us to be a part of. Supporting the work of member boards and advancing licensure for engineers and surveyors is at the heart of what we do at NCEES. These positions will allow us to expand these activities and ultimately better help support engineering and surveying licensure's protection of the health, safety, and welfare of the public.

NCEES honors 2020 service award recipients

NCEES ANNOUNCED THE WINNERS of its 2020 service awards at its July 1 webinar. The webinar is part of the organization's schedule of events for the 2020 annual meeting. The recipients will also be recognized at the 2021 NCEES annual meeting, scheduled for August 18–21 in New Orleans, Louisiana.

From committee involvement to licensure outreach to exam development leadership, the 2020 service award recipients contributed to NCEES and the professions of engineering and surveying in a variety of ways. The winners' full biographies are posted at ncees.org/annual_meeting.

Distinguished Service Award



Thomas Orisich, P.L.S. Thomas Orisich, P.L.S., has served on the Maryland State Board for Professional Land Surveyors since 2000. He

is currently the chair of two Maryland board committees: the Scope of Practice Committee and the Mapping Committee.

Orisich served as an officer for the Northeast Zone assistant vice president and secretary-treasurer in 2010–11. He also served on the Northeast Zone Awards Committee in 2010–11. During his time as an officer, Orisich assisted in the planning and execution of the Northeast Zone interim meetings in Washington, D.C., and in Annapolis, Maryland. He continues to actively participate in the zone discussions related to the advancement of surveying licensure and is a past president of the Colonial States Boards of Surveyor Registration.

For almost two decades, Orisich has contributed to the work of NCEES committees, including the committees on Examinations for Professional Surveyors, Examination Policy and Procedures, Examination Audit, and Nominations. He served as chair of the Examinations for Professional Surveyors in 2011–13 and has contributed extensively to exam development and policy.

Since 2013, he has volunteered to manage the NCEES surveying booth during the DiscoverE Family Day at the National Building Museum in Washington, D.C. Orisich has also served as a judge for the Future City Best Land Surveying Practices award since 2012.

Meritorious Service Award



Milena Trust, Esq. Milena Trust, Esq., has served the Maryland State Board for Professional Engineers and the Maryland State Board

for Professional Land Surveyors as assistant attorney general for over 27 years. For the last three years, she has served as a principal counsel to the Maryland Department of Labor. Her contributions to the Maryland engineering and surveying boards include providing training on ethics and legal issues for professional associations and societies in the state of Maryland, advising the boards on the disposition of over 1,000 complaint cases, and drafting and shepherding a multitude of statutory and regulatory initiatives.

Trust began her service to NCEES in 2007 when she was appointed to the Committee on Uniform Procedures and Legislative Guidelines (UPLG). She provided her insight and legal expertise to the committee by drafting revisions to the NCEES Model Law and Model Rules, which jurisdictions use as a model when developing their law and board rules. Trust continues her service to UPLG today. In addition, she served on the Computer-Based Testing Implementation Task Force in 2011–12. During that time, Trust contributed to the development of guidelines that were integral to the successful transition of exams from paper-based to computer-based testing.

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SERVICE AWARDS

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Distinguished Examination Service Award Thomas Caldwell, P.E.



Tommy Caldwell, P.E., has distinguished himself as a leader for the Principles and Practice of Engineering (PE) Chemical

exam committee from the beginning of his career. He obtained his professional license through the North Carolina Board of Examiners for Engineers and Surveyors in June 1990. Caldwell had performed well on the exam and was curious about his results. He contacted NCEES headquarters for more insight on his exam performance. As a result, he joined the organization as a volunteer for the PE Chemical exam committee, where he wrote and reviewed exam items. After taking a break from volunteering to concentrate on his career, Caldwell volunteered for the PE Chemical exam committee once again in 1999. He has been involved in every aspect of the committee, including item writing, reviewing, exam form development, and professional activities and knowledge studies.

