

From the Director



Welcome to the UVM Transportation Research Center's e-Newsletter (*available at our website*), a new format for communicating with our stakeholders and colleagues in the transportation research community. Throughout the year we will be providing updates on key research stemming from TRC's diverse funding sources, such as the UTC program, whose support of eleven projects (\$1.1 million) related to the UVM Spires of Excellence was reported in our Spring newsletter.

This semester we welcomed nine new TRC Scholars. These Graduate Research Assistants are working across 4 colleges on cutting-edge research initiated by our associated faculty. Our new Graduate Certificate in Sustainable Transportation Systems and Planning welcomed three new participants in the fall and we are conducting outreach to make this program increasingly attractive to practitioners as well as full time students.

A great honor was bestowed on two members of the TRC community this summer when PhD student Nathan Belz and Assistant Professor Brian H. Y. Lee, both in the School of Engineering, won the Fred Bugggraf Award from the Transportation Research Board (TRB) of the National Academies. This national award recognizes excellence in transportation research by researchers 35 years of age or younger. Nathan and Brian's work and dedication is a testament to the vitality of the TRC.

Austin Troy
Associate Professor and TRC Director

Fall 2012 News

UVM Transportation Research Center (TRC)

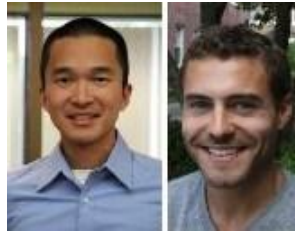
The TRC is a hub for innovative and interdisciplinary research, education and outreach focused on risk and resiliency as they relate to transportation systems, particularly in northern, rural, exurban and micropolitan contexts.



Graduate Students

The TRC welcomes a new team of student researchers this year with specialties from land use planning to qualitative research.

[Continued on pg.3](#)



TRB Research Award

Nathan Belz and Assistant Professor Brian H.Y. Lee won the Fred Burggraf Award from the Transportation Research Board (TRB) of the National Academies.

[Continued on pg.3](#)



VT Clean Cities Coalition releases report on PEV Readiness

Disseminating information, creating dialogue, and building capacity for the deployment of plug-in electric vehicles (PEVs).

[Continued on pg. 4](#)



Transportation Workforce Development Update

Preparing the next generation of transportation workers.

[Continued on pg.5](#)



TRC Research Updates

Conferences, publications, and great new projects.

[Continued on pg. 6](#)



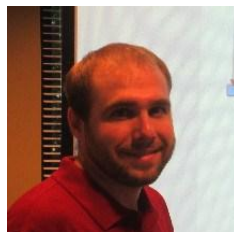
Electric Vehicle Charging

Alex Hilshey (Elec. Engineering) Graduate Student Research Update [Continued on pg. 7](#)



From Ecological Networks to Social Networks

Kristen Williams (Plant & Soil Sciences) Graduate Student Research Update [Continued on pg. 8](#)



Network Analysis of Organizations Promoting Sustainable Transportation

Aaron Withom (Nat. Resources) Graduate Student Research Update [Continued on pg. 9](#)



Transportation in Parks, Public Lands, & Outdoor Recreation

Peter Pettengill (Nat. Resources) Graduate Student Research Update [Continued on pg. 10](#)



The TRC & the National Bike Challenge

UVM teams, including the TRC, joined in the National Bike Challenge. Read about the success of our center, city, and state in this challenge.

[Continued on pg. 11](#)



Catherine Lutz Visits UVM, Delivers Burack Lecture

The author of *Carjacked: The Culture of the Automobile and its Effects on Our Lives* brought a lively debate to the UVM community.

[Continued on pg. 11](#)



National Summer Transportation Institute

Warren S. Whitlock, the Associate Administrator for Civil Rights at FHWA came to Vermont for the final day of NSTI [Continued on pg. 12](#)

Graduate Student Researchers

The TRC welcomes a new team of student researchers this year with specialties from land use planning to qualitative research.

