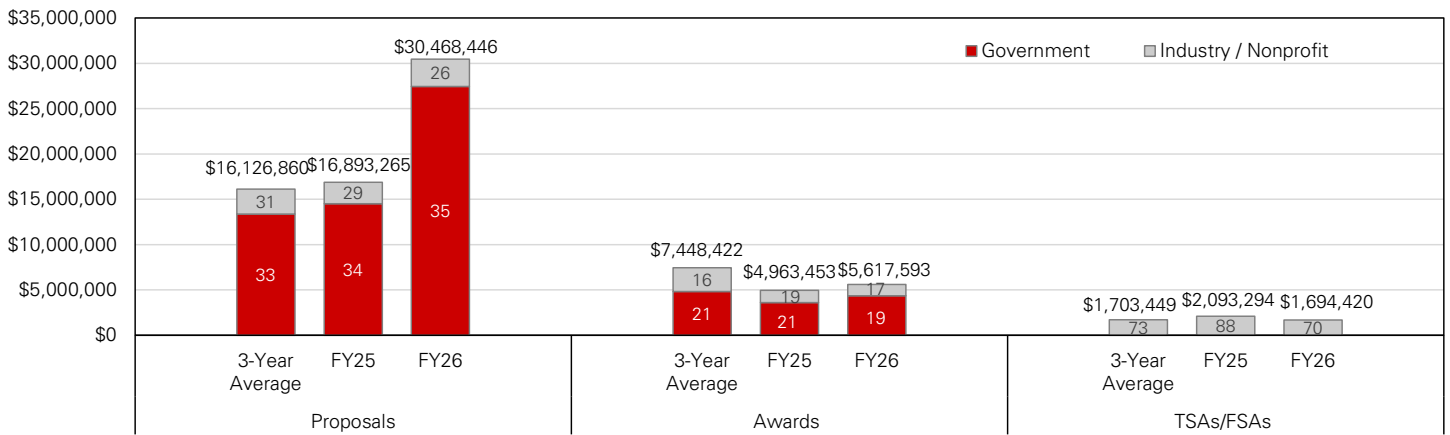


The research programs in the Wilson College of Textiles at NC State University are innovative, life-saving, creative, global and thriving. The college also provides tech service to all stakeholders and supports the economic development of the State and beyond. This newsletter gives a brief overview on the research and tech service activities of the faculty, staff and students during the third quarter of Fiscal Year 2026.

FY26 vs. FY25 vs. Three-Year Average (Q1 - Q3)

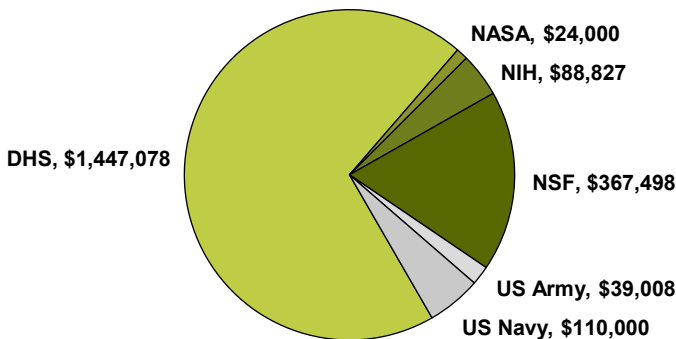


NUMBERS TO DATE (FY26 Q3)

Research Awards Received (\$2,502,343)

- Federal: \$2,076,411 | Department of Homeland Security, National Aeronautics and Space Administration, National Institutes of Health, National Science Foundation, US Army, US Navy
- Industry/Nonprofit: \$425,932 | BanfieldBio, Cotton Inc., InnovaKnits LLC, Milliken and Company, NC IDEA, SCEYE Inc.

