

Center for Pedestrian and Bicyclist Safety

Semi-Annual Progress Report

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Submitting Official Information: (Same information as Center Director)

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1. ACCOMPLISHMENTS

1.1 What are the major goals of the program?

The goal of the Center for Pedestrian and Bicyclist Safety (CPBS) is to eliminate pedestrian and bicyclist fatalities and serious injuries. CPBS's activities address the <u>Promoting Safety</u> research priority area. Specifically, CPBS addresses the first key challenge under that priority: <u>Vulnerable Users</u>. In addition, CPBS contributes to other Promoting Safety key challenges including <u>Infrastructure</u>, <u>Safety Culture and Behavior</u>, and <u>Rural Transportation Safety</u>. To meet the above goals, CPBS addresses the following objectives from the **US DOT Research**, **Development**, and **Technology** (RD&T) Strategic Plan: <u>Safety Culture and Behavior</u>, <u>Human-Technology Interaction</u>, <u>Safety Design</u>, <u>Safety Data</u>, and <u>Safety Technology</u>.

CPBS is led by the University of New Mexico (UNM) in collaboration with consortium members San Diego State University (SDSU), University of California Berkeley (UCB), University of Tennessee Knoxville (UTK), and University of Wisconsin Milwaukee (UWM).

1.2. What was accomplished under these goals?

Administrative Accomplishments

Administratively, CPBS finalized Year 2 research projects and submitted Final Reports to USDOT for 11 of 20 projects. It's expected that another three will be submitted by the end of October, and the remaining six will be submitted by the end of the year. Two Year 1 projects (23UCB02 and 23UTK01) that experienced earlier delays were completed during this period.

CPBS directors selected nineteen Year 3 projects. The center organized the proposed Year 3 budget to support these selected projects and submitted project titles and budget information to USDOT for review. UNM reviewed and approved the overall contract modification for Year 3 and is working with subawardees to finalize their contract modifications.

Research Accomplishments

At UNM, Dr. Nick Ferenchak successfully completed the New Mexico Pedestrian Outreach Program (24UNM02), which has been approved by NMDOT for implementation. A paper based on this project was accepted for presentation and recommended for publication at the Transportation Research Board Annual Meeting. Dr. Lisa Losada-Rojas advanced multiple projects: for 24UNM03, the team conducted data collection activities with 30 participants during summer 2025 and began data analysis and manuscript preparation; for 23UNM04, a manuscript was submitted to Transportation Research Part F; and for 23UNM05, two papers were accepted at conferences.

At UCB, 24UCB01 completed pandemic-era hit-and-run analyses and coordinated with UTK on FARS data collections and preparing manuscripts for submission. Project 24UCB03 completed the RAG framework using Large Language Models to extract crash report features. For 24UCB02, the research team expanded the literature review, grew the conflict databases to over 140 entries, advanced case studies in Austin, TX; Baltimore, MD; Berkeley, CA; and Nashville, TN, and used Community Advisory Committee meetings to gather further input. For 23UCB02, police stop data were cleaned and the natural language processing model was refined and validated.

At UWM, Dr. Robert Schneider completed pedestrian crash paper revisions and extended bicyclist crash modeling across eight states (2008–2012, 2017–2021) for 24UWM01. The team conducted agency interviews exploring fatality rate shifts and established a Wisconsin DOT collaboration examining injury patterns statewide. For 24UWM02, Dr. Shi improved abnormal driving behavior detection algorithms. Dr. Qin's 24UWM03 survey reached 26 state DOTs, with results analyzed and a workshop conducted. For 24UWM04, mid-block crossing counts were collected at 60 Milwaukee segments with preliminary safety analyses conducted. For 24UWM05, a PLTS survey was distributed to 2,000 participants for validation.

