N.C. A&T Receives $3 Million NSF Grant to Study Food Aid Supply Chains Using Big Data Analytics

Greensboro, NC August 11, 2017 – Principal Investigator Dr. Lauren Davis and her cross-disciplinary team have secured a five-year, $3 million grant through the National Science Foundation's Research Traineeship (NRT) Program. The NRT grant will support food insecurity research in a project called *Improving Strategies for Hunger Relief and Food Security Using Computational Data Science*. In addition to Dr. Davis, the research grant involves four additional Co-Principal Investigators, Dr. Seong-Tae Kim, Dr. Kenrett Jefferson-Moore, Dr. Steven Jiang and Dr. Albert Esterline. The team represents talent and expertise across three N.C. A&T Colleges: the College of Engineering, the College of Science and Technology, and the Collage of Agriculture and Environmental Sciences.

Food insecurity occurs when individuals have limited access to safe and nutritious food. To address this issue, humanitarian organizations work collaboratively with government and the private sector, relying on uncertain sources of supply, responding to uneven and variable needs, and making decisions regarding scarce resources. In this process, data is generated on a massive scale concerning food supply, distribution and need. This NRT grant will develop an innovative, interdisciplinary training model in data science designed to grow the workforce that will help these organizations better analyze their efforts and improve the provision of food aid at the local, state, and federal level.

"Until now, no formal training existed to help students acquire the interdisciplinary knowledge needed to derive insight from big data generated by the food aid supply chain," explains Dr. Davis. "This research will use data from the domestic humanitarian hunger relief supply chain as the basis for an innovative, evidence-based, scalable approach to training the future

workforce." The grant will provide a unique and comprehensive training experience for a total of 50 masters and doctoral students, including 45 funded trainees, by combining disciplines in industrial and systems engineering, computer science, mathematics, agricultural economics, sociology, and public policy.

The NRT Program is dedicated to effective training of STEM graduate students in high priority interdisciplinary research areas, through comprehensive traineeship models that are innovative, evidence-based, and aligned with changing workforce and research needs. NSF's mission is to advance the progress of science, a mission accomplished by funding proposals for research and education made by scientists, engineers, and educators from across the country.