TRC 2012-13 UTC GRA Scholars

Nine students from four different colleges were selected as UTC Scholars at the Transportation Research Center.



Ben Carlson,
Masters of Public
Administration
program (CDAE)



Tyler Feralio- PhD
program, Civil and
Environmental
Engineering



Chester Harvey –
MS program,
Natural Resources
(RSENr)



**Kristine
Harootunian – MS**
program, Civil and
Environmental
Engineering



Isaac Lawrence -
MS program,
Natural Resources
(RSENr)



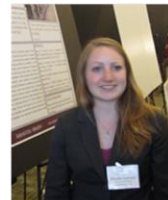
Tim Pede - MS
program, Natural
Resources (RSENr)



Ben Schilling – MS
Program, Electrical
Engineering



Dan Sithole – PhD
Program,
Educational
Leadership and
Policy (CESS)



Phoebe Spencer –
MS
program,
Community
Development and
Applied
Economics



#

UVM Researchers Receive National Transportation Recognition

Nathan Belz, PhD civil and environmental engineering student, and Brian H. Y. Lee, assistant professor, both in the School of Engineering, have won the Fred Burggraf Award from the Transportation Research Board (TRB) of the National Academies for their research entitled, “Composition of Vehicle Occupancy for Journey-to-Work Trips: Evidence of Ridesharing from the 2009 National Household Travel Survey Vermont Add-on Sample.” This national award recognizes excellence in transportation research by researchers 35 years of age or younger.

“Receiving this award is very significant because this is a national cross-TRB competition with one to two winners per year,” says Lisa Aultman-Hall, professor at the UVM Transportation Research Center (UVM TRC). “Belz and Lee competed with researchers in all areas of transportation from planning to structural engineering to modeling to rail.”

Belz and Lee’s research paper was initially created in a new graduate course on travel and activity choice modeling developed by Dr. Lee. Belz continued to work on the project with Lee as a Graduate Scholar funded by the UVM TRC. The research focuses on ridesharing in Vermont and contains noteworthy information. “In addition to broadening the understanding of how rideshares are formed, we are moving the research from just thinking about ‘how many’ are in the vehicle to also considering

‘who’ is in it,” explains Belz. “We also illustrate the impacts that the effort needed to coordinate a trip and vehicle allocation among household members can have on ridesharing,” adds Lee.

“This award draws national attention to young impressive researchers within our College,” says Bernard “Chip” Cole, Interim Dean of the UVM College of Engineering and Mathematical Sciences.

“I’m thrilled to hear that these two excellent researchers from the UVM TRC have been honored with this highly competitive award. Their work in advancing our understanding of driver/rider behavior and building sustainable transportation options clearly advances the UVM TRC’s mission in addition to the field of transportation research in general,” says Austin Troy, associate professor in the UVM Rubenstein School of Environment and Natural Resources and Director, UVM TRC.

Drs. Lee and Aultman-Hall are working with another student using the same dataset as the Belz and Lee paper to study vehicle allocation within a household to estimate possible reductions in fuel and emissions for Vermont and the country.

For his PhD thesis, Belz has recently collected innovative field data to develop a new traffic flow theory for roundabouts because the existing theories developed for traffic signals and stop signs do not apply. His advisor is Dr. Aultman-Hall.

The Fred Burggraf Award was established in 1966 to stimulate and encourage young researchers to contribute to the advancement of knowledge in the field of transportation. The award is accompanied by a cash prize and was named in honor of the late Fred Burggraf, who served as the Transportation Research Board’s director from 1951 until his retirement in 1964.

