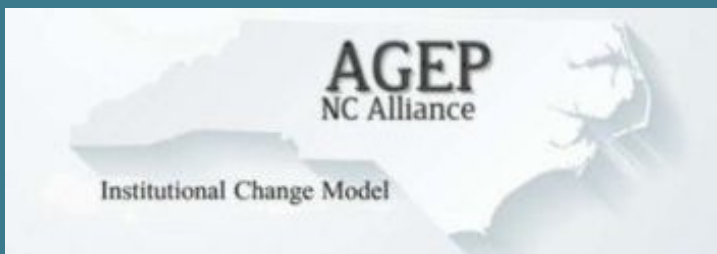




agep-nc.org

AGEP-NC

October 2023 Newsletter



2023/24 Winter Alliance Meeting

**Continuing Progress Toward Our Goals
in the Current Legal Climate**

**Greensboro, North Carolina
January 24, 2024 | 11:30 am - 4:15 pm**

[Click Here to Register](#)

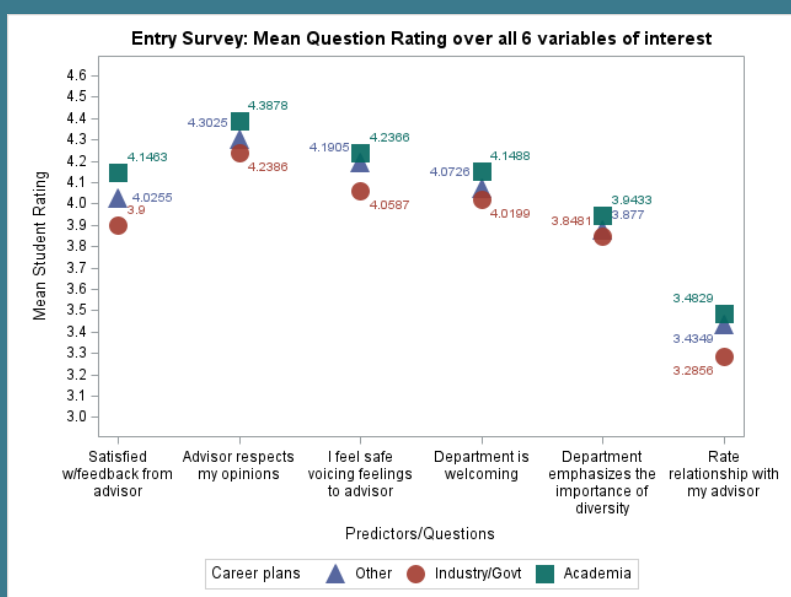
**This meeting is for provosts, deans, department heads,
graduate program directors, faculty and others
interested in institutionalizing the AGEP-NC efforts.**

Advising and Students' Career Plans

Doctoral students in the AGEP-NC Fellows' departments were surveyed about their experiences in their doctoral program and about their career goals at the beginning of the department's participation in the AGEP-NC project.

Undergraduate researcher Andrea Stancescu looked at the relationship between the student's desire to pursue an academic career on the one hand and their feelings about their advisor and department climate on the other. What she found is that students who want to go into a faculty career, either directly or after completing a postdoc, had better relationships with their advisors and experienced a more welcoming department climate than students who planned to go into industry or government.

Students from the 28 Cohort 1 and 2 departments at UNC Charlotte, NC A&T and NC State were surveyed, with a response rate of 32% (244 respondents out of 755 students in those departments). For each of the following questions, the mean score for students planning to pursue a faculty career was higher than for other students:



- I am satisfied with the quality and quantity of feedback from my advisor.
- My advisor respects my opinions and contributions.
- I feel safe voicing my feelings to my advisor.
- My department is a welcoming place to learn and work.
- My department emphasizes the importance of demographic diversity.
- Rate your relationship with your advisor.

The first 5 questions were measured on a scale from 1 (strongly disagree) to 5 (strongly agree). In the last question the student was asked to provide a rating from 1 (poor) to 4 (excellent).

