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<b>Signature of Submitting Official</b>	

## Accomplishments

### What are the major goals of the program?

The Pacific Southwest Region University Transportation Center (PSR) addresses the transportation issues of Region 9 through an integrated, multidisciplinary program of research, education, and technology transfer aimed at FAST Act research priority area 1: improving the mobility of people and goods throughout the region. The goal of PSR is to improve passenger and freight transportation throughout Region 9.

We have assembled a consortium of universities and community colleges that, together with partnerships with state Departments of Transportation (DOTs), Metropolitan Planning Organizations (MPOs), and industry leaders, forms a comprehensive, region-wide network. The University of Southern California (USC) leads the consortium. Partners include California State University, Long Beach (CSULB); University of California, Davis (UCD), University of California, Irvine (UCI); University of California, Los Angeles (UCLA); University of Hawai'i at Manoa (UH); Northern Arizona University (NAU); and Pima Community College (Pima).

The regional UTC must reach beyond the consortium, offering connections to all transport stakeholders within the region. In order to fulfill its goal, the PSR will:

- Establish a region-wide advisory council of government, academic, and industry leaders to provide guidance on all aspects of the center's activities
- Execute a research program informed by the needs of the region
- Establish a web-based clearinghouse for degree and non-degree curricula
- Develop training and workforce development programs transferable across the region
- Hold an annual Region 9 Congress to share research and best practices
- Conduct a comprehensive program of information dissemination, technical assistance, and communications.

### What was accomplished under these goals?

#### Administrative Accomplishments

Our main accomplishment for this reporting period is the setting up of the new center. The PI and several Co-PIs had a first meeting during the January 2017 TRB conference, where we discussed the process for setting up subcontracts, the RFP process, and match funding opportunities. The first Executive Committee meeting was held via conference call on March 14, 2017, and an in-person all day launch meeting was held at USC on April 17, 2017. The following has been accomplished:

- We hired a full-time grants administrator (Douglas Feldman), and Victoria Deguzman was promoted to Associate Director. Douglas is responsible for all PSR reporting and research administration. Victoria has responsibility for administrative management of PSR, as well as for all student programs.

- UCLA Institute of Transportation Studies (ITS) began the hiring process for two staff positions: Communications Manager and Data and Systems Manager. The application process for these positions did not begin in this reporting period. These positions are expected to begin in August 2017
- Subcontracts with all seven partners have been set up for DOT funds.
- We held a one-day launch meeting of executive committee members and staff. The meeting had multiple purposes: 1) introduce consortium members to USC staff and the budgeting process; 2) discuss reporting requirements and processes; 3) discuss match funding policy and opportunities; 4) review draft policy guidelines for research funding; 5) identify members for the Advisory Committee; 6) establish method for social media and news information exchange; 7) review education, workforce development, diversity, and tech transfer commitments; 8) identify date and hosting for first Annual Congress.
- Policies have been developed for the membership, role and responsibilities of the PSR Executive Committee.
- Given the diversity and complexity of the consortium partners, written policy guidelines were developed for research funding, including the RFP process, research selection, and student funding. Guidelines were approved at the launch meeting.

Our research, education, and technology transfer accomplishments are presented in the following sections of the report.

## Research Accomplishments

The role of a regional center is to address regional issues and provide public policy advisement, technical assistance to state and local agencies, and innovative workforce development strategies. We have developed our multi-modal, multi-disciplinary program of research that is organized around four themes that are derived from the transportation needs assessment conducted during the proposal preparation process.

## Research Themes

### Theme 1: Technology for Improved Mobility

We are on the threshold of a largely unforeseen technological and social transformation in connectivity, automation, and the sharing economy that promises to revolutionize travel in our region and beyond. This theme explores technology solutions for improving mobility for both passengers and freight. Our Theme 1 research program is organized around three topic areas:

- **Technology and mobility (Topic 1-1):** This topic examines emerging technologies and their potential for improving passenger and freight mobility. Innovation is rapid across both passenger and freight modes. Examples include smart parking, dynamic routing, delivery consolidations, and integrated transit fare systems, in addition to the well-known transportation network companies (TNCs). We will examine the potential of these innovations to solve the transport problems of Region 9.
- **Smart infrastructure and vehicles (Topic 1-2):** Technology for connected and autonomous vehicles (CAVs) is advancing rapidly. CAVs for the movement of both passengers and freight

have the potential to dramatically increase safety, capacity utilization, productivity, and system reliability, all while reducing their environmental footprint.

- **Public policy and implementation (Topic 1-3):** This topic explores the role of government in technology implementation and regulation. Research is needed on the role of government in this changing environment. Does government set standards, protocols, and regulations for new shared mobility services and increasingly integrated vehicle-to-infrastructure systems, or does it get out of the way and allow industry groups or even powerful individual corporations to set standards?

