



# IRP-MS-1: Nuclear Energy Workforce Pipeline Gap Analysis

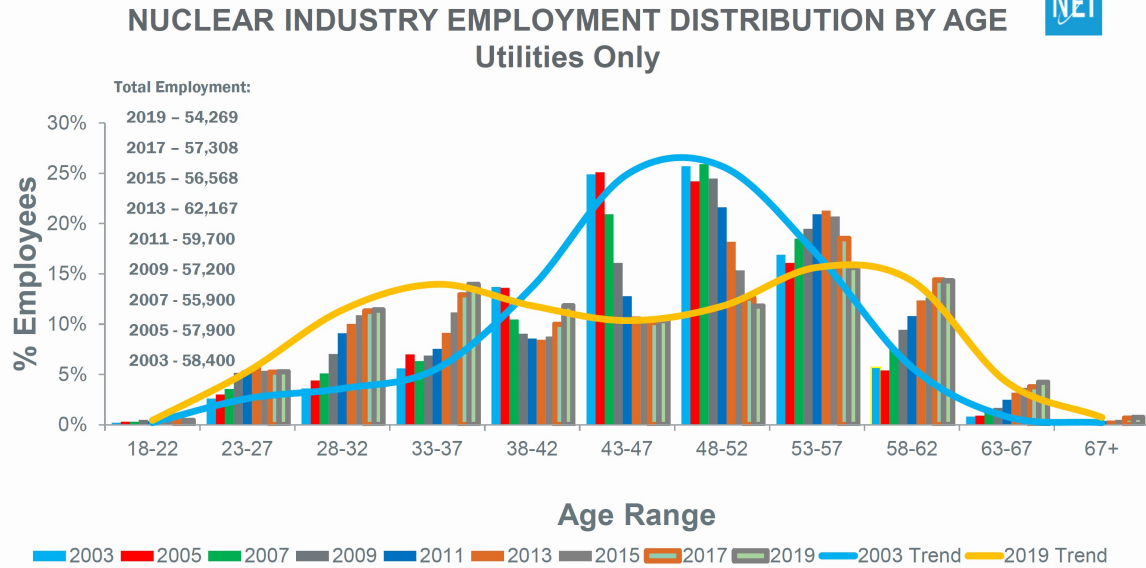
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# Nuclear Energy Workforce

- Nuclear Energy Workforce is inclusive of a variety of different career tracks with varying levels of education:
  - Skilled labor
  - Technicians
  - Operators
  - Engineers
  - Scientists
  - and more...
- **Workforce Pipelines feed to:**
  - Industry/power generation
  - Advanced reactor developers
  - National laboratories
  - Universities
  - and more...

# Current Trends

- “In Nuclear, the five-year projection for both retirement and non-retirement attrition is significantly higher than in other key jobs, with rates averaging between 21% and 26% overall. Retirement rates have decreased since the previous survey by 1%, while non-retirement attrition has increased by 10%.<sup>1</sup>”
- Nuclear workforce trends have changed over the past 5 years to include an influx of younger employees. The wave of retirements is not yet over.



Data as of June 11, 2019

Source: 2019 Gaps in the Energy Workforce Survey Results. Contractors and vendors are not included

1. “Gaps in the Energy Workforce: 2019 Pipeline Survey Results”, Center for Energy Workforce Development. December 2019. <https://cewd.org/documents/surveyreport/2019-GapsintheEnergyWorkforce-SurveyResults.pdf>

# Challenges and Needs

- Most current workforce data is focused on utilities
  - Limited data on other workforce areas (i.e., national laboratories, academia, advanced reactor developers, future advanced reactor builds and operations, etc.)
- Identification of emerging workforce needs
  - Advanced reactor operations
  - Small modular reactors
  - Microreactors
- Understanding pipelines and how they are aligned with current trends and emerging needs
- Better understanding of what is driving attrition in the nuclear workforce

# IRP-MS-1 Scope

- Applications are sought to identify existing and future gaps in the nuclear energy workforce. This gap analysis should explore all aspects of the U.S. nuclear fuel cycle and should be inclusive of labor pools associated with uranium supply, enrichment and fuel fabrication, fission reactors, recycling, interim storage, and final disposal.
- Applications would provide DOE-NE with a comprehensive nuclear energy workforce development plan to address identified gaps, challenges, needed resources, and opportunities to create these pipelines.

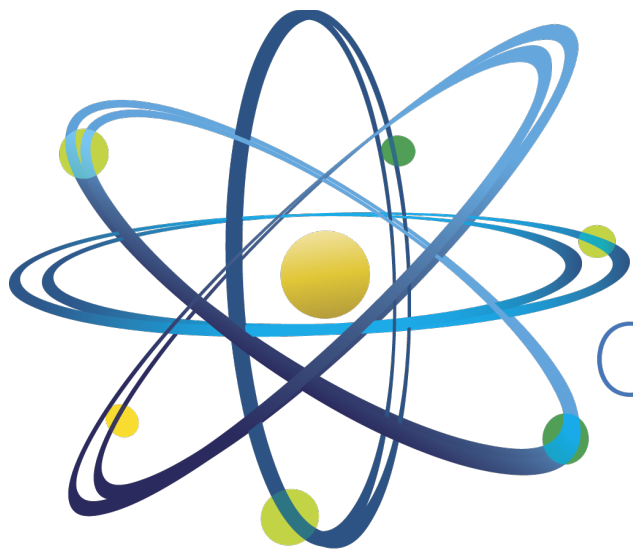
# IRP-MS-1 Scope Special Provisions

- **This scope requires collaboration with one or more Minority Serving Institutions including Historically Black Colleges and Universities (HBCUs) and Tribal College and Universities (TCUs).**
- Successful teams will be made up of not only nuclear energy experts, but also those from social science disciplines, including sociology, political science, psychology, economics, education and business and management.
- Minority Serving Institutions with focus on HBCUs and TCUs are encouraged to apply as lead applicants.
- IRP teams must be comprised of multiple universities. Engagement with industry, national laboratories, and non-profits is encouraged.

**Award Size: Up to \$3,000,000**

**Project Length: Up to 3 years**

# Questions?



Clean. **Reliable. Nuclear.**