Program Progress Performance Report for University Transportation Center at

Portland State University

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Project Title:	University Transportation Center National Institute for Transportation and Communities (NITC) *Consortia members: Portland State University (PSU), University of Oregon (UO), Oregon Institute of Technology (OIT), University of Utah (UU)*
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Signature:	

1. ACCOMPLISHMENTS: What was done? What was learned?

The information provided in this section allows the RITA grants official to assess whether satisfactory progress has been made during the reporting period.

What are the major goals of the program?

The major goals for NITC as described in our application fall into five categories:

Research

- **Competitive, peer-review project selection process.** NITC projects are to be selected through an open RFP process. All faculty at the member campuses, as well as approved Faculty Associates, will be eligible to submit research, education and technology transfer project proposals responsive to our theme. The proposal evaluation process will emphasize external peer review and draw on the expertise of practitioners and researchers nationally.

- **Transportation for Livable Communities Pooled-fund research.** To help maximize implementation of U.S. DOT's commitment to livable communities, NITC's Transportation for Livable Communities Pooled-Fund Research program will provide regional and local agencies, such as metropolitan planning organizations and municipalities, more opportunity to be invested in research

- **Transportation Data for Livable Communities.** This initiative aims to create a model for data collection, management and dissemination that will foster the wider, national use of data resources collected on a local level.

- **Engaging Citizen Leaders.** This initiative will expand NITC's scope of work to reach a wide range of current and future transportation leaders. We will accomplish this in two ways. First, our competitive RFP process will include a score for community engagement; this will result in projects that achieve the first two goals. Second, we will set aside $70,000 for projects that specifically target creating community leaders among the general public (not university students) and where community leadership is the *primary* objective, not a secondary or complementary objective to a larger research project.

Leadership

- **Shape national & international conversations on transportation research and education**. NITC faculty are well regarded nationally and internationally as leaders in their fields. They will continue to demonstrate this leadership through publishing in the top journals and presenting their work at conferences. NITC will take the concept of leadership far beyond academic circles, as evidenced by the wide

dissemination of research results in professional, technical and general publications and other media.

- **Serve on national committees and panels.** NITC faculty help address national transportation problems through volunteer leadership on TRB committees and in other positions, including journal editorial boards, national and international conference organizing committees, NSF panels, and other advisory boards. To continue and reinforce this practice, NITC will mentor our new, junior faculty to apply for committee and panel membership and recognize the activities of all faculty members.

- **Respond to needs of practitioners and policymakers.** NITC researchers have a long history of conducting research that is useful in solving the problems practitioners and decision-makers face every day. Our theme and project selection process will ensure that our research continues to address our nation's transportation problems. NITC's Director and staff will serve as points of contact for agency leaders and policymakers both regionally, statewide and nationally. When we identify needs that match the expertise of our researchers, we will make a connection. We will work with key staff at the DOT administrations (FHWA, FTA, etc.), both in Washington, D.C., and within the region, whose work relates to our theme to determine the most effective way for our researchers to learn from and inform agency activities.

Education and Workforce

- **Offer degrees and courses in multiple disciplines.** NITC will continue to offer a rich array of degrees that serve the transportation profession.

- **Provide experiential learning.** A key component of our education strategy is experiential learning, which will help attract and retain students. Our campuses will continue to provide these opportunities, and NITC will seek ways to expand them.

- **Attract and support undergraduate students.** NITC will build upon existing and effective mechanisms to expose K-12 students to transportation, attract and retain new undergraduate students to our degree programs, and involve undergraduates in our research.

- **Attract and support graduate students.** NITC will support graduate students directly through the following: Research assistantships working on projects; Dissertation fellowships for students to carry out research on surface transportation topics that fit under the NITC theme; Funds for scholarships at each campus to recruit new and retain existing high-performing students; and Funds for transportation student group activities.

- **Sponsor a student conference.** NITC will host a national student conference focusing on our theme.

- **Educate professionals.** NITC will maintain a vibrant program of seminars, workshops, professional courses and other training opportunities that provide transportation practitioners with the latest tools and techniques.

