

**LOOK
NORTH**
UNT 2030

DEVELOP | DISCOVER | DRIVE



UNT®

**DIVISION OF
RESEARCH & INNOVATION**

WHO WE ARE

The Division of Research and Innovation works intentionally, strategically, and collaboratively across campus to support the UNT research community of faculty, staff, students, and external partners.

The division aims to provide exceptional research services and administration including development programs, compliance expertise, resources, knowledge of research translation to commercially important products, and student researcher development. Central to research success is the support for graduate student training and streamlining administrative needs to grow successful programs.

UNT has proudly made significant strides to strengthen its research enterprise by reaching research Level 1 metrics within the state and nation and we will continue along this path in partnership.



Table of Contents

Executive Summary..... 4
Key Outcomes & Metrics..... 6
Goals in Action 10

Executive Summary

Strategic Direction Through 2030

The Division of Research and Innovation (DRI) will drive the growth of research and innovation, lead an impactful research enterprise, deliver sustainable and efficient research operations, and collaborate across campus to support faculty and staff researchers, facilitate excellent graduate student education, and support research opportunities for undergraduate students. This is accomplished by strategic investment of resources that drives research growth, builds a culture of interdisciplinary collaboration, increases research translation from discovery to commercially available products of value to industry and society, and centers student mentorship. This work contributes to the Texas economy, delivers innovative solutions to society's challenges, prepares students for future careers, and provides value to the degrees earned.

Unique Role, Contribution, and Strengths

The development of new knowledge and discovery is fundamental to research universities, and UNT faculty conduct research and mentor student researchers in direct support of that mission. DRI empowers the UNT community of researchers to conduct innovative and impactful research for the state and nation. Our mission is to provide a culture of collaborative, ambitious, intentional, meaningful, and interdisciplinary research. As a division, we strive to meet the needs of the faculty, staff, and student researchers, practice with a high level of integrity, and be good stewards of available resources. The staff and leaders are experts on sponsored projects, understanding obligations and responsibilities that come with research funds provided by governmental and private agencies, and best approaches to facilitate student research development.

Navigating External Forces, Trends, and Contexts

Research, particularly within STEM fields, has historically been recognized as a driver of the economy. Federal agency priorities affect funding for research. Recent federal changes have resulted in decreased funding for university researchers, removed funds for already awarded programs, changes in oversight committees and the grant peer review processes, and decreased support for university student mentorship and education. Researchers and the offices that support them within higher education navigate these changes by seeking funding from nontraditional agencies, submitting proposals where funds are available, seeking funds in state priorities, and understanding the needs of commercial industry for research translation. DRI has rapidly responded to these changes and provided UNT researchers with updates from federal agencies, communicated alternative routes for funding through the research development unit, helped researchers strategically understand the funding landscape, and stayed informed about funding agency opportunities in agencies such as the Department of Defense and National Institutes of Health.

Strategic Goals (2026-2030)

As required by the state, DRI has submitted a five-year strategic plan to the Texas Higher Education Coordinating Board. To develop this plan, the division formed four working committees to gather stakeholder ideas on specific areas. The overall goals include:

1. Grow the research enterprise at UNT.
2. Support an impactful research enterprise
3. Deliver sustainable and efficient research operations.
4. Partner with academic units to accelerate graduate student success.

First, the division will lead the university goal of increasing research funding (as measured by NSF HERD) to \$250 million by 2030. We have an accomplished research development team that provides training and information to faculty, staff, and students, oversees seed funding for collaborative projects, and oversees the core research facilities. To support UNT researchers' capacity for impact includes the development of a research translation pipeline into commercial and community needs — the Innovation and Commercialization unit has been formed. This unit is charged with developing the pathway to commercialization and improving the culture to support innovation, commercialization, and entrepreneurship. This work will be in collaboration with the academic units. UNT has prioritized the support for graduate students by streamlining academic processes, access to funding, increasing programming for research development, and increasing resources for students so they are well prepared for their careers. These efforts will lead to an increased doctoral student graduation rate (300 per year by 2030).

Key Outcomes & Metrics

Core Metrics: Established Benchmarks that Define University Performance

1st to 2nd year retention

UNT Baseline (2024/25): **77%** | UNT Target (2030): **90%**

Unit contribution to achieving targets:

- Support for undergraduate researchers which has been shown to improve retention rates.

4-year graduation rate

UNT Baseline (2024/25): **42%** | UNT Target (2030): **65%**

Unit contribution to achieving targets:

- Support for undergraduate researchers which has been shown to improve retention rates.

6-year graduation rate

UNT Baseline (2024/25): **61%** | UNT Target (2030): **80%**

Unit contribution to achieving targets:

- Support for undergraduate researchers which has been shown to improve retention rates.

