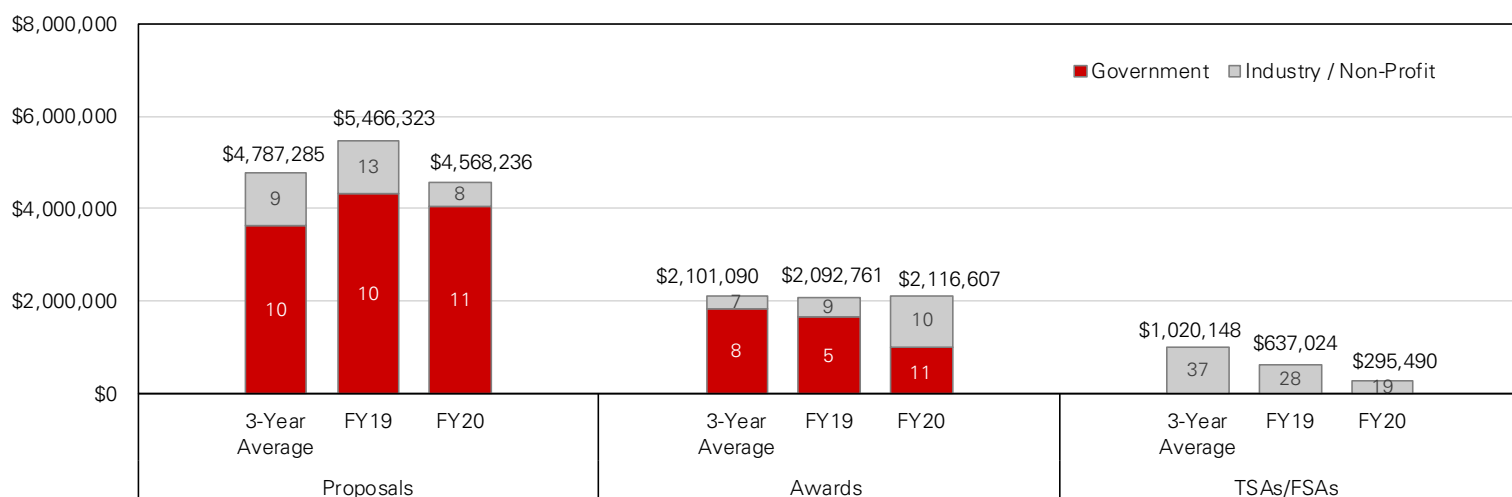


The research programs in the Wilson College of Textiles at NC State University are innovative, life-saving, creative, global and thriving. The College also provides tech service to all stakeholders and supports the economic development of the State and beyond. This newsletter gives a brief overview on the research and tech service activities of the faculty, staff and students during the first quarter of Fiscal Year 2020.

FY20 vs. FY19 vs. Three-Year Average (Q1)

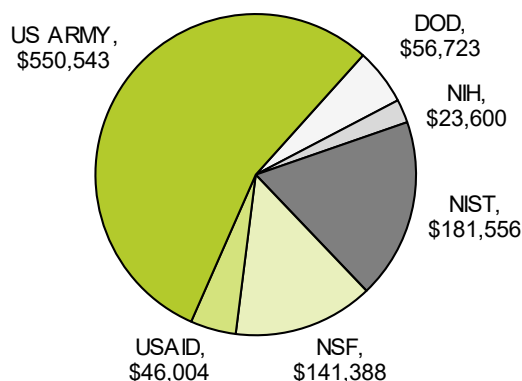


NUMBERS TO DATE (FY20 Q1)

Research Awards Received (\$2,116,607)

- Federal: \$999,814 | DOD, NIH, NIST, NSF, USAID, US ARMY
- Industry/Non-Profit: \$1,116,793 | Egyptian Cultural & Educational Bureau, EPRO Advanced Tech., Freedom Fibers, NWI, Pusan National University

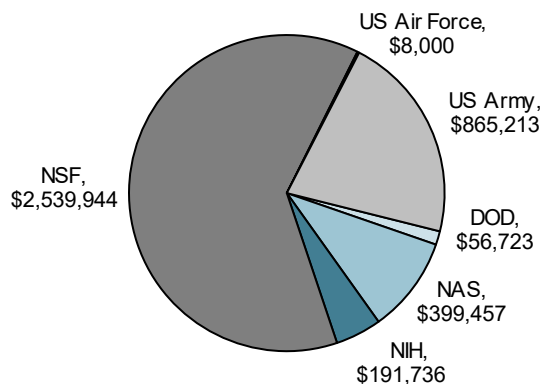
FY20 Q1 Federal Awards by Agency



Research Proposals Submitted (\$4,568,236)