#

VT Clean Cities Coalition releases report on PEV Readiness

This report is the result of a three-month outreach project funded by the Vermont Public Service Department (PSD) through a grant from the Energy Efficiency and Conservation Block Grant Program (EECBG) of the U.S Department of Energy (DOE). This project was carried out by the Vermont Clean Cities Coalition (VTCCC) as part of the University of Vermont’s Transportation Research Center’s (TRC) outreach efforts. The overall purpose and goals of this project were to disseminate information, create dialogue, and build capacity among targeted groups of stakeholders who are vital for the mass deployment of plug-in electric vehicles (PEVs) in Vermont. The stakeholders identified and targeted for this project included automotive dealerships in the state of Vermont, their manufacturing affiliates, current PEV owners who reside in Vermont, and fleet managers. Engaging these stakeholders provided the VTCCC outreach team with insights into the barriers and opportunities for PEV development in the state.

Key recommendations from the project stakeholders about how to increase the adoption of PEVs in Vermont are listed below. These recommendations do not necessarily represent the opinion or position of the University of Vermont Transportation Research Center, the Vermont Clean Cities Coalition or the Vermont Department of Public Service.

1. There are many misconceptions about PEVs among the general public. Dealerships, manufacturers, and PEV owners alike all agree that **the best way to educate individuals and dismantle myths about PEVs is to get people into the cars** to experience the technology first hand.

2. **Commercial or institutional fleet adoption is key to PEV deployment.** When a commercial or institutional fleet adopts a PEV, it provides a “vote of confidence” to non-commercial buyers considering such a purchase. Commercial and public fleets have characteristics that make PEV adoption easier compared to non-institutional purchasers. Many organizations have set hours in which they do not operate when vehicles could be charged. There are also businesses and organizations that have very defined routes for the fleets and could plan ahead to ensure that vehicles do not lose charge.
3. Discussions with five fleet managers revealed that **many of them have hesitations regarding the practicality of PEVs for their organization.** Therefore, an essential first task to increase PEV use among fleets would be **direct outreach events that get decision makers for fleet vehicle purchasing into PEVs**, allowing them to experience the new technologies first hand and ask questions regarding the vehicle capabilities. In addition, materials that make the business case for adopting PEVs should be created. These materials should include new lifetime vehicle cost calculations that address the attributes of PEVs in a format that fleet managers can use.
4. Currently, there is a small group of individuals who live in Vermont and own a variety of PEV models. The project found that these owners were highly educated on PEVs and extremely passionate about their use. PEV owners are a great resource for individuals interested in PEVs. Therefore, **an online forum, utilizing current social media tools should be created to connect current PEV with potential PEV customers.**
5. Outreach was conducted with 14 dealerships involving conversations with salespeople, dealership owners, and maintenance personnel. In addition, VADA fielded a survey to all of its members in order to gather additional data. Through these efforts it was found **dealerships currently face extra costs and possible loss of revenues from purchasing and selling PEVs.** As a result of these barriers, many dealerships are hesitant to push the sales of PEV at their businesses. To overcome dealership resistance to more aggressively marketing PEVs, stakeholders stressed that **financial incentives for dealerships from the state, such as tax credits, could help remove some of the real and perceived barriers.**

To find out more about these recommendations and other findings of this project please review the full report available on the VTCCC webpage.

<http://www.uvm.edu/~transctr/cleancty/pdf/VTCCCPEVReadiness%20Findings%20Report%20final.pdf>

#

Transportation Workforce Development Update

The TRC began a developmental evaluation of the four year Transportation Education Development Pilot Program as it moves through the final implementation phase of testing new approaches to workforce development in northern New England. This effort will identify opportunities to expand the program regionally and possibly nationally. Four Transportation Systems Academies will be launched in the coming year in partnership with Career and Technical Centers, the Community High School of Vermont and The Vermont Agency of Transportation. Working with Veterans counselors at the Vermont Department of Labor the TRC is moving ahead to develop a program to translate Transportation careers into a framework tailored for Veterans to identify bridging opportunities into the field with a special partnership with public transit agencies. Outreach Manager Glenn McRae attended the meetings of the National Transportation Training Directors in October where he made a presentation on the Transportation Workforce Development Framework that emerged from the National Summit last spring where he was a member of the organizing team.