At UTK, Dr. Brakewood and Dr. Cherry advanced 23UTK01, publishing in the Journal of Safety Research and submitting a conference paper accepted for TRBAM 2026. For 24UTK01, the team submitted a report analyzing crash characteristics using CRSS/FARS data. Dr. Khattak and Dr. Appleyard examined built environment influences for 24UTK02. Dr. Khattak's 24UTK03 evaluated P-AEB systems, with papers published in Accident Analysis & Prevention and accepted in the Journal of Safety Research. Dr. Cherry prepared micromobility policy visualizations for 24UTK06. For 25UTK01, Dr. Cherry and Dr. Parajuli investigated Tennessee crashes, and for 25UTK03, Dr. Khattak applied AI techniques to TITAN data with two TRBAM 2026 papers accepted.

At SDSU, the team advanced drone video analysis for 25SDSU01, gathered data for street redesign analysis for 25SDSU02, and developed a VR simulator for 25SDSU03. For 24SDSU04, spatial collision maps were produced, resulting in a publication in Transportation Research Interdisciplinary Perspectives. For 24SDSU01, the team examined speed-crash-vehicle relationships, producing a CPBS report and TRB submission, while 24SDSU02 identified 65 RTOR events with eight critical conflicts and submitted the final report. For 24SDSU03, the team scored 146 transit stations using a Transit Level of Traffic Stress metric, producing a TRB paper accepted for presentation. Manuscripts from 23SDSU02 and 23SDSU03 continued revision for journal resubmission.

Technology Transfer Accomplishments

CPBS continued to expand its technology transfer efforts through its ongoing webinar series and conference presentations. The webinar series attracted substantial audiences during the reporting period. In August 2025, Zachary Lamb from UCB presented "Safety vs. Safety: Understanding and Overcoming Conflicts between Street Safety and Fire and Emergency Response" (24UCB02) with 508 attendees (Figure 1). Later in August 2025, Liza Lutzker from UCB presented "What Can Police Stop Data Tell Us About Traffic Safety?" (23UCB02) with 185 attendees. In September 2025, Dr. Robert Schneider and Dr. Nick Ferenchak presented "Spatial and Temporal Shifts in Pedestrian Fatalities & Serious Injuries" (24UWM01 & 2011) 1000 at 1200 at



Figure 1. Dr. Zachary Lamb presents the "Safety vs Safety" webinar which had 508 attendees.

23UNM02) with 280 attendees. There were six CPBS webinars (April-September 2025 with 1,379 total attendees) during the reporting period that disseminated safety expertise to professionals nationwide

At UNM, CPBS helped host the ITE Mountain District Annual Meeting in Santa Fe, NM, in early June 2025. In conjunction with this event, CPBS research assistants organized the ITE Student Leadership Summit, which brought together approximately 40 students from 12 universities across the Mountain West and the United States. Dr. Losada-Rojas's students presented two papers at the International Conference on Transportation & Development (ICTD 2025) in Phoenix in June 2025, sharing findings from 24UNM03 (**Figure 2**).

At UWM, Dr. Robert Schneider delivered multiple presentations promoting CPBS research. He presented on crash database development as part of a panel at the AAA Foundation for Traffic Safety Safe Mobility Conference in Madison, WI, in April 2025 (~20 attendees) and led a workshop on Pedestrian Level of Traffic Stress at the same conference (~20 attendees). Dr. Schneider presented "Walkable Places" in Rock Island, IL, in May 2025 (~30 attendees) and on PLTS at UWM in September 2025 (~20 attendees). Dr. Xiao Qin and Dr. Yang Li participated in panels on crash data systems and reporting methods at the Safe Mobility Conference. PhD student Xiao Liang presented research on abnormal driving behavior detection at the Safe Mobility Conference (24UWM02). Dr. Tom Shi presented on pedestrian-vehicle interactions at the ITE Wisconsin Traffic Engineering Workshop. PhD students Xiao Liang, Muhammad Fahad, and Narayan Rai presented research posters at the 2025 Southeast Wisconsin Transportation Symposium.