- Federal: \$4,061,073 | DOD, NAS, NIH, NSF, US Air Force, US Army
- Industry/Non-Profit: \$507,163 | Cotton, Inc., Heraeus, NC Biotechnology Center, NWI, Retinal Care, TDA Research

FY20 Q1 Federal Proposals by Agency



NUMBERS TO DATE (FY20 Q1) Cont.

Inter-college Research Proposals (7)

- Wilson College share: \$2,275,082
- With CALS, CNR, COE, COS, PCOM

Inter-college Research Awards (7)

- Wilson College share: \$397,249
- With CALS, CNR, COE, COS, PCOM

Inter-department/unit Research Proposals (2) \$477,250

Inter-department/unit Research Awards (3) \$400,931

Graduate Student Support

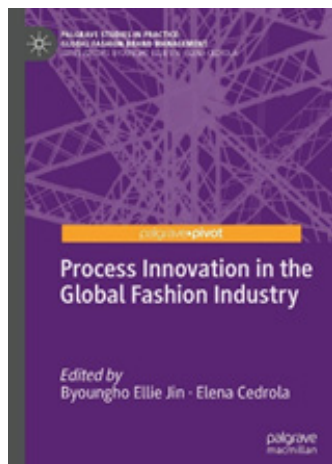
- 77 Ph.D. Student RAs (Avg Stipend: \$17,090 / year)
- 19 M.S. Student RAs (Avg Stipend: \$15,228 / year)

RESEARCH AWARDS ABOVE \$50,000 (FY20 Q1)

1. Ericka Ford, Freedom Fibers, Inc., \$606,816.
2. Andre West, Marian McCord, Richard Roe, Charles Apperson, Emiel DenHartog, US Army, \$199,138.
3. Wei Gao, Xiangwu Zhang, Storagenergy Technologies, Inc. (US Army), \$184,819.
4. Nelson Vinueza Benitez, National Institute of Standards & Technology, \$181,556.
5. Wei Gao, Xiangwu Zhang, Storagenergy Technologies, Inc. (US Army), \$166,586.
6. Veronica Augustyn, Philip Bradford, National Science Foundation (NSF), \$141,388.
7. Xiangwu Zhang, EPRO Advanced Technology, \$133,900.
8. Philip Bradford, Egyptian Cultural & Educational Bureau (ECEB), \$116,354.

RESEARCH HIGHLIGHTS

Over 60% of line-of-duty-deaths for firefighters have been attributed to cancer. The rates of cancer diagnoses and cancer deaths in the fire service have been elevated due to chronic exposures to increasingly toxic and carcinogenic fireground contaminants such as polycyclic aromatic hydrocarbons, phenols, phthalates, and fluorinated compounds. To mitigate these exposures, Prof. Bryan Ormond's research group in TPACC's Chemical Protection and Analytical Laboratory works both in the lab and in the field with local and national fire departments to measure the efficacy of new particulate-blocking firefighter hoods that provide dermal protection from smoke and soot, assess the potential contact and off-gassing hazards associated with contaminated gear, and develop analytical approaches to determine the most efficient cleaning methods for turnout ensembles.



The apparel and footwear industry represent the world's 2nd largest consumer goods sector after packaged food. The global apparel industry is Prof. Ellie Jin's passion. Her primary research focus is on understanding global apparel markets and consumers, especially in emerging markets. Her studied emerging markets include China (funded from US Department of Education, 2004-2007), India (USDA, 2006-2009), Vietnam (US Department of Education, 2010), Saudi Arabia (King Saud University, 2015-2016), and Malaysia and Indonesia (National Research Foundation of Korea, 2019-2022). Prof. Jin's another research area is helping SMEs (small and medium-sized enterprises)' branding and global activities. With the expert and interests, Prof. Jin seeks to collaborate with textile and apparel companies in branding their goods and technologies and in globalizing their businesses. She is a co-series editor and volume editor for Global Fashion Brand Management and published five volumes for the series.