



# Transportation Institute

North Carolina Agricultural and Technical State University

## *Teresa McRae Joins the Transportation Institute*

In July, Teresa McRae started in the position of program manager for the North Carolina Agricultural and Technical State University Transportation Institute and director of the Summer High School Transportation Institute (STI). McRae assumed the role after Deborah Underwood, who had served in the position for 25 years, retired.

Even though she began the job in the middle of the 2018 program, McRae jumped right in with her first task that required her to accompany 18 students on a trip to Washington, D.C. for five days.

McRae has accumulated a rich history of experience working in higher education institutions. Having been employed with N.C. A&T since 2001, McRae has acted in various roles, most recently as the office manager of Agricultural Communications and at the Office of the Registrar. Before that, she was on the administrative staff at Guilford Technical Community College.

With a B.S. from Guilford College in Information Systems and a M.S. in Leadership Studies and Adult Education from N.C. A&T, McRae considers herself a lifelong learner at heart. Education is very important to her. She feels that the position will ideally allow her to continue to develop as a higher education administrator while incorporating her desire to help others. McRae said:



*“My call is to work for and with the students. They are the gems of this great institution. My desire is to continue the work of the Transportation Institute by exposing students to the academic and career opportunities in the field of transportation. My purpose is to help them reach their potential and to be the best they can be.”*



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## *The 2018 Summer High School Transportation Institute*



The 2018 STI class from left bottom: Ian Tom-Johnson, Nicole Carter, Rhyan Baker, Mya Ervin, Danielle Edwards, Quadir Donaldson, Carrington Lea, left top: Zamaya Burns, Timothy Reid, Branden McCall, Myles Graves, Kameron Smith, Mikail Norwood. Not pictured: Justin Hall, Courtney Sharpe, Ashia Vance

The N.C. A&T Summer High School Transportation Institute (STI) hosted 16 students in the 2018 class. The N.C. A&T STI is the oldest in the nation and was formed to grow awareness of and interest in the many viable career paths available in the transportation industry.

The STI gives high-school students opportunities to visit transportation entities and interact with transportation industry professionals on-site and in the classroom. The program provides participants a realistic glimpse into the transportation industry enabling them to make more informed decisions considering transportation as a field of study or career choice.

In the STI program, students are exposed to course work which enhances their academic skills, explore career path options in the transportation industry, and participate in a wide range of hands-on educational and engaging activities. The STI is the beginning of a pipeline for high school students which can end in lucrative supply chain management jobs.

## *STI 2018 Student Spotlights*

### **Cortney R. Sharpe**

12th grade -17 years old  
Eastern Guilford High School  
Greensboro, N.C.

*“I have really enjoyed the STI program and would do it again if I could. This program increased my options of potential majors and I’ve gained great friends and experiences.”*



Cortney heard about the STI program from her sister, Brittini, who participated in the program two summers earlier. Brittini is now at N.C. A&T studying finance. The highlight activity of the summer for Cortney was visiting the Piedmont Flight Training School and being in the cockpit of a plane while in the air. The STI program helped Cortney realize the potential majors and vast career choices available in the transportation field. She is now seriously considering majoring in transportation, supply chain, or more specifically, something to do with aviation.

### **Ian Tom-Johnson**

11th Grade -15 years old  
Dudley High School  
Greensboro, N.C.

*“The STI program made me realize that engineering and transportation are underrated as essential parts of the economy. If you put the necessary effort into these fields, you can become very successful.”*



Ian’s sister, Hannah, participated in the STI program in the summer of 2016. Hannah is now at N.C. A&T studying an undergraduate pre-med track with plans to become a nurse or pediatrician. Ian, who thinks he might want to pursue a career pertaining to neuroscience, is also very interested in aviation. He found it “almost supernatural” to actually be in the cockpit of a plane. The STI program broadened Ian’s interest to consider a future in medical engineering or something to do with meeting the transportation needs of medical services.

### **Nicole M. Carter**

12th Grade -16 years old  
The Middle College at  
Bennett College  
Greensboro, N.C.

*“The STI experience helped me to understand the importance of security and safety measures for the highway administration and transit authority. I enjoyed the travel and making connections with other students. The college English credit and stipend received were astounding.”*



