

# The NTC Today

NTC Co-Sponsors National Conference	3
Success Stories	4
Research That Matters	4

Morgan State University National Center for Transportation Management, Research & Development



## Director's Message

Now is an exciting time at the National Transportation Center!

We're finishing up the second year of our grant under SAFETA-LU's university transportation centers program, and we've just applied for our third year of funding. Several students have received prestigious awards and fellowships, and we're hosting our 12th Summer Transportation Institute for local students.

We're also pleased to welcome two new employees: education coordinator Valencia Baker and communications manager/editor Erica Johnson.

To learn more about our center and programs, please visit our Web site at [www.eng.morgan.edu/~ntc](http://www.eng.morgan.edu/~ntc). As always, we welcome your comments and suggestions.

- Z. Andrew Farkas



*Micah Bush (right) gets hands-on experience in shipbuilding techniques during a trip to the Frederick Douglas Isaac Meyers Maritime Museum.*

## STI Provides a Vehicle to Success for Local Teens

“I love trains. They interest me a lot,” said Destiny Moore. “Railroads, cargo — I’m all into goods and services, not just the transportation of people, but goods and services, shipping them to different countries around the world.”

That’s not what you’d expect to hear from a teenager during the middle of her summer vacation, but the sophomore at Pikesville High School isn’t your typical high school student. This July, Moore and 18 other teens got a jump start on their plans for the future by attending the 12th annual Summer Transportation Institute (STI) at Morgan State University.

Funded through a partnership between the NTC and Federal Highway Administration, STI is a free, national education initiative designed to encourage high school students to pursue careers in transportation. Every year, thousands of students participate at different colleges and universities across the country. While the program started in 1993, Morgan’s National Transportation Center has hosted STI since 1997.

Although applicants must meet certain academic requirements, they aren’t expected to be experts in anything.

“Fifty percent have no clue what they’re going to get into, and by the end you can see that growth,” said Karl Brown, a teacher who’s been with STI since 2001.

Through four weeks of special projects, field trips, and discussions with various transportation professionals, participants get a sneak peek of transportation careers. The students built bridges and model cars, and researched alternative fuels. Field trips included an Amtrak ride to Philadelphia, and visits to the Baltimore City Traffic Management Center, Full Moon Farm, and a UPS shipping center. Career insight was also gained from talks with

# Local Teens Find Success with STI

the coordinator for Baltimore's Red Line Transit Project, an air traffic controller, and a structural engineer.

The students come from schools as

## Different Backgrounds, Same Goals

diverse as Mount St. Joseph, Archbishop Curley, W.E.B. DuBois, and Baltimore Polytechnic Institute, but they're all linked by their interest in transportation.

As the son of a chemist and grandson of an electrical engineer, you might say that Micah Bush was born with a predisposition for engineering.

"When I was little, I used to make model cars," Bush said. "I still do."

In the fall, he will be a 10th grader in Patterson High School's transportation academy.

"They gave us a chance to see what we would be doing next year, and I saw that we'll make plywood cars, wooden dragsters, and CO2 cars. That's why I wanted to come here because I figured we'd be doing the same thing," Bush said.

"It's also something to put on my college resume," he said.

Ugonna Anyadike, a rising sophomore at Fallston High School, readily admitted that it was his father's insistence that led to his enrollment in STI, but even he was excited by the field trips.

The activities have also thrilled the program's teachers and counselors.

"Going down to the transportation center, I was in awe," said Raymond Carter, a counselor.

"I continue to tell my sisters and friends that we took the wrong classes in college," said STI teacher Dawn Ray. "I don't think there's a day that goes by



*The Amtrak trip to Philadelphia provided a lesson in celebrity spotting: a group photo with Academy Award-nominated actor Terrence Howard (back row, beige hat).*

that we don't joke about it."

## Real Life Lessons

Ray and the staff constantly encourage the students to seize the opportunities presented to them, and the staff is leading by example.

When Dawn Ray isn't at STI, she's a high school government teacher. She also has a master's degree in city and regional planning, and her experience with STI has her considering a career change.

"I just can't believe what the young people are getting," she said. "I'm even networking with the speakers because I want to revisit my field of city and regional planning."

"It doesn't feel like a job, it feels like you're helping out," said James Brown. "They're learning, so I'm learning, too."

This year's students are lucky to have Brown as a counselor because he is a current Morgan sophomore majoring in civil engineering.

"I can see myself in some of the kids, how they act and carry themselves," Brown said. "Hopefully, they can learn from my mistakes."

## A Program with a Purpose

In addition to encouraging students to think about transportation careers, STI includes a financial planning workshop, daily SAT prep drills, and writing assignments. At the end of the program, their achievements are honored with an awards banquet. Each participant also receives a \$200 stipend.

Valencia Baker, the education coordinator for the National Transportation Center, organized the activities for this year's STI. All

of the exercises were chosen to get the students ready for the future.

"We are preparing them for college," Baker said. "If we can prepare these students now, they'll be more likely to score high on the SAT and be ready for the college of their choice."

The program has been meaningful for the students and teachers.

"I've formed a lot of good bonds," said Karl Brown.

Recently, Brown bumped into a student who was in his first STI class. The former student, who now works at the Maritime Museum, fondly remembered each project he did.

While many of their peers may have had leisurely summers, these teens feel their time was well spent.

"It's a really good feeling to know that some people are interested in the things I'm interested in because we have something in common," said Destiny Moore. "I don't feel out of place."

