Research data could make commuting less of a toll

Larry Bowie
Institute Communications and Public Affairs

Have you ever been stuck in gridlock traffic while running a few errands and wondered why so many other cars are on the road? If so, you’re not alone.

Transportation researchers at Georgia Tech are examining the commuting habits of several hundred drivers in the metro area in a study that’s become the largest of its kind ever conducted on vehicle travel patterns.

Drivers who volunteered to take part in the study allowed researchers to install a small electronic box in their vehicles, developed by the researchers, that uses global positioning systems to record the movement of vehicles and various engine data, as well as where, when and under what conditions people drive in the Atlanta area.

The research team, led by Randall Guensler, a professor in the School of Civil and Environmental Engineering, says the data could help city planners decide what streets are in need of stoplights, which are prone to bottlenecks, and which have become heavily used shortcuts.

“We can use this information about how people travel in Atlanta to better plan the future of our regional transportation system,” Guensler said. “The data will provide a wealth of information for possible use in congestion mitigation, signal timing improvement and roadway design improvement.”

Called “Commute Atlanta,” the project is sponsored by the Federal Highway Administration, the Georgia Department of Transportation and Georgia Tech. So far they have already collected data from more than 100,000 trips.

In the study, data such as speed, position and acceleration are tracked as drivers go about their daily routines. The data is so accurate that if a participant’s vehicle were stolen, researchers could locate the vehicle using the equipment.

The information is uploaded to a main computer at Georgia Tech, where researchers monitor the travel patterns. The data helps to identify locations where traffic congestion occurs, giving precise details on the time, date and duration of each incident.

For example, on one stretch of Interstate 75 in the Atlanta area, “...if you arrive between 7:05 and 8:20 a.m., it’s going to take you a significantly longer amount of time to get through that section,” Guensler said.

Although Guensler and his group gain important data from the data trip collector, position data doesn’t tell the whole story. So the team supplied each driver with a travel diary to better understand the types of trips being taken.

Looking at data from one of the drivers during the course of one week, Guensler pinpoints the driver’s trips to the grocery store, daycare, home, school, healthcare, a drop-off at MARTA and two work locations. The trip data collector assesses traffic flow patterns from location to location — information drivers could use to choose better routes in order to get to their destinations more easily.

The study will provide city planners with valuable data about the behavior of Atlanta commuters.
Customized content to attract the next class of Tech students

David Terraso
Institute Communications and Public Affairs

Aiming to personalize the college admissions process, the Office of Undergraduate Admission recently unveiled a new Web-based recruitment tool, Tech on Your Terms, that lets high school students create their own brochures and interact with current faculty, staff and students through message boards and live chat sessions.

“We developed this system based on feedback we received that said most students go to the Web first to get information about their prospective colleges,” said Deborah Smith, vice provost of Enrollment Services at Georgia Tech.

Smith decided to take the idea a step beyond the traditional bulletin board approach of most university Web sites and use the site to encourage interaction between prospective students and admissions staff, current students, faculty and alumni.

“Rather than using the Internet to simply automate the admissions process, we’re taking advantage of the Web’s ability to allow students to choose what type of information they’d like to receive. This helps us get to know the students better and respond to their needs more quickly and on a more personal basis,” explained Smith.

When a prospective student logs into the system, his or her information is automatically sent to Banner, Tech’s student database. An admissions officer will contact the student if requested, or the student can simply choose to browse.

While browsing, a prospective student can create his or her own college brochure with information about specific academic programs and campus activities that match the student’s individual preferences.

They can also read news and feature stories about what’s happening on campus and in the city or check out profiles of Tech students and faculty.

Students may also receive invitations to campus events so they can get a first-hand look at Georgia Tech.

Third-year student Livia Carneiro said she used the Web extensively when she was shopping for schools.

“All of the schools seemed to have a lot of information about their majors but not so much for the campus lifestyle,” said Carneiro.

That’s one of the reasons why she’s decided to participate in the site’s chat sessions with prospective students. “I think the information you get from students is much more helpful than what you get from the admissions counselors, because the students will tell you what’s bad and good about the school,” she added.

