



Semi-Annual Progress Report #5


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Signature of Submitting Official	

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1. Overview

The Pacific Southwest Region (PSR) University Transportation Center (UTC) grant was terminated on May 2, 2025, but then reinstated on September 29, 2025. US DOT never cited any lack of performance. PSR has performed consistently well on all metrics and objectives. Upon being reinstated as of September 29, 2025, PSR developed a revised set of research themes that serve current US DOT priorities, and PSR has launched a set of quick restart projects to recover lost time and continue to serve Region 9. Those revised research themes are described in the “research accomplishments” section of this report, Section 1B. We also detail how we were in full compliance with executive orders in the section “Special Reporting Requirements” toward the end of this document, Section 8.

A. Major goals of the program

The Pacific Southwest Region (PSR) University Transportation Center (UTC) serves Region 9 with a comprehensive, integrated program of research, education and technology transfer built upon the priority needs of the region: 1) supporting an efficient transportation system, 2) increasing the efficiency and resilience of the goods movement system, and 3) expanding workforce opportunities. Our research program is tailored to address US DOT strategic goals.

Our consortium of universities and community colleges, 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, Berkeley (UCB); 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); Pima Community College (PCC); and University of Nevada, Las Vegas (UNLV). USC and CSULB are both partners in the METRANS Transportation Center, the entity that houses the PSR UTC. Our accomplishments are categorized under research, education, and outreach. Workforce development is included in “education” in this document. Administrative changes are discussed first.

B. Administrative Changes

Due to the five-month period of grant termination and the required (at the time) grant close-out, the PSR lead, METRANS at USC, had to reduce staff. Two staff members – the administrative assistant and the budget and finance analyst – were laid off due to lack of funds. METRANS staffing remains at a level that can fully meet PSR needs. The METRANS assistant director for administration, Jennifer Hong, is dedicated to managing PSR. Dolores Rodriguez, the METRANS outreach and communications coordinator, fully supports PSR communication, outreach, and student opportunities functions. Budget and contract management is handled by the USC Price School Office of Research, which has well-developed expertise and staffing for contract and grant management.

2. Research Accomplishments

The goal of PSR is to address regional issues and engage in transportation research that will transform both knowledge and practice while supporting US DOT strategic goals, and providing public policy advisement, technical assistance to state and local agencies, and innovative workforce development.

Our research, education, and outreach program is multi-modal and multi-disciplinary, engaging all our partners and stakeholders throughout Region 9.

Our research program has four parts: 1) research initiated and conducted by PSR faculty; 2) research conducted by researchers inside or outside PSR but within Region 9; and 3) a graduate research fellowship program, and (4) stakeholder-partnered research projects which pair PSR faculty and stakeholders and end-users from the earliest stages of the research. The stakeholder-partnered projects, which are new in the BIL UTC, are intended to accelerate technology transfer by working with practice from the earliest stages of research conceptualization. The more traditional faculty-initiated projects are research that is still formative and hence not ready for partnering at the earliest stages.

A. Revised Research Topic Areas

Following the September 29 reinstatement of the federal grant (Agreement No. 69A3552348309), the Pacific Southwest Region University Transportation Center (PSR UTC) has restarted our activities in research, education, workforce training, and technology transfer. The PSR consortium canvassed the needs of Region 9 when developing our successful 2022 application for the Region 9 UTC. We see considerable synergy between the goals of US DOT, the needs of Region 9, and the expertise of the over 100 researchers across our 10-university PSR consortium. We have submitted the below new topics to US DOT and are awaiting DOT approval. Upon approval of these new topics, for Years 3 and beyond of the PSR UTC grant, we will develop research projects within the five topic areas described below:

Topic 1, Technology to Increase the Efficiency of the Transportation System: New transportation technologies bring the possibility of reduced congestion, increased efficiency, and economic growth. Some examples of these promising new technologies include ridehailing, autonomous vehicles, aerial mobility, automation, and the potential for advanced sensors, robotics, and data analytics to improve the construction, maintenance, or operation of the transportation system. Bringing advanced technology to practice, in ways that can scale, requires scientific and engineering advances, business and industry readiness, and supportive public policy. Research in this topic area can include studies that (i) focus on scientific, engineering, or technical advancements that will enhance the surface transportation system, or (ii) lead to improved approaches to managing or accelerating technology adoption in transportation.

Topic 2, Data and Computational Innovations for Transportation: Transportation is being transformed by a combination of massive data resources, location-aware technologies, real-time communication, and digital mapping. This topic can include studies of advanced computation and data analysis, including artificial intelligence applied to transportation. Sample topics might include research into location-aware data as an approach to advanced travel modeling, the development of scenario planning models and digital twins that go beyond traditional travel models, and methods to manage infrastructure to increase throughput and efficiency in real-time, near real-time, or through scenario models. Research in this topic area can also analyze traditional data sources (e.g., census or household travel survey data) to address modeling or policy issues that are important in Region 9.

Topic 3, Improving the Safety of the Transportation System: Safety is one of the most pressing transportation needs in Region 9 and the nation. Research in this topic area can include projects that

analyze data to identify locations where safety improvements are needed or methods that reduce collision or crash risk or severity. Research in this topic area could also include methods to increase safety and perceptions of safety on the transportation system. Research in this topic area could focus on methods to verify or increase the safety of new innovations, such as autonomous vehicles, or on development or deployment of sensors or data analysis that can increase safety. To improve safety, new innovations must be implemented. For that reason, research that supports more rapid and more sustained adoption of safety enhancing methods is also appropriate in this topic area.

Topic 4, Efficient Goods Movement: The US goods movement system is efficient, but not nearly as efficient as it could be. A fundamental problem is that the supply chain is an interconnected system, but each part operates independently. When shocks occur in interdependent and high-velocity supply chains, disruptions can be major. Research in this topic area can develop models and methods for coordination of freight demand across modes and firms, generation and management of freight data, better management of pickups and deliveries, and increasing supply chain flexibility and resilience. Research in this topic area can also include new technologies that bring the promise of increased efficiency, including applications of automation, robotics, real-time routing, data analytics, and artificial intelligence. Research in this topic area can include studies of public policies that impact the efficiency of the goods movement system.

Topic 5, Resourcing a More Efficient Transportation System: This topic area will focus on methods that can bring needed resources – be they financial, time, or expertise – to the transportation system. Governments across Region 9 and the nation are experiencing a gap between transportation needs and available resources. Research in this topic area could examine novel methods for fiscal management – e.g., tax or pricing changes or public private partnerships – that could enhance the resources available for the transportation system. Research in this topic area could also study improvements in process, efficiency, or training that can reduce the time or cost needed to build, maintain, retrofit, or operate transportation infrastructure and systems. Methods of analysis that support efficient decision making are also appropriate in this topic area.

For all topic areas, research projects must have a clear link to the surface transportation system and must fit with the statutory research priority area “Improving Mobility of People and Goods.”

Relationship Between the Revised Research Topics and the November 2022 PSR Proposal

The topics above are fully consistent with our successful 2022 application and with the research conducted by PSR in Years 1 and 2 of the PSR UTC grant. The five topic areas listed above would have nested within one or more of the below topics from the 2022 proposal.

