

Is it just me, or are surveyors getting older?

The average age of surveyors across the country seems to be increasing. The NCEES Board of Directors is asked more and more often by the general surveying population, "How are we going to recruit more surveyors?"

Surveying has traditionally been an apprentice-based occupation, and still today, many of the individuals joining the ranks of the surveying profession do so because they go to work for a surveyor or surveying firm and find a niche that fits them. Whether they enjoy the outdoor work, the challenge of retracing old work and establishing new, or the pleasure of starting a job on raw land and watching something they worked on become a reality, most people enter the profession and stay through the apprenticeship model. Unfortunately, many such individuals run into the problem of education, or lack thereof. Quite a few states now require two- and four-year degrees to become licensed, and individuals who have a family and financial obligations find it tough to make the commitment to go to or return to higher education. The educational leg of the famous NCEES three-legged stool—education, examination, and experience—becomes a stumbling block for advancement to licensure.

We, the fading seniors of the profession, need to lead the way in recruitment. We must begin going to middle and high schools and advocating for our profession. We have to start showing young people that professional land surveying is a great career choice, that it is a fun and exciting profession. We have to take the time to show up at career fairs, guest lecture in math and drafting classes, and offer our time to mentor young people in this wonderful profession.

Many of the young people going to colleges and universities to study surveying right out of high school have been exposed to surveying through a family member who is an engineer or surveyor. They understand the requirement and need for an undergraduate education and point themselves in that direction, just as young people do to become engineers.

Surveyors need to take a few hints from engineers in recruiting young people to the profession. Some of the things we need to do include the following:

- ◆ Offer summer programs for young people looking for careers.
- ◆ Be in the schools promoting our livelihood.
- ◆ Get our surveying societies to sponsor activities that will spark an interest in young people to learn more about surveying.
- ◆ Offer more scholarships at the high school level for individuals going into surveying.
- ◆ Show more support for colleges that offer surveying degrees.

The American Congress on Surveying and Mapping (ACSM) and the National Society of Professional Surveyors (NSPS) provide surveyors with materials and avenues to promote the surveying profession. ACSM/NSPS has developed a brochure titled, "A Career in Surveying and Mapping, Is It for You?" Surveying societies can obtain this brochure to distribute at career fairs, leave in guidance offices, give out at Trig-Star competitions, and hand out in classrooms.

ACSM/NSPS and NCEES are developing a presentation similar to the NCEES Speaker's Kit that volunteers can use when making presentations about the benefits of a surveying career and the path to surveying licensure. The multimedia presentation will be geared to students to encourage them to consider surveying as a profession. This presentation should be available in the not too distant future. In addition, ACSM/NSPS sponsors the Trig-Star program, a trigonometry competition at the high school level. The purpose of the competition is to introduce high school students to the practical applications of trigonometry in the surveying profession, as well as build an awareness of surveying as a profession among high school students, guidance counselors, and high school math teachers. NCEES helps support this program as well as National Surveyors Week, when national winners come together at the ACSM/NSPS conference and are awarded scholarships. For a high school to participate, it needs a sponsor. Trig-Star is a great opportunity for your local surveying society to get involved with high school students and encourage them to pursue surveying.

NCEES Executive Director Betsy Browne has queried the Boy Scouts of America about adding



Martin Pedersen, L.S.
 NCEES Treasurer

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Are surveyors getting older? (continued from page 1)

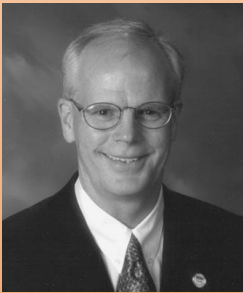
a Surveying Merit Badge to their list of badges. If we are successful in this, more volunteers will be needed to provide instruction to Boy Scouts wanting to achieve this badge. What a great time and place to be planting the seeds of surveying in a young mind.

"How are we going to recruit more surveyors?" The answer is by increased participation of local surveyors and surveying societies in spreading the message that surveying is an excellent career choice. We cannot wait for someone else to do this for us.

