

Excerpt from the NSF's Engineering Research Centers RFP (20-553).

"The ERC Engineering Workforce Development (EWD) program is driven by the future education, workforce development, and labor market needs relevant to the proposed Center. A proposed evidence-based program for building human capacity for the future engineering and technical workforce must be described. The proposed program should provide strategic goals for the ERC as well as targeted and specific outcomes related to workforce development and education.

Workforce Development occurs at all levels of the Center and provides opportunities for all ERC members including students, faculty, and external partners as appropriate. Proposed activities should logically lead to targeted outcomes and support diverse pathways and experiences for participants. Engineering workforce activities should contribute to a diverse, globally competitive, and team-oriented engineering workforce that has experience in convergent research, technology advancement, industrial practice, and innovation. Rather than a comprehensive set of training opportunities (general public, faculty, professional, vocational, graduate, undergraduate, and K-12), EWD programs should include a strategic selection of targeted activities that will enable the long-term vision of the Center. ERCs should leverage team and institutional expertise and resources to maximize impact with targeted activities.

At least 6 non-ERC students must enroll in a Research Experiences for Undergraduates (REU) program budgeted at a minimum of \$50K per year from the ERC base budget, as well as at least 6 participants must be engaged in a Research Experiences for Teachers (RET) program budgeted at a minimum of \$60K per year from the ERC base budget. Awarded ERCs are encouraged to submit proposals to the annual Research Experiences for Undergraduates (REU) Site and Research Experiences for Teachers (RET) Site competitions to expand the Center's workforce development impact. Partnerships with inner city, rural, or other high needs schools are especially encouraged, as is participation by underrepresented minorities, women, veterans, and persons with disabilities. Suitable metrics to assess progress towards meeting the ERC's goals should be described, and feedback loops should be in place for continuous program improvement.

Describe how the leadership team will effectively support workforce development and educational programming. This section should also clearly describe how the proposed workforce development program will interact with existing educational or training systems at all partner institutions. Include a description of plans for engaging with partners, recruiting participants, and anticipated participant experiences. Educational partnerships may be leveraged to support the program and provide opportunities to engage with potential participants. All Engineering Workforce Development program participants, whether internal or external to the ERC, should have opportunities that are unique and would otherwise not be possible without the ERC."