

Highlights from the 87th NCEES Annual Meeting

The following are some of the items delegates voted on during the Annual Meeting business sessions on August 15. The complete Annual Meeting Minutes will be posted on CouncilNet in October and soon thereafter mailed to all Member Board members, administrators, and emeritus members. It will include a form for requesting hard copies of the revised board member manuals—the *Model Law*, *Model Rules, Bylaws*, and *Manual of Policy and Position Statements*. The manuals are also available for download on CouncilNet (www2.ncees.org).

Council Governance

Advisory Committee on Council Activities

The Council passed an ACCA motion to clarify term limits for the office of treasurer. NCEES treasurers are limited to two terms of two years each, but the Council's governing documents did not address term limits for a treasurer who completes a predecessor's unfinished term. The Council approved the ACCA's proposal that serving a partial term of one year or less does not constitute a full term. The 2008–09 Special Committee on Bylaws will review this change to the Bylaws, and the Council will vote on ratifying the amendment next year.

The Council also passed an ACCA motion to require all NCEES committee and task force members and consultants to sign a conflict of interest statement similar to that signed by the NCEES Board of Directors and staff. This statement will testify that the signer has no financial or other personal interest in the decisions made by the committee or task force.

Special Task Force on Governance

The Governance Task Force had one motion, which was passed by the Council. Rather than having a separate Constitution and Bylaws with different amendment procedures, NCEES now has one governing document requiring a two-thirds majority for amendments. In rewriting the two documents as one, which is now named the Bylaws, none of the specific provisions were altered except to remove duplicate language. The motion to merge the Constitution and Bylaws was made at the suggestion of NCEES legal counsel.

Special Committee on Constitution and Bylaws

The Constitution and Bylaws Committee presented five motions asking the Council to ratify amendments decided at the previous year's Annual Meeting. All five motions passed with the required two-thirds majority.

Council Finances

Committee on Finances

The Finance Committee presented several motions that were passed during the business sessions. One motion will allow the NCEES president and president-elect to fly business class when traveling on Council business for flights of at least three hours. The Council also passed a motion creating a separate class of membership fees for NCEES Member Boards with 150 or fewer registrants. Annual fees for these boards will be \$750. Those with 151–500 registrants will continue to pay \$2,600 annually, and those with more than 500 registrants will continue to pay \$6,500 annually.

Another motion presented by the Finance Committee and passed by the Council will waive the Annual Meeting registration fees for each NCEES past president and a guest and fund travel expenses for each past president to attend the Annual Meeting.

Also, the Council passed a Finance Committee motion to amend the position statement on Council funds to state that the Council's designated reserves should be sufficient to cover a total exam breach.

Licensure

Western/Southern Zone resolutions regarding the additional education requirement

The Western Zone submitted a resolution under New Business calling for a suspension of the criteria development for the additional engineering education requirement pending investigation by an NCEES committee into the potential impacts of the requirement and any possible alternatives to raising the education requirements for engineering licensure.

The Southern Zone presented a substitute resolution containing many of the same provisions as the Western Zone resolution.

The Southern Zone resolution, however, did not call for immediately suspending development of the requirement's criteria. The Council chose to adopt this substitute resolution with some amendments. As a result, the 2008–09 Engineering Education Task Force will examine the potential impacts of raising the education requirements and will look into any alternative solutions to the existing requirement.

Bachelor's Plus 30 Task Force

The Bachelor's Plus 30 Task Force delivered its report immediately following the adoption of the Southern Zone resolution. The Council passed each of its three motions.

The first motion called for a committee to be charged with exploring the idea of creating a clearinghouse to carry out activities needed to implement the higher education requirement for engineering licensure. The second motion presented language defining the coursework and course providers acceptable in fulfilling the requirement. The third motion addressed whether a degree from an ABET-accredited master's program (M-ABET) should be included in the definition of Model Law Engineer. The motion was to charge the UPLG Committee with incorporating this M-ABET concept into the *Model Law* and *Model Rules*.

Committee on Uniform Procedures and Legislative Guidelines

The UPLG Committee performed its five-year review of the *Model Law* in 2007–08 and had numerous motions related to updating language in the document to conform to current Council practices. During 2008–09, it will perform the same review of the *Model Rules*.