Changes will start when we as individual surveyors begin making a concerted effort to educate young

people and their parents to the life-long career opportunities available in the surveying profession. Surveying societies need to encourage committees and individuals to make career visits to high schools and universities and open their businesses to career visits from young people. Surveying programs need to increase recruitment efforts and enlist the help of societies to promote the advantages of a surveying career. Surveying is our profession; it's a great one, and we need to promote it!

Martin Pedersen, L.S.
NCEES Treasurer



Robert C. Krebs, P.E., P.L.S.
NCEES Past President

Very few teams really understood the impact that land surveying has on all their future cities, and a few seeds planted now will bear much fruit in the future. I give kudos to Executive Director Betsy Browne and the staff for continuing to capitalize on these opportunities and for continuing to make land surveying a more equal partner in the Council activities.

Council initiates surveying award in national competition

The 2004 National [Engineers Week](#) Future City Competition was held at the Hyatt Regency Hotel on Capitol Hill in Washington, D.C., from February 22 to 25. This was the final competition between 33 Future City Competition regional winners. More than 1,100 schools (about 30,000 students) registered last October for the program. This national competition is sponsored by the engineering community to promote an interest in technology and engineering in middle school students. This year NCEES initiated and presented a special surveying award at the competition.

The Future City Competition is a four-phase project for which students (1) design a future city using SimCity 3000 software; (2) build a physical-to-scale model of a portion of their future city; (3) write an essay explaining their response to a specific engineering challenge, including an abstract describing their own key features; and (4) communicate their results through a formal, timed presentation to various judges.

The competition started in 1993 as an [Institute of Electrical and Electronics Engineers \(IEEE\)](#) legacy activity and has grown to be a very successful outreach activity to our young students. There are many impressive testimonials about the impact of the Future City Competition from students now studying engineering at various institutions.

This is the first year that NCEES has participated in the Future City Competition as a sponsor of a special award, Best Land Surveying Practices, taking into consideration the impact of high standards used by

land surveyors in the protection of the public health, safety, and welfare. The judging for the special awards (there were 22 special awards this year) is quite intense for the students (and the judges). Each team is allocated approximately five minutes to respond to specific questions. All the teams did very well and managed to survive a barrage of questions from some very old-looking adults. I quickly modified and simplified the three questions that I had prepared to ask after interviewing the first couple of teams. My first question was to explain or guess at the initials after my name: P.E., P.L.S. I received some very interesting responses, and only 4 or 5 teams (out of 33) answered correctly, showing the need for more advancement of engineering and surveying licensure. The teams that knew what P.E. and P.L.S. mean often had a professional engineer as a mentor.

I recommend that the Council continue sponsoring this special award. Very few teams really understood the impact that land surveying has on all their future cities, and a few seeds planted now will bear much fruit in the future. I give kudos to Executive Director Betsy Browne and the staff for continuing to capitalize on these opportunities and for continuing to make land surveying a more equal partner in the Council activities.

This year's winner of the Best Surveying Practices Award was Holy Trinity Catholic School from Lenexa, Kansas. Congratulations!

Robert C. Krebs, P.E., P.L.S.
NCEES Past President

UPDATE

Council has a history of being progressive

The beautiful sunny day, mild temperatures, and newly landscaped grounds provided the perfect setting for the dedication of the Council's newly renovated building on March 21 in Clemson. What an honor and pleasure it was to have 17 Past Presidents of the Council and their spouses, board members, state and local dignitaries, and Council staff on hand to celebrate the Council's past and future. I asked Ted Stivers, P.E., President of the Council in 1976, to summarize the Council's history. Having been to 35 consecutive annual meetings himself, Ted is certainly an appropriate person to recount the evolution of the Council. He said in his speech, "Our progress has been more like an old oak than an amaryllis, with slow but steady growth, with thousands of volunteer hours, much work by dedicated members and staff, and millions of dollars invested in the latest techniques and procedures. Today few could deny that we have an enviable and efficient exam program, and perhaps one of the most legally defensible of any profession."

No doubt you have heard and read much about the Council's expansion and renovation, and I hope the pride we as staff feel about the Council and its vast network of volunteers and Member Boards is evident. I thank the Board of Directors and the Member Boards for continually supporting and encouraging the growth of the Council, allowing us to provide you with more and better services. We look forward to an exciting future.

And speaking of services, what do members and Member Boards get for being a part of the Council? I've listed some of the things we can do for you and ways that we can best serve you. Do not hesitate to let us assist you or to use our services.