In its most recent assessment of colleges and universities, U.S. News and World Report ranked Georgia Tech as one of the top ten public universities in the nation. Moreover, its peer assessment rating—a school’s perceived quality rating among other universities—placed among the top 20 overall. Smith hopes to use the new recruiting program to boost Tech’s reputation even higher in the future, in part by attracting even more well-rounded students, more arts and sciences students, more women, and more minority students.

Tech Square, costumed from page 1

“Georgia Tech’s decision to cross the interstate definitely had an influence on my decision to buy the Biltmore,” said Borders. “What it has done for us is that the Biltmore is no longer on the fringe. It’s now in the middle of all that is happening in Midtown.”

“The vision that a number of us had was to utilize a significant portion of land to try to create a new environment that could tap into the energy that exists in Midtown. It was really Wayne Clough’s vision to jump the divide of the interstate,” said King.

King agreed to develop the north side of Fifth Street, while Tech developed the south side. Coordinating the architecture and streetscape design of both projects would go a long way toward achieving the neighborhood feel both wanted. Wide sidewalks with benches and bike racks along with bike lanes, groundlevel retail and proximity to MARTA would make the area a draw for the public. A new alternative-fueled trolley would help ferry students from the main campus and provide free transportation to the public to the Midtown MARTA station.

“The attention to streetscapes—having walkable, tree-lined streets—all of that is extremely important to the value of the neighborhood, especially in a city like Atlanta, where that is rare,” said Ellen Dunham-Jones, director of the architecture program in the College of Architecture. “It conveys a very important sense of this development as a community. This is a model that’s about getting people out into the public space.”

Providing the opportunity for students, business executives, researchers and the public to mingle is part of what made the partnership so attractive, said King. “In the modern era, human contact is very limited. People go from the car to the house, and they don’t see their neighbors. This was an opportunity to allow people to do something they enjoy, which is to interact with others. It was crucial for us to capture that,” he said.

Similar features that emphasize pedestrian activities are incorporated into the other buildings in the development. A planned park on top of the interstate will help complete the area’s transformation from urban blight to bustling and attractive mixed-use neighborhood.

Borders predicts Technology Square will help spur development up and down the Spring and West Peachtree corridors for years to come.

“Georgia Tech has shown this is a great corridor,” he said. “Instead of walking east when you leave the Biltmore, now you want to walk west. In my mind, it’s the best view in Midtown Atlanta.”

The Undergraduate Admissions Web page

For more information...

Undergraduate Admissions
www.admission.gatech.edu

WWW.WHISTLE.GATECH.EDU
Atlanta universities, public schools to share $7 million grant for training science, math teachers

Sean Selman
Institute Communications and Public Affairs

The University System of Georgia has announced that Georgia State University and Atlanta Public Schools will share $7 million in federal funding for a program to improve student achievement and recruit students to teach science and mathematics.

Georgia Tech’s Center for Education Integrating Science, Mathematics and Computing (CEISMC) also will be a key partner in the project.

The funding represents a portion of a $35.6 million, five-year NSF grant that will involve seven public colleges and universities in Georgia, as well as 13 school districts across the state.

Georgia State’s College of Arts and Sciences and College of Education will join Atlanta Public Schools and CEISMC in the initiative, “Partnership for Reform in Science and Mathematics,” which aims to improve statewide student achievement in science and mathematics.

PRISM is a comprehensive program to ensure that elementary, middle and high school students are taught science and mathematics by highly qualified, diverse teachers, and to develop a statewide “best practices” approach to teaching and learning science and mathematics. The program also aims to create collaborations between schoolteachers and science and mathematics faculty in the state’s colleges and universities.

The metro-Atlanta region will use funds from the grant to create an Advanced Academy for Future Teachers, geared toward rising high school sophomores, juniors and seniors interested in teaching careers in science and mathematics, as well as learning communities for faculty. The program also provides Georgia State students with mentors from the time they begin a teacher-education program at the university through their first two years of teaching professionally.

“CEISMC is eager to play a part in this initiative, bringing Georgia Tech’s resources to the table in direct support of Atlanta Public Schools,” CEISMC Director Paul Ohme said. “We’re eager also to lend our support to the statewide initiative, especially in the Savannah and Statesboro areas, where we hope to tie in our efforts with the Georgia Tech Regional Engineering Program.”