At UCB, in addition to the CPBS webinars noted previously, the SafeTREC YouTube webinar on safe speed limit

setting gained 54 additional views during the reporting period, totaling 453 views.

At UTK, Saurav Parajuli presented two papers related to CPBS work at the Transportation Research Symposium 2025 in Rotterdam, Netherlands, in May 2025: "Assessing pedestrian safety perceptions in low-income cities" and "Pedestrian safety policy should tackle dangerous streets and dangerous vehicle design." The ITE student chapter at UTK organized four seminars on transportation topics including travel time reliability (April 2025), traffic impact studies (April 2025), career pathways in transportation engineering and planning (September 2025), and consulting careers in transportation (September 2025).

At SDSU, Dr. Appleyard was interviewed by KPBS radio and TV about the Right Turn on Red study from 23SDSU02, and he presented findings from the RTOR study at the Association of Collegiate Schools of Planning (ACSP) Conference in October 2025.

CPBS's following on LinkedIn and the newsletter mailing list continues to grow. CPBS currently has 3,608 followers on their LinkedIn page and 3,015 subscribers to the newsletter (distributed monthly). CPBS leadership regularly receives social media content from consortium members and posted relevant research, articles, announcements, and other information on LinkedIn approximately twice per week throughout the current reporting period.

Figure 2. UNM Student Ankit Aryal presents at the ASCE International Conference on Transportation & Development

Workforce Development Accomplishments

At UNM, CPBS supported the New Mexico Transportation Safety Summit in September 2025, which drew nearly 300 registrants from across the state. The center contributed to this significant workforce development event with two presentations showcasing research projects 23UNM01 and 24UNM02. Additionally, one undergraduate student working with the UNM team graduated in Spring 2025 and successfully entered the workforce.

At UCB, Liza Lutzker led a roundtable discussion on June 3 for Vision Zero practitioners entitled "Local level challenges and opportunities to implement the Safe System Approach" at the US Safe System Academy Training in Washington, DC. This professional development session provided practitioners with practical insights on implementing evidence-based safety strategies at the local level.

At UTK, graduate students advanced their transportation safety competencies through coursework opportunities. In Spring 2025, students strengthened their expertise in the Transportation Planning course, applying planning and analytical methods to evaluate real-world scenarios and producing professional reports addressing contemporary planning challenges. In Fall 2025, students developed expertise through the Intelligent Transportation Systems course, gaining hands-on experience with connected and automated vehicle technologies, emerging data sources, and innovative mobility applications while contributing to ongoing research projects and publications.

At UWM, Dr. Robert Schneider delivered a guest lecture titled "Safe & Healthy Streets: An Invitation to Advocate for Transportation System Change" in a Community Health Course at Milwaukee Area Technical College led by Melissa DeNomie. This presentation focused on pedestrian and bicyclist safety and exposed community health students to the intersection of transportation infrastructure and public health outcomes.

At SDSU, Dr. Appleyard helped lead pedestrian and bicycle safety audits on several occasions, providing students with practical field experience in identifying safety hazards and recommending countermeasures. On September 9, 2025, Dr. Appleyard helped lead planning students on a safety audit, and on September 29, 2025, he helped lead a class of SDSU students on another safety audit exercise.

Educational Accomplishments

At UNM, the center continued its Summer Transportation Institute program, providing K-12 students with hands-on exposure to transportation engineering and safety concepts. Additionally, Grant Rudnick, an undergraduate CPBS student working with the UNM team, received multiple recognitions for academic excellence during 2025, including the Outstanding Senior Award from ASCE New Mexico, the Stephen & Cynthia Mitchell Endowed Scholarship from UNM's Department of Civil, Construction and Environmental Engineering, and the ITE Jerry Hall Memorial Scholarship.