Caldwell served as an editor of the PE *Chemical Reference Handbook* in 2012; in summer 2014, he accepted the vice chair position while shepherding the handbook development through the first drafts. He then stepped into the role of chair in 2015. As chair, Caldwell ensured that the PE Chemical exam stayed on schedule to become the first

testing.



Larry DeVries, Ph.D., P.E., has served and supported the NCEES Principles and Practice of Engineering (PE) exams since 1996.

DeVries served as the chair for the PE Mechanical exam's former Mechanical Systems and Materials depth module in 2009–12 and assisted in the conversion of the PE Mechanical exam from a freeresponse format to a multiple-choice one in 2000–02 and in the conversion of the PE Mechanical: Machine Design and Materials exam from pencil-andpaper to computer-based testing in 2018–20. He also served as a member of the Committee on Education Assessment and Oualification in 1998-2000 and as a consultant and resource for the Committee on Examinations for Professional Engineers in 1998–2001.

PE exam to convert to computer-based

Kenneth (Larry) DeVries, Ph.D., P.E.

During his service to NCEES, DeVries was instrumental in helping transition the Machine Design exam module of the mechanical engineering exam from a hand-graded format to a multiplechoice format. He quickly became adept at generating exam items that were effective at distinguishing between minimally competent engineers and those who were not, a skill that has netted him over 100 items in the testing bank. In large part to DeVries' efforts, the exam module is wellfunctioning and consistently validated today.

Burton Lewis, S.E.



Burton Lewis. S.E., has been supporting the Principles and Practice of Engineering (PE) Structural exam committee for more than

32 years. His contributions to NCEES began in 1988 when the Structural Engineers Association of Illinois brought its exam to NCEES on the national level.

He has continued this service by participating in all four exam development meetings and the two exam scoring workshops each year at NCEES headquarters. He has attended nearly 200 committee meetings since 1988. Lewis' involvement on the committee includes writing exam items, reviewing items, and grading exams. He has also participated in professional activities and knowledge studies and taken on many other leadership roles.

When Lewis became involved with NCEES and the PE Structural exam, few other people were involved, and most of the meetings were for coordination only, as the exam items were written at home. He has seen the process evolve through the years—transitioning the exam from Allowable Stress Design to Load Factor Design and later transitioning to Load Resistance Factor Design. Through it all, Lewis has stayed informed and up to date on structural design codes so that he could continue his service to the profession.

Merlin Williams, P.E.



Merlin Williams, P.E., has been a contributor and mainstay on the Fundamentals of Engineering (FE) exam for the past 33 years. His

dedication to ensuring that the exam constantly advances and improves can be seen through his ideas and insights on how to write quality items for the exam. He holds paramount the quality of items on the exam, as demonstrated in his role as an item writer for the morning breadth section of the FE exam before it converted to computer-based testing.

Williams served as a member, consultant, and resource of the Committee on Examinations for Professional Engineers in 1987–2001. He served as module chair for the morning (breadth) portion of the exam and the afternoon general module of the committee in 2004–09.

During his long career of supporting and promoting the importance of licensure, Williams had many affiliations and accomplishments. He was a member of the Minnesota Board of Architecture, Engineering, Land Surveying, and Landscape Architecture in 1985–93. He was chair of the Minnesota chapter of the ASM International in 1982–83, and he served on the Professional Examination Committee for the Metallurgical Society of the AIME in 1988–97. Williams also served on the Minnesota Governor's Pipeline Commission.

Molly Williams, Ph.D., P.E.



Molly Williams, Ph.D., P.E., served on the Fundamentals of Engineering (FE) exam development committee for over 20 years. Williams was an

item writer for the breadth and general sections of the exam during a time when the breadth section was administered to all examinees and when the general section was the most popular afternoon section. This means that she wrote items for every examinee who took the FE exam, regardless of the afternoon module chosen. After the conversion of the FE exam to computer-based testing (CBT), in which Williams was a leader, she served on the Other Disciplines module of the FE exam development committee. She continued her service to this committee until her retirement in 2019.

