TRC Scholar Highlight

Phoebe Spencer is a Transportation Research Scholar at the UVM TRC and a first year MS student in Community Development and Applied Economics. At the TRC, she works with Richard Watts and Louis Vivone exploring the social aspects of bicycle use. This team focuses on providing qualitative analyses of bicycle culture in a field that is often dominated by quantitative research. This year, Phoebe is focusing on the links between cycling and quality of life, as well as concerns of bike commuters in Vermont. This work will be used as a basis for her thesis project as well.

Phoebe was introduced to the transportation field through two summers as an archaeology intern at the Vermont Department of Transportation. She has also volunteered and worked for the Greater Burlington YMCA, participating in numerous service learning and leadership projects. Prior to her work at the TRC, she held a position at the Institute for Health and Social Policy in Montreal researching international child labor policies. Her academic interests include auto-motorized transportation systems, public transit, spatial analysis, and public health. Phoebe’s long-term goal is to promote healthier communities in Vermont.

Phoebe graduated from McGill University with a BA in Anthropology and Geography in 2011. Her Honours thesis was a spatial analysis of the spreading of historic fires in Montreal from 1845 to 1880. While at McGill, she was a member of the Flint-knappers’ Club and played bass in a cover band, Megalith. She is also a native Vermonter who enjoys skiing and hiking.

TRC Research at the 91st TRB Annual Meeting

The Transportation Research Board (TRB) Annual Meeting held in Washington, D.C. each year is the largest annual gathering of transportation professionals from around the world. This year’s meeting expects to attract more than 4,000 presenters with approximately 650 workshops or sessions that cover all modes of transportation. Among the presentations by TRC graduate students, associate faculty and staff are the following:

Authors and Presenters Title of Research
Nathan Belz and Brian Lee Composition of Vehicle Occupancy for Journey-to-Work Trips: Evidence of Ridesharing from the 2009 National Household Travel Survey
Jonathan Dovids and James Sullivan Applying a Vehicle-Miles of Travel Calculation Methodology to a County-Wide Calculation of Bicycle and Pedestrian Miles of Travel
Lisa Sallman-Hall, Jاستine Sears, Jonathan Dovids and Paul Hines Travel Demand and Charging Capacity for Electric Vehicles in Rural States: A Vermont Case Study
Justine Sears, Brian S. Flynn, Lisa Aultman-Hall, and Greg S. Hines To Bike or Not to Bike: Seasonal Factors For Bicycle Commuting
George X. Lu, James Sullivan, and Austin Troy Impact of Ambient Built-Environment Attributes on Sustainable Travel Modes: A Geospatial Analysis of Chittenden County, Vermont
Jane Kolodinsky, David Poppin, Erin Roche, Thomas De Sisto, William Saxeve, and Matthew Putnam A Structural Equation Modelling Approach to Measure the Effect of Mobility on Quality of Life in a Northern Rural Climate

The Very Hungry City

TRC Director Austin Troy has recently authored a new book titled The Very Hungry City, to be released by Yale University Press in January 2012. The Very Hungry City looks at the concept of “urban energy metabolism,” or the efficiency with which cities use energy to meet their basic functions – from heating and powering buildings, to transporting goods and people, to providing water. Troy contends that, while urban energy efficiency has traditionally been an environmental concern, it’s about to become an economic one. With oil production peaking, constraints on other sources of fossil fuels, the possibility of greenhouse gas regulations, and big challenges to scaling up alternative sources of power, the growing consensus is that energy is going to be a lot more expensive in the future, perhaps ineluctably. As energy prices climb, urban energy metabolism will go from being just an environmental virtue to a core determinant of urban economic competitiveness. Efficient cities, those that are laid out and planned well, have efficient transportation systems, have a good mix of land use, and have efficient and well-designed building stock, will have a significant competitive advantage in attracting firms, employment and investment over those with a poor metabolism. Some cities will be able to adapt quickly, but others will face significant hurdles—particularly cities that are car-dependent, sprawling, low density, dominated by inefficient buildings, and located in energy-intensive climate zones.

The Very Hungry City is a readable analysis about why it makes sense to plan for our future now and that “Smart Growth” does not mean ‘no growth’. At a time when energy and environmental issues are being hotly debated in Congress, the author uses economics to make the case for sustainable development and, hopefully, will inform policy makers now, when it counts.

Christine Todd Whitman, former Governor of New Jersey and Administrator of the EPA

Dr. Austin Troy Enters New Role

Five years ago when I learned that the University of Vermont was planning to create a Transportation Research Center (TRC) from a US DOT National University Transportation Center (UTC) grant, I was thrilled. That year brings me back to this exciting new role.

Before becoming Director, I was an Assistant Professor in the Department of Civil and Environmental Engineering at the University of New Hampshire. Under the leadership of my mentor, Dr. Lisa Aultman-Hall, my team and I focused on the intersection between transportation and land use. This work is always a lot more than just transportation research. It involves working with communities, with policy makers, and with educators to make our work relevant and useful.

When I arrived at the TRC at the end of 2007, my team was established and hits the ground running, including Drs. Glenn Thomas and Lisa Aultman-Hall. As a team, we are focused on making the TRC a place where transportation research is truly at the forefront of our work.