At UCB, faculty mentored eight graduate students and three undergraduate students as part of their participation in generating high-quality CPBS research pertaining to pedestrian and bicyclist safety. During Summer 2025, CPBS Fellow Nikou Khoshnevis Asl conducted research for her project "A Vision-Based Analysis of Infrastructure Impacts on Pedestrian and Bicyclist Crash Outcomes in California," which uses computer vision techniques and Google Street View imagery to systematically assess the built environment at locations of historical pedestrian and bicyclist crashes throughout California. UCB also completed instruction of the CE C265 Traffic Safety and Injury Control course during Spring 2025, with 12 students enrolled.

At UTK, PhD students Sameer Aryal and Saurav Parajuli, advised by Dr. Chris Cherry, defended their dissertations and graduated on August 16, 2025. Aryal's research explored how e-bikes and e-scooters can replace car trips, while Parajuli's dissertation analyzed factors influencing pedestrian injury severity. MS student Jaden Chin graduated with research on quick build projects for pedestrian safety. Several UTK faculty incorporated pedestrian and bicyclist safety topics into graduate and undergraduate coursework, including transportation planning, policy debates, and multimodal designs.

At UWM, Dr. Tom Shi taught undergraduate and graduate students in his Spring 2025 and Fall 2025 CIV 490 and CIV 490(G) Transportation Engineering courses about the abnormal driving behavior identification method developed in project 24UWM02 and discussed its real-world application performance. Dr. Robert Schneider taught graduate students in his Spring 2025 UP 772 Pedestrian and Bicycle Transportation course about the Pedestrian Level of Traffic Stress (PLTS) method from project 24UWM05, discussing the validation and refinement process. Sydney Swift and Kyle Nelson, co-authors of the Year 1 CPBS project report, participated as guest speakers. Dr. Schneider had students review and comment on the PLTS tables, test a draft of the PLTS national survey, and apply PLTS methodology to their final intersection redesign projects.

1.3. What opportunities for training and professional development has the program provided?

CPBS supported the New Mexico Transportation Safety Summit in September 2025, which drew nearly 300 attendees from across the state, with the center contributing two presentations showcasing research projects 23UNM01 and 24UNM02. At UCB, Liza Lutzker led a roundtable discussion for Vision Zero practitioners at the US Safe System Academy Training in Washington, DC, in June 2025. UTK graduate students took Transportation Planning (Spring 2025) and Intelligent Transportation Systems (Fall 2025) classes, applying analytical methods to real-world safety challenges and producing professional reports and research papers. At UWM, Dr. Robert Schneider delivered a guest lecture on safe and healthy streets at Milwaukee Area Technical College. At SDSU, Dr. Appleyard led pedestrian and bicycle safety audits in September 2025, providing students with practical field experience in identifying safety hazards and recommending countermeasures. CPBS's webinar series during this period attracted between 100-500 attendees per session, with topics including driver education, emergency response conflicts, police stop data, and pedestrian injury trends. There were six CPBS webinars (April-September 2025 with 1,379 total attendees) during the reporting period that disseminated safety expertise to professionals nationwide.

1.4. How have the results been disseminated?

CPBS's results have been disseminated through various channels, including the CPBS website, newsletter, and LinkedIn page which now has 3,608 followers. The newsletter, distributed to 3,015 subscribers, continues to be a

key platform for sharing updates. In addition, CPBS produced 14 journal publications, 14 research reports, 14 conference papers, and 31 presentations during this reporting period. CPBS's work continues to reach broad audiences through these channels, with an ongoing focus on sharing research outcomes and practical applications.

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

Research Plans & Goals

CPBS will continue to complete Year 2 work and plans to initiate Year 3 activities during the next reporting period.