Annual R&D expenditures

UNT Baseline (2024/25): **\$124M** | UNT Target (2030): **\$250M**

Unit contribution to achieving targets:

- To reach this target UNT will need to increase the number and dollar amount of competitive proposals leading to awards and expenditures. The following efforts are taken to maximize likelihood of reaching this target.
 - Increase the number of proposals for specific agencies that have available funding (e.g., DoD, NIH, foundations).
 - Develop AI tools and use existing tools such as Academic Analytics to identify funding opportunities that align with UNT expertise for large cross-disciplinary grants.
 - Empower faculty to obtain research funding awards through research development programs and engagement with external contractors that facilitate grant writing.
 - Improve administrative operations by using tools such as AI, dashboards, and platforms that maximize productivity.
 - Provide a supportive and collaborative work environment to retain productive research administrative staff and reduce staff turnover.
 - Increase faculty retention and recognition for research expertise and mentorship by nominating productive faculty for external awards.

- Maintain inclusive and productive core facilities to support faculty, staff, and student researchers.
- Partner with colleges and centers to support major proposal efforts aligned with institutional priorities.
- Provide research development programs for students, staff, and postdoctoral staff members.
- Collaborate with UNT Health and UNT Dallas to support cross-institute collaborations for large NIH grants or student training grants.
- Engage faculty to write training grants that support student researchers and provide opportunity for mentorship and learning.

Doctoral degrees awarded

UNT Baseline (2024/25): **286** | UNT Target (2030): **300**

Unit contribution to achieving targets:

- Our goal is to support not only the growth of doctoral degrees awarded but also provide an exceptional doctoral education experience. The following efforts are taken to maximize likelihood of reaching this target.
 - Increase recruitment and retention efforts of domestic students across all disciplines, particularly areas where there is a high workforce need.
 - Increase competitive doctoral funding packages that include health insurance, scholarship, and stipend opportunities.
 - Enhance the doctoral student education experience by providing research development, career development, and professional development.
 - Provide faculty mentors with the opportunity to learn more about mentorship of doctoral students for careers of today and tomorrow.
 - Improve effective communication to graduate students so they are aware of the opportunities at UNT that support their growth and success.
 - Identify and reduce barriers to dissertation completion.

Time to value

UNT Baseline (2024/25): **6 years** | UNT Target (2030): **Decrease time for programs over median**

Unit contribution to achieving targets:

- Provide graduate students with information and services on specific programs to support their graduate student education experience and prepare them for their future career.

Emergent Metrics: Important Dimensions of Our Success that Require New Approaches

Post-graduation placement: Percentage of graduates placed in high-demand occupations or graduate and professional programs

We use Academic Analytics to understand where graduate students are employed. We seek to use this information to engage alumni, provide information to current students about career opportunities, and ensure job availability relative to programs.

Career-aligned learning: Percentage of academic programs that integrate internships, industry-sponsored projects, or other work-integrated learning experiences

Develop a career program, in collaboration with academic units, to connect students with alumni in the sector they hope to work in (industry, academia, government) and identify internship opportunities for those interested in entering industry positions.

Awards and recognitions: Prestigious awards, exhibitions, and performances achieved by our students, faculty, staff, and alumni

Use Academic Analytics to identify faculty who are eligible for specific awards. We will collaborate with Faculty Success to support nominations.

Innovation and entrepreneurship: New ventures, startups, and public impact projects launched by students, faculty, and alumni

The newly formed Innovation and Commercialization unit within DRI works with faculty and researchers on intellectual property, disclosures, patent opportunities, and startups. The pathway of discovery to commercialization and the culture of entrepreneurship is in its early formation at UNT. However, this is an area of great opportunity and a priority for DRI.

Student and alumni engagement: Perceptions of how well UNT prepares graduates to pursue lives of meaning and purpose

We use Academic Analytics to understand career steps for recent doctoral and master's students.

Unit-Level Metrics: Other Important Priority Metrics Tracked at the Unit Level

- **Implement an annual DRI customer satisfaction survey within each DRI unit to identify areas for improvement:** Up to five questions measured on a 1-5 scale with 1 being poor and 5 being excellent. The goal is for all units to achieve an average customer satisfaction score between 4.8-5.
- **Expenditure rate/burn rate on active awards:** Percent of available funding expended per quarter and identification of slow-spending awards. Directly impacts annual R&D expenditures reported to the National Science Foundation. Flags awards at risk for underspending or at-risk of deobligation from federal sponsors; enables proactive principal investigator engagement.