Information Access

CouncilNet—Our Members-Only Section of the NCEES Web site

- ◆ Committee Exchange
- ◆ Enforcement Exchange
- ◆ NCEES Calendar
- ◆ Access to internal manuals
- ◆ Minutes and agendas from NCEES Board of Directors' meetings

- ◆ Committee information
- ◆ Member Board survey information

Listservs

- ◆ MBA listserv
- ◆ LE listserv
- ◆ Professionalism and Ethics listserv

Publications

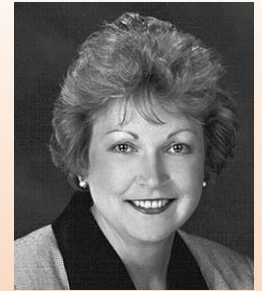
- ◆ *Licensure Exchange*
- ◆ "Zone Update"
- ◆ Board Member Manuals (*Constitution and Bylaws, Model documents, Investigation and Enforcement Guidelines*)
- ◆ NCEES History
- ◆ *Action Items and Conference Reports*
- ◆ *Investigative Training Manual*
- ◆ *Continuing Professional Competency Guidelines*

Public Web site (www.ncees.org)

- ◆ Member Board survey information
- ◆ General information about NCEES and exams

Services

- ◆ Examination development and scoring
- ◆ Examination administration and qualifications (ELSEES, LLC)
- ◆ Promotion of licensure (speaker's kit, trade exhibits, poster campaign)
- ◆ Council Records Program
- ◆ Proctor training
- ◆ New Member/MBA/ABET training
- ◆ Meeting planning
- ◆ Liaison with national engineering and surveying organizations
- ◆ International representation (USCIEP, CCPE, EMF, APEC)
- ◆ ADA evaluations
- ◆ Coordination with related organizations/groups (ICOR, POLC)
- ◆ Customer service (candidate and Member Board questions)
- ◆ On-line registration for Annual Meeting



Betsy Browne
NCEES Executive Director

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(continued on page 4)

Being progressive ... (continued from page 3)

As we fast approach the Annual Meeting, I encourage you to attend your zone interim meeting. Each committee has arranged for someone to present its findings and recommendations at every zone meeting so that you'll be prepared to vote on important issues.



U.S. Senator Lindsey Graham of South Carolina (center) was the keynote speaker at the dedication ceremony. He is seen here talking to Southern Zone Vice President Jim McCarter and Patty McCarter.

Products

- ◆ National licensing examinations for engineering and surveying
- ◆ Model governance documents for Member Boards
- ◆ Study materials for examination candidates
- ◆ Promotional materials for promoting the professions
- ◆ White papers and position statements created for engineering- and surveying-related issues

Networking Opportunities

- ◆ Annual Business Meeting (one delegate from each Member Board funded)
- ◆ Zone meetings
- ◆ Board Presidents' Assembly (Member Board President and MBA funded)
- ◆ Committee/task force meetings (All members funded)

Miscellaneous

- ◆ \$5,000 annual contribution to each zone
- ◆ Associated accounting services for zones
- ◆ Monitoring of trends, advances, and legal concerns in testing
- ◆ Editing services for members submitting related articles to society magazines
- ◆ Support by professional, courteous, and knowledgeable staff

We hope you will let us know when we have been especially helpful and, yes, when you see room for improvement. We continually evaluate our products and services to ensure we are providing you with up-to-date materials, the best technology, and the most beneficial activities and opportunities.

Another item worthy of note is our [Participating Organizations Liaison Council \(POLC\)](#). The POLC brings to NCEES the policies and thinking of the board of directors of the participating organizations on matters pertaining to licensure and legal recognition of engineers and surveyors, and also serves as a channel of communication of NCEES policies and procedures to participating organizations. In the last year, we are pleased that four organizations have joined the POLC, bringing the number of societies to 28. Three structural engineering organizations have recently joined: The Council of American Structural Engineers (CASE) of ACEC, the National Council of Structural Engineering Associations (NCSEA), and the Structural Engineering Institute (SEI) of ASCE. The fourth organization to join, just approved at the February 2004 Board of Directors' meeting, is the Council of Engineering and Scientific Specialty Boards (CESB). The complete listing of POLCs is shown on our Web site at www.ncees.org in the About NCEES section.