TRC Research and Funding Highlights

New Reports:

Read the full reports at <http://www.uvm.edu/~transctr/?Page=news&storyID=14481&category=trc>

- Spatial Extent of the Impact of Transported Road Materials on the Ecological Function of Forested Landscapes (Neher, Asmussen, Williams)
- Environmental Concern, Social Capital and the Social Context of Tailpipe Emissions-Related Knowledge in Northern Climates (Watts, Maddison, Macias, Witham)
- The Social Construction and Framing of Tailpipe Emissions in the Media (Macias, Nelson, Watts)
- Social Network Analysis of Sustainable Transportation Organizations (Watts, Witham)
- Spatial Analysis of Travel Demand and Accessibility in Vermont: Where will EVs work? (Aultman-Hall, Sears, Dowds, Hines)
- Weather Factor Impacts on Commuting to Work by Bicycle (Flynn, Dana, Sears, Aultman-Hall)
- Identifying Network Representation Issues with the Network Trip (Sullivan, Novak, Aultman-Hall)
- Integrated Land-Use, Transportation and Environmental Modeling the Vermont Integrated Land-Use and Transportation Carbon Estimator (Sullivan, Mika, Fraker, Hershey, Hathaway, Lawe)

The TRC received funding for the next edition of the Vermont Transportation Energy Profile from the Vermont Agency of Transportation. The TRC team will be working with a state government working group to align the report with the objectives of the Vermont Comprehensive Energy Plan's transportation objectives and benchmarks.

The **USDOT Commercial Remote Sensing Division** has awarded a grant to Austin Troy and the Transportation Research Center, entitled Rapid Exploitation of Commercial Remotely Sensed Imagery for Disaster Response & Recovery, which includes several hundred thousand dollars in private-sector cost-share.

Lisa Aultman-Hall is settling in as a visiting scholar at the **University of California Davis**. She is hosted by three former UVM TRC Burack lecturers: Susan Handy, Deb Niemeier and Dan Sperling. Her cross-country trip included representing the TRC at the Consortium of University Transportation Centers annual meeting in Houghton, Michigan. After working with the UVM team on several TRB papers that were submitted August 1, she has turned her attention to studying accessibility using existing Vermont and New England data, and designing a web-based collection of a new overnight travel dataset for Vermont, Alabama and California.

Austin Troy had a paper accepted in the journal **Transportation Planning and Technology**, entitled "Integrating a Traffic Router and Microsimulator into a Land Use and Travel Demand Model." The article, co-authored with former TRC Scholar Dale Azaria (now part-time TRC staff), post-doctoral researcher Brian Voigt, and former TRC-affiliate faculty Adel Sadek (now at SUNY Buffalo), was based on research from Troy's TRC signature project. The article should appear in the October issue.

Brian Lee, facilitated a conference panel entitled "Guidance for Designing, Mapping and Financing Bicycle and Pedestrian Infrastructure" at **TRB Tools of the Trade: Transportation Planning in Small and Medium Sized Communities** in September in Big Sky, Montana. He was a member of the conference organizing committee and is part of a team planning the conference for 2014 in Vermont.

Austin Troy's recent article on the environmental determinants of street crime, published in **Landscape and Urban Planning**, received wide media coverage in outlets including the Boston Globe, Atlantic Monthly's Atlantic Cities Magazine, The Vancouver Sun, The Calgary Herald, the Edmonton Journal, Grist, Smart Planet, Planetizen, and others.

Lisa Aultman-Hall presented an interactive workshop with Dr. Jennifer Dill (Portland State University) at the ProWalk ProBike Conference in Long Beach California on Sept 11. They were seeking input from the non-motorized transportation community on data needs especially for the future National Household Travel Survey.

A team of UVM researchers has been awarded a **National Science Foundation (NSF) Grant** to acquire a 3D terrestrial laser scanner for the temporal-morphological study of built and natural structures. The applications may include surveying of manmade structures such as seen in the upper two frames. In these instances, historical structures are being imaged for both cataloging and preservation purposes. In regards to the latter, scans over time quantify structural changes due to natural disasters or restoration efforts.