Topic 1.2: Improving the Efficiency of the Mobility System

Topic 2.2: Goods Movement System Efficiencies and Resilience

Cross Cutting Topic (Topic CC): Access to Opportunity Through Strategic Workforce Development

Rapid Restarting and Two-Year Phasing

Following the September 29, 2025 federal grant reinstatement, the PSR UTC programmed five new projects with remaining Year 2 funding. Those projects were submitted for pre-approval on October 15 and were approved by US DOT in early December. Those projects are listed below by title and Principal Investigator.

Project Title	Principal Investigator
Potential Impact of Autonomous Vehicles on Reducing Congestion	Maged Dessouky
Digital twin for managing the curb and reducing congestion	Genevieve Giuliano
Modeling Event Travel Dynamics for the 2028 Los Angeles Olympics Using Large-Scale Mobility Data	Abigail Horn
Routing Autonomous Trucks on Dedicated Lanes	Petros Ioannou
UAM-enabled Multimodal Analysis of Transportation Systems for LA28 and beyond	Ketan Savla

Each of the above projects is programmed for a Phase 1 (Jan. 2026 through June 2026), and a Phase 2 (July 2026 through June 2027). The Phase 2 work will be funded by Year 3 PSR UTC funding upon approval for Year 3 spending from US DOT. This will accelerate a set of “quick restart” projects that will move our research program forward rapidly.

Future Research

Future research rounds, in Year 3 and beyond, will adhere to the research topics listed above, and will follow the peer review process outlined in our 2022 grant proposal. All US DOT requirements for notification and pre-approval will be followed.

B. Completed Research Projects

The following projects were completed during the reporting period.

Table 1: Projects completed during the reporting period.
Note on Funding Source: CT-PSR= Caltrans funds (for California partners), match funding source

Partner	Project No.	PI	Title	Start date	Funding Source
USC	PSR-23-06 TO 076	Shahabi, Cyrus	Traffic Causality Analysis for Robust Road Freight	4/2/2024	CT-PSR
USC	PSR-23-01 TO 079	Giuliano, Genevieve	Impacts of e-commerce on warehousing and distribution in California	2/14/2024	CT-PSR
USC	PSR-23-05 TO 075	Comandon, Andre	The Environmental Impact and Policy Implications of Supercommuting in the Northern California Megaregion	5/8/2024	CT-PSR
USC	PSR 23-18	Boeing, Geoff	Resilient Livelihoods: The Vulnerability of Commutes to Street Network Disruption	3/1/2024	USDOT
UCLA	PSR-23-02 TO 072	Ma, Jiaqi	Modernize Census Infrastructure Technology	4/25/2024	CT-PSR

UCI	PSR-23-03 TO 073	Ritchie, Stephen	Route-based Freight Activity Metrics along the California State Highway System through a Pilot Multi Sensor Fusion System	3/14/2024	CT-PSR
UCSB	PSR 23-20	Goulias, Konstadinos	Household Demand for Clean Vehicles in California: Individual Attitudes, Current Car Ownership, and Future Car Ownership.	3/1/2024	CT-PSR
UCLA	PSR 23-23 TO 080	Blumenberg, Evelyn	The Equity and Policy Implications of Long-Distance Commuting in the Greater Los Angeles region	6/1/2024	CT-PSR
UCI	PSR-22-23 TO 068	Saphores, Jean-Daniel	How to enhance student outcomes while strengthening transit? An Analysis of LA Metro’s GoPass Fareless pilot program	7/1/2023	CT-PSR

C. Student opportunities for research

Student support is an important component of research project selection. Highlights of how PSR has supported students:

UCLA’s Fellowship Program: The Capstone Fellowship Program produced 16 graduates in the spring of 2026. The UCLA ITS fellowship program cultivates a robust pipeline of transportation professionals, expanding research capacity, and amplifying regional impact. The 16 capstone fellowship graduates exemplify this success, entering the workforce with specialized training in areas such as transportation policy, sustainability, and infrastructure planning. Through faculty-led and independent research, fellows contribute actionable insights that inform PSR’s policy and technical initiatives. The program also deepens stakeholder engagement by connecting fellows with local agencies and community partners, ensuring that graduates are professionally prepared and civically grounded. These outcomes provide tangible evidence of PSR’s effectiveness in workforce development, supporting program evaluation and future funding. As a result of the five-month work stoppage (May 2 – September 29, 2025), this program was eliminated for the 2025-26 academic year.

Student Awards: The 2025 UCLA ITS Capstone Grand Prize was awarded to **Nick Giorgio**, MURP ‘25, for his project on intersection safety, completed in partnership with the Los Angeles Department of Transportation. Giorgio studied the effectiveness of various residential intersection improvements in support of the LADOT’s Neighborhood Enhanced Network and Vision Zero goals. His research analyzed speed data from more than 30 intersections with all-way stops, traffic circles, and mini-roundabouts to determine which designs best slow vehicles and reduce conflicts. The study found that safety controls alone are insufficient and that the surrounding context and design details significantly affect outcomes. To maximize both safety and livability, Giorgio recommends pairing all-way stops with midblock speed humps, expanding the use of well-designed neighborhood traffic circles, and piloting additional mini-roundabouts on collector streets.



D. Additional Research Accomplishments – Leveraging PSR Research

Gwen Shaffer, professor of journalism and public relations at **CSULB**, is leading a research team that has secured a \$1.5 million **National Science Foundation** grant to develop a mobile privacy assistant app and dashboard for Long Beach residents. The three-year project is designed to give users control over how the city collects personal data through smart technologies such as automated license plate readers, public Wi-Fi and Long Beach’s parking app. The initiative builds on the research team’s existing Digital Rights Platform. Shaffer and her collaborators have mounted data privacy labels on dozens of city-deployed technologies throughout Long Beach that collect personally identifiable information. Each label features a unique QR code that takes residents to an online portal, where they can get more information. A former chair of the city’s Technology and Innovation Commission, Shaffer said the initiative addresses public concerns about surveillance — by enabling residents to make informed choices — and could serve as a model for municipalities nationwide. CSULB will assist Shaffer by helping to plan and facilitate Digit Rights 101 workshops for City departments, advise on the development of the mobile privacy assistant app and dashboard, gathering feedback from community partners, developing evaluation forms, and more. *Grant amount: \$1,250,000.* Click [here](#) for more information.

E. Research Dissemination highlights

Completed final reports and research briefs are available on the PSR research website at <https://www.metrans.org/metrans-research>.

A METRANS advisory board meeting was held on August 4, 2025 at WSPA Headquarters in Torrance, California. METRANS Director Marlon Boarnet briefed METRANS associate partners on research-updates, upcoming events, and potential collaboration opportunities.

F. Plans for next reporting period

The next reporting period is October 1, 2025 through March 31, 2026. Going forward, PSR will follow the pre-approval process instituted by US DOT in summer 2025 for research projects and center activities.

USC plans to:

1. Implement industry and government stakeholder technical advisory committees for USC research projects, moving forward, to speed the outreach process and more rapidly move research results into practice.
2. Convene the METRANS Advisory Board and PSR Advisory Council to advise on Year 4 research objectives.
3. Select Year 4 projects and implement the Year 3 projects whose start was delayed due to the stop work period, May 2 – September 29, both contingent on US DOT releasing Year 3 and Year 4 funding. The Year 3 budget request is awaiting US DOT approval.
4. Continue with seminar series.
5. Start on five Phase 1 “quick restart” projects described above.
6. **USC** is also in active discussions with LA 28 and with Amazon, among others, on research funding. Caltrans is a major provider of match funding and we anticipate completing the master agreement for Caltrans research funding, delayed during the stop-work period, in the next reporting period.

