S.1049 (Cooney)/A.5051 (Jean-Pierre)

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S.1049 (Cooney)/A.5051 (Jean-Pierre)

SUBJECT

Relates to an engineering technology degree

DATE

January 23, 2024

SUPPORT

The Business Council supports S.1049 (Cooney)/A.5051 (Jean-Pierre), which would allow applicants with a bachelor's degree or higher in engineering technology and an applicant with a bachelor's degree or higher in engineering to have the same eligibility for an identification card as "an engineer in training", as well as examination eligibility requirements.

Professional engineers are issued their licenses on a state-by-state basis. Under current NYS law, graduates with an engineering technology degree are required to earn two additional years of work experience in comparison to their counterparts with an engineering degree, in order to be deemed eligible to sit for their final professional licensing exam (PE).

For both degrees, engineering and engineering technology, there is a disproportionate amount of minority students enrolled in these programs and, by default even smaller percentages of these racial groups joining their respective workforces. It is more important to recognize that minority students are twice as likely to enroll in engineering technology baccalaureate programs and inevitably twice as likely to face this barrier before joining the workforce. In 2018, engineering programs had a student enrollment of 4.3% Black students, 8.5 Latinx students, 14.6 Asian students, and 60.6% white students. In this same year, engineering technology programs had a student enrollment of 8.1% Black students, 13.7% Latinx students, 6.9% Asian students, and 65.3% white students. [i]

The additional work requirement serves as a barrier in the engineering field. It is a barrier that keeps these individuals from progressing in their field and being able to hold certain positions. Economically, it is a barrier that keeps these individuals from increasing their earnings over a lifetime at a steady rate in comparison to their counterparts. Mechanical engineers with a professional engineering license earned a median income of $133,000, nearly $16,000 more than those lacking the PE license. [ii]

When comparing the two degrees, licensure application rules and laws, nationwide, show engineering technology degrees are seen as an equivalent to engineering degree in only 12 states. Yet, there is no data to suggest that students from engineering technology programs are less prepared for the exams and/or underperform once licensed.[iii]

Academically both fields meet the requirement of holding a baccalaureate degree and therefore should allow this achievement to suffice to sit for the PE. This barrier forces individuals to consider work permanency outside of NYS, only adding to workforce shortages and challenges that we are currently facing. Across the nation, there are 12 states without this requirement and many others considering removing the requirement. For these reasons of increasing and diversifying the workforce in NYS, The Business Council supports S.1049 (Cooney)/A.5051 (Jean-Pierre).

i. https://ira.asee.org/wp-content/uploads/2019/07/2018-Engineering-by-Numbers-Engineering-Statistics-UPDATED-15-July-2019.pdf

ii. https://www.asme.org/topics-resources/content/salaries-up-for-mechanical-engineers

iii. https://publicintegrity.org/education/black-engineers-face-barriers-in-states/