#

Graduate Student Research Update: Electric Vehicle Charging: Distribution Transformer Impacts, Smart Charging, and Transportation Modeling

In 2012, worldwide sales of Plug-in Electric Vehicles (PEVs) are expected to surpass 257,000 units, and North American sales are expected to exceed 66,200 units. Predictions estimate that U.S. PEV annual sales will reach 640,000 units by 2015. Additionally, 2012 marks the introduction of seven new PEV manufacturers, including BMW, Ford, Honda, Toyota, Volvo, Coda, and Fisker. This increased popularity in electric transportation enticed former Transportation Research Scholar and Master's student in Electrical Engineering, Alex Hilshey, to contribute towards the Power industry's preparations to support such a potentially large PEV fleet.

With rising adoption of these vehicles, electric utility providers are quickly becoming aware of the substantial electric load required to charge PEV batteries between travel tours; for example, a fully depleted Chevrolet Volt battery requires approximately 7.5 hours of charging at the standard charging rate (1.4 kWh/hr). Given mass adoption of PEVs, battery charging may create new load peaks during non-traditional times or may substantially increase the magnitude of pre-existing peaks by 1.4 kW per PEV at standard charging rates (AC Level 1) or by a whopping 7 kW per PEV at faster charging levels (AC Level 2). The additional load from PEV charging generates periods of time in which electric distribution infrastructure, specifically distribution transformers, may experience increased damage, which ultimately may result in costly replacements or upgrades.

Although distribution transformers, on an individual basis, are a relatively inexpensive component of the electric distribution grid, it should be noted that North America is currently serviced by over 40 million distribution transformers, making them the most used element of the electric distribution

system. Therefore, understanding how PEV charging will impact distribution transformer aging is important to utilities who are making investment decisions towards PEV fleet support.

Given this interesting problem, Alex filled his time at UVM's Transportation Research Center by producing models to estimate the impacts of PEVs on distribution transformers. The impact estimations require both predictions in PEV charging demand and simulations of transformer thermal aging. The Transportation Research Center provided Alex with an interdisciplinary environment where he used concepts in travel demand modeling combined thermal models of transformers from the mechanical engineering discipline to solve his electrical engineering problem catered towards informing the Power Systems field. In addition to impact estimation, Alex contributed to the research on PEV smart charging which is a component of the exciting new research field, collectively called "Smart Grid."

For more information on Alex's research e-mail him at adh5031@psu.edu or see his publications: Hilshey, Alexander, P. Hines, and J. Dowds, "Estimating the Effect of Electric Vehicle Smart Charging on Distribution Transformer Aging," *IEEE Transactions on Smart Grid*, Accepted for Publication

Hilshey, Alexander, P. Rezaei, P. Hines, and J. Frolik, "Electric vehicle charging: Transformer impacts and smart, decentralized solutions," *IEEE PES General Meeting*, Summer 2012, Accepted for Publication

Hilshey, Alexander, P. Hines, and J. Dowds, "Estimating the Acceleration of Transformer Aging Due to Electric Vehicle Charging," *IEEE PES General Meeting*, Summer 2011

Graduate Student Research Update: Ecological Networks to Social Networks

How do roads affect the surrounding landscape? How do those effects vary by road type and distance from the road? Those are some of the questions Kristin Williams, a M.S. student in Plant and Soil Science has been addressing in her thesis: "Spatial effects of roads on soil nematode communities in forested areas of Vermont."

Under the support of Deborah Neher and Sarah Lovell, Kristin addressed these questions by taking soil samples in transects perpendicular to gravel, 2-lane paved and highway roads. Soils were analyzed for both soil chemistry properties, such as salt and heavy metals, and biological properties. Soil nematodes are microscopic roundworms that occupy a diverse array of positions on the soil food web. For example, different nematodes consume bacteria, fungi, plant roots, and other soil fauna including other nematodes. This makes them great indicators of the entire soil food web. Additionally, they are also known to have differential responses to disturbance, including that of salts and heavy metals.