## Theme 2: Improving Mobility for Disadvantaged Populations

Research in Theme 2 addresses mobility and accessibility problems of disadvantaged populations. It includes two topic areas:

- **Novel modes for improved mobility and accessibility (Topic 2-1):** We will explore the potential of novel modes, new models of public transport, and new models of private vehicle access to address mobility problems. We will explore ways to avoid a widening divide between shared mobility haves and have-nots.
- **Land use, accessibility, mobility (Topic 2-2):** Addressing the needs of the disadvantaged includes studying relationships between land use and transport with respect to minority and disadvantaged populations. We will examine the impacts of limited accessibility and mobility both in urban and rural areas. We will also explore the role of land use policies in reducing access barriers for underrepresented groups.

## Theme 3: Improving Resilience and Protecting the Environment

Resilience, or the ability to absorb shocks, recover quickly, and adapt to changing social, economic, and environmental conditions is essential to ensuring well-functioning and sustainable communities.

Research in Theme 3 addresses all aspects of environmental protection. It includes three topic areas:

- **Analyzing alternative resilience strategies (Topic 3-1):** More effective resilience strategies can reduce the damages of natural disasters, accidents, or terrorist events. There is a need for research on frameworks to analyze resilience strategies at different geographic scales.
- **Smart technologies (Topic 3-2):** Smart technologies can improve system monitoring. Smart sensing systems, including those powered through solar or power harvesting, can provide the necessary information to monitor the health of systems so that proactive repair and replacement can be dealt with through normal crew duties.
- **Reducing environmental impacts (Topic 3-3):** The challenge for Region 9 is to reduce environmental impacts while meeting the mobility needs of society, fostering healthy communities, and supporting economic growth.

## Theme 4: Managing mobility in high growth cities and regions

This theme addresses the transportation problems of regions and metro areas experiencing rapid population and employment growth, and are expected to continue to grow.

- **Managing passenger demand (Topic 4-1):** This topic explores meeting human needs while lessening travel required. The emphasis is on “accessibility” rather than “mobility.” There is increasing emphasis on combining land use planning with transportation capital investments to

achieve efficient movement patterns. To what extent can planning and urban design guide future city growth? Less attention has been given to intercity travel, especially among cities that are less than 500 miles apart. Research is needed to improve the planning of travel, to develop inter-jurisdictional cooperation strategies, and to better integrate multiple traffic management systems.

- **Managing freight demand and its impacts (Topic 4-2):** A major challenge is managing freight, both last mile and regional. We will examine the impacts of e-commerce and other changes on local and regional mobility, economic activity, and employment patterns. Passenger-freight conflicts will be assessed, and possible strategies to address them will be explored. Finally, we will explore effective strategies for managing trade-related traffic, including better balancing demand across time intervals, routes, and modes.

## Research Program Selection and Management

Our research program has three parts: 1) research conducted by PSR faculty; 2) research conducted by researchers inside or outside PSR; and 3) a graduate research fellowship program. We have reserved a small pool fund for a Region 9 wide solicitation. Its purpose is to promote broader participation across the states and territories, in keeping with the purpose of a regional UTC.

### Year 1 RFP

In order to conduct a consistent and coordinated research program, USC developed policies and procedures for the Request for Proposals (RFP), peer review, and selection process. We also developed a template proposal that all partners were requested to use for their RFPs. RFPs must be customized to each university due to differing budget practices, academic schedules, faculty support policies, etc. The goal is to issue RFPs across the partners as close to the same time as possible so that proposed research projects can be evaluated across the center and selected projects can take place on a similar time schedule. A coordinated schedule facilitates cross-university partnerships, one of our means for developing a strong network across Region 9.

- The Year 1 RFP was issued for USC, CSULB and pooled funds on April 24, 2017, with proposals due May 24. At USC, the RFP was disseminated through the Office of Vice President of Research. At CSULB, the RFP was circulated to eligible schools and departments.
- The Year 1 UCLA RFP was issued on May 31, 2017. The RFP was shared with UCLA faculty across many UCLA departments including Urban Planning, Public Policy, Engineering, Atmospheric and Oceanic Sciences, among others. Proposals are due June 30, 2017.
- UC Davis will select for award 2-3 proposals submitted to the NCST 2017-2018 Call for Proposals that most appropriately address the themes of the Pacific Southwest Regional UTC. Awards are expected to be made in mid-July, with project start dates in October for the Fall 2017 quarter.
- UH finalized their RFP on June 14, 2017, and will be reported in the next PPPR.
- UC Irvine expects their RFP to be finalized by June 30, 2017; it will be reported in the next PPPR.
- Pima and NAU are not issuing RFPs for PSR Year 1. Pima's focus is workforce development, and NAU elected to support graduate students directly.

**Opportunities for Research:** Student support is an important component of research project selection; nothing to report this period.

## Dissemination

Nothing to report; no research projects have been completed.

## Plans for Next Reporting Period

The next reporting period is June 1, 2017 to November 30, 2017. Our plans are to complete the RFP and proposal review process at USC, CSULB, UCLA, UCD, UH and UCI, and make research awards. Our target is for DOT funded projects to start at the beginning of the fall 2017 semester. The Caltrans match funded projects are unlikely to begin before January 2018, as the contracting process with Caltrans has not yet started. In addition, we are pursuing math fund possibilities with local agencies. The schedule for these awards will depend on our success in obtaining funds.