As we fast approach the Annual Meeting, I encourage you to attend your zone interim meeting. Each committee has arranged for someone to present its findings and recommendations at every zone meeting so that you'll be prepared to vote on important issues at the Annual Meeting in Cleveland, Ohio, in August. You'll be getting your Annual Meeting registration form soon, and I believe everyone will find something of interest to attend. In fact, a list of many of the workshops and programs are shown elsewhere in this issue of *Licensure Exchange*. I do hope you will be able to attend, and I look forward to seeing you at your zone meeting and at the Annual Meeting August 11-14.

Betsy Browne
NCEES Executive Director



NCEES PAST PRESIDENTS MARCH 21, 2004

PHOTO BY G. SPAKE

Seventeen Past Presidents attended the Council's building dedication ceremony. Seated, left to right: Robert Krebs, Richard Cottingham, Ted Stivers, Paul Munger, John Lyons, Morton Fine, Alfred Samborn, Dennis Meyer.

Standing, left to right: Bill Karr, Dave Sellards, Dale Sall, Ted Fairfield, John Steadman, Charles Kimberling, Eugene Bechamps, Sam Wainwright, Skip Lewis.

PURPOSE

The purpose of this Council shall be to provide an organization through which state boards may act and counsel together to better discharge their responsibilities in regulating the practice of engineering and land surveying as it relates to the welfare of the public in safeguarding life, health, and property. The Council also provides such services as may be required by the boards in their mandate to protect the public.

Constitution Article 2 Section 201

Volunteers tout benefits of working on exams

The Principles and Practice of Engineering (PE) Examination in Control Systems is one of the newer PE examinations (since the first offering of the Control Systems exam in 1992, additional PE examinations have been introduced in environmental engineering, naval architecture and marine engineering, and architectural engineering). The control systems examination has not only the distinction of being the first PE examination given in a no-choice format but also the first exam to be totally multiple choice.

Two professional engineers who championed the cause of the control systems examination and were instrumental in bringing it into being, Tom Stout and Baxter Williams, are still actively involved in its development and scoring. Recently, we took the opportunity to talk with them about their efforts to develop this exam and learn of some of their techniques for attracting subject-matter experts to assist in the examination development process.

Baxter Williams has spent a long career working for various large consulting firms in Houston, Texas. Williams told us his interest in an exam in control systems engineering began when he attempted to register in Texas after having just been notified of his Louisiana PE registration as an electrical engineer. Williams takes up the story: "When I told the board staff that my discipline was instrumentation, they said something to the effect, 'We don't have any and don't want any' because 'instrumentation is just a subset of electrical or mechanical or chemical, or something like that.' I responded that engineering companies typically have a minimum of five departments: process (all chemical engineers), civil/structural, electrical, mechanical, and instrumentation (or control systems), so why were licensing exams available for only four of the five? The response was, 'We want fewer categories, not more.' If I wanted to become registered, I'd have to register as an electrical engineer since my degree from Louisiana Tech University was in electrical engineering.

About 10 years later, Williams marshaled support for a national control systems examination from the [Instrumentation Systems and Automation Society, or ISA](#), (formerly called the Instrument Society of America) and from the control systems department managers at the large consulting firms in Houston (Brown and Root, Fluor Daniel, Kellogg, SIP Engineering [now Parsons] to name just a few). In addition, a "Committee To Cause Registration" was formed. The group petitioned the Texas Board of Registration for Professional Engineers to use the control systems engineering

exam being used in California. In due course, the Texas Board petitioned NCEES, which introduced the control systems exam and offered it to all licensing boards.

Tom Stout says he was influenced by his father, a licensed engineer, to not only become licensed but also to get involved in the examination development process. He wrote questions for California's control systems exam, which was first given in 1978, and later succeeded the

late Alan Baker as the coordinator responsible for producing the examination from 1988 to 1990. Before the first exam was given, California licensed several thousand practitioners through grandfathering. However, these engineers experienced problems becoming licensed by comity in other states, and Stout recognized the benefits of a national exam. Because of his experience with the California exam, Stout was uniquely positioned to aid in the development of the national exam.