Technology Transfer

- Move research into practice. Moving research into practice first requires research findings that are relevant to practice. Our competitive project selection process will help ensure that we select projects that have direct implications for practitioners in the short- or long-term. In addition, we will use practitioners to help inform projects after selection and review final products. Additional efforts will include short workshops to share research results, one-page research briefs, presenting work at conferences aimed at practitioners, holding one-day conferences, funding technology transfer projects, and encouraging the commercial application of research results when possible.

- **Inform researchers.** The quality of scientific inquiry depends upon researchers sharing their findings with other researchers through the peer-review publication processes. Fellow researchers are important targets for our technology transfer program. We will accomplish this through two primary activities. First, NITC's faculty will continue to publish extensively in peer-reviewed journals. Second, OUTREC will support our faculty in presenting their work at nationally recognized academic conferences by including travel funds for each project.

- **Use innovative technologies to communicate research results.** NITC will embark on an ambitious program of sharing information through traditional and new media.

Collaboration

- **Collaborating within our consortium.** NITC's governance structure is cooperative and leadership is distributed. The Executive Committee includes one faculty member from each campus. The Executive Committee provides overall direction for the Center, makes project funding decisions, and selects Center award recipients, including student of the year. They will meet in person at least twice a year, rotating the location between campuses, and hold regular conference calls. Each Executive Committee member will be responsible for representing and supporting their respective campus

- **External collaboration.** In addition to the partnerships that occur through individual projects and the pooled-fund program, NITC will foster collaboration with a range of "end-users" of our work through an External Advisory Board.

What was accomplished under these goals?

Research

- **Competitive, peer-review project selection process.**
  During the previous reporting period, the Executive Committee selected nineteen projects selected by the through its competitive, peer-review process. US DOT/UTC funding for those projects totals $1.97 million. One of those projects has been delayed because the principal investigator left the university. PIs are reporting progress through an on-line system. The 18 active projects started in the fall and are, on average, 60% complete as of June 30, 2013.

  During this reporting period, we issued the RFP for the next round of projects, with applications due in September 2013.

- **Transportation for Livable Communities Pooled-fund research.**
  We are currently soliciting applications from partners for this research fund.

- **Transportation Data for Livable Communities.**
  Two projects among those selected focus on data: (1) Continuous Data Integration for Land Use and Transportation Planning and Modeling; and (2) Application of Interactive Video Sensing and Management for Pedestrian and Bicycle Safety Studies. Both projects are about half complete.

  In addition, with match funding, we hired a post-doctoral researcher (Dr. Krista Nordback) whose work will focus on non-motorized data. She started during this reporting period and is working with local partners in Oregon and Washington to improve pedestrian and bicycle data collection methods, including validation. She has also worked with PSU and the Oregon Department of Transportation on a proposal to archive these data in an on-line, web-based database.

- **Engaging Citizen Leaders.** We funded one proposal for this program through the RFP process: Transportation Leadership Education . This is the project that has been delayed due to a the PI leaving the university. During the next reporting period, we hope to find another PI to complete the project. In addition, our programmatic scoring criteria gave higher points to projects that actively engaged external partners and addressed equity and diversity issues. Partly as a result, three of our funded projects focus on equity: (1) Understanding the Transit-Dependent Population; (2) Assessing Transit Fare Equity in Utah Using a Geographic Information System; and (3) Latino

Immigrant Communities and Equity in Transit Oriented Development. Those projects are at least 50% complete.

Leadership

- **Shape national & international conversations on transportation research and education.**
  NITC staff attended and actively participated in Annual Meeting of the Transportation Research Board, including many standing committee meetings. Dr. Marc Schlossberg presented at RITA's Transportation Innovation Series on the Sustainable Cities Initiative. NITC Director Jennifer Dill shared the impact of the UTC program during a meeting with Jay Williams and Tom Kelly from the White House Office of Recovery for Auto Communities and Workers. Dr. Dill also participated in a workshop sponsored by the CDC and US DOT on developing a Transportation and Health Tool. We also hosted a meeting with Jeremy Raw, FHWA, and researchers at PSU to discuss non-motorized modeling efforts nationally

- **Serve on national committees and panels.**
  Faculty members and students at the four NITC member campuses currently serve on 26 TRB committees/task forces and ten NCHRP/SHRP2/NCFRP panels.