## Educational Accomplishments

PSR's education goal is to foster education and training to produce the next generation of academic scholars, professionals, and skilled workers. PSR will:

- Attract large numbers of the best students from non-traditional transportation fields – especially those from underrepresented groups – into transportation careers through personal and targeted recruitment from high-schools, community colleges, and universities
- Expand and enhance the multidisciplinary aspects of our transportation education programs, and student exchanges among campuses
- Conduct a comprehensive workforce development program

## New and Continuing Activities Associated with Degree Programs

**Postdoctoral researcher:** For academic year 16-17, all research funding was reserved for research due to the late start of grant (postdoctoral researchers are typically hired on the academic calendar year). For the 2017-18 academic year, we are appointing two postdoctoral scholars at USC using remaining Tier 1 funds.<sup>1</sup> UCLA ITS plans to hire postdocs during the 2017-18 year, but they may or may not be funded with PSR state or federal funds; funding source will depend on the particular hires made. UH's budget does not include the hiring of a Postdoc, but funding through the RFP may provide partial support for postdocs by PIs. Other consortium members have no plans to hire postdocs for 2017-2018 using PSR funds.

**Graduate research fellowship program:** Attracting the best, brightest, and most diverse students to transportation education programs at the graduate level is critical to the future of the discipline, and is a central component of the PSR program. Research fellowships are administered by the individual campuses as part of the student recruitment process, and in each case culminates with a student-led, faculty-supervised transportation research project to be posted on the PSR website.

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<sup>1</sup> Presented here for information only; will be reported as part of METTRANS Tier 1 UTC.

USC and CSULB support graduate students through research projects and education and outreach activities. During the reporting period no graduate students were supported, as no research awards have been made. UH has budgeted for one graduate research assistant to assist with the management and administration of the PSR program. The position is currently under recruitment, and the projected hiring date is July 10, 2017. Additional research assistants may be funded through the RFP and is dependent on actual proposals received and awarded. Graduate student funding at UCLA, UCI, and UCD will be awarded at the beginning of the 2017-18 academic year. At UCI, the following PSR UTC graduate fellowships were offered and accepted by new students recruited for AY 2017/18: Elaine Luong (MS), Esmail Dabbagh (PhD), and Devon Jennings (MS).

**Graduate student exchange program:** To take advantage of the substantial disciplinary and geographic variety of the PSR transportation education programs, USC will fund a graduate student exchange program to support their research visits to other member campuses to work with transportation faculty for up to one summer month. This program will start in the next academic year.

### Facilitating Connections between Students and Employers

Our consortium facilitates connections between students and the transportation industry in four distinct ways:

- Offering professional development opportunities (job fairs, resume assistance and job talk preparations for PhD students)
- Promoting participation in professional organizations (WTS, TRB, ITE, APA, APBP, NACTO and others)
- Expanding METRANS' highly successful mentorship program to partner campuses at UCLA and UC Irvine
- Supporting our students to attend seminars and workshops, as described in the technology transfer section.

**Professional Development:** PSR partners with WTS Los Angeles (WTS-LA) and WTS Orange County (WTS-OC) to facilitate and sponsor membership and attendance at WTS events and with WTS-LA to promote student participation in the transportation resume book. PSR Associate Director Victoria Deguzman is the WTS-LA chapter University Liaison and a WTS-OC Mentor, and conducts outreach for both chapters to high schools and institutions of higher learning throughout the greater LA region; a graduate level transportation student at USC serves as the WTS-LA and WTS-OC chapter Student Liaison. We also continue to offer career services to students interested in a transportation related career, and facilitate connections with students and industry. UCLA ITS provides numerous professional development opportunities for students and professionals in the transportation field through lectures and conferences.

**METRANS Lunch with a Practitioner Series:** Designed to facilitate career planning and provide guidance from and connections with practice, these events allow current transportation students to meet and learn from active transportation practitioners. The events held during this reporting period were not funded by PSR.

**Internship and Employment Assistance:** METRANS collects and disseminates information regarding transportation internship and employment opportunities. Internships provide professional experience



and often lead to jobs. Students who completed internships were involved in the Master of Planning (MPL), Master of Public Administration (MPA), and Master of Public Policy (MPP) degrees at USC and in the Master of Science in Supply Chain Management (MSSCM) Accelerated program at CSULB.

UCLA ITS provides an online platform for UCLA students interested in transportation to share job opportunities and internships. UCLA ITS has shared numerous job opportunities, internships, scholarships, and professional development opportunities during this reporting period.

Below, in Table 1, is a partial list of placements for undergraduate and graduate students at USC and CSULB who graduated during this reporting period. Students graduated in MPL, MPP, MPA, Master of Science in Civil Engineering (MSCE), and Bachelor of Science in Policy, Planning and Development (BS PPD). Partner universities end the academic year in June; these placements will be reported in the next PPPR.