UCB expects to accomplish the following:

1. Complete work on one student led research project
2. Continue work on one faculty led research project
3. Present results from federally funded research at the following conferences
4. Host three seminars during Fall 2025 semester, November through December 2025

NAU plan to use Year 3 funds to continue funding a graduate research fellow, undergraduate research interns, and student and faculty travel for dissemination, outreach, and workforce development. NAU plans to continue in-school K-12 presentations on transportation engineering as part of the Flagstaff Festival of Science In-School Speaker Series. Additionally, NAU AZTrans will continue to submit our exhibit entitled “Behind the Scenes: How Our Roadways are Designed & Operated” for presentation at local STEM events and festivals. The transportation-focused exhibit has equipment set up to show how traffic signal systems detect vehicles and efficiently move traffic through intersections, among other items.

UCD plans to do the following:

1. Fall 2025 Call for Proposals for Dissertation Grants is planned to be released during the next reporting period. UCD expects to award between one and three PSR-funded dissertation grants from this call.
2. ITS-Davis will support an undergraduate student’s participation in the 2025 California Transportation Foundation Transportation Education Symposium in Long Beach, California, in November.
3. ITS-Davis also plans to continue providing travel support to members of the UC Davis (Institute of Transportation Engineers (ITE) Student Chapter.

UCI will:

1. Continue to work to initiate our previously select Caltrans match projects (mentioned above)
2. Award graduate student fellowships for research aligning with the new PSR UTC priorities
3. Develop our seminar series to focus on new PSR UTC priorities

UH would like to conduct microlearning training to transportation agencies and operators, tailored to assist with the challenges in preparation for the World Cup in the surrounding area of the two venues in California (Sofi Stadium in Los Angeles and Levis Stadium in the Santa Clara/San Francisco Bay Area). This microlearning will address complex scenarios involving large crowd movements and mobility issues, ingress and egress from venues, as well as emergency and safety concerns associated with natural and man-made hazards.

At **UNLV**, they plan to continue and restart efforts on the projects that were underway as of May 2, 2025. These include the following key items:

1. Lead, coordinate, administer, and manage USC PSR’s sub-award to UNLV.
2. Continue and build on efforts to evaluate transportation needs and challenges faced by service sector employees along the Las Vegas resort corridor (the Strip). Assess accessibility and mobility needs, challenges, and opportunities that are necessary to guide transportation systems investments.

3. Continue to augment an existing NSF REU Smart Cities grant to include additional students who will work under the guidance of faculty mentors at UNLV. They will conduct research in ITS, CAVs, and V2X, and participate in co-curricular activities to develop research and communications skills.

3. Educational Accomplishments

A. Student Programs

In April 2025, PhD Candidate at **UCD** Ghazaleh "Gigi" Jafarsalehi began using her PSR-funded dissertation grant to support the completion of her dissertation, "Analyzing Safety and Traffic Behavior in Work Zones: Integrating Statistical and Machine Learning Methods".

For this period, **NAU** continued supporting undergraduate and graduate transportation students through paid internships and fellowships, as well as engage in outreach activities. During this reporting period, we attended the 2025 ITE/IMSAs meeting in Glendale, AZ on April 16th, 2025 (16 students and three faculty attended). The work presented during this trip as well as the travel to make these presentations, were funded by this grant, in full or in part. Within the research group, Omkar Chorge completed his PSR9 funded fellowship, mentored by Drs. Russo and Smaglik, which developed a machine vision algorithm to identify pedestrian – motor vehicle conflicts at signalized intersections. We also completed several K-12 outreach events during this period, including: a visit by middle school students to the NAU Traffic Lab in April 2025, a presentation of an AZTrans exhibit at the 2025 Flagstaff STEM Celebration and the NAU STEM Gameday event, both in April 2025, and an in-class presentation at a Flagstaff middle school in October 2025.

Two graduate students at **UCI** were supported by PSR fellowships through April 2025: Negin Shariat and Jeneanne Pearce, as they continue their work toward completing their doctoral studies. During the reporting period, they continued their engagement with TRIP and PRIME alumni from prior summer cohorts. In addition to their contributions to the research projects, each student completes an independent deliverable and they facilitated the presentation of that deliverable at dedicated research seminars, conferences, and/or to professional societies. New marketing initiatives have been added this reporting period to increase awareness of the PRIME and TRIP programs as well as local and high school stakeholder involvement. A spotlight series has also been launched to celebrate successes of program faculty, grad students and alums.



TRIP Program Alum Reina Kabarra presents at California Transportation Foundation Educational Symposium, Fall 2025



Program alum Benjamin Chan (front row, fourth from left) wins Railway Association of Southern California Scholarship, Fall 2025



NAU group photo at the ITE/IMSA Conference, April 16th, 2025

B. Workforce development

PSR offers many ongoing workforce development programs that have been written about in-depth in past SAPRs. These programs include: **Commercial Driver License (CDL) Training** (PCC), an innovative Truck Driver Training Program that reaches out to a rural/tribal audience to provide the training and certifications necessary to start a career; **Southern California Workforce Development Needs Assessment for Supply Chain and Transportation Industries** (CSULB), identifies existing and future workforce skills gaps for middle-skill occupations in southern California's supply chain and transportation chain industries; **Academy of Global Logistics (AGL)** (CSULB), this collaborative partnership combines academic curriculum with industry-led training to support academic and career development for high school students; **AZTrans** (NAU), supports STEM outreach activities that provide exposure to transportation to K-12 students and members of the public. Those are continuing with the BIL PSR UTC.

During the reporting period, students took part in the METRANS International Urban Freight Conference in April 2025. **CSULB** also hosted its 2025 Town Hall at Cabrillo High School and invited AGL students to attend.

On April 8, 2025, **PCC** virtually presented information regarding transportation and logistics programs to the Workforce Investment Board's Youth Council. On April 13, 2025, they participated in National Coalition of Certification Centers (NC3) National Letter of Intent Signing Day. Thirteen students participated in signing letters of intent for their truck driver training and some students participated for their Logistics program.



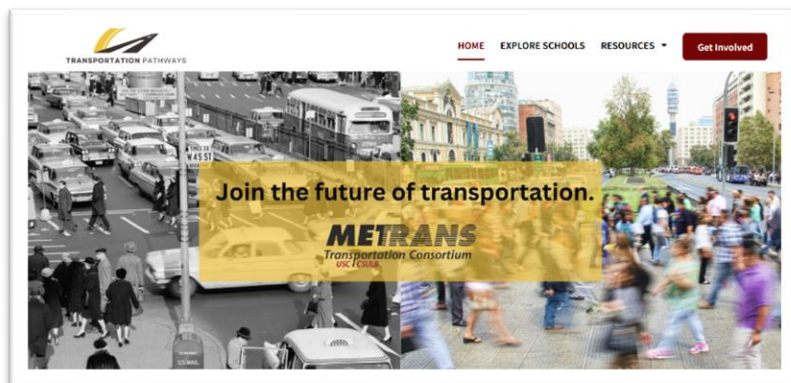
Pictured above: students and staff with one of the Center for Transportation and Logistics' tractor trailer.