- **Respond to needs of practitioners and policymakers.**
  The Pooled Fund process is designed to respond to the research needs of transportation agencies not currently part of the AASHTO/NCHRP process – MPOs and local governments. We are soliciting research ideas from these organizations for this funding source.

Education and Workforce

- **Offer degrees and courses in multiple disciplines.**
  The four NITC campuses continue to offer 18 degrees in transportation and closely related fields.

- **Provide experiential learning.**
  Our campuses continue to incorporate community partners in a number of courses. Examples during this reporting period include the following:

  Graduate students in PSU's Planning Methods course continued to partner with the City of Portland to help plan for a new bikeway. Students conducted bicycle counts, developed and implemented an intercept survey, interviewed residents and businesses along the corridor, and analyzed demographic data along the corridor to help ensure an equitable public participation process. The data and findings from these assignments were provided to the City for their use.

Students who graduate from PSU's Master's in Urban and Regional Planning (MURP) program spend the last two terms of their program collaborating on workshop projects, completing planning tasks for local clients or business organizations. Six groups completed projects in Spring 2013; some of the projects were transportation-focused, especially one titled "Lombard Re-Imagined" where students developed a plan to improve Lombard Street, a key transportation corridor in North Portland.
http://otrec.us/news/entry/psu_planning_students_re_imagine_lombard_street

Students from a PSU civil engineering transportation safety analysis course formed six groups, each studying a piece of the Beaverton-Hillsdale Highway, pegged as one of Portland's high-crash corridors. The students presented their findings and recommendations during the course's open house March 19. The presentation drew officials from local agencies interested in improving corridor safety, including the city of Portland, the TriMet transit agency and the Metro regional government.
http://otrec.us/news/entry/student_engineers_plan_for_a_safer_beaverton_hillsdale_highway

Students in a NITC-funded class at the University of Oregon on sustainable transportation worked on several community-based projects. At the beginning of the course, students were given the opportunity to choose from a list of possible topics for their research. The six topics were: Reduction in Eugene Gas & Diesel Consumption, Impacts of Bicycling on the Eugene Economy, Eugene Development Requirements for Parking, University of Oregon Transportation Strategies and Goals, Bike Sharing Expansion Feasibility Study, and Pay-As-You-Drive Car Insurance. As a result, a bike share feasibility study is being used as a funding document for the City of Eugene. The "Pay as You Go" project is being used by the University's Human Resources Office as guidance for exploring an insurance program for university employees. The UO commuter survey has been incorporated into the University's Climate Action Plan.
http://otrec.us/news/entry/sustainable_transportation_class_at_university_of_oregon_is_a_success
http://olis.uoregon.edu/node/41

- **Attract and support undergraduate and graduate students.**

  During the previous reporting period, we solicited applications for funding to support **undergraduate students in research projects**. During this period, we made the awards, resulting in adding four undergraduate students to research projects.

  We awarded four **dissertation fellowships**:
  Susan Petheram, a Ph.D. candidate in the Metropolitan Planning, Policy, & Design

program at the University of Utah. Petheram's research focuses on the integration of transportation and land use, and on building healthy communities through transit access. Her dissertation research involves evaluating some of the effects of the light rail system in Salt Lake County.
Calvin Tribby, a Ph.D. candidate in the Geography Department at the University of Utah. His research focuses primarily on active transportation. While examining the influences of the built environment on people's travel mode choices, he also takes a look at the social context and perceptions revolving around active transportation modes.
Gail Meakins, Ph.D. candidate in the Metropolitan Planning, Policy, & Design program at the University of Utah. Meakins' research focuses on the relationship between where we live and the level of physical health we enjoy
Sirisha Kothuri, Ph.D. candidate in Civil and Environmental Engineering at Portland State University. Kothuri's research focuses on pedestrian signal timing.