Table 1: Partial listing of student placements	
City of Los Angeles	Culver City
Google	Iteris
KOA	LA Metro
Los Angeles City DOT	Port of Long Beach
Port of Los Angeles	Ports of New York and New Jersey
Southern California Association of Governments (SCAG)	

**Certificate in Transportation Systems:** This is an interdisciplinary program administered by the USC Department of Civil Engineering, open to graduate-level student campus-wide, combining engineering with policy, planning, and project management. During the reporting period, six students were enrolled.

### Non-Degree Programs

**Workforce Development Committee:** PSR has established a workforce development committee to manage and coordinate workforce development activities. The committee is chaired by Thomas O’Brien (CSULB), and members include Victoria Deguzman (USC), Karl Kim (UH), Tyler Reeb (CSULB), and Ian Roark (Pima). Each member leads a training, professional development, or student outreach program. A conference call has been scheduled to begin planning next steps for workforce initiatives and programs, and a meeting of Tyler Reeb (CSULB) and Ian Roark (Pima) has been scheduled for September 2017.

PSR will expand non-degree program offerings in the following ways:

- The UH National Disaster Preparedness Training Center (NDPTC) will incorporate PSR transportation resilience research into both face-to-face and online training courses for transportation professionals and other responders. UH also plans to incorporate applicable research outcomes into FEMA certified training. UH has also been in a discussion with the Community College's Workforce Development Director to use his time as a cost match to assist in identifying potential workforce development opportunities in the areas of transportation.
- Pima will fund faculty to transition its Associate of Applied Science (AAS) degree in Logistics and Supply Chain Management (with a focus on Arizona and California cross-border trade logistics)



into a 100% online format to extend the program’s reach and enrollment. CSULB will support Pima in this effort through its Virtual Logistics Peer Exchange. Pima began the process of developing all of our Logistics and Supply Chain Management classes to an online format in spring 2017. The goal is to develop online versions of the courses required for the Basic Certificate before the end of calendar year 2017. Principles of Logistics and Supply Chain Management (Course number LGM 101) and Inventory Control (Course number LGM 102) are actively under online development now. Work on Logistics and Supply Chain Internship (Course number LGM 190) and Independent Study in Logistics and Supply Chain Management (Course number LGM 196) will begin later in summer 2017.

### Seminars, Workshops, Training Courses

The PSR will host approximately 12 seminars each year, available online for students at all PSR institutions (via webinar or recorded and available through iTunesU). Hosting will rotate across the partners in order to draw from throughout Region 9. Speakers will be invited from government, industry, public interest groups, PSR institutions, and other academic institutions throughout the US. A small faculty committee will organize and manage this program. Partner institutions will conduct their own seminar series, incorporating the PSR seminars into their series.

**METRANS Transportation Research Seminar Series:** This serves as a forum for faculty, guest presenters, and advanced graduate students to present their research. Seminars take place during the fall and spring semesters, are open to the public, and are often a collaborative effort of PSR and cosponsors such as student, academic, and professional groups. Most are recorded and made available through social media. The spring semester seminar series was funded by remaining Tier 1 funds.

**Get the Job:** This is a new speaker series designed to provide a small group environment in which students receive advice from active practitioners on securing employment. We will launch this series in the next reporting period.

UCI held three seminars during this reporting period. See Table 2.

Date	Title	Presenter
April 21, 2017	Modeling Long Distance Travel in an Age of Global Mobility	Professor Lisa Aultman-Hall Civil and Environmental Engineering University of Vermont
May 5, 2017	Multi-Modal Public Transportation with Application to Macroscopic Control and Optimization	Dr. Mahsa Faizrahnemoon Department of Mathematics Simon Fraser University, Canada
May 12, 2017	OCTA + Rideshare Partnership Research	Lloyd Sullivan Department Manager Orange County Transportation Authority (OCTA), California

**Geospatial technology education:** Geospatial technology education is rare outside of colleges and universities and is often unavailable to underserved communities. CSULB and Pima are developing a Train-the-Trainer GIS Initiative to teach high school and community college instructors how to incorporate geospatial technology and modeling (GIS) into their curriculum. Tyler Reeb is meeting with Ian Roark in Tucson in late September to meet with members of the Pima team to move the geospatial technology education effort forward. Pima will develop new courses in GIS in year 2 or beyond of the grant's period of performance.

**Transportation workforce soft skills:** Significant gaps in general workplace skills (soft skills) consistently emerge as leading workforce development challenges in transportation labor market research. To address this skills gap, CSULB and Pima are developing a series of lesson plans that will help high school and community college instructors integrate transportation workforce soft skills into their courses. Pima has a menu of workforce soft skills topics that are incorporated into many of our existing certificate/degree programs, as well as our career and technical/continuing education offerings. We can leverage curriculum and learnings from our two TAACCCT Grant awards (Trade Adjust Act Community College Career Training) in this area. Pima's first TAACCCT award was focused on energy sectors and our second award is focused on manufacturing, mining, and aviation. Pima has successfully raised the workforce soft skills of students in these programs, and can apply that learning to transportation students as well. In addition, NAU's ITE chapter held a resume workshop using PSR funds to assist the chapter.