Pictured above: Truck Driver Training program students sign their Letter of Intent to start and/or complete their commercial driver license training. Supporting staff stand behind the students as they sign before family and friends in attendance.

Transportation Pathways

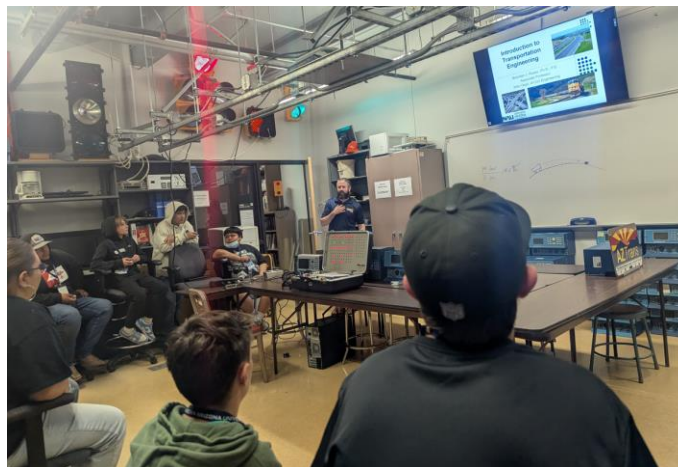
USC METRANS launched the Transportation Pathways website in Summer of 2025. The web site, envisioned in our 2022 UTC grant application, serves as a general resource for students, counselors, educators, and community leaders by providing information and resources on transportation-focused educational pathways available at PSR institutions. The website includes information and resources on transportation-related degree



and non-degree programs available across the PSR consortium. Additional resources such as financial aid and admissions information from each institution is also be provided for students. See <https://transportationpathways.org/>.

C. K-12 Programs

On April 24th 2025, a group of middle school students visited the **NAU** Traffic Lab for a transportation engineering presentation and demonstration. During this visit, students were given a presentation and demonstration by NAU faculty Dr. Brendan Russo and NAU Graduate Research Assistants Anthony Eschen and Omkar Chorge on how traffic signal controllers work and were given a talk regarding multiple aspects of transportation engineering. 82 total students attended across five presentation sessions. A photo from this event is provided below.



Middle School students Visit NAU Traffic Lab in April 2025

At **NAU**, the Arizona Laboratory for Applied Transportation Research (**AZTrans**) operated an exhibit at the 2025 Flagstaff STEM Celebration entitled “Behind the Scenes: How Our Roadways are Designed & Operated” on Saturday, April 26th, 2025, at Ft. Tuthill County Park. The transportation-focused exhibit had equipment set up to show how traffic signal systems detect vehicles and efficiently move traffic through intersections. There was also a display showing how traffic simulation software is used to analyze signal timing before it's implemented in the field as well as an example of a real-time camera setup used for traffic data collection. Finally, there was a traffic-related game for children ages K-8 to play where they could create their own traffic signal timing plans. Participants had the opportunity to examine equipment and software used in real-world traffic engineering applications in order to provide safe and efficient transportation of people and goods. Approximately 100 students interacted with the exhibit which was staffed by NAU graduate students Anthony Eschen and Omkar Chorge and undergraduate student Ava Elia. A photo of the exhibit at the event is provided below.



AZTrans Exhibit at the 2025 Flagstaff STEM Celebration in April 2025

On April 2nd, **NAU** hosted a K-12 outreach event entitled ‘STEM Gameday’ at the NAU Walkup Skydome. Nearly 200 middle-schoolers from across northern Arizona attended this event, which provided an overview of several disciplines of civil engineering including utilities, structures, transportation, and careers in general. AZTI Associate Director Brendan Russo co-led the transportation portion of the event, along with three NAU students. Students were introduced to several concepts in transportation engineering, including a hands-on activity related the importance of stopping distance in roadway design and a demonstration of how traffic signal equipment operates. The event was organized by Jordan Kurlin with numerous volunteers organized by ACEC. Photos from this event are provided below.



NAU STEM Gameday Outreach Event in April 2025



NAU STEM Gameday Outreach Event in April 2025

4. Outreach Accomplishments

A. International Urban Freight Conference

The METRANS Transportation Consortium developed, organized, and hosted the **10th International Urban Freight (I-NUF) conference, April 9-11**. This year’s conference was the largest ever, drawing 215 attendees from 15 countries and five continents. The conference was supported by conference sponsorships totaling \$52,500 from the Port of Los Angeles, the Port of Long Beach, ESRI, Majestic Realty, the Southern California Association of Governments, Sunstone Management, Fehr and Peers, Rebel, and the South Coast Air Quality Management District. The conference plan was approved in August 2024 by US DOT.

Three days of scholarly panels covered topics as diverse as improved efficiencies in trucking, artificial intelligence for routing and delivery, warehouse siting, and a UPS site tour. The Opening Plenary Session, titled “International Trade and Goods Movement in Changing Times: A View from north America’s Largest Ports,” was presented by Dr. Noel Hacegaba, Chief Operating Officer at the Port of Long Beach, and David Libatique, Deputy Executive Director of Stakeholder Engagement at the Port of Los Angeles.

Two keynote sessions addressed “Global Supply Chain Systems for Food Trade” and “Private Capital’s Role in Fostering Technology Innovation in Trucking.” The first keynote session was presented by Kristin Decas, Chief Executive Officer and Port Director, Port of Hueneme, and Charles Kunaka, Lead Specialist on Connectivity, Macroeconomics, Trade & Investment at the World Bank Group, and was moderated by Marlon Boarnet, Director of METRANS. The second keynote session was presented by John Keisler, Chief Executive Officer at Sunstone Management, Jasmine Jiang, Senior Vice President of Investment Operations at Sunstone Management, Bill Beverley, Co-Founder, Co-Chief Executive Officer and Chief Technology Officer at Evolectric, and was moderated by Tyler Reeb, Executive Director, Center for International Trade and Transportation, California state University Long Beach.

Click [here](#) to view conference photos and presentation materials.

Prior to the I-NUF conference, USC hosted an invite- only roundtable discussion with industry leaders, public agencies, labor, and stakeholders to identify research priorities for a forward-looking academic research agenda on maritime and goods movement. The day-long session coalesced around themes such as: The Changing Landscape of Ocean Shipping; Transformational Technologies; and Barriers to Commerce and Innovation. Participants discussed the challenges and opportunities within each theme and then proposed items for a research agenda. Dr. Geraldine Knatz (USC), Dr. Tyler Reeb (CSULB), and Dr. Marlon Boarnet (USC) authored a summary of the event which outlines the key takeaways from this discussion. The event summary, along with a comprehensive list of attendees, can be viewed [here](#). Notable attendees included Jackie Birdsall, Senior Engineering Manager at Toyota North America; Kerry Cartwright, Director of Goods Movement at the Port of Long Beach; Kristen Decas, Chief Executive Officer at the Port of Hueneme; and Charles Kunaka, Lead Transport Specialist at The World Bank.

Pre-event at the USC Hotel – April 8, 2025



Pictured above: I-NUF Supply chain roundtable participants



Dr. Marlon Boarnet welcomes I-NUF attendees.



From left to right: Kristen Decas, Chief Executive Officer of the Port of Hueneme; Dr. Marlon Boarnet, Director of METRANS; and Charles Kunaka, Lead Transport Specialist at The World Bank.