By the time the control systems PE exam was introduced in 1992, NCEES had recognized the need to make a transition from norm-referenced exams to a more defensible criterion-referenced model. However, with criterion referencing came new challenges, such as stabilizing exam difficulty and pass rates.

Both men reminisced about their experiences grading the first few exams. Although the exam was in a no-choice format, the morning portion

By the time the control systems PE exam was introduced in 1992, NCEES had recognized the need to make a transition from norm-referenced exams to a more defensible criterion-referenced model.

of the exam consisted of four free-response (essay) problems. The challenge was to grade these problems uniformly and consistently and do so in an acceptable timeframe. The grading took place in a workshop in Houston. Williams was responsible for recruiting approximately 40 subject-matter experts, who volunteered to give up a weekend early in January to score the exam. A great deal of effort was devoted to establishing scoring plans that graders could use to deliver consistent scores. The scoring plans also had to reflect a level of minimum competence, as established by practitioners in the field.

The volunteer scorers were divided into four teams, with each team being responsible for grading all the solutions to one of the four problems. A senior scorer, acting as team leader, first trained the team in the nuances of the problem and its grading. Then using the established scoring plan, two scorers graded each solution independently. The two scores were then compared, and if the scores differed, the solution was assigned to the senior scorer for a third and final scoring.

Although this method may seem reasonable, the challenge was to keep the paperwork flowing and complete the process in the time available. NCEES staff members Susan Whitfield and Tom King, P.E., were both involved in grading the first exam. King recalls the difficulty in the logistics of the process: "We had very limited time to get all the solutions graded. Inevitably, some problems took longer to grade than others. This meant that a bottleneck developed in the room where one problem was being graded while the volunteers grading another problem had to sit idle until we could free up papers from another room. And we had to do all that without losing any papers!"

Today, the exam is entirely multiple choice, similar to other NCEES exams. The days of hectic scoring workshops are over; but workshops are still held each year to develop new items for the exam. Williams is grateful for the support that has been

given by the large engineering firms operating in Houston: "All the major engineering companies have offices here, and they have been generous in their support of the process, not only sending some of their engineers, but also offering their facilities as venues for our workshops."

"The last question writing session was the best we have ever had. Twenty-two P.E.'s attended the day-and-a-half session, some flying in from Washington, Alabama, California, and South Carolina. NCEES staff member Chuck Wallace,

P.E., who was originally licensed as a control systems engineer in California, not only gave us good instructions but also wrote some questions and checked others. About 120 questions were written and reviewed during the session. Our apparent success in getting participants this time can, I think, be attributed to two factors: (1) we advertised in our ISA magazine, *InTech*, and sent respondents our Guidelines for Writing Multiple-Choice Questions and an NCEES Question Form, both to be

used in preparing questions before coming to the session; and (2) we gave each participant a letter indicating that he or she had earned 12 professional development hours (PDHs) for the day-and-a-half meeting. This is the first year the Texas Board will require engineers to meet the continuing education requirements when renewing their licenses. Writing questions about something you know well is a great way to gain 12 PDHs."

We asked Williams what has motivated him to stay involved in the exam process for so long, and he responded: "Would I not be a part of this? Never! It is one of my most rewarding career efforts. I recommend it for anyone wishing to contribute to the engineering profession."

NCEES staff

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NEWS

ALASKA

◆ The new chair is Donald J. Iverson, the vice chair is Linda Cyra-Korsgaard, and the new secretary is Robert E. Gilfilian. Boyd Brownfield, Kenneth Maynard, Clifford Baker, and Richard Hughes are new members of the board. The terms of Patrick Kalen, Robert Miller, Daphne Brown, and Ernie Siemoneit have expired.

CALIFORNIA

◆ The California board office no longer uses P.O. Box 349002 as its mailing address. The mailing and physical address is now 2535 Capitol Oaks Drive, Suite 300, Sacramento, CA 95833-2944.

GEORGIA

◆ Doris I. Willmer, Mark E. Chastain, and Theodore W. Waddle are new appointees to the board. The terms of Tom Moreland, Ted Madson, and Robert Armstrong have expired. William W. Dean is the new board chair.