**Best practices in online commercial driver's license (CDL) training:** Pima is using PSR funding to transition sections of its in-class CDL program into an online format. Pima's Truck Driver Training Program manager and instructors have registered for the online "Teach and Build" training.

## Conferences and Events

**Pacific Risk Management Ohana (PRiMO) Conference (UH):** (March 20 – 23, 2017) UH/NDPTC partners with PRiMO and actively participates in the PRiMO Conference to engage professionals from around the world involved in disaster risk reduction.

**2017 Arizona Roads and Streets Conference (NAU; PSR Partially funded):** The Arizona Conference on Roads and Streets is the largest event for Arizona engineers and contractors from the public and private sectors. Ed Smaglik and Brendan Russo attended this conference, and it took place from April 12, 2017 – April 14, 2017.

**NC3 National Letter of Intent Signing Day February (Pima):** This is a national event that took place in February 2017 where upcoming and new transportation technology students sign letters of acceptance and receive letters of commitments and hats for Pima college, much like athletes. The event celebrates the dignity of CTE education and work. Pima is one of the lead organizations.

**Fresh Produce Associate of the Americas (FPAA) Expo:** FPAA is the largest importer of produce in North America. They held an expo in Nogales, AZ on May 18, 2017. Jim Winger and Pima faculty attended to host the Pima table to market their Logistics program, distribute pamphlets, and discuss possible Logistics offerings.

## Educational Enrichment

PSR offers support to transportation-related student and professional groups at several of the partner universities and in the community to assist them with strategic planning, event planning and execution, membership recruitment and retention, awards, scholarships, and operations. These groups include:

- WTS-LA and WTS-OC (USC, CSULB, UCLA); Women in Transportation in Los Angeles (UCLA); Women in Trucking (Pima)
- Student Chapters of the Institute for Transportation Engineers (ITE; USC, NAU), American Planning Association (APA; USC), National Society of Black Engineers (NSBE; USC), Society of Women Engineers (SWE; USC and CSULB), WTS (UCD, UCLA), Asian Pacific Islander Caucus (APIC; USC and CSULB)
- Eno Foundation and Transportation Research Board (UCLA)
- National Association of Publicly Funded Truck Driver Training Schools (Pima)
- Several school or university specific programs, for example:
  - USC Price Women Leading Policy, Planning, and Development (WLPPD)
  - CSULB Society for the Advancement of Management (SAM) and Graduate Business Association
  - UCLA Luskin Community Scholars Program

We also provide opportunities for students to experience transportation outside the classroom, such as field trips, resource and guest speaker referrals, and opportunities for publication of their written work and accomplishments. Support for these organizations will begin in the next reporting period.

**Field Trips and Site Visits:** These are a regular component of our enrichment programming. NAU held a PSR partially funded student trip to the ITE/IMSAs Arizona Conference in March 2017.

**METRANS on the Move** is a weekly, e-newsletter written and produced by students under the guidance of the Associate Director, Deguzman. Over 2,000 subscribers receive this weekly publication containing transportation news, and notice of transportation events and opportunities, such as conferences, seminars, webinars, scholarships, internships, and job listings. Twenty-six issues were published during the reporting period.

**K-12 outreach:** Two faculty members (Brendan Russo and John Tingerthal), and one student (Hanako Ueda) from the NAU Department of Civil Engineering, Construction Management, and Environmental Engineering served as judges for the Marshall Magnet Elementary School's 30th annual science fair on February 13, 2017. Judges from NAU evaluated approximately 20 STEM-related science fair presentations as part of this effort.

Pima's Truck Driver Training Program hosts twenty Boy Scouts each March and October for half-day sessions to teach the Scouts about the role of surface transportation in the importing and exporting of goods. The Scouts must research the logistics and supply chain management industry prior to coming to class, where they learn what a truck driver must do to prepare and deliver goods. The program includes a short ride in a semi-tractor/trailer.

## Dissemination

Dissemination has taken place through the seminars, conference participation, student support, and other activities described above.

## Plans for Next Reporting Period

Plans for the next reporting period include continuing all existing programs, and starting the following new activities:

- Fill two postdoctoral positions for the 2017-2018 academic year
- Award 2017-18 graduate assistant fellowships at UCD, UCLA, NAU
- Launch the PSR seminar series
- Launch the Get the Job speaker series.
- Develop online CDL training courses at Pima
- Hold meeting to lay the groundwork for a PSR workforce development program focused in GIS Tribal Training.

## Technology Transfer Accomplishments

The goal of our technology transfer program is to enhance the transition of research to practice.