Pictured above: I-NUF conference attendees viewing the keynote session.



From left to right: Tyler Reeb, Director of the Center for International Trade and Transportation; John Keisler, CEO & Managing Partner at Sunstone Management; Bill Beverley, Co-Founder & Co-CEO of Evolectric; Jasmine Jiang, Senior VP of Investment Operations at Sunstone Management



I-NUF attendees tour the UPS Western Region Logistics Center as part of the conference's closing event.



I-NUF attendees tour the USC Coliseum as part of the conference's closing event.

B. Ongoing Outreach Activities

PSR conducts many outreach efforts that have been described in past SAPRs. Ongoing outreach activities include: **CSULB CITT Center Updates**, bimonthly e-blasts to industry/academia consisting of brief articles covering relevant Center activities with a focus on the freight sector and workforce development; **Logistics Peer Exchange** (CSULB), a peer exchange on best practices in regional freight planning and coordination; **Mobility Matters** (CSULB), a CITT podcast series dedicated to addressing mission-critical issues facing the professionals who design, develop, operate, and maintain mobility systems.

METRANS News: During this past reporting period, USC METRANS and CSULB continued the newsletter issues with newsletters in April 2025, July 2025, and September 2025. Each newsletter includes an example of transformative research, summarizing a recently completed PSR research project. METRANS News also summarizes education and outreach and includes coverage of other METRANS projects and activities. The average opening rate was 41.45%, compared to 41.4% during the previous reporting period. This is generally consistent with Constant Contact’s overall average of 35% and the newsletter’s open rate slightly exceeds this range. For this reporting period, newsletters also include the International Urban Freight (INUF) Conference. The monthly newsletters are archived [here](#).

USC METRANS PSR-supported METRANS Research Seminars held during the reporting period included:

- [Moving Goods Through Southern California: Challenges and Opportunities](#), Michael Cano, Deputy Executive Officer for Goods Movement Planning and State Policy and Programming for Los Angeles County Metro’s Countywide Planning Department and Noel Hacegaba, Chief Operating Officer for the Port of Long Beach.



Transfers Magazine

During this period, [Transfers Magazine](#) has been editing articles for the 12th issue magazine. The articles under consideration come from authors representing UCLA, UCB, NAU, and UCI. The Transfers

student team has created content for The Circulator blog, including posts about UCLA graduate student’s award-winning national capstone prize, a write-up of PSR research on freeway siting, and a memorial post in dedication to Donald Shoup, founding senior editor and longtime contributor of Transfers. With constant decreased engagement on Twitter/X social channels, Transfers launched a showcase page on LinkedIn to expand its audience reach and engagement. Future efforts will go toward growing this channel. The goal of the magazine is to translate the research of faculty, staff, and students at the PSR campuses into highly accessible content for an audience of elected officials, transportation planners, members of the media, and the general public.



During the reporting period, two **UCD** Friday Seminars were supported by PSR:

1. “Toward Safe Speeds: A Multipronged Approach to Addressing Speed-related Crashes in California”, with Julia Griswold, Director, UC Berkeley Safe Transportation Research and Education Center (SafeTREC)
2. “Bridging Mobility and Health: Promoting Physical Activity and Safety through Active Transportation Research and Advocacy”, with Morgan Hughey, Associate Professor of Public Health & Faculty Fellow at the Riley Center for Livable Communities, College of Charleston

4. Participants & Collaborating Organizations

Participants contribute to the work of the PSR 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.

C. Financial support

Over the course of the grant, these are among the entities who provided match funding for PSR research projects. This list is a sample and is not exhaustive.

- California Department of Transportation (Caltrans)
- Los Angeles Business Council (LABC)
- California Air Resources Board
- Peterson Foundation
- University of Southern California research support

D. Other support

PSR researchers leverage UTC funding into a broad array of additional support. Existing or recent past grants include:

- California Air Resources Board (Boarnet)
- Defense Advanced Research Projects Agency (Carlsson)
- Gwen Schaffer National Science Foundation grant described in Section 2D of this report
- Office of Naval Research (Carlsson)
- National Institutes of Health (Suen)
- National Science Foundation (Krumm, Molisch, Shahabi)
- University Leadership Initiative (Ioannou)
- USC-Capital One Center for Responsible AI and Decision Making in Finance (Carlsson)

The following organizations provide or have provided in the past (e.g. Fast Act UTC or BIL UTC) indirect or in-kind support to PSR:

- **California:** Council of Supply Chain Management Professionals (CSMCP); Fehr & Peers; Foothill Transit; HDR; International Longshoremen and Warehousemen’s Union (ILWU) Local 13; Long Beach Unified School District; Majestic Realty; MetroLink; Orange County Transportation Authority (OCTA); Port of Long Beach, Port of Los Angeles; San Francisco Metropolitan

Transportation Commission; San Francisco Municipal Transportation Agency; Southern California Association of Governments (SCAG); Southern California Edison; UC Davis Road Ecology Center; UC Institute of Transportation Studies (UC-ITS); Yusen Terminals LLC

- **Arizona:** Arizona Board of Regents, Chamberlin Group, Pima Association of Governments, Northern Arizona University, Southern Arizona Anti-Trafficking United Response Network (SAATURN)
- **Hawaii:** National Disaster Preparedness Training Center (NDPTC), University of Hawaii
- **Others:** Federal Highway Administration; King County Metro (Seattle, WA); staff from state DOTs in California, Colorado, Maine, Minnesota, Nevada, and Virginia.

E. Additional Support

PSR has a tremendous network of partners. Thomas O'Brien (CSULB) and Genevieve Giuliano (USC) are past presidents and past executive committee members of the **Council of University Transportation Centers (CUTC)**, and Susan Handy (UCD) and Marlon Boarnet (USC) are current members of the CUTC board; USC is the lead for the **U.S. Department of Transportation's University Partnership Program for the US-ASEAN Smart Cities Program**, partnering with the University of Indonesia, University of Technology Malaysia, Institute of Technology Cambodia, and Chulalongkorn University (Thailand); **Institute of Transportation Studies (ITS)** (UCD, UCI, UCLA), provides match funding and other resources; **MetroFreight Center of Excellence** (USC, CSULB), METRANS is the home of the Volvo Research and Education Foundation (VREF) Center of Excellence on urban freight and offers many opportunities for international collaboration and partnerships; **National Center for Sustainable Transportation (NCST UTC)** (UCD, USC), strengthens and expands our work in sustainable freight transport; **The Center for International Trade and Transportation** (CSULB), uses its media and social media channels to announce events and other opportunities to a network of students and industry and government partners; **TuSimple** (PCC), offers program support and priority hiring to graduates; **UCLA Lewis Center for Regional Policy Studies**, provides workspace and matching funds researchers and staff at UCLA ITS; **Velodyne Lidar** (UCI), provided a donation of two LiDAR units that are supporting current graduate student fellowship and faculty research projects. The following **METRANS Associates** provide additional financial support: LA Metro, Majestic Realty, Port of Long Beach, Port of Los Angeles, Southern California Association of Governments, WSP USA, Western States Petroleum Association, Los Angeles World Airports, ESRI, Foothill Transit.

F. Collaborations

PSR has an extensive network of collaborations with academic, public and private organizations. Many of these have been described in past SAPRs.

