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# **Role of Universities in Keeping PRA a Vital Force of the Nuclear Industry**

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# Role of Universities

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- Educate a workforce that deeply understands and appreciates the limitations and strengths of PRA-related methods, analytics, data, techniques and tools
- I can name 3-4 Universities in the U.S. who have the resources and faculty to realize the above goal
- We at the University of Maryland Reliability Engineering Program, since its inception over 30 years ago we have granted PhD: 101; MS: 119; MEng: 251 (roughly a quarter from the nuclear industry), 23% of PhD and MS graduates were women. *Several of whom are in this conference!*
- We get students from NRC, DOE, Utilities, and National Labs, including traditional students coming directly from engineering undergraduate programs
- However, the number of applicants from the nuclear industry has been steadily declining

# What is Needed?

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- In the list of 5 PhD and 2 MS students we admitted for Fall 2019, only 2 are nuclear engineers. We admitted 18 to our Professional Master program, but only one was Nuclear Engineering. Why?
- My last PhD Nuclear Engineering PhD students joined a high-tech firm
- PRA practitioners educated in this field will add credibility and vitality of this discipline and accelerate its acceptance
- Without sufficient research grants from the government and industry, the universities will not sustain in this field
- I'm not aware of any NRC-sponsored research grants and cooperative agreements aimed for the universities, but NRC currently offers a limited grants for faculty development efforts
- In its 2019 solicitation, NEUP listed only two topics in “Risk-Informed System Analysis R&D Pathway” out of 34 or so topics
- Without increased funding we would witness a gradual disappearance of PRA related interest in the Universities

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Thank you!

Questions?