## New Events

**Region 9 Annual Congress:** The Region 9 Annual Congress will gather transportation stakeholders from throughout the region together to share new research results, best practices, and education and training tools produced by the PRS. It will also serve as a major networking event to build a Region 9 transportation community. The first annual congress will take place February 8-9, 2018 in Los Angeles. It will be hosted by USC, CSULB, UCI, and UCLA. We have reserved a conference venue, arranged for hotel accommodations, and established a conference planning committee. Members include faculty and staff of the host universities. The planning committee will develop and organize the conference program. USC staff are responsible for all conference logistics.

**NaTMEC Biennial Conference:** PSR was asked to host the biennial North American Travel Monitoring Exposition and Conference, to be held in June 2018. Steve Ritchie (UCI) is co-chair and will lead organization of the program. Vicki Deguzman, METRANS Associate Director, is leading the logistics planning for the conference. The conference will take place at Hotel Irvine, in Irvine, CA. Hotel and venue arrangements began during the reporting period.

## Continuation of Signature Events

**International Urban Freight Conference (I-NUF; USC and CSULB):** I-NUF will take place October 17-20, 2018, at the Hyatt Regency Hotel, Long Beach, CA. I-NUF is supported by Tier 1, MetroFreight, PSR, and donor funds. Hotel and venue arrangements are completed, the conference website is active, and a draft detailed agenda is recently completed. Over 100 abstracts from 20 countries have been received. Sponsorship solicitations are ongoing.

**LA Forum on Transportation, Land Use, and the Environment (UCLA):** The Downtown Los Angeles Forum was held on April 13, 2017. The topic of this year's event was "Steering Connected and Automated Mobility in the Right Direction" and was attended by over 100 guests including academics and practitioners from the public and private sectors.

**Lake Arrowhead Symposium (UCLA):** UCLA will host the Lake Arrowhead Symposium on the Transportation - Land Use - Environment Connection in October 2017. We have conducted two Steering Committee Meetings with professionals in transportation, land-use, and environment fields. The steering committee advised staff on potential themes, topics, and speakers for this year's event. The theme for this event is "Global Climate Change, Local Growing Pains."

**National Summit on Transportation and Environmental Sustainability (UCD):** UC Davis is organizing the Asilomar Conference, the leading international conference on transportation, energy, and environmental sustainability. It will take place August 22-25, 2017. Consortium faculty from UCD, USC, and CSULB have organized sessions and will participate in the conference.

## Media and Communications

**Publications:** PSR News: The PSR e-newsletter has been launched as a part of METRANS News. The first issue with PSR news was published in May 2017. As the activities of the center ramp up, the e-newsletter will be established as a separate publication.

As planned, publication of ACCESS Magazine has been suspended, and we are evaluating ways to make it financially feasible to continue in some form. Possible alternatives were discussed at the PSR launch meeting in April, and Brian Taylor (UCLA) submitted a proposal for executive committee review. This plan aims to create, publish, and distribute a very high-quality digital publication that translates the often technical research of faculty, students, and staff at the PSR member campuses into highly accessible prose for consumption by elected officials, transportation practitioners, members of the media, and the general public. The executive committee will review the proposal at the next meeting, scheduled for late July 2017.

**Website and media:** The temporary PSR website has been established (<https://www.metrans.org/psr-utc>). The PSR website will be managed as part of the METRANS website. Incorporating PSR requires a restructuring of the entire website. The permanent PSR website is currently under design. We have created a PSR logo, and are designing the home page. We are also developing branding materials.

PSR activities and events have been incorporated into the METRANS social media outlets (Facebook (<https://www.facebook.com/metranscenter/>) and Twitter ([https://twitter.com/metrans\\_center?lang=en](https://twitter.com/metrans_center?lang=en))), and into the weekly student e-news.

Information regarding UCLA ITS's participation in PSR has been shared on the websites for UCLA ITS, UCLA Luskin School of Public Affairs, and the UCLA main page. UC Davis is working on how best to represent (on the ITS-Davis or NCST website) its affiliation and role in the PSR UTC, including how to host PSR research done by UC Davis researchers. Content planning for the UCI PSR-UTC website was started during the reporting period. Pima has listed the UTC grant on the College's website:

<https://www.pima.edu/administrative-services/grants/grants-list.html>. NAU has begun putting together a website to display the work they do as part of the Center, but it is not up and running yet.

## Dissemination

Dissemination is achieved through the events, media, and communication channels described above.

## Plans for Next Reporting Period

Plans for the coming report period include:

- Hold the I-NUF conference, and continue planning for PSR Annual Congress and NaTMEC
- Make decision on Access magazine
- Complete website reconstruction and launch permanent website.
- Produce branding materials, including PSR banner

## Products

### Publications

No publications from this research program have been generated yet, because research projects haven't yet started.

### Websites

A PSR website has been set up, and is available at <https://www.metrans.org/psr-utc>. It is described in the "Media and Communications" section.

### Technologies

Nothing to report during this period

### Inventions

Nothing to report during this period

### Other Products

Nothing to report during this period

## Participants and Collaborating Organizations

### What organizations have been involved as partners?

Participants contribute to the work of the Center through financial or other support, or directly in research, education, or technology transfer. Collaborating organizations participate in Center activities, provide advisement, or support the center.