USC partners with:

1. The Los Angeles Business Council (funding) and several industry partners (knowledge supporting partners include the Harbor Trucking Association and trucking firms).
2. The World Bank's Global Transportation Group
3. The California Air Resources Board
4. The Southeast Los Angeles Collaborative

5. METTRANS Associates Program and wider knowledge and technology transfer interactions, a range of entities including: The Gateway Cities Council of Governments, the City of Los Angeles, L.A. Metro, the Southern California Association of Governments, the San Diego Association of Governments, the Ports of Long Beach, Los Angeles, Hueneme, and San Diego, Los Angeles World Airports, and several other public, private, and non-profit entities.

UNLV is partnered with the following organizations:

1. National Science Foundation in Washington D.C.
2. Regional Transportation Commission of Southern Nevada in Las Vegas, Nevada
3. Culinary Workers Union Local 226 in Las Vegas, Nevada
4. William Werner, Associate Dean of Faculty, College of Hospitality, UNLV, Las Vegas NV – expert in hotel industry labor relations.
5. Donald Bren School of Information & Computer Sciences, University of California, Irvine, CA
6. University of the Federal Armed Forces, Munich.

NAU is partnered with the following organizations:

1. MAG (Maricopa Association of Governments): They have a partnership with MAG that is ongoing, and they expect to wrap up an emerging technology grant this coming spring.
2. Phoenix: They wrapped up a task order to provide guidance to the city on implementation of LPIs (Leading Pedestrian Intervals) and other signalized intersection pedestrian treatments across the city.
3. Arizona Transportation Institute (AzTI), which connects experts from NAU, the University of Arizona, and Arizona State University to solve problems identified by ADOT.
4. Furthermore, NAU has maintained our established relationship with the Arizona Institute of Automated Mobility (IAM). The IAM was established by the Arizona Governor in 2018 to provide technical guidance and coordination aimed at fostering the implementation of automated mobility across Arizona.
5. Furthermore, NAU has maintained our established relationship with the Arizona Institute of Automated Mobility (IAM).

CSULB is partnered with the following organizations:

1. California Hydrogen Business Council - <https://californiahydrogen.org/>
2. Evoelectric - <https://evoelectricnow.com/>
3. Fuel Cell Integration Group at Toyota Motor North America Research and Development - https://www.toyota.com/usa/operations/map/ttc_ann_arbor_and_saline
4. Sunstone Management Inc. - <https://www.sunstoneinvestment.com/>
5. Hyzon Motors - <https://www.hyzonfuelcell.com/>

At **UH**, they are collaborating with:

1. Lisa Staes, Director, Center for Urban Transportation Research
2. Nick Barilo, Hydrogen Safety Program Manager, Pacific Northwest National Laboratory, Executive Director of the Center for Hydrogen Safety at the American Institute of Chemical Engineers.
3. Mitch Ewan, Hydrogen Systems Program Manager, Hawaii Natural Energy Institute, University of Hawaii at Manoa.

4. Michael Vorce and Dylan Faraone, SiteTour 360.
5. Jessica London, State Mitigation Planning Unit Manager, CALOES

At **UCLA**, they are collaborating with some organizations below:

1. Siskiyou County Local Transportation Commission at Los Angeles on the project, “Siskiyou County LTC: Transit Revitalization Recommendations (Mia Lewis)”
2. Office of Council member Bob Blumenfeld on the project, “Los Angeles' ADU Ordinance & Its Impact on Neighborhoods in the Greater Western San Fernando Valley (Miles Cressy)”
3. Southern California Association of Governments on the project, “Transitioning Transportation Pilot Projects into Long-term Programs (Josephine Dine)”
4. Los Angeles Department of Transportation (LADOT) on the project, “Enhancing Mobility and Access for Carless/Car-Deficient Household in Los Angeles (Alyssa Suzukawa)”
5. California Air Resources Board on the project, “Tolling for Tomorrow: Road Pricing as a Climate Strategy in California (Alexandria Florin)”

UCB is collaborating with Self-eSTEM in Oakland, California to host a workforce development summer camp.

UCD is currently collaborating with:

1. California Department of Transportation
2. California Air Resources Board
3. Miocar

5. Outputs

PSR outputs include publications, reports, papers, presentations, media, and others. Our target for peer-reviewed publications is 25 per year; our target for presentations is 30 per year. During this reporting period, we have produced **27 peer-reviewed** journal publications and **11 presentations**.

A. Websites

The [PSR website](#) is the central, authoritative source of information regarding our center. Our consortium members also maintain additional sites that contain information relevant to PSR's research and activities. Some of these sites are:

- CITT (CSULB): <https://www.cpie.csulb.edu/center-for-international-trade-and-transportation>
- CITT Articles: <https://ww2.cpie.csulb.edu/news/citt-news/citt-in-the-news>
- eScholarship (UCD, UCI, UCLA): <https://escholarship.org/>
- ITS-Davis: <https://its.ucdavis.edu/>
- METRANS: <https://www.metrans.org/>
- NAU PSR UTC: <https://in.nau.edu/aztrans/psr-region-9/>
- NAU's Cyclist Routing Algorithm for Network Connectivity (<https://rc.nau.edu/cranc>)
- PCC's Center for Transportation Training has a facebook, instagram and twitter page: [@pcctruckdriver for all](#)

- Transfers Magazine (PSR flagship publication): <http://www.transfersmagazine.org/>
- UC Berkeley Digital Repository of ITS Berkeley research reports: <https://escholarship.org/uc/its>
- UC Berkeley news: <https://its.berkeley.edu/>
- UC Davis eScholarship: <https://escholarship.org/uc/itsdavis>
- UCI seminar series: www.its.uci.edu/seminars
- UCLA ITS YouTube channel: <https://www.youtube.com/c/UCLAInstituteofTransportationStudies/>
- UCLA ITS: <http://www.its.ucla.edu>
- UCLA Lake Arrowhead Symposium: <http://www.uclaarrowheadsymposium.org>
- UCLA Transfers Magazine: <http://www.transfersmagazine.org>
- Open access to UCLA Institute of Transportation Studies reports, capstone projects, and policy briefs: https://escholarship.org/uc/ucla_its
- UH website (includes posts on PSR research): <https://ndptc.hawaii.edu>
- UNLV website: <https://smartcities.sites.unlv.edu/>

B. New methodologies, technologies, or techniques

Nothing to report.

C. Other products

Nothing to report.

6. Outcomes

PSR's goal is to effectively and efficiently move research to practice so that new knowledge can be shared, acted upon, and contribute to a more efficient innovative, and effective transportation system. We achieve our goal through technology transfer activities: events, communications, training, and client-based research. We define outcomes as any changes made to the transportation system, or its regulatory, legislative, or policy framework, resulting from research and development outputs.

USC communicated its research on California's zero emission truck requirements (completed in September, 2024) to convenings of California legislators during this review period. USC also maintained communication with the Ports of Los Angeles and Long Beach as they discussed how to respond to proposed indirect source rule emissions requirements.

7. Impacts

PSR defines an impact as that which influences the transportation system, or society in general, such as reduced fatalities, decreased capital or operating costs, community impacts, or environmental benefits. The journey of generating outputs and impacts is uncertain and happens over time. PSR's research products are made [available to the public](#).