- **Faculty satisfaction survey/Service quality measures:** High service quality reduces burden on faculty and encourages more proposal activity and post-award activity. Improves campus trust in research administrative operations.
- **NSF HERD data:** We not only track the NSF HERD data for UNT and the potential contribution per college but also have developed an AI tool to analyze all universities' NSF HERD data. This tool can help identify approaches others have taken to increase research expenditures and growth.
- **Sponsored project proposal, award, and expenditure dashboards:** These dashboards are available to the UNT community and allow the tracking of research productivity per university, college, department, and faculty level over the past five years.
- **Innovation and commercialization dashboards:** We track intellectual property disclosures, patent applications, licenses, and startup companies.
- **Core facility usage:** We track the usage of core facilities by researcher and faculty member to understand equipment usage.
- **UNT researcher engagement with compliance programs:** We ensure researchers are up to date with their required compliance trainings. We track programs through dashboards to understand the number and progress of protocols (e.g., IRB). This facilitates the unit with management of many protocols (e.g., >1,000 IRB protocols/year) and provides information to faculty and students on the protocol evaluation process.

Goals in Action

Develop the potential of UNT students, faculty, staff, and community members

- The **research development programs** provide support for faculty, staff, and students. For these programs, we take into consideration the career stage and experience (e.g., postdocs, graduate students, assistant professors) to provide needed support at an appropriate level. The research development programs also take into consideration the opportunities of today and the expectations and priorities of the funding agency.
- We provide **career development** for faculty, staff, and students. These opportunities include building skills to support their career (e.g., writing, data gathering, experimental skill development through the core facilities), connection of potential collaborators, and research opportunities. We plan to begin a new program that supports the connection of faculty and students with industry partners.
- We are building out, through the Innovation and Commercialization unit, the **pathway from research discovery to commercialization** (research translation readiness level). We have developed a sustainable research translation plan within UNT and through collaboration with academic units and the Murphy Center for Entrepreneurship and Innovation. Briefly, this will be accomplished through program development, facilitating culture changes, and promoting the engagement of UNT researchers with government and industry partners. Faculty, students, and staff can engage with these endeavors.
- We are in the process of reimagining the **postdoctoral development programs** to best support postdoctoral staff members' research goals and provide support for their career transition.

Discover new knowledge and insights that bridge traditional academic disciplines

- DRI provides **structures** that enable individual researchers and research teams to produce research discoveries. These structures include support for interdisciplinary research institutes and centers, research core facilities, interdisciplinary seed funding opportunities, support for academic units, and startup funding to newly hired faculty. Student researchers benefit from these structures as they are engaged with institutes and centers, use core facilities, and are supported by faculty seed funding and startup funds. Additional structures are in place to support students, including research development (e.g., writing, presentation, finding mentors, networking at conferences) and research and travel awards for the completion and dissemination of their research.
- DRI provides **data and reports** on UNT research activities for academic units to benchmark and use to track their goals. Additionally, we are leading the access to Academic Analytics for

academic unit benchmarking and goal setting. These data include research productivity of faculty, student progress and outcomes, and graduate student transition into careers (tracked via Academic Analytics).

- DRI provides **financial support** for interdisciplinary research through seed funding. Typically, these funding opportunities are responsive to funding agency priorities and mechanisms to support research awards (e.g., NIH and DoD research grants, interdisciplinary grants, and funding for resubmissions of promising grants). Students also have financial support through DRI or funding to the university to support research (TUF dollars). These financial supports include tuition support, grant writing and scholarship support, travel support for research and conferences, and health insurance support for doctoral students. DRI plans to continue the push for faculty to write grants that support graduate students (e.g., training grants).
- DRI leads **convenings** such as research workshops and the annual UNT Research Day that provides the opportunity for all researchers to present their research, engage with fellow researchers, and listen to panels on current topics (e.g., AI and research). DRI is investigating the potential for microcredentials for student researchers to enhance knowledge and skills.
- DRI oversees the evaluation of **research space** productivity and has a key role in the oversight of the new Science and Technology Building. This new building will not be owned by a single academic unit but rather house researchers from across disciplines to maximize colliding interactions for interdisciplinary conversations and research outcomes.
- The philosophy within DRI is to push for discovery and support **innovative approaches**. We are committed to working across academic disciplines to prepare students for the future job market and influence the jobs of tomorrow.

Drive creative advances, partnerships, and new models of higher education

- With the support of one-time available funding, we will implement a program that supports faculty and student **interactions with industry partners**. It is paramount that faculty understand industry needs for the research translation to commercialization pathway. Currently, this is not well understood, and it is not clear to researchers if their discoveries can be applicable to a gap or need within industry. A mechanism to do this is to provide financial support for students or faculty to engage with industry partners (internship, collaboration, development leave) with the expectation of increasing knowledge about industry needs and gaps and contribute to the workforce. We have sought funding from NSF to support some of these activities in addition to using one-time funds to pilot the program.
- Within the Science and Technology Building, there is a planned space that can be used for **entrepreneurial activities** (e.g., startup company). We are also exploring the use of some space at Inspire Park in Frisco for these activities.