### Participants

Table 3 lists the PSR UTC Consortium Partners.

Table 3: The PSR University Transportation Center Consortium Partners		
Institution (Diversity)	Description	Contribution to the Consortium
USC (AANAPISI)	USC is the largest private research university in the US, with over 43,000 students. Ranked 23rd among national universities by U.S. News & World Report; public policy school is ranked 4th, and engineering is ranked 12th nationally; \$4.7 billion endowment	Leading faculty; top ranked graduate programs in transportation, including public policy, systems engineering; proven track record of consortium leadership
CSULB (HSI, AANAPISI)	Public regional university, ranked 5th among western regional universities according to U.S. News & World Report; 37,000 students	Undergrad and masters level programs, workforce development, tech transfer
UCD	Public research university; ranks 11th among US public universities by U.S. News and World Report; ranked 1st ecology/environmental research; ranks 12th in graduate civil engineering; 35,500 students	Leading faculty, interdisciplinary MS and PhD, policy outreach; energy and environment; lead institution of the current National Center on Sustainable Transportation
UCI (AANAPISI)	Public research university; ranks 9th among US public universities by U.S. News and World Report; ranked 1st in the U.S. and 7th in the world among universities less than 50 years old (Times Higher Ed, 2015); 31,551 students	Leading faculty, strong graduate programs, ITS research facilities, interdisciplinary PhD, strong connected and automated vehicles research program
UCLA	One of the world's leading universities, public or private; ranked 13th globally for scholarly reputation by Times Higher Education 2015, ranked #2 public university in the US by U.S. News and World Report. Ranked 6th among US public universities in Nobel Prize winners.	Leading faculty; large, highly ranked graduate transportation programs (MPP, MURP, & PhD) in Public Affairs, as well as in engineering
University of Hawai'i at Manoa (AANAPISI, NHSI)	University of Hawai'i at Mānoa is the flagship campus of the University of Hawai'i System. Consistently ranked a "best value" among U.S. colleges and universities. Classified by the Carnegie Foundation as a "very high research activity" university.	Leading transportation and infrastructure resilience faculty; planning program with specialization in transportation and infrastructure planning, includes courses in disaster management planning
NAU (HSI, AIANSI)	Public University; ranked in the top 25% of programs with a Masters as the ultimate degree by U.S. News & World Report.	Leading faculty; undergrad and master's transportation program; transportation and environmental workforce development and outreach
Pima (HSI, AIANSI)	Public community college, 47,500 students on 6 campuses; one of the largest multi-campus community colleges in the US	College transition; technical training; workforce development



Table 4 lists the METRANS Associate Partners. METRANS Associates provide funding that supports the core operations of METRANS. Associates also provide internships and serve as mentors.

Table 4: Metrans Associate Partners		
Name	Location	Contribution
Port of Long Beach	Long Beach, CA	METRANS Associate, financial contribution, internships, student scholarships
Ceres/Yesen Terminals	Terminal Island, CA	METRANS Associate, financial contribution
Southern California Association of Governments (SCAG)	Los Angeles, CA	METRANS Associate, financial contribution, internships, data sharing
LA Metro	Los Angeles, CA	METRANS Associate, financial contribution, internships, research funding
Foothill Transit	West Covina, CA	METRANS Associate, financial contribution, internships
Metrolink	Los Angeles, CA	METRANS Associate, financial contribution
Aerospace Corporation	Los Angeles, CA	METRANS Associate, financial contribution
International Longshore and Warehouse Union (ILWU)	Los Angeles, CA	METRANS Associate, financial contribution
Majestic Realty	Industry, CA	METRANS Associate, financial contribution, research funding
Port of Los Angeles	Los Angeles, CA	METRANS Associate, financial contribution, internships, student scholarships

## Have other collaborators or contacts been involved?

### Collaborating Organizations

The PSR partners have extensive relationships with other universities, public agencies, and private industry. Almost all PSR consortium members are currently part of a UTC or other major research consortium; all have experience in collaborative partnerships, and all participate in ongoing joint activities.

### Advisory Organizations

**PSR Advisory Council:** The Advisory Council will provide guidance on: (1) the most pressing problems facing the member agencies that can be addressed by university research; (2) themes to be addressed at the PSR annual congress;; (3) workforce and training requirements of the member agencies and their client or constituent government entities. The Advisory Council also will play a role in dissemination of research results and in hosting tech transfer events. Table 5 below presents the composition of the PSR Advisory Council. The PSR partners have been actively recruiting potential members to be involved in the Advisory Council. A preliminary list was presented at the PSR launch meeting, and additional members are being identified and invited. We anticipate a first meeting via conference call in fall 2017, and the first in-person meeting at the Annual Congress in 2018.

