

State News for NSPE Members

#### Erin Gates, P.E., Honored as NSPE Fellow



Wyoming civil engineer Erin Gates, P.E., who has served the Society at the national, state, and chapter levels with distinction, was recently named an NSPE Fellow. Gates is an active member of WySPE's Cheyenne Chapter, a member of the WySPE board, and a member of the NSPE House of Delegates. She has also served as chair of NSPE's Young Engineers Advisory Council and has been a MATHCOUNTS chapter coordinator for nine years.

As a project engineer at BenchMark Engineers P.C., Gates's primary responsibilities include hydraulic modeling, analysis and design of new and rehabilitative improvements to both water and sanitary sewer systems.

#### **Budget Cuts Force Changes in Engineering at UW**

Due to a significant change in state funding, the University of Wyoming is planning a number of changes, including within engineering, reports Cowboy State Daily. The departments of Computer Science and Electrical and Computer Engineering would be removed from the College of Engineering and continue to be offered under other programs. Additionally, the Department of Chemical Engineering would be discontinued, but its degrees would be maintained under a reorganized unit that would include the current Department of Chemistry. The College of Engineering and Applied Science is slated to become the College of Engineering and Physical Sciences.

Architectural engineering is also earmarked for elimination, reports WyoFile. Not long ago, the state emphasized engineering education, the article says. The state spent more than \$26 million from 2012-14 to bring the College of Engineering and Applied Science up to "Tier 1" status. Then, lawmakers approved \$105 million to construct an Engineering Education and Research Building that opened in 2019.

"Thanks to scaled-back funding that has resulted in fewer professors and PhD students, UW is moving backward in its goal to become one of the country's top engineering schools. Interim Dean Cameron Wright told WyoFile that faculty sizes are so small, required courses are only taught once a year, and he must hire 20-30 temporary lecturers each semester to accomplish even that."

Stay up to date on legislative issues through the **<u>NSPE Advocacy Center</u>**.

## Have You Registered for Virtual PECon 2021?

With sessions on leadership, innovation, diversity, ethics, time management, and more, there is a session for everyone at the 2021 Virtual Professional Engineers Conference (Aug 3-5). The early bird registration rates end after today (July 14).

You won't want to miss out on the keynote speakers, networking with your friends and peers in Coffee Chats, solving everyday



problems in MasterMind sessions, and PE Day (August 4). Here's a peek....

- Managing Up, Out and Within (Stephanie Buckingham and Paula E. Miles, P.E.)
- Cyber-attacks and Resilience (James Livermore and Dave Ubert)
- NSPE Engineering Excellence Awards
- Mars Is a Harsh Mistress (So is the Moon) (George Hamilton, P.E., F.NSPE)
- Delegation: How to Manage the Monkeys on Your Back (Shelley Rowe, P.E.)

#### Iowa Approves PE Exam Before Experience

PE license candidates in Iowa will have the opportunity to take the PE exam prior to meeting the four years of experience requirement.

Legislation (H.F. 284) signed by Governor Kim Reynolds in April eliminates the requirement that applicants for a professional engineer license must show necessary practical experience in engineering work prior to taking the PE exam. The bill does not alter other experience requirements for applicants.

Individuals applying for licensure in Iowa should access the Iowa Engineering and Land Surveying Examining Board website for updates on implementation of the rule change.

In states that have "decoupled" the experience and examination requirements, applicants are still required to complete all education, examination, and experience requirements before being granted a PE license.

NSPE believes that licensing boards should provide the option of taking the PE exam as soon as applicants for licensure believe they are prepared to take the exam and have passed the FE exam. Applicants, upon passing the exam, should not be eligible for licensure before meeting all other jurisdictional requirements.

### **Can the Engineering Profession Achieve Racial Equity?**

Engineering occupations are some of the highest-paying and most prestigious in the US labor market, but they are also some of the least diverse. A new report from the Georgetown University Center on Education and the Workforce finds that between 1990 and 2019, the total number of Black/African American and Latinx students who graduated with a bachelor's degree in



engineering increased nearly fourfold, but there is still far from equitable representation.

Over the same time period, the Latinx share of bachelor's degrees in engineering increased from 3% to 13%, while the Black/African American share held steady at 4%. At this pace, achieving racial equity in engineering on par with population share would take 76 years for Latinx and Black/African American workers as a group and up to 256 years for Black/African American workers alone.

"Having a career in engineering means you've made it," said Anthony Carnevale, CEW director and report lead author in a statement. "While it's a marker of climbing the wage and status occupational pyramid, it's also a social indicator of progress on racial and gender justice."

The report addresses how Black and Latinx are underpaid in a profession that pays very well. A person with an engineering bachelor's degree (and no graduate degree) earns 25% more on average than the typical bachelor's degree holder in the first job after graduation.

However, as with almost all fields, Black/African American and Latinx workers earn less than the average. While White and Asian workers with a bachelor's degree in engineering earn 61% and 71% more, respectively, than the average for all bachelor's degree holders, Black/African American and Latinx engineering majors earn just 15% and 18% more, respectively. To attain earnings comparable to those of White engineering majors, Black/African American or Latinx engineers must earn an additional degree beyond the bachelor's degree.

The report authors emphasize that it shouldn't take decades or centuries to ensure diversity in the engineering workforce mirrors diversity in society. It will take a comprehensive, committed, and innovative approach from employers and universities to close the gap.

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