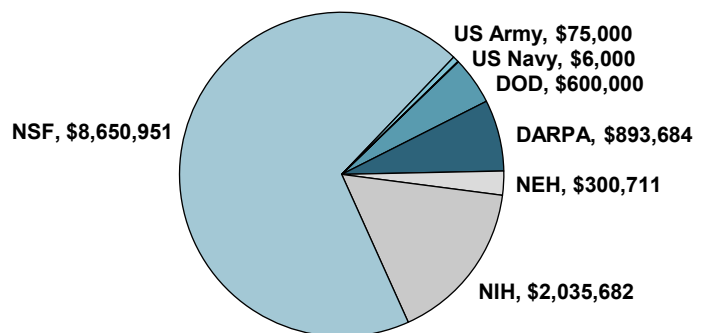
FY26 Q3 Federal Awards by Agency



Research Proposals Submitted (\$13,308,540)

- Federal: \$12,562,028 | Department of Defense, Defense Advanced Research Projects Agency, National Endowment for the Humanities, National Institutes of Health, National Science Foundation, US Army, US Navy
- Industry/Nonprofit: \$746,512 | 3AC Co. Ltd., ACT, American Heart Association, Apani Labs, Henkel Corporation, Hawaii Innovation Inc., North Carolina Biotechnology Center, Storagenergy Technologies Inc., Victoria University of Wellington

FY26 Q3 Federal Proposals by Agency



NUMBERS TO DATE (FY26 Q3) Cont.

Inter-college Research Proposals (4)

- Wilson College share: \$1,773,062 | With CALS, CHASS, COE

Inter-college Research Awards (1)

- Wilson College share: \$1,447,078 | With COS

Inter-dept./unit Research Proposals (3) \$649,995

Inter-dept./unit Research Awards (3) \$960,715

Graduate Student Support

- 76 Ph.D. Student RAs (Avg. Stipend: \$24,768 / year)
- 11 M.S. Student RAs (Avg. Stipend: \$21,065 / year)

RESEARCH AWARDS AT OR ABOVE \$50,000 (FY26 Q3)

1. R. Bryan Ormond, Anthony Deaton, Emily Griffith, FEMA (DHS), \$1,447,078.
2. Andre West, Emiel DenHartog, Ericka Ford, Karen Leonas, Sonja Salmon, Melissa Sharp, Rong Yin, Industrial Commons (NSF), \$367,498.
3. Abdel-Fattah Seyam, SCEYE Inc., \$131,131.
4. Andre West, InnovaKnits LLC (US Navy), \$110,000.
5. Andre West, Ericka Ford, Cassandra Kwon, BanfieldBio (NIH), \$88,827.
6. Raoul Farer, Cotton Inc., \$80,000.
7. Jialong Shen, Sonja Salmon, Cotton Inc., \$79,525.
8. Warren Jasper, Md Abdul Quddus, Milliken and Company, \$61,753.

Note: One confidential project valued at \$225,000 is not included in this list.

RESEARCH HIGHLIGHTS

Indigo Impact: A Multi-Disciplinary Exploration of Denim's Functionality and Cultural

Impact. Cotton in the Curriculum project funded by Cotton Incorporated, students will explore denim production and marketing through the use of CottonWorks™ resources. Led by Dr. Anne Porterfield, Dr. Delisia Matthews, and Professor Jessica Singleton, students will engage in project-based learning to demonstrate the value of denim across multiple product lifecycle stages. They will learn about conceptualization and development, marketing and promotions, and upcycling of denim products. To further highlight denim's cultural impact, the team will partner with the NC State Women's Center for student-focused programming around Denim Day 2026. This day, observed since 1999, allows individuals to express solidarity with survivors of sexual violence by wearing denim. Wilson College students will have opportunities to extend their learning by participating in denim mending, upcycling, and embellishment workshops for the broader university community to further demonstrate the impact of denim.



Degradation Studies of Textile Dyes in Soil. According to EPA data, textile solid waste has increased tenfold over the last half-century, with landfills receiving 11.3 million tons of municipal solid waste (MSW) textiles in 2018—representing 7.7% of all landfilled MSW. Despite this volume, the degradation pathways of reactive and disperse dyes on cotton and synthetic substrates remain poorly understood. To address this, Professor Nelson Vinueza's team is utilizing high-resolution mass spectrometry to analyze dye degradation at the molecular level under simulated landfill conditions. Their research has demonstrated that reactive dyes become increasingly hydrophobic over a 90-day period, a finding that is critical for assessing the environmental impact of textile waste and the risks associated with dye leaching and bioaccumulation. Furthermore, Vinueza is leveraging the Max Weaver Dye Library and machine learning to develop predictive models for how dyes with similar chemical structures degrade under varied environmental conditions.