At UNM, Dr. Losada-Rojas will prepare two journal papers for submission focusing on 24UNM03. At UCB, Dr. Griswold, Matthew Raifman, and Sujin Lee will present their automated speed safety camera research as finalists in the INRIX + MetroLab 2025 challenge. At UTK, multiple manuscripts will be prepared for journal submission including work on built environment impacts (24UTK02), transit bus stop crashes (24UTK01), and natural language processing approaches to identify bus-stop crashes from police reports (25UTK05). UWM plans to begin Year 3 projects including creating virtual models of large vehicles and developing driving simulations (25UWM01), coordinating with Milwaukee on street lighting data collection (25UWM02), analyzing PLTS National Survey responses and developing protocols for rating events with older adults (25UWM03), and gathering speed and crash data for pedestrian volume models (25UWM04). At SDSU, the team will refine computer vision models for campus conflict analysis (25SDSU01), conduct site visits for street redesign case studies (25SDSU02), begin assembling the transportation VR simulator (25SDSU03), analyze Right Turn on Red PET thresholds (24SDSU02), continue FARS data analysis (24SDSU01), and work on manuscripts for publication (23SDSU02, 23SDSU03).

Technology Transfer Plans & Goals

At UNM, two student presentations have been accepted for presentation at the 2026 TRB Annual Meeting, with one also transferred to Transportation Research Record. At UCB, an abstract for the poster presentation "At the Intersection of Hit-and-Runs and Homelessness: Pilot Risk Analysis and Postmortem Case Series" by Katarina Cook, Julia Griswold, and Liza Lutzker was accepted for the American Medical Association (AMA) Research Challenge, a virtual poster symposium taking place October 22-23, 2025. At UTK, Dr. Asad Khattak and PhD students Zeinab Bayati and Sheikh M. Usman plan to present results from PS25UTK03 and PS25UTK04 at the 2026 TRB Annual Meeting in Washington, D.C. At SDSU, Dr. Appleyard presented a webinar on Right Turn on Red findings on May 8, 2025, and will present this research at the Association of Collegiate Schools of Planning (ACSP) Conference on October 23, 2025.

Workforce Development Plans & Goals

CPBS will continue to provide training and professional development opportunities during the next reporting period. At UTK, students in the Intelligent Transportation Systems (ITS) course and Transportation Safety course will gain exposure to safety-related research by applying data-driven analytical methods and contributing to research reports and journal paper development. At UWM, Dr. Robert Schneider will give a lecture about pedestrian and bicycle safety trends and safe system strategies to approximately 30 people at an older adult living facility in Greenfield, WI, in late 2025. Dr. Schneider led a UWM Campus Walk Audit in December 2025 to identify pedestrian accessibility needs and opportunities for pedestrian, bicycle, and transit improvements for the UWM Physical Environment Committee Transportation Subcommittee. Dr. Schneider will also present results of his research on geographic, temporal, and socioeconomic shifts in pedestrian and bicyclist crashes at the Wisconsin Governor's Bicycle Advisory Committee in late 2025 or early 2026.

Education Plans & Goals

CPBS will continue to integrate pedestrian and bicyclist safety in coursework during the next reporting period. At UTK, Dr. Asad Khattak will teach the Transportation Planning course in Fall 2026, focusing on advanced technologies to enhance mobility, safety, and traffic management.

2. PARTICIPANTS & COLLABORATING ORGANIZATIONS

2.1. What organizations have been involved as partners?

2.1.1. New Partners

CPBS established new partnerships with nine new organizations and continued partnerships with nineteen others.