Results suggest that the roadside environment does alter the soil community. This is probably due to a combination of pollution, water regime, altered soil (e.g., compaction), and altered plant communities. Kristin's research is linked to another M.S. student, David Asmussen, who examined roadside plant communities. Results from both projects suggest that the forest edge acts as a filter for pollution and habitat degradation, and that roadside design may be improved by conscious design of forest edge structure, function and location.

Together these two projects are a segment of UVM Transportation Research Center Signature Project 1, "Integrated Land-use, Transportation and Environmental Modeling: Complex Systems Approaches and Advanced Policy Applications" Funded by the Federal Department of Transportation, led by Austin Troy, this innovative transportation project was developed with the aim of being a national showcase for the testing and validation of integrated models and for more sustainable transportation planning.

Kristin is wrapping up her thesis and will graduate this fall. The skill sets and interests she developed in her graduate studies have led her toward a new, but related, opportunity. She was recently hired as a research assistant for a different project funded by the TRC. Under Tomas Macias and Richard Watts, Kristin is researching how social capital, specifically what sociologists call 'weak ties', influences environmental concern and transportation behavior. 'Weak ties' are essentially a person's extended social network. The hypothesis being that a person with a more diverse array of weak ties has both more resources and more exposure to different paradigms or viewpoints, including those of ecological relevance. This may then lead to more environmentally conscious transportation decisions, specifically reducing tailpipe emissions.

While Kristin's thesis involves developing ecological knowledge that can lead to better human design decisions, her work with sociology is looking at how social networks influence human decision making that affects the environment. Of her experiences, she says "Working with the TRC has not only funded my education, it has given me an incredibly rich array of opportunities and perspectives on transportation that I would not otherwise have. The TRC is truly a model for interdisciplinary education and I am very grateful for all the support they have given me. It is this kind of thinking, linking ecology and decision making in both directions, which I believe will help move society forward towards more sustainable transportation networks."

Graduate Student Research Update: Network Analysis of Organizations Promoting Sustainable Transportation

Do social networks affect sustainable transportation organizations aiming to influence the policy-making process? This is a question that transportation research scholar, Aaron Witham, has been researching for the past two years while pursuing his M.S. in natural resources from the Rubenstein School of Environment and Natural Resources and his graduate certificate in ecological economics from the Gund Institute. Working with professors Richard Watts, Tao Sun, and Curt Ventriss, Aaron has analyzed data from 121 organizations known to promote sustainable transportation policy across Maine, New Hampshire, and Vermont. Organizations were sent a survey in 2010 that asked them who they send information to and receive information from, along with questions about organizational interests, budget size, staff size, and other characteristics. The data on sending and receiving information became the basis for network models like the one in the photo.

Depending on where an organization lies within the network, it may be subject to constraints or provided opportunities. Organizations that occupy a central position in their network may have greater influence over the policy-making process or appear more frequently in the media. Organizations on the periphery of the network may have less influence and less of a voice in the media. To test this theory, Aaron and the research team ran correlations between different metrics of network position and perceived influence. Perceived influence is a survey-derived score that they acquired by asking each organization in the survey to rate each other's level of influence in the sustainable transportation policy arena. They then took the average of those ratings to have a score for each organization. The research team also ran correlations between network position and the number of times an organization appears in Associated Press articles about sustainable transportation. "We are finding that having a central position in one's network correlates strongly with having higher influence and more appearances in the media," explains Aaron.

In his time as a TRC scholar, Aaron has thrived from the support of the Transportation Research Center. He notes that his research assistantship made graduate school affordable to him by helping defray tuition costs, providing him a stipend to live off, and helping him travel to conferences to

present his research and meet other scholars in the field. “Without the support, I wouldn’t have been able to earn my graduate education and have this opportunity to contribute to the field,” explains Aaron. “And there is no better place to do it than the TRC where you are surrounded by interdisciplinary research and collaboration. You can literally lean one way and ask someone a quantitative question about GIS and lean another way to ask someone a qualitative question about livability.”