*The application process for STI 2009 will begin in February 2009. For more information, please contact Valencia Baker at 443-885-3969.*

## NTC Co-Sponsors TRB's National Conference on Access Management

Fed up with rising gas prices? Recently been in a fender bender? Wish your neighborhood was more pedestrian friendly?

A conference devoted to finding solutions for many of those problems was held July 13-16 at Baltimore's Renaissance Harborplace Hotel. The National Transportation Center was a proud co-sponsor.

With the theme "Sustainable Solutions for Transportation," the Transportation Research Board's 8th National Conference on Access Management brought together public officials, planners, engineers, and academics interested in sustainable approaches for improving roadway safety and efficiency. Among the attendees were Morgan faculty and students.

"As a university transportation center, we're supposed to engage in technology transfer activities, which basically means transferring information and outreach," said Dr. Andrew Farkas, director of the National Transportation Center. "This was a way for us to participate in that. It was also a way for us to enhance the education of our students."

The National Transportation Center paid registration fees for four Morgan students who agreed to be conference volunteers. While they worked, the students got to sit in on presentations, network, and supplement what they've learned in the classroom.

"The most important thing that I learned at the conference was the link between transportation planning and land use," said Brandon Buckner, a senior majoring in city and regional planning. "As future planners and engineers, we must understand the relationship between the two because our cities are changing everyday. New developments are being built and people need to get to and from these sites via car, bike, or public transportation. The field is now demanding us to be diverse in our skills and that was stressed at the conference as well."

Access management emphasizes making roads more efficient for more people at the lowest possible cost and inconvenience. The concept focuses on controlling the flow of

traffic through fewer access points and the systematic design of roadways. Too many points of entry mean a lot of people waiting to get on roads, i.e., congestion.

Strips malls are typically examples of poor access management because they're often designed without consideration of how their access points will affect traffic flow. In an urban area, feeding traffic to an intersection is better than giving each business along a major roadway its own access point. However, an intersection is not always the best solution to every traffic

***"It was also a way for us to enhance the education of our students."***

flow problem.

Access management is a balancing act. While it centers on thoroughfare design, it also involves the environment, land use, the engineering of roads, and the technology that controls the use of roads. The goal is to try to meet all the objectives of a road facility. If done properly, access management can mean faster travel; safer use of roads by motorists, cyclists and pedestrians; and increased business for the company owners along major roadways.

At the conference, two projects in Howard County – the U.S. 1 corridor, and Route 108 between Clarksville and I-70 – were cited as examples of good access management planning.

Ricardo Camilo, another volunteer said, "My desired career is supply chain/logistics/transportation. Some of the things I learned can really help me with my future."

## Success Stories

If life is a journey, the following students are definitely on the right track. The Maryland State Highway Internship and the Eisenhower HBCU Fellowship are two highly selective programs.

The Maryland State Highway Internship is a paid internship for undergraduates. The program is the result of a partnership between the State Highway Administration and Morgan State. Over the course of ten weeks, students get hands-on experience that could lead to a promising career.

The Eisenhower HBCU Fellowship is awarded to graduate students. In addition to a \$7,500 tuition scholarship and monthly stipend, recipients conduct research and attend the Transportation

Research Board's annual meeting.

Be sure to congratulate all of these students on their hard work and success.

### 2008 Maryland State Highway Summer Interns

Jennifer L. Bohager – *Traffic Engineering Division, District Four*

Naomi James – *Office of Highway Development, Community Design*

Love Joyner – *Office of Real Estate*

Nadim Maharjan – *Office of Traffic Safety, Traffic Development & Support*

Janay Smith – *Traffic Engineering Division*

### 2008 Eisenhower HBCU Fellowship Recipients

Brandon Buckner

Oegchi Elekwachi

Petronella James

Gautham

Karri



# The NTC Today

## Research that Matters

Research is one of the NTC's most important activities, and we're proud to announce a new \$157,645 research project by Dr. Mansoureh Jeihani, one of our principal investigators. Dr. Jeihani's project, *Trip Generation Studies for Special Generators*, explores how well the Institute of Transportation Engineers (ITE) Trip Generation Manual forecasts vehicle trips to and from town centers and senior housing developments.

New construction projects (residential, commercial, or recreational) require more than designing floor plans; they require a consideration of how the new development will affect and fit into existing traffic patterns.

Planners typically use the ITE Trip Generation Manual to predict travel patterns. The manual contains rates from national trip

generation studies for various land uses. It is updated about every five years with new data from across the country. Although it is widely accepted as the standard for trip generation, it has several weaknesses. Since the manual draws from national studies, it may not accurately reflect what happens in Maryland. It is also difficult for the manual to keep up with new or unusual land use practices.

Dr. Jeihani's project seeks to determine the effects of town center and senior housing developments on surrounding roadways and transit. The research is sponsored by the Maryland State Highway Administration and Morgan State. It is expected to be completed by Feb. 2, 2009.



Montebello D-206  
1700 E. Cold Spring Lane  
Baltimore, MD 21251  
[www.eng.morgan.edu/~ntc](http://www.eng.morgan.edu/~ntc)  
443-885-3666

The National Transportation Center at Morgan State University publishes *The NTC Today* biannually, with editions in the winter and spring. Editorial comments and questions can be directed to Erica Johnson, communications manager/editor at 443-885-1039. We look forward to hearing from you.