Table 5: Composition of PSR Advisory Council
The Director (or designee) from each of the four State Departments of Transportation (DOTs)
The Executive Director (or designee) from each of the nine Metropolitan Planning Organizations (MPOs) in the Region serving areas of 1 million or more in population
The Executive Director (or designee) from at least one MPO serving metropolitan an area of less than 1 million in population
Representatives from at least one U.S. Territory and at least one Tribal Government in Region 9
Representatives from other transportation stakeholder organizations in the public, private, and not-for-profit sectors may be included when their presence would complement coverage of the mission and scope of the center

**Other Relationships:** We have extensive relationships with industry and government. SCAG provides regional planning and transportation modeling data. LA Metro funds a major research project to develop a data archive from real-time transportation system monitoring data and develop applications for planning and system management.

### Relationships with Other Universities

**Council of University Transportation Centers:** The center director (Giuliano) is a past president and executive committee member. Currently, Dr. O’Brien (CSULB) is serving on the executive committee and has recently been elected Secretary. Dr. O’Brien serves as PSR lead for the CUTC workforce development efforts.

**MetroFreight Center of Excellence:** METRANS is the home of the Volvo Foundation for Education and Research (VREF) Center of Excellence on urban freight. MetroFreight seeks to improve the sustainability of goods movement in metropolitan areas around the world. It is an international consortium that includes the University Transportation Research Center (Region 2 UTC), Institute of Science and Technology for Transport (IFSTTAR), and the Korean Transport Institute (KOTI). MetroFreight has greatly expanded our international linkages, and offers many opportunities for collaboration and partnerships.

**National Center for Sustainable Transportation:** The National Center for Sustainable Transportation (NCST) UTC was established in 2013 and renewed 2016. Led by University of California, Davis, consortium partners include METRANS (USC and CSULB), University of California, Riverside, Georgia Tech, and University of Vermont. METRANS’ role is sustainable freight transport, which links well with MetroFreight.

**Southwest Transportation Workforce Center:** The Southwest Transportation Workforce Center (SWTWC) seeks to connect and empower the 21st century transportation workforce through research, education, and industry engagement. SWTWC is led by CSULB, with USC, Texas A&M Transportation Institute (TTI), ICF International, and the National Occupational Competency Testing Institute as partners. The mission of SWTWC is to provide a more strategic and efficient approach to transportation workforce development. The partnership of CSULB and Pima began within the SWTWC, and led to Pima joining the PSR consortium.

**Arizona Technology Park:** Pima partners with the University of Arizona Technology Park in a Smart Vehicle Innovation Team (SVIT), which seeks to bring economic developers and academic researchers together to attract autonomous vehicle manufactures to southern Arizona. Dr. Ian Roark, and our Dean of Applied Technologies, Mr. Gregory Wilson, serve on the committee.

**Arizona High Tech Freight Corridor:** NAU is part of a partnership between the three Arizona universities, investigating the use of I-10 as a high tech freight corridor. The partnership includes a portfolio of seven projects, including safety, efficiency, alternative fuels, and education and outreach, among others. Each project is being conducted by at least two of the three schools, and some involve all three. Outcomes of the partnership include publications, proposals, and dissemination of results through various educational channels (webinars, case studies, and academic modules). This portfolio of projects is funded by the Arizona Board of Regents

**Institute of Transportation Studies (ITS):** ITS is the University of California transportation research institute. It has branches at UC Berkeley, UC Davis, UC Irvine, and UCLA. ITS is funded by the state of California, as well as by Caltrans research contracts. There are several statewide research collaborations taking place through ITS.

### Relationships with public agencies

**Arizona Department of Transportation (ADOT):** Pima was awarded, in June 2017, two Intergovernmental Agreements (IGA) with the Arizona Department of Transportation (ADOT) to develop and deliver programs for youth and adults that expose them to the highway construction career field. The programs will include safety, logistics and transportation topics. The first course is anticipated to be delivered in late fall 2017.

**Pima Association of Governments (PAG):** PAG serves as the Regional Transportation Authority for southern Arizona. PAG is developing a White Paper on the Aerospace and Defense sectors for southern Arizona. Dr. Ian Roark serves on the Economic Vitality Advisory Committee, which is studying the ways logistics and transportation impacts Aerospace and Defense employers, who employ a large percentage of the workforce in southern Arizona.

**Southern Arizona Anti-Trafficking United Response Network:** Pima worked/collaborated/established a relationship with the Southern Arizona Anti-Trafficking United Response Network (SAATURN) on a human trafficking community presentation Jan 24. SAATURN members (CODAC, FBI, and Tucson Police Department) are members of the advisory committee for the College's Truck Driver Training Program.

## Impact

PSR is a new center, and the major task for this reporting period was setting up the center and launching our research, education, and tech transfer programs.

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

Nothing to report during this period.

**What is the impact on other disciplines?**

Nothing to report during this period

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

Nothing to report during this period.

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

Nothing to report during this period.

**What is the impact on technology transfer?**

Nothing to report during this period.

**What is the impact on society beyond science and technology**

Nothing to report during this period.

**Changes/Problems**

No changes in the grant have taken place. We expect a later than anticipated start for match fund projects. No problems to report.

**Special Reporting Requirement**

There are no special reporting requirements and nothing to report during this period.