FLORIDA PE

◆ John Burke, Albert E. Rose, and Daniel Rivera are new members of the board. The terms of Dr. Murthy Bondada and Silvia Lacasa have expired. Robert Matthews is the new board chair.

HAWAII

◆ Alfredo Evangelista is a new member of the board. Robert Akinaka has resigned from the board. The term of Gary B. K.T. Lee has expired.

ILLINOIS SE

◆ W. Gene Corley, Ph.D., P.E., S.E., Central Zone Vice President, is receiving the Norm Augustine Award for Outstanding Achievements in Engineering Communications on May 3. This award is given jointly by the American Association of Engineering Societies, the National Academy of Engineering, and the United Engineering Foundation.

MARYLAND PE

◆ Pam Edwards is the acting executive director. Sally Wingo, the former executive director, is no longer with the board.

MISSOURI

◆ The board has changed its Web site to <http://pr.mo.gov/apelsla.asp>.

NEBRASKA LS

◆ Jerry C. Hain is a new member of the board. The term of Dennis Podany has expired.

PENNSYLVANIA

◆ Robert Ford, Hiram C. Ribblett, and David Geoffrey Smith are new appointees to the board. The terms of Albert M. Tantala and Harry F. Schoenagel have expired.

UTAH

◆ Barry C. Anderson is the new board chair. Dan S. Jones is the new board administrator. The new board secretary is Ann Naegelin. The board's mailing and shipping addresses are shown below:

Mailing Address

DOPL

P.O. Box 146741

Salt Lake City, UT 84114-6741

Shipping Address

DOPL

160 East 300 South 1st Floor

Salt Lake City, UT 84111

After 80+ years, licensure by comity is still an issue

I received the December 2003 issue of *Licensure Exchange* just as I was trying to assemble my various engineering and land surveying license renewal packages. Your article encouraging the elimination of state-specific exams struck a nerve. After retirement I let most of my licenses expire, keeping only five states active. Over a period of time, all five have instituted continuing education requirements for renewal. In addition to these engineering requirements, my problem is also compounded by trying to keep up land surveying licenses for each of the states.

Your plea for consideration of comity in the licensing process is a point well taken. Initially obtaining a license is a one-time event, while renewal with the continuing education requirement is a continuing process. Each year it seems more difficult to meet these constantly changing requirements. State-specific requirements are usually focused on courses related to state statutes, regulations, and minimum standards and appear to become more restrictive with each renewal. Couple this with a licensing board's requirement for preapproval of course-providers, and the task of finding courses accepted across state lines becomes even more difficult. The expense, and more important, the

time expended by the individual, is mounting. Instead of lowering state barriers, more are appearing.

The growth of the continuing education industry has contributed to some degree to these state-specific restrictions. Their cash flow is considerable and growing. It appears to me that this new wealth is approaching a point where the potential for legislative lobbying of the providers may exceed that of the licensees. It may be time for NCEES to consider protecting the welfare of licensees as well as that of the public.

Allow me to offer encouragement to you as you continue your attempt to direct the focus of the Council to the issue of comity. This was, after all, one of the primary motivations that contributed to the formation of the Council back in 1920. Please, however, consider broadening the field to include license renewal and maintenance. Congratulations on your effort and keep up the good work.

Yours truly,

Sam H. Wainwright, P.E., L.S.
NCEES Past President

Dear Editor,

Three items:

A. With regard to the lengthy discussion of Exam Policy 15 in the October 2003 issue of *Licensure Exchange*, I think the inexorable march of the computer will force NCEES to do either one of two things: allow almost any computing device or allow no computer devices. It is simply getting too difficult to police computer use despite the best of intentions.

B. I wish that NCEES would spend more effort to convince the state boards to accept the full NCEES Record on a comity application rather than just the exam and prior registration portion. A good example is Texas, which wants a complete application detailing my experience and requiring