In 2010–12, Williams served as the first female FE committee chair. During her tenure as chair, the exam was transitioning from paper-based to computer-based testing. The transition was made easier through her clear and steady leadership as she guided volunteers through the development of new processes. She mentored many new members as they learned how to write and review items for the exam. Williams was a member of the Committee on Education Assessment and Qualification in 1991–92 and the Committee on Records Verification in 1990–91.

Zone service award winners

NCEES zones honored the following individuals with service awards in 2020 to recognize their contributions to their zone and the engineering and surveying professions.

Central Zone	Northeast Zone	\
Distinguished	Distinguished	[
Service Award	Service Award	5
Dennis	Carmine Balascio,	C
Martenson, P.E.	Ph.D., P.E.	F
Minnesota	Delaware	A
Steven Bishop, S.E. Illinois	Paul Tyrell, P.E., P.L.S. Massachusetts	F

Western Zone Distinguished Service Award

Colin Maynard, P.E., S.E. *Alaska*

Richard (Ric) Moore, P.L.S. California

EXAM NEWS

NCEES moves ahead transition of PE Electrical and Computer: Power exam to computer-based testing to January 2021

THE PRINCIPLES AND PRACTICE OF ENGINEERING (PE) Electrical and Computer: Power exam is moving to computer-based testing (CBT), with appointments available year-round at Pearson VUE test centers beginning January 2, 2021.

NCEES originally planned to complete the exam's transition to CBT format in April 2021, but the organization fast-tracked the change as part of its response to COVID-19.

"The April 2020 pencil-and-paper administration of the exam was canceled because of the coronavirus pandemic, so we brought the transition to CBT forward to better accommodate examinees and facilitate licensure during these challenging times," explained NCEES Director of Exam Services Tim Miller, P.E. "The exam will be available year-round instead of being offered twice per year."

Registration for the computer-based exam is scheduled to open in August 2020. The specifications, or knowledge areas, for the exam will not change when it moves to the new CBT format.

The PE Electrical and Computer exam is offered in three disciplines: Power; Computer Engineering; and Electronics, Controls, and Communications. The Computer Engineering and the Electronics, Controls, and Communications disciplines are also moving to CBT after their October 2020 exam administration. However, these disciplines—which have a lower volume of examinees will be offered annually beginning October 2021.

For more information on the PE Electrical and Computer: Power exam and the transition of NCEES licensing exams to CBT format, visit ncees.org/cbt.



The PE Electrical and Computer: Power exam is moving to computer-based testing in 2021, with appointments available at Pearson VUE test centers beginning January 2.

Exam development holding virtual meetings

As part of its response to the COVID-19 pandemic, NCEES canceled exam development meetings at NCEES headquarters from mid-March to the end of the year. NCEES is now holding virtual meetings for essential exam development tasks.

Miller explained the decision: "We are now planning for no face-to-face exam development committees for the rest of 2020, with the exception of the PE Structural exam grading in December. This is a difficult decision; however, with the health and welfare of our volunteers being paramount, and with the uncertainty in travel, restaurants, and hotels, it is not a risk worth taking."

NCEES exam development engineers are working with each exam committee's leadership to determine how to complete critical activities. Some committees will meet virtually, while others will carry tasks over to future meetings.

NCEES is pausing its professional activities and knowledge studies (PAKS), the process it uses to update the knowledge areas covered in each exam. Existing exam specifications will be used until further notice. PAKS that are already in progress will complete current tasks, such as surveys, before pausing.

NCEES prepares for virtual annual business meeting

AS PART OF ITS RESPONSE TO THE COVID-19 PANDEMIC, NCEES moved its 2020 annual meeting to a virtual format to conduct essential Council business. The organization recently completed a webinar series with member licensing boards to prepare for its virtual business session on August 27 at 5:30 p.m. EDT.

Member boards can find the latest information on the annual meeting webpage, ncees.org/annual_meeting.