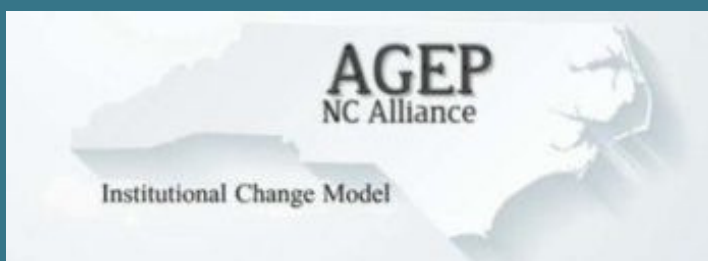


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Welcome to Three New AGEP-NC Fellows!



Dr. Kimberly Pigford currently serves as a Teaching Assistant Professor in the Biology department at North Carolina Agricultural and Technical State University. Although her position is predominately a teaching position, she is active in research efforts aimed at supporting the success of STEM students. Her research interests and training focus on the impacts of pedagogy, teacher behavior, and classroom design on student motivation and its connection to student performance and other affective behaviors.

Dr. Pigford earned an MS degree in Zoology in 2017 and her Doctorate degree in Science Education in 2018 from North Carolina State University where she focused on studying active learning pedagogies in undergraduate STEM courses and its effect on student motivation and behavior. Dr. Pigford has also performed research in the areas of gamification and science literacy and has published several papers including a study looking at students' scientific literacy and writing in the Journal of Research in Science Teaching. In addition to teaching and advising within the biology department at NCAT, Dr. Pigford also teaches several courses in the Applied Sciences and Technology's STEM Education PhD program. She greatly enjoys working with the STEM education students and serves as the co-chair for three of the students enrolled in the program. Dr. Pigford looks forward to continuing her work at NCAT, mentoring future students in both the biology and AST programs, and continuing to develop her research efforts in active learning and student motivation.

Dr. Mookesh Dhanasar has been trained in Mechanical Engineering, Applied Physics and Mathematics. His research areas include high speed aircraft design, hypersonic propulsion engine systems design, Computational Fluid Dynamics (CFD), small satellites (cube sat's) power and propulsion systems and nuclear in-space propulsion systems design. He is also the primary stakeholder in 'matter of Dhanasar', 26 I&N Dec. 884 (AAO 2016); the immigration case that crafted a new US



immigration framework for US National Interest Waiver (NIW). As an established STEM educator and researcher Dr. Dhanasar has taught a variety of STEM courses. He has mentored and advised both undergraduate and graduate students, always pushing the envelope on his research and continually motivating his students to succeed. Dr. Dhanasar has developed and taught courses in Mechanical Engineering that include Senior Design Capstone Projects, Energy Conversion Systems, Renewable Energy Systems (Graduate), Fundamentals of Nuclear Energy, Internal Combustion Engines, Heat Transfer, Aerodynamics, Propulsion, Fundamentals of Thermodynamics, Graphics for Mechanical Engineers (SolidWorks), and Introduction to Engineering Design and Ethics.



Dr. Jenora Waterman is currently Director of the Applied Science and Technology PhD Program, Associate Professor in the Department of Biology and a member of the Graduate Faculty at North Carolina Agricultural and Technical State University. She is principal investigator of the Respiratory Biology and Toxicology Laboratory. The primary focus of Dr. Waterman's Lab is to understand the cellular and molecular basis for occupational and environmental lung disease associated with exposure

to livestock production systems. Her team uses basic science and translational research approaches to investigate the effect of inflammation and oxidative stress on airway epithelial injury and repair mechanisms in the context of organic dust exposure. She has taught a variety of courses including Environmental Influences on Human Disease, Toxicology and Foundations of Scientific Research. Dr. Waterman holds a bachelor of science degree in Biology from Bennett College, a master of science degree in Biology from North Carolina Agricultural and Technical State University, and a doctoral degree in Functional Genomics (Biochemistry track) from North Carolina State University and completed postdoctoral training at the College of Veterinary Medicine at North Carolina State in the areas of cell biology and pulmonary physiology.



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