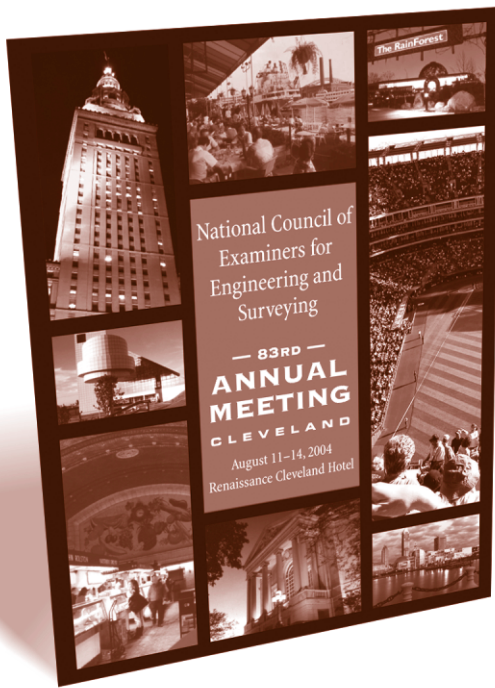
new references rather than just accepting the references on the NCEES Record as well as the experience record. The usefulness of the Record (at \$60 cost) is minimal to Texas, making the entire NCEES effort questionable. On the other hand, Oregon will accept a skeleton application with an NCEES Record, making the record very useful.

C. Apparently NCEES is not in a position to force states to do anything, so I don't know why the Council beats to death the issue of the Model Law and other legalistic items if it can't enforce its will on simple administrative issues such as the Record in lieu of a full application.

Regards,
Peter C. Sgier, P.E.

Send letters to *Licensure Exchange* editor at NCEES, P.O. Box 1686, Clemson, SC 29633 or achenev@ncees.org. Please include your name and state of residence on the letter. Letters may be edited for clarity, brevity, and readability.

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The registration deadline for the NCEES 83rd Annual Meeting is July 9, 2004. Take advantage of the opportunity to influence the future of engineering and surveying licensure by representing your board at the Annual Meeting, August 11–14, in Cleveland, Ohio. In addition to voting on motions presented by committees, you will have the opportunity to network with other board members, earn professional development hours (PDHs), learn more about NCEES, and enjoy the sights, sounds, and food of Cleveland, Ohio. The following forums and workshops will help you better understand the issues before the Council and provide you with the opportunity to ask questions.

Meeting Agenda

Wednesday, August 11

ABET Training—Learn about the ABET evaluation process, expectations for board representatives, and changes brought about by EC 2000.

How to Be a Committee Chair—Learn the requirements and expectations of a committee chair; and hear a description of how NCEES committees are appointed and how charges are assigned.

Position on Fire Alarms and Fire Sprinkler Systems—A task force has prepared a position statement for consideration by the Council concerning the design of fire alarm and fire sprinkler systems by professional engineers. Come to discuss the recommendations being proposed.

Position on Design-Build—Attendees will discuss design-build in relation to engineering and

The clock has begun ticking!

surveying licensure, as well as a position statement prepared by a task force.

New-Member Orientation—This session will benefit first-time meeting attendees, those new to the Council, or those simply unfamiliar with the Council and how it works. The presentation will include information about the organization, products and services, and volunteer and leadership opportunities.

Member Board Administrators' Forum—Join the MBAs in this open-discussion forum of topical issues. Bring your questions and comments and plan on joining the lively discussion.

Engineers' Forum (3.0 PDHs)—Is computer-based testing (CBT) feasible for NCEES examinations? Would any of the existing examinations be usable for CBT? Can examinations be written so that calculators are not required? Attendees of this forum will discuss these and other topics related to the development and administration of examinations, including the possibility of a PE Reference Handbook to standardize information used by examinees and to enhance examination security, the status of the development of the Structural III examination, and recommended changes to the cut score process. Attendees' questions, comments, and discussion topics are welcome.

Surveyors' Forum (3.0 PDHs)—A report of the 2003 Professional Activities and Knowledge Study (PAKS) for surveying will be presented in this forum. Hear about the plans for implementing the new specifications and the development of a sample examination to support the new examination. Also up for discussion are computer-based testing, a PLS Reference Handbook, the possibility of



Renaissance Cleveland Hotel

developing examinations that do not require calculators, and the feasibility of developing certification examinations. Attendees' questions, comments, and discussion topics are welcome.

Thursday, August 12

Business Session I—President Hiatte will preside over the official start of the Annual Meeting.

Zone Meetings with Buffet Deli Lunch—Join the other members of your zone for a discussion on important issues. Lunch will be served during the meeting.