“The grant is a natural next step in the progress our district had made thus far with our Urban Systemic Initiative, which also is designed to improve student achievement in math and science,” said Adrian Epps, program director for Atlanta Public Schools. “We look forward to the many opportunities that PRISM will provide for teachers, students and administrators in the Atlanta Public Schools.”

IN BRIEF:

Shirts show Tech spirit

Georgia Tech is urging football fans to get the red out. Beginning with the Oct. 4 Homecoming game against North Carolina State, Tech is asking fans to show their spirit by wearing special “Get the Red Out” T-shirts to two home football games: Oct. 23 versus the University of Maryland and Nov. 29 versus the University of Georgia.

The shirts are Tech’s colors — white and gold — and will be sold at ticket gates before the two games and at the campus bookstore at Technology Square. Proceeds from the shirts will help fund student scholarships and internships.

Professor tapped for Academy of Kinesiology

Professor Mindy Millard-Stafford in the School of Applied Physiology has been elected a member of the American Academy of Kinesiology and Physical Education. Academy membership is considered a “who’s who list” of the top individuals in the fields of kinesiology — the study of the anatomy, physiology and mechanics of body movement — and physical education, and is limited to 150 active members.

At Tech, Millard-Stafford studies exercise physiology, particularly the effects of nutritional interventions on physiological responses and exercise performance. She joined Georgia Tech’s faculty in 1986.

**Most Connected College Campuses**

According to The Princeton Review, Georgia Tech ranks third among the nation’s “Most Connected Colleges,” based upon criteria ranging from the student/computer ratio and wireless access on campus to the breadth of the computer science curriculum and student comments. To access the complete list, visit www.forbes.com/campus

**Rank:** University:

1. Stevens Institute of Technology
2. Wake Forest University
3. Georgia Institute of Technology
4. Bentley College
5. Rose-Hulman Institute of Technology
6. Bryant College
7. Illinois Institute of Technology
8. Villanova University
9. Hampton University
10. University of South Dakota

Randall Guensler
ransaq.ce.gatech.edu/guensler
Oct. 21
The Center for International Strategy, Technology and Policy and the Sam Nunn Security Program welcome Stephen Flynn, senior fellow in national security studies at the Council on Foreign Relations, on “The Challenges Securing Our Borders from International Terrorism,” at noon in the Student Success Center. Seating is limited. To register, e-mail angela.levin@fiesta.gatech.edu or call 894-5199.

Oct. 21
The School of Materials Science and Engineering’s Institute-wide Seminar Series welcomes Hamish Fraser, Regents’ Professor of Engineering at Ohio State University, on “The Accelerated Maturation of Micro- and Nano-Scaled Metallic Materials,” at 3 p.m. in room 185, Love Building. For more information, e-mail robert.snyder@mse.gatech.edu.

Oct. 22
The Center for the Study of Women, Science and Technology is organizing a focused research panel and discussion at 4 p.m. in the Student Success Center. The topic is “Networks of Faculty and Students: How They Create Communities at Georgia Tech.” All are welcome. For information about WST events or the WST Learning Community, see www.wst.gatech.edu.

Oct. 22
The Architecture Program’s fall lecture series welcomes Stan Allen, dean of Princeton University’s School of Architecture, at 5:30 p.m. in the College of Architecture Auditorium.

Oct. 22
The DuPree College of Management’s IMPACT Speaker Series welcomes James Crawford, managing partner of Frontenac, and Ray Oleson, chairman and CEO of SI International, at 4:30 p.m. in the LeCraw Auditorium. For more information, refer to www.dupree.gatech.edu/impact.

Oct. 24
Ivan Allen College’s Seminars in Science and Technology Studies continues with Public Policy Professor Hugh Gusterson on “The Mysterious Power of Polygraphs,” at 4 p.m. in the Wesley Center for New Media, room 002, Skiles Building.

Miscellaneous

Oct. 22-23
A TIAA-CREF consultant will be on campus to conduct free individual, longitudinal financial planning sessions. To arrange an appointment, call 800-842-2003 or refer to www.tiaa-cref.org/moc.