Webinar recordings

Recordings of the three webinars are available on the annual meeting website. The webinars focused on the following topics:

- Reports from the NCEES president and chief executive officer
- Finance and treasurer reports
- Officer elections, completing the voting ballot, and the winners of the 2020 NCEES service awards

Login access to MyNCEES (ncees.org/resources) is required to view these webinars.

Voting

Voting is by ballot this year. As outlined in the NCEES *Bylaws*, each member board has one vote. NCEES staff distributed the ballots via email to member board administrators on June 29. Completed ballots were due back to Chief Operating Officer Davy McDowell, P.E., by 5:00 p.m. EDT on Friday, July 31.

Voting will focus on essential Council business, including electing new national and zone officers and approving budgets for the next year. Boards will also vote on several motions related to amendments to the NCEES *Bylaws*. These changes were approved in theory at the 2019 annual meeting. The Council is now voting to formally approve the amendments to the *Bylaws*.

Results will be announced at the virtual business session. A runoff election for treasurer will be required if one of the three candidates does not receive a majority of votes. If a



runoff election is needed, NCEES will inform member boards and distribute a follow-up ballot in early August.

Officer and committee reports

The 2020 Action Items and Conference Reports is available for download on the annual meeting webpage. This publication includes reports from NCEES officers as well as the 2019–20 committees and task force. It notes which reports are being addressed in 2020.

Any committee motions that are not presented this year for Council action will be carried over to 2021. The appropriate 2020–21 committee will be charged with reviewing the report and draft motions to be considered for action at the 2021 annual meeting.

Virtual business session

Member board members, administrators, associate members, and emeritus members as well as NCEES past presidents are invited to attend the virtual business session on Thursday, August 27.

Registration is still open. Visit the Meeting Details section of the annual meeting webpage for a list of individuals who are currently registered as well as instructions on contacting NCEES staff to resend your invitation.

A recording of the business session will be posted online by the following week (MyNCEES access will be required).

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 NCEES Records program. Since its founding in 1920, NCEES has worked to facilitate the mobility of licensure.

Licensure mobility timeline

- 1920 Constitution and Bylaws adopted, including provision for reciprocal relations between state boards
- 1922 Articles of Agreement on Reciprocal Registration of Engineers approved
- 1932 National Bureau of Engineering Registration created
- 1967 Bureau's name changed to Committee on National Engineering Certification
- 1979 Records program adopted

From the Constitution and Bylaws adopted November 9, 1920

Section 4. The purpose of this Council shall be to examine the State laws providing for registration of engineers and the custom and rule of procedure of the different boards in the examination of applicants with suggestions and recommendations for uniformity of practice so far as the same can legally be done by the different State Boards, and to provide for reciprocal relations between the State Boards for granting registration license to applicants from other States on equal terms of examination.

From the minutes of the first annual meeting, November 9, 1920

Motion by Mr. Condron, (Ill.): That it is the sense of this Council that the submission of the evidence of qualification of the applicant for the practice of professional engineering should be considered as the essential part of the examination and the reciprocal registration certificates should be granted to the applicant who has submitted such satisfactory evidence to the examining board of his own state. Motion carried.

From the Articles of Agreement on Reciprocal Registration of Engineers approved at the 1922 annual meeting

Article 1. Reciprocal registration shall be granted only to an applicant who is already licensed in a state which is a member of this council. A detailed professional record, properly attested, and accompanied by references as to character and qualifications from three registered, practising engineers shall be filed with the board of registration of the state in which the applicant is originally licensed. Qualifications for reciprocal registration shall be determined upon the basis of such professional record, thorough consideration of which shall constitute examination.

Article 6. Reciprocal registration between states shall be made operative by means of certification of the applicant's qualification from one state to another. This certification shall be by means of a card, or form, bearing the date, serial number, signature of the officers and seal of the board of the state issuing same. These cards shall be printed and distributed by the Council of State Boards of Engineering Examiners.

(By September 1923, 12 of the 15 states that attended the 1922 annual meeting had ratified the articles.)