Each campus provided support to students through their **NITC scholars program**. Each student who receives a NITC scholarship must have a primary purpose for the funding and that purpose must yield a discernible (and reportable) outcome that pertains to NITC's mission. Common examples include: professional development, independent research and campus leadership. OIT and UO each awarded six scholarships during this reporting period. PSU awarded 23 (including some supported via OTREC funds). UU's scholars program is organized through the student group, Point B, which organized the scholarship competition over winter break. The University student body was notified through email lists and flyers. The requirement for scholarships was a viable research proposal on a transportation related issue. In January 2013, seven scholarships, ranging from $2000- $5000 were awarded. The research topics focused on the ways that transportation can be used to improve communities. There were scholarships recipients from several different academic fields. Topics ranged from the impacts of the new North Temple TRAX line, to the modes of transportation used by University students. Scholarship recipients were advised to keep track of their progress throughout the semester and report on developments and deliverables at future events. Information about all of the scholars can be found here: http://www.otrec.us/for_students/scholars.

We engaged in two activities to expose **K-12 students** to transportation. First, PSU hosted a group of sixth graders from New York to learn about active transportation research. http://otrec.us/news/entry/new_york_sixth_graders_get_hands_on_experience_with_active_transportation_d. Second, a PSU graduate student and NITC's program manager (Jon Makler) guest taught some algebra classes at Cleveland High as part of National Engineering Month. Students learned that their school sits at the heart of pioneering transportation research. The school is at the corner of Southeast 26th Avenue and Powell Boulevard, a corridor in

which a variety of advanced traffic management technologies have been installed. This is the third year of volunteering for Makler, who developed a lesson plan that describes the many ways that transportation relies on STEM skills, including engineering. After watching helmet cam footage of biking in downtown Portland, students used basic algebra to learn about how traffic signals are timed to make streets safe and efficient for people in cars, on bike or on foot
http://otrec.us/news/entry/portland_high_schoolers_find_themselves_at_the_center_of_the_traffic_manage

Student groups were active on each campus.

At the University of Utah, a new, interdisciplinary group formed as a result of NITC called Point B, the University of Utah Student Transportation Group. The group is working closely with the local Women's Transportation Seminar chapter. It is an interdisplinary group aimed at creating a forum for discussion on all transportation related issues and providing professional opportunities.

In March, Point B hosted a talk by James May of WAVE Technologies on the topic of the upcoming electric bus project on campus. May presented on the new bus technology pioneered by Utah State University laboratories. He discussed the timeline of the project, budget and the environmental issues involved with implementation. Twelve University of Utah students attended, and a long and in depth question and answer session enriched the event.

April saw the launch of Salt Lake City's new bike share program, the Green Bike program. Numerous Point B members and some officers have worked closely with the City's Transportation team and as a result Point B subsidized the attendance of four members at the kickoff gala for the program. It was a great opportunity for members to network with Chamber of Commerce and Department of Economic development employees, learn more about the field and access promotional materials in order to promote the Green Bike program among University of Utah students. Point B members produced a short film on the event with interviews from participants.

During the second week of April, Point B sent seven students to the American Planning Association conference in Chicago, Illinois. Point B provided stipends for airfare, membership and registration for students to attend this nationally recognized educational and networking event. Students attended seminars and lectures and had a chance to work on their resumes and meet important professionals within the field as well as highly involved student peers.

At the end of April, Point B participated in two tabling events on the University of Utah campus: the Grand Kerfuffle concert and Earth Week. Both were critical publicity opportunities to increase membership, hand out bike maps bike maps, and create presence at the University. Additionally, Point B was able to ally with other students groups in attendance that pursue congruent transportation and sustainability dialogues with more environmental motives. Critical connections and partnerships were sowed and will be pursued in coming years.

The academic year commenced with a wonderful WTS end of year gala at the Gallivan Center downtown. About fifty WTS member professional and six Point B members were in attendance. It was a fun opportunity to meet more WTS members, have Point B scholarship winners present their research, and interact with a prestigious professional community. Additionally it was the first official meeting between WTS board members and Point B team.

The year's final partnership with WTS was the Transportation You Youth Summit at the end of May. The Transportation Summit focused on educating middle school girls in fields of science and technology through a multidimensional study of the new Sugarhouse Streetcar project. Point B members (4) assisted with assembling treat bags, organizing the event and mentoring girls throughout the half day program. A total of 42 girls were in attendance. Mentors assisted in explaining the various professions that contributed to the creation of the new Sugarhouse streetcar. Point B officers helped in guiding 6th-8th grade female students through the hands on activities that provided insight and application on topics like engineering, planning, and TRAX operations.