| Name | Location | Support | | |
|--|------------------------|--|--|--|
| California Polytechnic State University, San Luis Obispo | San Luis Obispo, CA | Collaborative research | | |
| Chiba University | Japan | Preparing articles and proposals together for NSF based on CPBS projects | | |
| INRIX | US | Speed and trip data from San Francisco for speed camera pilot evaluation. SafeTREC finalist in Metrolab X INRIX Challenge. | | |
| Intelligent Transportation Systems Tennessee (ITS-TN) | Nashville, TN | Provided financial support to students | | |
| Metrolab | Washington, DC | Same as INRIX above | | |
| Penn State University | State College, PA | 25UWM04: Lead data collection (pedestrian counts, crashes, speeds), statistical analysis, and model development. Assist with report and presentations. | | |
| San Francisco Municipal Transportation Agency (SFMTA) | San Francisco, CA | Collaborator on study to evaluate safety impacts of their pilot speed safety camera program | | |
| Tennessee Section Institute of Transportation Engineers (TSITE) | Nashville, TN | Provided financial support to students. | | |
| UCSD Transportation Research and Education for Driving Safety (TREDS) | San Diego, CA | Collaborator on OTS-funded research on teens driving after drinking | | |

2.1.2. Ongoing Partners

| Name | Location | Support | | | |
|--|-----------------|--|--|--|--|
| AAA Foundation for Traffic Safety | Washington, DC | Serving on CPBS Advisory Committee | | | |
| Albuquerque Public Schools | Albuquerque, NM | Collaborating with APS Vision Zero for Youth Initiative | | | |
| California Department of Motor Vehicles | Sacramento, CA | Providing vehicle registration data for UCB projects; Collaborating on AV research | | | |
| California Office of Traffic Safety | Elk Grove, CA | Financial support for graduate level safety courses | | | |
| California State Senate Staff | Sacramento, CA | Providing research support for an intelligent speed assistance (ISA) technology project. Our findings will also help guide State policy. | | | |
| California Transportation Commission | Sacramento, CA | Cost share for vehicle weight and VRU safety project | | | |
| Caltrans | Sacramento, CA | In-kind match for several UCB projects | | | |
| City of Milwaukee - Department of Public Works | Milwaukee, WI | 24UWM04/05: Review methods, fund data, support surveys. 25UWM02: Assist field collection. 25UWM03: Review/distribute surveys, attend PLTS events; \$3,000. | | | |
| Institute of Transportation Engineers | Washington, DC | Serving on CPBS Advisory Committee | | | |

| Muse Community + Design | Chicago, IL | 24UWM05: Harmonize PLTS methods, review crash data and report, present results. 25UWM03: Develop survey, lead Portland PLTS event, present results. | | |
|--|-----------------|---|--|--|
| New Mexico Department of Transportation (NMDOT) | Santa Fe, NM | \$120k annual cost share, ongoing personnel support, an Pedestrian Awareness Program | | |
| New Mexico Local Technical Assistance Program (NM LTAP) | Albuquerque, NM | Staff time for organization and implementation of tech. transfer and workforce development events | | |
| Safe Streets Research & Consulting | Portland, OR | 24UWM05: Harmonize PLTS methods, review crash data and report, present results. 25UWM03: Develop survey, lead Portland PLTS event, present results. | | |
| Tennessee Department of Safety and Homeland Security | Nashville, TN | Tennessee police crash data for 24UTK02 | | |
| UC Berkeley Institute of Transportation Studies | Berkeley, CA | STRP research grants on jaywalking, vehicle weight an VRU safety, AV edge cases, and San Francisco speed camera evaluation | | |
| UC Davis Institute of Transportation Studies | Davis, CA | Collaborator on CTC and Caltrans research projects | | |
| UC Irvine Institute of Transportation Studies | Irvine, CA | Collaborator on CTC and OTS-funded research on teens driving after drinking research project | | |
| UNM Engineering Student Success Center | Albuquerque, NM | CPBS organized local field trips for the NM Summer Transportation Institute K-12 education program | | |
| VTI | Sweden | Equipment | | |

2.2. Have other collaborators or contacts been involved?

No other collaborations to report.

