NSF Engineering Research Centers (ERC) Program

Statement on Diversity and Culture of Inclusion (DCI)

In an effort to provide greater clarity among NSF program directors, and ERC leadership and personnel regarding expectations for ERC Diversity and Culture of Inclusion programs, the ERC team is issuing the following common definitions and responsibilities for ensuring access and opportunity for success for all ERC participants.

*What do we mean by* ***diversity****?*  The ERC program supports broadening participation in groups that historically have been underrepresented in STEM due to marginalizing and discriminatory practices. Although there are many ways that diversity can be understood and many different facets to individuals’ identity, the ERC program is primarily focused on broadening participation with respect to race, ethnicity, gender, disability, socioeconomic status, veterans, and first-generation students. The ERC program promotes diversity across all participating institutions and across all levels of ERC participation, including leadership, faculty, staff, postdocs, and students, as diverse teams have greater potential for impact and innovation (AlShebli, Rahwan, & Woon, 2018; Freeman & Huang, 2014; Nielsen, et al., 2017).

*What do we mean by* ***culture of inclusion***? The ERC program defines a culture of inclusion as an environment in which all members feel valued and welcomed, creatively contribute, and gain respect and mutual benefit from participating. A culture of inclusion also requires accessibility practices, such as those that ensure facility, technology, and activity access for individuals with a wide range of disabilities. A culture of inclusion is a necessary foundation for effective teaming (National Research Council, 2015). In addition to forming a diverse team, the culture of the ERC and teams within the ERC should support convergence through inclusive collaboration.

*Why is the* ***ERC Diversity Director*** *or equivalent position important?* All ERC personnel have a responsibility to contribute to a culture of inclusion. To develop and lead the ERC’s strategic approach to Diversity and Culture of Inclusion, the role of the ERC Diversity Director is critical. This includes having responsibility, authority, and accountability to set and achieve diversity goals and cultivate a culture of inclusion. The Diversity Director must have the ability to impact budget decisions and be provided the resources needed to accomplish diversity and culture of inclusion goals. We suggest this person be a part of the leadership team, and the person in this role must interact with research thrust leads and industry representatives, as well as education and workforce development personnel. Clearly, the person selected for this role must have demonstrated knowledge and expertise in broadening participation.

*What are the high-level* ***goals*** *of the ERC DCI program*? Since a major goal of the ERC program is to train a domestic workforce, the majority of ERC participants should be US citizens or permanent residents within categories of faculty, postdocs, graduate and undergraduate students. The ERC program also values the diversity contributed from international perspectives in achieving ERC goals. The ERC program strives for ERC participation that is representative of the diversity of the national population. ERCs strive to exceed national engineering average levels of participation for underrepresented groups defined by gender, race, ethnicity, and disability status across all ERC partner institutions.

*What processes can ERCs implement to demonstrate strong cultures of inclusion?* ERCs can demonstrate continually fostering a strong culture of inclusion by:

* Demonstrating a strong **commitment to diversity and inclusion** from the leadership team
* Balancing **shared accountability** so that the ERC Diversity Director is not solely responsible for accomplishing the diversity goals or the culture of inclusion goals
* Applying evidence-based **universal/inclusive design** and accommodation practices to ensure that all activities and resources are accessible to and inclusive of individuals with a broad range of characteristics, including disabilities
* Maintaining a transparent **living strategic plan** where goals and objectives align with institutional initiatives, and are revised on a regular basis, programmatic elements are aligned with goals, and evaluative data is fed back into program goals and implementation
* Setting a **shared vision** with common expectations and goals among all ERC personnel
* Providing safe and secure **communication channels** for underserved voices
* Establishing clear **codes of conduct** for participating in the ERC, including team interaction and meeting.
* Engaging **partners** designed to reinforce ERC culture of inclusion including industry partners, university groups, professional societies, and other stakeholders
* **Onboarding** new ERC personnel and partners to establish clear expectations and shared values
* Offering on-going **trainings** and resources to reinforce expectations for individual conduct and build knowledge, skills, and attitudes in key areas of diversity and inclusion
* Providing opportunities for **mentorship** among all ERC personnel (multi-directional)
* **Communicating** a clear message of the ERC’s culture of inclusion and values and attitudes regarding diversity, across multiple formats and media
* Creating systems for **rewarding and recognizing** contributions that reinforce the ERC’s culture of inclusion
* Implementing an **assessment strategy** with SMART (specific, measurable, attainable, relevant, time-bound) metrics
* **Retaining** both diverse students through completion of degrees and staff and faculty within the ERC with opportunities for mutual benefit that increase the diversity of the ERC.

These listed approaches are intended to serve as suggestions for processes that ERCs may implement as part of an intentional culture of inclusion and are not to be construed as comprehensive, or a recipe for success.  ERCs should adopt and adapt those approaches that best align with institutional contexts and resources, and demonstrate progress toward meeting Center goals and objectives.

References

AlShebli, B., Rahwan, T., & Woon, W. (2018, December). The preeminence of ethnic diversity in scientific collaboration. *Nature Communications*. <https://doi.org/10.1038/s41467-018-07634-8>

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National Research Council. (2015). *Enhancing the Effectiveness of Team Science.* Washington, DC: The National Academies Press. <https://doi.org/10.17226/19007>

Nielsen, M., Alegria, S., Borjeson, L., Etzkowitz, H., Falk-Krzesinski, H., Joshi, A., . . . Schiebinger, L. (2017). Gender diversity leads to better science. *Proceedings of the National Academy of Sciences*, 1740-1742. <https://doi.org/10.1073/pnas.1700616114>