Nothing to report this period. USC is meeting with several Region 9 stakeholders, including the LA 28 Olympic organizing committee, to provide expertise for transportation management in unusual circumstances that include mega-events. We will report on this in future SAPRs.

8. Changes/Problems

A. Changes in approach and reasons for change

Note the change in research topics described in Section 1A of this SAPR.

At the time of the grant termination on May 2, the PSR UTC was in compliance with all executive orders. The termination of the PSR UTC, per the May 2 letter addressed to USC President Carol Folt from Maria Lefevre, did not cite any lack of compliance with executive orders. In July of 2025, we sent a memo to our grant manager, Britain Bruner, detailing our Executive Order compliance. A shortened version of the text from that memo is below.

USC, and the PSR UTC, was in full compliance with all relevant executive orders and Secretarial orders and memoranda throughout the performance period, up to and including the time of the grant termination notice. The executive orders referenced in Caesar Singh's March 25 email are listed below:
Executive Order 14148, [Initial Rescissions of Harmful Executive Orders and Actions](#)
Executive Order 14154, [Unleashing American Energy](#)
Executive Order 14151, [Ending Radical and Wasteful Government DEI Programs and Preferring](#)
Executive Order 14168, [Defending Women from Gender Ideology Extremism and Restoring Biological Truth to the Federal Government](#)

As part of USC, METRANS and all its grants and contracts, including the PSR UTC, are subject to the same USC procedures that bring the university into compliance with current executive orders. PSR does not operate any programs that advance or promote DEI, DEIA, or discriminatory equity ideology in violation of Federal anti-discrimination laws in hiring, student recruitment, project selection, research or training. Every PSR research project, dating to the inception of the regional center in 2016, has been competitively selected based on external peer reviews (as described in our successful 2022 PSR UTC proposal).

Caesar Singh's March 25 communication also cited these two Secretarial orders or memoranda:
Secretarial Order 2100.7, Ensuring Reliance Upon Sound Economic Analysis in Department of Transportation Policies, Programs, and Activities (https://www.transportation.gov/sites/dot.gov/files/2025-02/DOT_2100.7-Ensuring_Reliance_Upon_Sound_Economic_Analysis_in_DOT_Policies.pdf)
Secretarial Memorandum on Implementation of Executive Orders Addressing Energy, Climate Change, Diversity, and Gender (<https://www.transportation.gov/briefing-room/signed-secretarial-memo-re-implementation-executive-orders-addressing-energy-climate>).

All research projects selected for funding after January, 2025 were vetted to be in compliance with these orders and directives. METRANS and the PSR UTC have long focused on rigorous economic analysis, as called for in Secretarial Order 2100.7. Both Secretarial Order 2100.7 and the Secretarial

Memorandum call on US DOT operating agencies to issue guidance to grantees, and PSR UTC took care to be in full compliance with all directions and guidance throughout the funding period.

B. Change of primary performance site location

Nothing to report.

C. Special Reporting Requirements

Nothing to report.

9. Appendix A

This appendix includes lists (non-exhaustive) of PSR researchers' publications and presentations from the current reporting period.

Publications

Peer-reviewed journal publications

1. Bajo-Buenestado, R., Bento, A.M., Kaffine, D. *et al.* Decarbonization and electricity price vulnerability. *Nat Sustain* **8**, 170–181 (2025). <https://doi.org/10.1038/s41893-024-01502-8>
2. Barthelmy, M. and Boeing, G., "Universal Model of Urban Street Networks," *Physical Review Letters* **135**, 2025, DOI: <https://doi.org/10.1103/1vj4-n8vn>
3. B. Hu and P. A. Ioannou, "Survey of Electric Truck Technologies and Infrastructure Support," in *IEEE Intelligent Transportation Systems Magazine*, vol. 17, no. 5, pp. 72-90, Sept.-Oct. 2025, doi: 10.1109/MITS.2025.3573644.
4. Boeing, G. (2025), Topological Graph Simplification Solutions to the Street Intersection Miscount Problem. *Transactions in GIS*, 29: e70037. <https://doi.org/10.1111/tgis.70037>
5. [John Gunnar Carlsson](#), [Stanley Frederick W. T. Lim](#), [Sheng Liu](#), [Han Yu](#), [Witsanu Arntong](#), [Ee Hsin Tan](#). Redesigning Zoning Systems for Equitable and Efficient Last-Mile Delivery at Ninja Van. *INFORMS Journal on Applied Analytics*. Vol. 55, No. 5, Sept. 2025, <https://doi.org/10.1287/inte.2025.0247>
6. Comandon, A., Rodnyansky, S. and Boarnet, M.G. (2025), Deepening Megaregional Interrelatedness Through Migration: The Case of the Northern California Megaregion. *Growth Change*, 56: e70010. <https://doi.org/10.1111/grow.70010>
7. Fernando, M., Savla, K., Ioannou, P., Optimal coordinated platoon lane change in highways with mixed traffic, *Vehicular Communications*, Volume 54, 2025
8. Han, Y., Zhang, S., Suen, S., Dessouky, M., Ordonez, F., Understanding the traffic pattern impacts of COVID-19 lockdown orders, *Computers & Industrial Engineering*, Volume 211, 2026
9. Hefu, Y., Wen, C., Lam, J., Ioannou, P., Decentralized prescribed-time input-to-state stabilization for interconnected normal form nonlinear systems, *Automatica*, Volume 180, 2025
10. H. Ye, Y. Song, Ioannou, P., "Decentralized Prescribed-Time Control of Robotic Arm-Finger Systems for Grasping and Moving Tasks," in *IEEE Transactions on Cybernetics*, vol. 55, no. 9, pp. 4386-4399, Sept. 2025, doi: 10.1109/TCYB.2025.3586153
11. Karwowski, W., Salvendy, G., Albert, L., Kim, W. C., Denton, B., Dessouky, M., ... Tiwari, M. K. (2025). Grand challenges in industrial and systems engineering. *International Journal of Production Research*, 63(4), 1538–1583. <https://doi.org/10.1080/00207543.2024.2432463>
12. K. Xiang, Y. Song and P. Ioannou, "Nonlinear Adaptive PID Control for Nonlinear Systems," in *IEEE Transactions on Automatic Control*, vol. 70, no. 10, pp. 7000-7007, Oct. 2025, doi: 10.1109/TAC.2025.3567565.
13. Kim, K., Spirandelli, D., Rother, D., Yamashita, E., and Toner, M. (2025). Tracking Wildfire Risk to California Railroads: Integrating Environmental Data and Railway Operations. *Transportation Research Interdisciplinary Perspectives*. 32, 101526.
14. Kim, K., Kaviari, F., Tran, C., Marasco, D., and Yamashita, E. (2025). Evacuation Needs of Homeless People in Waikiki, Oahu, *Transportation Research Record: Journal of the Transportation Research Board*, <https://doi.org/10.1177/03611981251347628>.
15. Martinez, Y.E., Bein, W. (2025). Methods for Identifying Issues with Traffic Signal Timing Parameters and Potential Adjustments: A Survey. In: Latifi, S. (eds) *The 22nd International*