3. OUTPUTS

The following lists highlight the outputs generated during the reporting period.

| Performance Measure | Count | Performance Measure | Count |
|-----------------------|-------|---------------------|-------|
| Journal publications | 14 | Presentations | 31 |
| Books/non-periodicals | 0 | Websites | 9 |
| Research reports | 14 | New methods | 2 |
| Policy papers | 0 | Inventions | 0 |
| Conference papers | 14 | Other products | 1 |

3.1. Publications, conference papers, and presentations

Journal publications

- 1. UTK: Bayati, Z., Khattak, A., & Moradloo, N. (2025). Day and night performance differences in detection and deceleration by pedestrian automatic emergency braking systems. *Accident Analysis & Prevention*. https://doi.org/10.1016/j.aap.2025.108221
- 2. UNM: Chaves Lasso, Y. T., Ferenchak, N., Simon, W., Sheets, S., & Losada-Rojas, L. L. (2025). Impact of access management on arterial road crashes: A case study of Albuquerque, New Mexico. *Transportation Research Interdisciplinary Perspectives*, 34, 101660. https://doi.org/10.1016/j.trip.2025.101660

- 3. UWM: Chitturi, M. V., Vorhes, G., He, Z., Claros, B. R., Qin, X., Bill, A. R., & Noyce, D. A. (2025). Safety and mobility impacts of work zone lane and shoulder widths. *Transportation Research Record: Journal of the Transportation Research Board*. https://doi.org/10.1177/03611981251342772
- 4. UCB: Hsu, C., Tsao, M., Moran, M. E., Griswold, J. B., Schneider, R. J., & Bigham, J. M. (2025). A context-sensitive roadway classification framework for speed limit setting in the US. *Transportation Research Interdisciplinary Perspectives*, 33, 101621. https://doi.org/10.1016/j.trip.2024.101621
- UWM: Jung, S. Y., & Qin, X. (2025). Data-driven analysis to inform national strategies on improving postcrash care. *Transportation Research Record: Journal of the Transportation Research Board*. https://doi.org/10.1177/03611981251351888
- 6. UCB: Mahdinia, I., Hirandas, L., Oum, S., & Griswold, J. B. (2025). Understanding pedestrian and bicyclist safety trends in the post-pandemic era. *Journal of Transportation Safety & Security*. https://doi.org/10.1080/19439962.2025.2540392
- 7. UTK: Mansourifar, F., Haworth, N., Ahmadabadi, Z., & Cherry, C. (2025). Riding private or shared escooters or both What influences the uptake decision? *Transportation Research Part F*, 115, 103344.
- 8. UCB: Miah, M. M., Griswold, J., Proulx, F., Bigham, J., Banerjee, I., & Grembek, O. (2025). Methodology of large-scale annual average daily bicycle traffic estimation. *Journal of Transportation Engineering, Part A:* Systems, 151(11). https://doi.org/10.1061/JTEPBS.TEENG-8814
- 9. UTK: Parajuli, S., Cherry, C., Kazemzadeh, K., & Tiwari, H. (2025). Assessing pedestrian safety perceptions in low-income cities. *Transportation Research Part F*, 112, 236-255.
- 10. UTK: Rewalt, A., Brakewood, C., & Cherry, C. (2025). An analysis of pedestrian safety at bus stops using FARS data. *Journal of Safety Research*, 95, 147-159.
- 11. UTK: Usman, S., & Khattak, A. (2025). Applying artificial intelligence techniques to examine nighttime pedestrian crash injury severity at intersections. *Journal of Transportation Safety and Security*, 1-47. https://doi.org/10.1080/19439962.2025.2548807
- 12. UTK: Usman, S., & Khattak, A. (2025). Beyond the conventional: Exploring pedestrian safety on interstates with Bayesian and machine learning models. *Journal of Safety Research*. https://doi.org/10.1016/j.jsr.2025.06.018
- 13. UTK: Usman, S., Khattak, A., & Patwary, A. (2025). Nighttime pedestrian safety in different communities: Application of artificial intelligence techniques. *Journal of Safety Research*, 94, 340-361. https://doi.org/10.1016/j.jsr.2025.06.028
- 14. UTK: Wen, Y., Cherry, C., Bassett, D., Thorsen, T., Zhang, S., Weinhandl, J., & Brakewood, C. (2025). Physical activity and muscle activity of riding electric scooters. *Journal of Transportation and Health*.

