How the National Tenure System is Critical to Being Competitive for Federal Research Grants to Public Universities in Texas: A STEM Perspective

Texas Conference of American Association of University Professors (aaup-texas@gmail.com)

May 22, 2023

In 2021-2022, US colleges and universities had $89B in research expenditures, with most of those expenditures ($49B) coming from federal research grants. With the House version of SB 18 reducing tenure to be a one-year guaranteed contract, Texas will not be able to recruit and retain the tenure-track and tenured faculty to win, maintain, and renew these grants.

Why tenured faculty are critical for a sustained innovative research effort

- Research is a long game. In STEM fields, research programs are often supported by federal agencies for years or even decades. For example, in biomedical research, if a discovery is made, it can take many years to turn this into a clinical treatment or cure.
- Research programs grow and become more impactful over the years. As faculty members become more senior they are able to make bigger advances.
- Tenure enhances innovation. Once tenured, faculty have greater freedom to take risks that might have a big payoff. Grant mechanisms such as NIH's R21 support this. Real breakthroughs, as opposed to incremental research, give America its competitive edge.
- Tenure raises the reputation of a university. As a faculty member's research program develops, their reputation and the university/college's are enhanced. These factors contribute heavily to national rankings, attracting even better faculty, staff and students.
- Tenured faculty lead teams. Tenured faculty lead multi-site teams to compete for large federal grants, such as the $20M+ 10-year NSF Engineering Research Centers. Texas A&M University, Texas Tech University, UT El Paso, and UT Austin have these centers.
- Tenured faculty mentor junior faculty and provide continuity. Tenured faculty help junior faculty establish their own research programs, and provide continuity to Texas's students in the classroom and research laboratories.
- External research grants support workforce development. The vast majority of STEM research grants goes to supporting and training students in high-tech areas. Federal funding at Texas public universities supports 10,000+ graduate STEM students per year.

Example Dialogue

Why do the above require tenure, as opposed to short-term contracts? Certainly a non-tenured faculty member could conduct long-term research. However, research is unpredictable and there are often many failed experiments before success is attained. A short-term contract guarantees that researchers will abandon lines of research early in order to pursue a safer line in order to make sure their contract is renewed. This does not allow for cutting-edge research to happen, which in turn diminishes both the potential for discovery, and the reputation of a university. Further, the faculty member can take a federal grant with them when they leave.

The question has also been asked, don't professors want to do their best even without tenure? Of course they do, but as stated above, they will reluctantly have to limit themselves to the safe lines of research (and also teaching). This ultimately hurts the students of the state of Texas by limiting what they learn and their ability to participate in cutting-edge research. In turn, Texas' leadership in high-tech, medical, energy, and other industries will diminish.