At the end of the month of May, Salt Lake City hosted the Congress for New Urbanism 2013 National Conference. The availability of cutting edge planning professionals and knowledge sharing within our community provided an excellent opportunity for planning students in the group. Point B provided CNU memberships and registration to four Point B students.

At Portland State University, STEP (Students in Transportation Engineering and Planning) continued activities involving about 50 graduate and undergraduate students in Civil and Environmental Engineering, Urban Studies and Planning, and Public Health. Activities during this reporting period included a tour of the Moody Street cycle track with project engineers from DKS Associates, a lecture by Jarrett Walker on transit, and the TRB Aftershock event described below. In addition, STEP provided partial travel support for 30 students attending and presenting at the TRB Annual Meeting in January 2013.

The student group at OIT is also the ITE student chapter. Students boosted their knowledge of sustainable pavement on a conference field trip and brought what they learned back to fellow engineering students on their Klamath Falls campus. With assistance from the student group, four students attended the Oregon Asphalt Conference in Eugene March 5. The Oregon Tech students were especially interested in hearing about advances in warm-mix asphalt and RAP (reclaimed asphalt pavement). After returning to campus, the students shared their experiences with students enrolled in Oregon Tech's Civil Engineering 573 Transportation and Land Development class.

LiveMove is the student group at UO. Students in that group have spent the 2012-2013 academic year conducting a study for the 13th Avenue corridor. Thousands of University of Oregon students use the 13th Avenue corridor in Eugene reach campus largely by bus, bike and foot, yet the return journey from campus to downtown cannot be made along the same route. The land uses adjacent to 13th Avenue are transforming to support an improving downtown and a growing campus, but the roadway is not adapting to these changes, but the roadway has not yet adapted to these changes, causing concerns about safety and undermining economic potential that should be of major interest to the City of Eugene and the University of Oregon given its policies to support sustainable transportation, urban revitalization.

LiveMove also hosted the following speaker events during this reporting period:
April Economides, Green Octopus Consulting and General Manager of Bike Nation's Long Beach bike share program: 60 people at talk (30 students); 30 at workshop (5 students)
Elly Blue/April Streeter: 15 (10 students)
Ralph Buehler, Ph.D. Virginia Tech.: 40 at talk (15 students); 8 at workshop (1 student)

- **Sponsor a student conference.**
  No activity during this reporting period. We are working with the Region X UTC on a regional student conference that will take place this fall.

- **Educate professionals.**
  The scoring criteria for the projects funded included an assessment of the technology transfer plan proposed by the PI. Even without projects completed, our PIs made six presentations about NITC projects at conferences that included a professional audience, along with academic researchers, reaching approximately 700 people.

  PSU hosts a weekly transportation seminar that is open to professionals. During winter and spring terms the 20 seminars attracted about 200 attendees in person who were not enrolled students.

Because not everyone can make it to the TRB Annual Meeting in Washington DC, PSU student group (STEP) and NITC organized a "TRB Aftershock" event locally, where students shared their TRB presentations with local professionals.

The Oregon Institute of Technology sponsored a seminar by the head of the Asphalt Pavement Association of Oregon, Jim Huddleston at Oregon Tech's Klamath Falls campus. The seminar drew 45 people, including students, faculty and professionals from local consulting engineering firms.

David Timm, P.E., the Brasfield & Gorrie Professor of Civil Engineering at Auburn University, traveled to Oregon in mid-March as part of the NITC Visiting Scholar program. Timm is recognized nationally and internationally as a leading expert in the field of perpetual pavement, a sustainable approach to pavement design. The visit, arranged by Oregon Tech's NITC Executive Committee member Roger Lindgren, started with a March 13 PerRoad workshop in Salem. The workshop was attended by designers from industry and from the Oregon Department of Transportation (ODOT). On March 14, Timm led another PerRoad workshop on the campus of Oregon Institute of Technology in Klamath Falls. Following the workshop was a presentation, focusing on perpetual pavement design and the advancements being made at Auburn's National Center for Asphalt Technology (NCAT). The Klamath Falls workshop was attended by 14 engineers and engineering students, with 53 people attending the presentation afterward.