Graduate Student Research Update: Measuring & Managing the Quality of Transportation in National Parks, Public Lands, & Outdoor Recreation

Transportation, in the context of parks and outdoor recreation, is much more than reaching a destination. In fact, transportation in parks is often a form of recreation itself. Whether driving a scenic road, touring on a shuttle bus, or biking along a greenway, transportation often shapes the way we engage and experience landscapes. For this reason, transportation management in parks and outdoor recreation warrants an interdisciplinary approach.

As a transportation scholar and research assistant at the Rubenstein School of the Environment and Natural Resources, Peter Pettengill has spent the last four years studying transportation through the lens of an outdoor recreation professional. In conjunction with the UVM Transportation Research Center and Park Studies Laboratory, he has been part of team that has conducted fieldwork in Vermont, Acadia National Park, Yosemite National Park, and Golden Gate National Recreation Area.

The intent of his program of study is three-fold: (1) determine what constitutes high quality transportation in the context of parks and outdoor recreation, (2) understand why visitors choose one mode of travel over another, and how this might be managed and (3) develop a systems-based approach to planning and managing transportation opportunities in parks and outdoor recreation.

The first phase of research is designed to integrate Levels of Service (a widely used framework in conventional transportation planning) and indicators and standards of quality (a framework for managing outdoor recreation), using surveys of visitors to a range of outdoor recreation areas. The second phase of research builds upon this integrated model by incorporating multiple attributes of recreational travel into a stated-preference survey design. The attributes of crowding, convenience, corridor design, and cost are included in a second set of visitor surveys. The condition of these attributes helps determine what mode of travel visitors choose, and analysis of resulting data suggests how park managers might influence visitors’ choices to travel by car, bus, or bicycle. The final phase of research will develop a Transportation-Recreation Opportunity Spectrum (T-ROS) to help guide transportation planning and management in parks and public lands. T-ROS includes a series of matrices that align indicators of quality on one axis and standards of quality on the other axis to suggest a diverse range of transportation opportunities in parks and related areas.

Peter has presented his research at scientific and professional meetings at regional, national, and international scales. While much of his work was made possible by a TRC Signature Project grant, he has also conducted research under the commission of the Paul S. Sarbanes Transportation Research in Parks Technical Assistance Center as well as the Central Federal Lands Highway division of the Federal Highway Administration.

Furthermore, this research is beginning to develop into publications. Peter is the senior author on an article entitled ‘Measuring and Managing the Quality of Transportation at Acadia National Park’ published by the *Journal of Park and Recreation Administration* and is also senior author of an article entitled ‘Traveler Perspectives of Greenway Quality in Northern New England’ which has been accepted for publication the *Transportation Research Record: The Journal of the Transportation*

Research Board. He has also co-authored a literature review of the Recreation Opportunity Spectrum and its potential application to transportation.

Peter is thankful for his support from UVM's Transportation Research Center and Park Studies Laboratory. His research would not have been possible without his advisor Robert Manning and he is grateful for guidance from his academic committee including Brian Lee, Austin Troy, and Curt Ventriss. He plans to defend his dissertation this fall and recently accepted a position with the National Park Service at Grand Canyon National Park.

#

National Bike Challenge

The Transportation Research Center participated in the National Bike Challenge, a four month online competition, and finished 4th out of 105 Vermont teams and was in the top 10 percent of teams nationally. Burlington, VT finished first out of all communities and Vermont was the top state in the nation. 30,000 Americans participated overall in the competition and more than 9,000 workplaces took part, all together totaling over 12 million miles. A new, yearlong challenge begins in January 2013.