Moving forward, my main goals are to continue to strengthen the TRC and build on the success we have had already. That includes creating new partnerships, expanding our research portfolio, and continuing to connect with our field.

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NETC Coordinator Amanda Hanaway-Corrente

T he UVM TRC was awarded $3 million by the State of Vermont to provide grant management and coordination services on behalf of the New England Transportation Coordination (NETC). The NETC helps New England states meet their special transportation research needs by pooling resources and expertise and is a valuable regional partnership for the identification, prosecution and dissemination of shared research initiatives. Through the NETC, Vermont is able to leverage available research and funding opportunities and regional partnerships, stronger partnerships between university faculty and state DOTs, student-defined diverse research topics and opportunities for research dissemination and training to practitioners in the field.

On December 1st, Amanda Hanaway-Corrente joined the UVM TRC as the NETC Coordinator. Additionally, she will be working closely with the Vermont Agency of Transportation on Research Advisory Council Projects. Amanda has a Bachelor’s of Science in Civil Engineering from the University of Vermont, Masters of Business Administration from the University of Rhode Island, and is licensed as a Professional Engineer in the State of Vermont. She is also Vermont’s 2011 Young Engineer of the Year and has filled several positions including an assistant traffic engineer for the Rhode Island Department of Transportation, transportation staff engineer for Stanbic Consulting Services, and more recently, project manager for Utility Risk Management Corporation. Amanda also served as the 2009-2010 President for the Vermont section of the American Society of Civil Engineers. She is a great addition to the TRC and we are looking forward to having her on our team.

Visit us: uvm.edu/trc transctr@uvm.edu
Former TRC Scholar Visits the TRC

Former TRC Scholar, Russ Mills, Ph.D. visited the TRC on November 7, 2011 to present “Get

Publication of Several Papers Including One with TRC Faculty Adviser, Dr. Christopher Koliba

Dr. Mills lead a roundtable at the TRC. Dr. Mills work as a graduate student at UVM lead to the

Financing and the Current Transportation Funding in the US. Before delivering his presentation,

the Federal Aviation Administration, addressed the political environment of transportation fi

[Image 42x331 to 369x826]

Drs. Richard Watts and Susan Handy

University of Vermont in September

Maddison began pursuing a

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Frame in Media Debates about Tailpipe

2000-2008 and The Technology Fix as a

are framed in the national news media.

[Image 211x46 to 358x156]

The Vermont Transportation Energy Report

The Vermont Transportation Energy Report is a yearly publication of the UVM Transportation Research Center and the Vermont Clean Cities Coalition. The mission of the report is to reduce the state's reliance on fossil fuels for transportation. This annual report is a comprehensive look at transportation energy use and expenditures in the state and provides policy makers with relevant and timely data on topics related to transportation energy use, including levels of fuel consumption, trends in vehicle fleet composition and Vermonters' travel patterns. The State of Vermont Comprehensive Energy Plan uses data from the Vermont Transportation Energy Report for analysis and research recommendations. The large percentage of energy consumed and emissions generated in the transportation sector in Vermont makes it an important policy focus within the state. uvm.edu/trc/work/publications

New Connections for Research and Education

Glen McRae has been named the 2011 Outstanding Student of the Year as a UTC Scholar. Russ Mills, Ph.D. visited the TRC on November 7, 2011 to present “Get

McRae’s energy has been instrumental in building momentum for the UVM TRC during his tenure as director of public policy programs at the Snelling Center for Government. During the past 30 years, McRae has provided leadership in Vermont and nationally in advancing capacity building programs for the nonprofit sector, and has worked globally to reinvigorate organizational and policy initiatives to manage the environmental footprint of the healthcare industry.

[Image 398x490 to 570x601]

Dr. Russ Mills with staff and students at the TRC.

[Image 404x228 to 430x327]

[Image 981x52 to 1203x148]

Electric Vehicles: The Future or Fad?

re electric vehicles (EVs) the future of transportation or merely a fad that ebbs and flows with the price of gasoline? The answer depends on many factors, including social acceptance of

charging vs. refueling, changes in battery technology, and policy incentives. However, one

of the chief factors that could either inhibit or facilitate this transition is the ability of the electric power grid to adapt to new electricity demand associated with electric vehicles.

A

few years ago, electric vehicles (EVs) that can charge at home began to make headlines. As the technology developed, so did the expectations for its potential impact on the environment (particularly in warm climates), but has it been able to attract the support of car buyers? The answer is yes, and one reason for this is the recent surge in interest in EVs, in part due to government incentives and mandates. However, there are still some challenges that need to be overcome, such as improving the charging infrastructure and increasing public awareness of the benefits of EVs. In response to these challenges, there have been significant advancements in the technology and infrastructure of EVs, leading to increased adoption rates. Despite these positive developments, there are still concerns about the practicality and cost-effectiveness of EVs, particularly in areas with limited charging infrastructure. Additionally, there are ongoing debates about the environmental benefits of EVs, with some arguing that the production and disposal of batteries can have significant environmental impacts.

[Image 848x52 to 1070x148]

[Image 1118x52 to 1340x148]

[Image 1518x52 to 1740x148]