Oct. 29
The Office of Human Resources will hold its annual benefits fair from 10 a.m. - 2 p.m. in the Student Center Ballroom.

Nov. 4
Fidelity Investments will hold individual retirement consultations from 9 a.m. - 5 p.m. To schedule an appointment, call 800-642-7151.

Classifieds

Appliances
European copper fonted set. New and in box. $70. Pictures available. E-mail sonia.gutanis@chbe.gatech.edu or call 894-8474.

Automobiles
1993 Toyota 4-Runner. Black, V6, 4WD, 5-speed, 128K miles, good condition. New tires, brand new power windows, locks, steering, sunroof, CD, alloy wheels, tinted windows, $6,000. Call 678-462-1656 or e-mail jstichman@bellsouth.net.
1994 Chevrolet Cavalier. White 4-door sedan, 98K miles, original owner, $1,400. Call 894-3476 or e-mail mercedes.saghini@arch.gatech.edu.
1994 green Ford Explorer XLT. 4-wheel drive, 1,268 miles, 6-cylinder, manual. Power window/locks. Roof rack. Cruise. Excellent condition. $4,900 OBO. Call 894-4038 or e-mail james.powens@chemistry.gatech.edu or call 0759.
1996 BMW 328i. Convertible, silver gray leather, black top, sport package, 71K miles, new a/c, newly tuned, convertible top, $16,999 OBO. Pictures available. Call 404-936-8152 or e-mail gorman10q@comcast.com.
1997 Audi A4 2.8 Quattro V6. 5-speed, 4-door sedan. Excellent condition, 109K miles, all options. Very nice car, pictures available. $11,000 OBO. Contact James at jg140@prism.gatech.edu.
1998 GMC Sonoma SLS pick-up. Silver, a/c, AM/FM/CD, dual airbags. One owner, good condition, complete service records. 128K HW miles. $4,800. Call 894-3616 or e-mail pam.aokai@business.gatech.edu.
2002 Black Nissan Xterra SE. Supercharged, 19K miles. Fully loaded, new condition. 3.3L V6, 210 hp., lots of extras. $20,000. E-mail dari.molavi@gtri.gatech.edu.
Dresser, desk & mirror in good condition. Chair worn but still sturdy. $175 for both. lisa.gardner@gti.gatech.edu.

Real Estate/Roofmates
Walk to Tech, 1BR/1BA completely renovated condo w/ balcony view of Fox Pool, gym, entertainment room, concrege, covered parking. $149,900. Call Terry, 770-365-7200.
Professional male seeks roommate for 2BR/1BA house, walk to downtown East Point & MARTA, $400/month, incl. utilities. Call Brian Burnett, 678-637-6887.
Roommate wanted to share furnished 3BR house in Jonesboro. $125 per week or $475 per month, all utilities included. No smokers. Call Bob, 678-698-9464.
Visiting scholar from New Zealand looking for a (preferably furnished) room or small apartment for 3 months starting in November. Non-smoker. Maximum rent, $500/month. E-mail fried.augenbroe@arch.gatech.edu.
Renting from visitor, available January. $1,400/month. Email tahniga@cs.com or call 404-505-0759.

Sports/Fitness/Recreation
Health Rider aerobic exercise machine by Total Body Fitness. Like new. Paid $225, asking $100 OBO. E-mail bob.schult@gti.gatech.edu or call 385-1696.
2 Sea-Doos for sale. Both 2-seaters, excellent condition, custom covers, garage kept. New ComFab double trailer, low mileage, mounted utility box with locks. $4,500. E-mail mandy.hulf@de.gatech.edu or call 404-374-584.

Miscellaneous
2002 4-door. 71K miles, sunroof, AC, new tires, $7,500. Call 404-374-4641.
For lease. Girls apartment for rent in Decatur. 2BR/1.5BA, screened porch, large yard, carport & storage building. Perfect for visiting faculty. Available January. $1,400/month. E-mail tahniga@cs.com or call 404-505-0759.
For lease. Fully furnished house for rent in Decatur. 2BR/1.5BA, screened porch, large yard, carport & storage building. $1,600/month. E-mail deannashea86@hotmail.com.