The Council passed a UPLG motion to postpone by five years the implementation of the additional education requirement for engineering licensure. It now has an effective date of January 1, 2020. It also amended the existing *Model Rules* language regarding the requirement to state that credit toward completing the requirement will be granted for coursework completed in excess of that required for the candidate's bachelor's degree in engineering. Previously, it said credit would be granted for coursework exceeding 120 hours, but this raised concerns that the provision carried an implicit approval of a 120-hour undergraduate program.

Two motions to amend the *Model Law* to equate the words “engineer” and “surveyor” to the terms “professional engineer” and “professional surveyor” were defeated, with the Board of Directors taking a position against the motions.

Several UPLG motions that were placed on the Consent Agenda were removed at the request of delegates. These motions were passed with amendments from the floor.

The committee's Motion 4 was withdrawn until next year. It outlined the experience requirement for engineering licensure candidates with advanced degrees. It was withdrawn to allow the committee to address an inconsistency with the existing language regarding the requirement for candidates earning ABET-accredited bachelor's degrees, which states that these candidates may complete their experience requirement prior to passing the FE exam. The proposed language stated that candidates with master's degrees and doctorates were required to demonstrate three and two years experience, respectively, after becoming engineer interns.

Examinations

Committee on Examination Policy and Procedures

The Council passed both of the motions presented by the EPP Committee during the business session. Four other motions passed as part of the Consent Agenda. The committee's Motion 5 added language to Exam Administration Policy 8, Release of Examination Results. It states that NCEES treats exam scores as final after a year has passed from the date of release to Member Boards, but that NCEES reserves the right to notify Member Boards if it later finds that a candidate engaged in any improper conduct related to NCEES exams. The committee's Motion 6 defined Group I and Group II PE examinations in Exam Development Policy 1, Examination Titles. The policy now states that Group I exams are prepared solely by NCEES, while Group II exams are prepared jointly by NCEES and a sponsoring society from that discipline.

Computer-Based Testing Task Force

The CBT Task Force presented its findings and had two motions for Council action, both of which were passed. The Council authorized a feasibility study that will assess the viability of computer-based testing by gathering

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Annual Meeting debate adds insight to higher education issue



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In 2006, the Council passed a motion to add language to the *Model Law* requiring engineering licensure candidates to earn 30 additional credit hours beyond the bachelor's degree. Since then, the Council has typically referred to this requirement as the "bachelor's plus 30," with the understanding that a master's degree of engineering would also meet the requirement. But based on the debate at this year's Annual Meeting, it seems as if a consensus is building that it would be more appropriate to refer to this requirement as the "master's or equivalent." During the workshops and forums, several well-known and experienced delegates, including some past presidents, spoke in support of more stringent education requirements. However, they said that the emphasis should be placed on the master's degree because the bachelor's plus 30 language lends itself to misinterpretation by several key groups.

There are several reasons why it may be a good idea to emphasize an engineering master's degree as the best way to meet the education requirements for licensure.

Selling the concept to state legislatures

The NCEES *Model Law* and *Model Rules* spell out requirements for engineering licensure. These documents provide NCEES Member Boards with the model to use when working with state legislatures to update their practice laws for the engineering and surveying professions. Consequently, comity depends upon the ability of the Member Boards to successfully get their legislatures to incorporate the language of the *Model Law* and *Model Rules* into their professional practice laws. If the majority of Member Boards do not have the provisions contained in the model enacted in their state laws, then interstate comity is far more difficult for P.E.'s, to the detriment of the profession as a whole. This is an important consideration when the Committee on Uniform Procedures and Legislative Guidelines (UPLG) and the Council deliberate amendments to these documents.

Framing the education requirements in terms of a "master's or equivalent" would be far easier to sell to the state legislatures than the "bachelor's plus 30" in its current

form. During Annual Meeting discussions, delegates and administrators appeared to agree that selling the bachelor's plus 30 to the legislatures will be an uphill battle. They anticipated concerns related to the specifics of the requirement, such as defining approved coursework and approved course providers.