- Conference on Information Technology-New Generations (ITNG 2025). ITNG 2025. Advances in Intelligent Systems and Computing, vol 1463. Springer, Cham. https://doi.org/10.1007/978-3-031-89063-5_62
16. Martinez, Y.E., Bein, W. (2025). Methods for Identifying Issues with Traffic Signal Timing Parameters and Potential Adjustments: A Survey. In: Latifi, S. (eds) The 22nd International Conference on Information Technology-New Generations (ITNG 2025). ITNG 2025. Advances in Intelligent Systems and Computing, vol 1463. Springer, Cham. https://doi.org/10.1007/978-3-031-89063-5_62
 17. Raha, F., Russo, B.J., and A. Ryan, (2025). Investigating the Impact of the COVID-19 Pandemic on Traffic Crash Injury Outcomes among Different Demographic Groups”, Published in Safety Findings. <https://doi.org/10.32866/001c.143776>
 18. J. Stewart, I. -C. Chang, Y. Gu and P. A. Ioannou, "Adaptive Ankle Torque Control for Bipedal Humanoid Walking on Surfaces with Unknown Horizontal and Vertical Motion," *2025 American Control Conference (ACC)*, Denver, CO, USA, 2025, pp. 4647-4652, doi: 10.23919/ACC63710.2025.11107700.
 19. [Nripsuta Ani Saxena](#), [Shang-Ling Hsu](#), [Mehul Shetty](#), [Omar Alkhadra](#), [Cyrus Shahabi](#), [Abigail L. Horn](#), POIFormer: A Transformer-Based Framework for Accurate and Scalable Point-of-Interest Attribution. Sigspatial '25: Proceedings of the 33rd ACM Conference on Advances in Geographic Information Systems, pp. 607-619, <https://doi.org/10.1145/3748636.3762775>
 20. S.R. Gehrke, B.J. Russo, & T.M. Holliday*. (2025). Cyclist-involved crashes and level of traffic stress: Evidence from Arizona. Transportation Research Record: Journal of the Transportation Research Board 2679(6). 10.1177/03611981251322611.
 21. T. Yuan and P. A. Ioannou, "Integrated Freeway Traffic Control Using Q-Learning With Adjacent Arterial Traffic Considerations," in *IEEE Transactions on Intelligent Transportation Systems*, vol. 26, no. 6, pp. 7655-7666, June 2025, doi: 10.1109/TITS.2025.3559893.
 22. Turner, R., C. Higgs, V. Heikinheimo, et al. 2025. " Internationally Validated Open Access Indicators of Large Public Urban Green Space for Healthy and Sustainable Cities." *Geographical Analysis* 57, no. 4: 793–808. <https://doi.org/10.1111/gean.70023>.
 23. W. Gu, H. M. Zhang, M. M. Dessouky, and J. S. Pang (2024). A General Coupled Morning-evening Traffic Equilibrium Model with Rideshare, Ride-hailing and Public Transit Services, *Transportmetrica A: Transport Science*, 2357160
 24. Wei, D., Giuliano, G., Moffa, K., & Mallet, Z., Analysis of alternative commercial vehicle road user charges, *Transportation Research Interdisciplinary Perspectives*, Volume 32, 2025
 25. Wei, D. & Giuliano, G., Estimating the economic impacts of cargo handling equipment electrification: A case study of the San Pedro Bay ports, *Research in Transportation Business & Management*, Volume 59, 2025
 26. X. Liu and P. Ioannou, "Electric Trucks Under Real-World Constraints: Technologies, challenges, and corridor-level operational strategies.," in *IEEE Electrification Magazine*, vol. 13, no. 3, pp. 28-35, Sept. 2025, doi: 10.1109/MELE.2025.3592867.
 27. Zuhayer Mahtab, Shichun Hu, Maged Dessouky, Fernando Ordoñez, The ridesharing routing problem with flexible pickup and drop-off points, *Transportation Research Part B: Methodological*, Volume 198, 2025

Other publications
Conference papers

28. Martinez, Y., Bein, W. (2025). Methods for Identifying Issues with Traffic Signal Timing Parameters and Potential Adjustments: A Survey. 22nd International Conference on Information Technology: New Generations (ITNG), April 28, 2025, Las Vegas, NV.
29. Martinez, Y., Bein, W. (2025). Road Traffic Congestion Exploration and Visualization using Open Spatial-Temporal Data and HCI Principles. 2025 IEEE 15th Annual Computer and Communication Workshop and Conference (CCWC).
30. Shashi Nambisan, S., Nellutla, S., and Koneti. S., *A Comparative Analysis of Accessible Travel Options for the Vegas Loop vis-à-vis Key Existing Modes in Las Vegas*, 2025 Institute of Transportation Engineers (ITE) Mountain District Annual Meeting, Santa Fe, NM.

Presentations

31. Martinez, Y., Bein, W. (2025). Methods for Identifying Issues with Traffic Signal Timing Parameters and Potential Adjustments: A Survey. 22nd International Conference on Information Technology: New Generations (ITNG), April 28, 2025, Las Vegas, NV.
32. Martinez, Y., Bein, W. (2025). Road Traffic Congestion Exploration and Visualization using Open Spatial-Temporal Data and HCI Principles. 2025 IEEE 15th Annual Computer and Communication Workshop and Conference (CCWC).
33. Nambisan, S., *Examining the Impact of Demographic, Geographic and Roadway Factors on Crash Severity: A Nevada-Based Analysis*, 2025 Traffic Records Forum, ATSIP, Boston, MA. August 6-9, 2025.
34. Nambisan, S., *Chief Guest, Valedictory Ceremony*, 11th International Conference on Transportation Systems Engineering and Management (CTSEM 2025), organized by MANIT and CSIR-CRRI, Bhopal, India July 4-5, 2025. Invited.
35. Nambisan, S., *Understanding Rural Crash Risks in Nevada: A Study of Fatalities and Crash Characteristics (2015–2020)*, 11th International Conference on Transportation Systems Engineering and Management (CTSEM 2025), organized by MANIT and CSIR-CRRI, Bhopal, India July 4-5, 2025. Paper No. 177.
36. Nambisan, S., *Evolving Societal Needs, Challenges, and Opportunities in the Transportation Domain*, 11th International Conference on Transportation Systems Engineering and Management (CTSEM 2025), organized by MANIT and CSIR-CRRI, Bhopal, India July 4-5, 2025. Invited Keynote Speaker.
37. Nambisan, S., *A Comparative Analysis of Accessible Travel Options for the Vegas Loop vis-à-vis Key Existing Modes in Las Vegas*, 2025 Institute of Transportation Engineers (ITE) Mountain District Annual Meeting, Santa Fe, NM. June 4-6, 2025.
38. Nambisan, S., *Nevada's Road Safety: Comparing Urban and Rural Areas*, 2025 Institute of Transportation Engineers (ITE) Mountain District Annual Meeting, Santa Fe, NM. June 4-6, 2025.
39. Smaglik, E., "Advancing Pedestrian Safety in Phoenix: A Quantitative Framework for Leading Pedestrian Interval Deployment." Presented to the Maricopa Association of Governments' ITS Committee. May 7th, 2025. (content funding prior to grant pause)
40. Smaglik, E., "LPI / Ped Scramble Guidance." Presented to the ITE Hawaii Section (remotely). August 8th, 2025. (content funding prior to grant pause)
41. Smaglik, E., Gehrke, S. and Russo, B. "Vulnerable Road Users: Recent Advancements and Insights." Presented at the 2025 Phoenix ITE/IMSA Conference, April 16th, 2025.