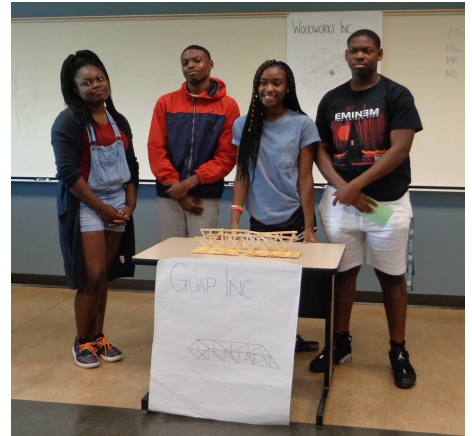
Nicole comes from an Aggie family. She heard about the STI program from her mother, W. Candy Carter Johnson, who works as a Program Coordinator in the Mathematics Department at N.C. A&T. The highlight of the summer for her was the Turner Fairbanks Highway Research Center and Washington Metropolitan Area Transit Authority Emergency Response Center. Nicole was especially interested in receiving information about jobs in transportation at the federal level during these visits. Before participating in the STI Program, Nicole planned on majoring in criminal justice with a concentration in forensics. After learning about the laws and security needed in transportation and the job opportunities available, she plans to major in criminal justice with a focus on transportation.

## STI 2018 Activities



Ian Tom-Johnson rides the virtual bike simulator at the Turner Fairbanks Highway Research Center in McLean, Va .(left)

The winning team in the bridge building competition: Guap, Inc.  
Zamaya Burns, Kameron Smith,  
Mya Erwin, Branden McCall.  
Break span 19 "  
Load: 29.8 lbs  
(right)



The 2018 STI class on the USS North Carolina Battleship located across the river from downtown Wilmington, N.C.



Quadir Donaldson enters the roll-over train at the Washington Metropolitan Area Transit Authority Emergency Response Training Facility in Washington, D.C .(left)

Mya Erwin takes the pilot's seat for her discovery flight at the Piedmont Flight Training School at Smith Reynolds Airport in Winston-Salem, N.C.  
(right)



## *The STI Experience: A Parent and Student's Perspective*

Cori Reid's nephew, Brenden Sledge, participated in the 2016 Summer Transportation Institute (STI) and she thought it would be a wonderful opportunity for her son, Timothy Reid. Cori, an alumna of N.C. A&T, also liked the idea of her son getting familiar with her alma mater and earning college credits. Cori says she was "blown away" by the STI program.

*"The program is outstanding, and I am in awe of all this program does for these students. They are inundated with knowledge about the transportation industry (of course because that was the point of the program), but it introduced them to a lot of other topics that teenagers should have access to financial planning, Toastmasters, SAT prep, entrepreneurship, web page design, and more. The field trips not only gave them the opportunity to see firsthand a lot of the technologies being employed in the field but also gave them the opportunity to just hang out and have fun with friends. Having the mentors was priceless."*



Cori was impressed by how well the program was organized. As an out-of-town parent, she especially liked that she was given a daily schedule of how her son would be spending each day.

Timothy, who is a junior this year at North Carolina Pine Lake Preparatory School in Charlotte, was already considering majoring in business when he got to college. However, he didn't know in what specific area he wanted to concentrate. After completing the STI program, he is seriously considering supply chain management because it identified "a specific, fascinating field" within the College of Business and Economics.

For Timothy, the highlight of the summer program was the trip to Washington D.C./Baltimore, Maryland, which he felt had "the most fun and engaging site visits." While there, the STI group toured the Turner Fairbanks Highway Research Center and the Washington Metropolitan Area Transit Authority Emergency Training Center. They also visited the National Air and Space Museum, and attended the "America on the Move" exhibit at the National Museum of American History.



*"I loved the Highway Research Center where we visited a car test crash site and virtual reality simulation and also the National Air and Space Museum. Riding the Metro was a great learning experience and by end of the trip we were able to navigate the city via the Metro by ourselves. I enjoyed riding the train and bus to Baltimore where we had a free day to hang out with friends on the Harbor. The entire trip was lot of fun!"*

## *CATM Summer Research Internships 2018*

Three N.C. A&T students participated in the CATM Summer Research Internship Program in 2018. The program consisted of eight weeks of faculty-led research activities, professional development seminars, field trips, and more. In addition to the invaluable knowledge the students gained from their individual research experiences, they received a \$5,000 stipend plus a \$600 housing allowance.



**Patti Kamara**, a senior industrial systems engineering major, spent her summer researching and planning activities to study the current LimeBike program on N.C. A&T's campus. Under the direction of Maranda McBride, Ph.D., Kamara outlined a research project that includes participants completing questionnaires before and after executing specific tasks on the LimeBike cell phone application and physical bikes.



**Joseph Smith**, a sophomore accounting major, collaborated with Patti Kamara and Maranda McBride, Ph.D., all summer to work on the LimeBike research. Because the planned experiment involves human subjects, N.C. A&T's internal review board is required to approve the experiment before proceeding. After receiving approval from the board, the project will continue into the fall semester.



**Nnamdi Okoro**, a senior industrial systems engineering major, assimilated research this summer on the transportation challenges individuals face in getting themselves and supplies to and from food assistance locations. His research mentor was Shona Morgan, Ph.D., a faculty member in the Department of Management.







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