The Point B student group at UU worked with Salt Lake City and numerous local bike shops to present April Economides, the nation's leading expert on Bicycle Friendly Business Districts, to give a talk at Salt Lake City Public Library. University of Utah students, all Point B officers, visiting professionals in town for CNU, various city officials, and everyday citizens were all in attendance. Economides gave a talk on the topic of how to increase bicycle ridership and how create bicycle districts in cities around the United States. Economides who is responsible for creating bicycle business districts in numerous cities used case studies from San Diego, Long Beach, Seattle and other various cities on how low budget projects can have widespread success in expanding the ridership base. Since then, Salt Lake City has begun working on plans to create BFBDs throughout the city. These plans were directly influenced by the Economdies talk and are already apparent around the city.

Technology Transfer

- **Move research into practice.**
  Because our research is still in progress, it is too early to report moving it into practice. Now that the projects are underway, our Communications Director meets with each PI

to develop a communications/technology transfer plan. Furthermore, PIs must find the 100% matching funds for their proposal. This often involves support from an external partner who will be one end-user for the research. One of our on-going projects is a technology transfer project: Making Streets into Complete Streets: An Evidence Based Design Manual. This project draws upon research from previous OTREC projects, as well as other research.

- **Inform researchers.**
  The technology transfer section of each proposal includes ideas from the PI on how they will share results with other researchers. During this reporting period, our PIs made six presentations about NITC projects at conferences that included researchers, reaching approximately 700 people.

- **Use innovative technologies to communicate research results.**
  We continue to work on our website architecture and a new content management system for NITC that works with the OTREC site. While we do not have any NITC research results to share yet, we continue to sponsor a weekly transportation seminar that is webcast and archived. We also tested a new format for a webinar, using a live, on-camera interview format, rather than just powerpoint slides. The subject of the webinar was a research project funded under OTREC. We expect take what we learned from this experience, including the feedback from viewers, to develop NITC webinars in the future.

Collaboration

- **Collaborating within our consortium.**
  The Executive Committee of NITC met via conference calls during the reporting period and in person at the TRB Annual Meeting. Two of the selected projects involve collaboration between PIs at two or more of our universities.

- **External collaboration.**
  We continue to collaborate with members of our Advisory Board, representing the following external organizations: Federal Transit Administration; CUTR, University of South Florida; City of Portland; FHWA (ex-officio); Bend MPO; US EPA; AASHTO; Cambridge Systematics; Portland Metro; League of Oregon Cities; Salt Lake City; Utah DOT; Kittelson & Associates; Wasatch Front Regional Council; TriMet; AARP; Oregon DOT; Washington State DOT; Urban Institute; Seattle Childrens' Hospital; Lane Transit District; INRIX; PacTrans, University of Washington; and RAND. In addition, several external partners have been involved in our experiential learning programs, as described above.

  PSU worked with the local ITE chapter to host Gene Hawkins, Texas Transportation

Institute, to talk about the future of the Manual on Uniform Traffic Control Devices. In addition to speaking on campus, Hawkins spoke at the chapter's technical meeting.

How have the results been disseminated?

NITC projects started in August/September 2013, so there are very few results to disseminate yet. Our PIs did make six presentations on preliminary results at conferences, reaching approximately 700 people.

What do you plan to do during the next reporting period to accomplish the goals?

Expected highlights for the next quarterly reporting period include:

- Select project(s) for the Pooled Fund.
- Select projects from new RFP, including small starts projects.
- Continue to develop communications/technology transfer plans for NITC-funded projects.
- Additional research findings from some projects.
- Start collaboration with WTS on education project involving middle school girls.

2. PRODUCTS: What has the program produced?

Publications, conference papers, and presentations

- Three peer-reviewed journal articles are in press, in addition to one paper in a conference proceedings
- Six presentations.

Website(s) or other Internet site(s)

The NITC website is located here: http://otrec.us/NITC.

Technologies or techniques

Nothing new to report for this period.