Business Session II

Friday, August 13

Business Sessions III and IV

Zone Meetings

Saturday, August 14

Law Enforcement Program—Come join your peers for a very informative session on interview techniques, trial information, and settlement techniques. The session will be interactive, so bring any questions you may have or any real-life experiences to share with the group.

Committee Organizational Meetings

Business Session V (if needed)

Exam Security Workshop—Exam security remains a primary concern of the Council in ensuring the fair and consistent administration of NCEES examinations. Attend this session for updates about new procedures designed to enhance the examination process and protect the security of the Council's most valuable asset. This session is strongly recommended to Member Board Administrators and board members who are involved in the administration of NCEES examinations.

Cut Scores Workshop (1.5 PDHs)—Learn how the passing scores for NCEES exams are determined. It's not necessary to have an exam background to get some real value from this session, and you'll have a chance to get your questions answered.

New Member Board Administrator Orientation/Training—What are the governing documents for NCEES? How are NCEES committees created? What is the POLC? How does NCEES interact with professional engineering societies? These and many other questions will be addressed in this session intended for the new Member Board Administrator. This session will provide a history of NCEES, describe the leader-

ship structure and the services offered, and allow the opportunity for questions.

Status of Surveying Education—Panel Discussion—Advances in technology and the complexity of the business continue to dictate changes in curriculums and program content for the institutions that offer degrees in surveying. What are these changes and what is typically included in a four-year program? How many institutions now offer a bachelor's degree in surveying? What's being done to recruit students to keep these programs alive? How can licensing boards and professional societies help in this effort? Learn what's happening in surveying education from this panel of experts.

Defining the Body of Knowledge for Civil Engineers Workshop—At this workshop, ASCE representatives will provide an update on the association's efforts to upgrade the education requirements for the civil engineering profession.

Forensic Engineering and PE/PLS Licensure or "Are We Protecting the Public?"—Forensic engineers often are called on at the last minute to go to the scene of an accident to document, measure, and photograph the location before evidence is erased or removed. In some cases, the client may be in one state, the lawsuit in another, and the deposition in a third. How do jurisdictions protect the public and ensure consistent treatment of licensed engineers? Chuck Prewitt and Sonny Launey, both exam committee members, will talk about some of the challenges forensic engineers face in following the rules of licensing boards.

Task Analysis (PAKS) Workshop (1.5 PDHs)—Do you know how the content of an examination is determined? Attend this session to learn about this important step in the development process. It's not necessary to have an exam background to get some real value from this session, and you'll have a chance to get your questions answered.

Promotion of the Professions—Help deliver the value of licensure message to engineering and surveying students in your area. Attend this session to learn more about NCEES outreach efforts, including new materials for surveying developed in conjunction with ACSM/NSPS. Obtain tips on making the best use of the materials and delivering an effective presentation.

Registration Deadline: July 9, 2004

Register for the 2004 Annual Meeting by:

Phone
Call NCEES directly at 800-250-3196 or 864-654-6824 from 7:30 am–5:30 pm Eastern Daylight Time, Monday through Friday.

Fax
Complete the registration form, and fax both sides to 864-654-6033, 24 hours a day, 7 days a week.

Mail
Complete the registration form and mail to: NCEES, P.O. Box 1686, Clemson, SC 29633-1686

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Upcoming

EVENTS

DATE	EVENT	LOCATION
May 13–15	Southern Zone Meeting	Asheville, NC
May 18–20	NCEES Board of Directors Meeting	St. Louis, MO
May 20–22	Central Zone Meeting	St. Louis, MO
May 31	Holiday, Office Closed	
July 5	Holiday, Office Closed	
Aug. 11–14	NCEES Annual Meeting	Cleveland, OH

It pays to be a surveyor!

If you're a surveyor or mapper, the chances are pretty good that you'll keep more from each dollar of sales than business owners in at least 115 other industries. BizStats.com reports that 94% of surveying and mapping sole proprietorships have been profitable, putting it number one on the list of sole proprietorships studied in 120 industries. Optometrists and dentists are ranked two and three, respectively. Engineering services are in the top 35, with nearly 80% of those businesses turning a profit. Last on the list? Hunting and trapping, with less than 25% showing a profit.

Licensure

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