#

Catherine Lutz at UVM, Delivers Burack Lecture

On September 25th the TRC, with the UVM Global and Regional Studies Program, hosted Dr. Catherine Lutz, the *Thomas J. Watson, Jr. Family Professor of Anthropology and International Studies* at *Brown University* presented on her new research interest in automobile cultures, in a lecture entitled *Inequality, Myth and the American Automobile System*. The discussion at UVM followed the research and arguments published in her book *Carjacked: The Culture of the Automobile and its Effects on Our Lives* as well as her regular commentary series in the *Huffington Post*.

Preceding the lecture, Professor Lutz visited with students in ENVS295: Cars, Culture and the Media and then joined Transportation Research Center (TRC) associated faculty, staff, and students for a roundtable discussion. She spoke briefly about her work as an anthropologist attempting to bring research of social problems to light for the greater public. The work of Dr. Lutz goes to the very roots of what we as a society take for granted, such as the safety of the automobile and its necessity in our lives. With a broad range of experiences in the group, Dr. Lutz eagerly fielded questions based on participants own projects and research.

The lecture, part of the University of Vermont's Dan and Carole Burack President's Distinguished Lecture Series, was addressed to a crowd of about 120 faculty, students, and community members. After an introduction from Global Studies program director and anthropology professor Dr. Luis Vivanco, Dr. Lutz proceeded to share the many ways that cars encourage inequality in our society. From taking the largest portion of earnings from the lowest income Americans to the various auto-related business schemes that take advantage of those with lower incomes seeking to buy cars, Dr. Lutz revealed the many ways that the automobile has in fact made strides against equality in American society. She argued that it is a misperception that a car is not required in American society, citing research demonstrating car ownership as being the most likely factor in predicting employment. Dr. Lutz finished by driving home the point that the automobile is not an equalizer in society, but rather a major contributor to inequality.

FHWA Associate Administrator for Civil Rights provides counsel for Vermont National Summer Transportation Institute Students

Warren S. Whitlock, the Associate Administrator for Civil Rights at FHWA came to Vermont for the final day of the National Summer Transportation Institute (NSTI). He facilitated a discussion for the 22 high schools students who were completing their two weeks of experiential education in transportation systems and careers, and provided closing comments after the students presented their final projects.

Hosted on the UVM campus from July 29-August 10, 2012 the Vermont NSTI provided high school students an overview of the transportation field, exploring aviation, maritime, highway, rail, transit, and community design for bike/ped infrastructure. The students met and worked with professionals from multiple fields and participated in a curriculum that show cased transportation applications in math, science, history and language arts. Students produced final projects that included writing about the field and produced short video presentations about their experience and learning.

The National Summer Transportation Institute (NSTI) has been hosted by the UVM Transportation Research Center for the past three years in partnership with the Vermont Agency of Transportation. It is an initiative of USDOT/FHWA that supports institute at close to 70 colleges across the county, introducing secondary school students to all modes of transportation careers and encouraging them to pursue transportation-related courses of study at the college/university level.

For more on the history and structure of the national initiative see:

<http://www.fhwa.dot.gov/civilrights/programs/nsti.htm>

Warren Whitlock began his tenure at the Federal Highway Administration (FHWA) in September 2011. In this capacity, Mr. Whitlock provides national leadership in the development and implementation of FHWA's civil rights initiatives, and establishes systems to monitor and measure the adequacy, impact, and effectiveness of programs. In previous position he has also served as the Director of the Office of Civil Rights at the New York State Department of Transportation (NYSDOT), the Director of Construction Coordination for Columbia University, where he also directed the development of a successful minority, women and local business enterprise (MWLBE) initiative which, achieved arguably the highest minority, women, and business enterprise (MWBE) utilization of any peer institution in the United States. He also created Columbia's MWBE mentor program with the City of New York and leading construction industry stakeholders.

To learn more about our center, please visit the UVM TRC at uvm.edu/trc

“Like” us on Facebook at facebook.com/uvmtransctr

Transportation Research Center | 210 Colchester Avenue | Farrell Hall | Burlington | VT | 05405