Inventions, patent applications, and/or licenses

Nothing to report for this period.

Other products

Nothing to report for this period.

3. PARTICIPANTS & OTHER COLLABORATING ORGANIZATIONS: Who has been involved?

What organizations have been involved as partners?

The members of the consortium include Portland State University, University of Oregon, Oregon Institute of Technology, and University of Utah. Each NITC-funded project is required to have 100% match. The organizations providing match appear in Table 1

Table 1: Partner Organizations

Match Partner	Type	a l	d S	l l i t	a t i v	l E
Bike Belong	Non-profit/Foundation	X				
City of Austin, TX	Local government		X			
City of Portland	Local government		X		X	
Conscious Commuter	Private industry		X			
Drive Oregon	Non-profit/Foundation	X				
Intel	Private industry		X			
KersTech Vehicle Systems	Private industry		X			
Metro	Regional government		X		X	
Mountainlands Association of Governments	Regional government		X		X	
Oregon Department of Transportation	State DOT	X	X		X	X
Oregon Institute of Technology	University		X			
Oregon Leadership in Sustainability (UO)	University	X				
Portland State University	University	X	X			
Robert Wood Johnson Foundation	Non-profit/Foundation		X			
Rowell Brokaw Architects	Private industry	X	X		X	
Salt Lake County	Local government	X				
SFMTA | Municipal Transportation Agency	Local government		X			
Sustainable Cities Initiative (UO)	University	X				
TriMet	Transit agency	X	X		X	
University of Minnesota	University	X				
University of North Carolina, Chapel Hill	University		X			
University of Oregon (UO)	University	X	X			
University of Utah	University	X	X			
Utah Transit Authority	Transit agency	X	X		X	
Wasatch Front Regional Council	Regional government	X				

Have other collaborators or contacts been involved?

See events reported above.

4. IMPACT: What is the impact of the program? How has it contributed to transportation education, research, and technology transfer?

What is the impact on the development of the principal discipline(s) of the program?

The University of Oregon added a new graduate level course, Sustainable Transportation, during this reporting period. The course began January 7th, 2013 with 20 graduate students enrolled.

What is the impact on other disciplines?

Ten of our projects involve researchers from multiple disciplines. Examples of disciplines include chemistry, behavioral economics, mechanical engineering, and computer systems engineering. The newly-formed student group at the University of Utah includes student from multiple disciplines, including engineering, planning, and geography. The existing PSU, UO, OIT student groups also draw upon multiple disciplines.

What is the impact on the development of transportation workforce development?

By supporting students through the funded research projects, scholars program, and the student groups, we are expanding the number of students interested in transportation as a career and exposing them to the interesting and rewarding aspects of how transportation can help create livable communities. Through our reporting process, we are collecting the names and contact information of all students supporting through these programs. Therefore, we will be able to track their experience after graduation.

By bringing speakers to each campus from outside the community for seminars and other events, we are educating both the future (students) and current (local professionals) workforce and exposing them to new ideas and approaches.

What is the impact on physical, institutional, and information resources at the university or other partner institutions?

Nothing to Report for this period.

What is the impact on technology transfer?

Because we have not completed any research projects yet, we cannot yet measure the impacts of our efforts to disseminate our research through various technology transfer efforts. We do plan to increase our use of webinars to highlight and share our research findings over the next year. We have also implemented a system on our website to track who downloads our reports and survey those users regarding the usefulness and impacts of the research on their work.

What is the impact on society beyond science and technology?

We expect that our research and education programs will positively affect the livability of communities nationally, and particularly in Oregon and Utah. We will document these impacts in the future.

5. CHANGES/PROBLEMS

Changes in approach and reasons for change

Nothing to Report for this period.

Actual or anticipated problems or delays and actions or plans to resolve them

We have one project, as noted above, that is behind schedule because of a PI leaving the university. We are looking for a new PI.

Changes that have a significant impact on expenditures

Nothing to Report for this period.

Significant changes in use or care of human subjects, vertebrate animals, and/or biohazards

Nothing to Report for this period.

Change of primary performance site location from that originally proposed

Nothing to Report for this period.

Additional information regarding Products and Impacts

Nothing to Report for this period.