From the 1932 National Bureau of Engineering Registration Committee report

The purpose of the National Bureau of Engineering Registration shall be to investigate and verify the records of applicants and issue to those who fully

NEWBER BOARD

CALIFORNIA

Andrew Hamilton and Steven Wilson are no longer members.

IDAHO

Tom Ruby is a new appointee.

IOWA

Jack Jones is a new appointee. Robert Fairfax is no longer a member.

MARYLAND PS

Jeanne Nebre is a new appointee. Don Ocker is no longer a member.

MINNESOTA Jami Neiber is a new appointee.

NEBRASKA PE

Former member Robert Rohde passed away May 29 at the age of 87. His service to NCEES included chairing the Experience Evaluation, Records Verification, and Education Assessment and Qualification committees. In recognition of his contributions to the professions of engineering and surveying, he received the NCEES Distinguished Service Award in 2002.

OKLAHOMA

Richard Willoughby is a new appointee. William McVey is no longer a member.

OREGON

Renee Clough is a new appointee.

TENNESSEE PE AND PS

Michael Schulz is the new board administrator, replacing Roxana Gumucio.

EMERITUS

The board of directors approved the following emeritus member at its June 2020 meeting. Delaware PE: Soheil Gharebaghi

UPCOMING EVENTS

Currently scheduled events may change as NCEES continues to address the COVID-19 pandemic. All meetings will be conducted virtually.

August 3–7 PE Nuclear Exam Meeting

August 6–9 PE Architectural Exam Meeting

August 7–17

PE Mining and Mineral Processing Exam Meeting

August 27

Board of Directors Meeting and Annual Meeting Business Session

September 8–11 PE Environmental Exam Meeting

September 14–16 PE Agricultural and Biological Exam Meeting

September 15–16 PE Fire Protection Exam Meeting

Moments in NCEES history (continued)

comply with the regulations and requirements adopted by the Bureau a "Certificate of Qualification," which may be used as evidence of qualification—for registration as a Professional Engineer in those States agreeing to recognize said certificates, for membership in national and state engineering societies, in connection with award of professional degrees by engineering colleges, for presentation to clients when soliciting contracts for professional services, for presentation to employers when applying for positions, etc.

From the 1977 National Certification of Registration Records Committee report—

On September 21, the NCRR Steering Committee comprised of Preston C. Haglin, Mary M. Law,

Morton S. Fine, and Beth S. King met in Atlanta to discuss the changing program, the philosophy of which has been described as follows:

"To create a program which will be a genuine service to the state boards in eliminating time-consuming paper-work, as well as helping applicants obtain comity registration as quickly as possible. The program will be essentially a verified data-storing and data transmission service and not an evaluation service. It will verify and summarize a registrant's bio data and the manner in which he achieved his first or basic registration. It will transmit to a state board, in support of application for comity registration, only that data needed by the board." 2019–20 NCEES BOARD OF DIRECTORS/OFFICERS

Dean Ringle, P.E., P.S. *President* Ohio

Christopher Knotts, P.E. *President-Elect* Louisiana

James Purcell, P.E. *Immediate Past President* New Jersey

Timothy Rickborn, P.E. *Treasurer* South Carolina

Marlon Vogt, P.E. *Central Zone Vice President* Iowa

Christopher Duhamel, P.E., P.L.S. Northeast Zone Vice President Rhode Island

Timothy Lingerfelt, P.L.S. Southern Zone Vice President Tennessee

Brian Robertson, P.E. *Western Zone Vice President* Colorado

David Cox *Chief Executive Officer* South Carolina

EXCHANGE

A publication of the National Council of Examiners for Engineering and Surveying Comments or questions can be directed to editor@ncees.org.

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Remembering Past President Morton Fine



NCEES Past President Morton Fine, P.E., P.L.S., passed away April 19 at the age of 103.

Fine was the 1974–75 president of NCEES and a former member of the Connecticut Board of Examiners for Professional Engineers and Land Surveyors. He served as NCEES executive director from 1976 to 1981.

In recognition of his contributions to the engineering and surveying professions, he received the NCEES Distinguished Service Award in 1976.