The *Model Rules* language proposed by the Bachelor's Plus 30 Task Force and approved by the Council in August defines the terms "acceptable upper-level undergraduate and/or graduate-level coursework" and "approved course provider" as stated in the *Model Law* language outlining the 30 additional credit requirement.

While the current language provides guidelines for what is acceptable in fulfilling the requirement, it does leave room for interpretation. For example, coursework in technical topic areas (which must account for at least half of the 30 additional credits) can include both engineering coursework and "sciences and mathematics related to engineering." Who will determine which of these courses are related to engineering? The requirement states that "all coursework shall be equivalent in intellectual rigor and learning assessment to upper-level undergraduate and/or graduate courses offered at institutions that have a program accredited by EAC/ABET." Who will make this determination?

Council delegates also passed a Bachelor's Plus 30 Task Force motion to charge a committee with exploring the idea of creating a clearinghouse for the requirement. The work of the committee assigned this charge—this year's Engineering Education Task Force—could begin providing answers to these and other questions.

However, the goal remains to provide Member Boards with something that they can persuade their legislatures to pass into law. This could be done by emphasizing that a master's degree in the candidate's field would meet the additional education requirements—without the need for the candidate to go through the proposed clearinghouse. The clearinghouse could then be used only to determine whether the qualifications of candidates without master's degrees should be considered equivalent.

Allowing educators to do their job

Some critics of the additional education requirement have argued that NCEES does not have the expertise to determine university curricula for engineers and that the engineering deans and ABET are the appropriate parties for adjusting coursework requirements in response to changes in the body of knowledge. By reframing the additional coursework requirement as a master's or equivalent, the Council will allow the organizations best equipped to respond to the expanding body of knowledge to do so.

ABET recently decided that it will allow institutions to pursue dual-level accreditation of both bachelor's and master's degree programs, beginning in 2009. This decision makes the master's or equivalent concept even more appropriate. In the past, engineering schools could not offer both accredited bachelor's and master's programs in the same discipline. With ABET performing accreditation for master's degrees in engineering, the task of evaluating degree programs for licensure candidates of 2020 and beyond will remain with ABET. NCEES would then be making determinations on equivalency only for those candidates without a master's degree.

Dual-level accreditation will also allow for a greater level of flexibility in the path toward licensure under the heightened education requirement. In August, the Council passed a motion presented by the Bachelor's Plus 30 Task Force that will charge the UPLG

Committee with incorporating the M-ABET concept into the *Model Law* and *Model Rules*. Dual-level accreditation will allow candidates with undergraduate degrees in non-ABET-accredited programs or in non-engineering disciplines the opportunity to pursue engineering licensure by completing an accredited engineering master's degree.

There still remains the criticism that the increased education requirement, whether it is the bachelor's plus 30 or the master's or equivalent, will affect only the 20 percent of practicing engineers who are licensed P.E.'s. "What about the other 80 percent of engineers who are not licensed?" they ask. I believe that raising the educational requirements for engineering licensure will have a positive effect on all engineers and engineering students. The entire profession will benefit from efforts to elevate the requirements if, as a result of our efforts, a career in engineering will be considered more prestigious. Engineers would join the ranks of other professions requiring an advanced degree. It would elevate the profession as a whole. What other justification is needed?

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Skip Harclerode served as chair of the UPLG Committee from 2006 to 2008 and as an ex-officio member of the 2007–08 Bachelor's Plus 30 Task Force. He is currently a member of the 2008–09 Engineering Education Task Force and a consultant to the 2008–09 UPLG Committee.

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Awards Committee accepting nominations

The Committee on Awards is accepting nominations for the Distinguished Service Award, the Distinguished Service Award with Special Commendation, and the Meritorious Service Award. These awards will be presented at the 2009 Annual Meeting in Louisville, Kentucky. In accordance with Council policy, nomination

materials were mailed to Member Board administrators by October 1. They are also available on CouncilNet or by contacting Executive Assistant Sherrie Holcomb (sholcomb@ncees.org). The deadline for Member Board officers or administrators to submit nominations is **January 31, 2009**.