Under review:

- 15. UWM: Abrari Vajari, M., Li, Y., Qin, X., & Schneider, R. J. State DOTs' adoption and use of emerging data sources for active transportation safety. Transportation Research Part A. Manuscript submitted for publication.
- 16. UNM: Aryal, A., Han, T., Rawson, J. J., Habib, K., Ferenchak, N. N., & Losada-Rojas, L. L. Pulse of the pedal: ECG-based assessment of stress in urban bicycling. Transportation Research Record. Manuscript submitted for publication.
- 17. UTK: Barnhart, K., & Cherry, C. (2025). Micromobility vehicle second-life battery applications: A market inventory of overlooked battery capacity. Cleaner Logistics and Supply Chain. Manuscript submitted for publication.
- 18. UTK: Bayati, Z., & Khattak, A. (2025). Beyond the norm: Identifying rare and high-risk pedestrian crash patterns using unsupervised learning. Accident Analysis & Prevention. Manuscript submitted for publication.
- 19. UTK: Bayati, Z., & Khattak, A. (2025). Shedding light on safety: Comparing the crash likelihood and speed at impact of pedestrian crash avoidance systems across day and night conditions. Journal of Safety Research. Manuscript accepted for publication.
- 20. UTK: Bayati, Z., Khattak, A., & Mahdinia, I. (2025). Understanding pedestrian and bicycle safety risks and their correlates across geographies. Journal of Transportation Safety and Security. Manuscript submitted for publication.

- 21. UNM: Chaves Lasso, Y. T., Ferenchak, N., Lin, Y., & Losada-Rojas, L. L. Beyond the block: Arterial segments' features and spatial factors associated with pedestrian and bicyclist crashes. Applied Geography. Manuscript submitted for publication.
- 22. UNM: Ferenchak, N. N., & Rodriguez, O. S. Land use, roadway, and socioeconomic correlates of non-motorized road user safety: Differentiating pedestrian and bicyclist risk. Journal of Transport Geography. Manuscript submitted for publication.
- 23. UNM: Ferenchak, N. N., Rodriguez, O. S., Losada-Rojas, L. L., Schneider, R. J., & Gu, X. Longitudinal socioeconomic and built environment shifts in US bicyclist fatality locations 2001-2020. Journal of Cycling and Micromobility Research. Manuscript submitted for publication.
- 24. UNM: Ferenchak, N., Tafoya, O., Parajuli, S., & Cherry, C. (2025). Longitudinal pedestrian safety trends for passenger cars, pickup trucks, and SUVs: A 2016-2022 study of Texas. Journal of Safety Research. Manuscript submitted for publication.
- 25. UNM: L., Chaves Lasso, Y. T., Ferenchak, N., & Lin, Y. Statistical and spatial analysis of pedestrian and bicyclist crashes on arterials roads. Applied Geography. Manuscript submitted for publication.
- 26. UNM: Lucaci, A. M., & Ferenchak, N. N. Enhancing public engagement for active transportation safety planning. Transportation Research Record. Manuscript submitted for publication.
- 27. UCB: Mitman, M., Griswold, J. B., Banerjee, I., & Carpenter, R. A unified framework for safe system implementation. Transportation Research Record. Manuscript submitted for publication.
- 28. UNM: Rawson, J. J., Habib, K., Aryal, A., Han, T., Ferenchak, N. N., & Losada-Rojas, L. L. Eyes on the road: Disentangling cyclist mental workload at intersections. Transportation Research Part F: Traffic Psychology and Behaviour. Manuscript submitted for publication.
- 29. UTK: Usman, S., Adeel, M., Khattak, A., & Brakewood, C. (2025). Examining safety of under-protected road users in transit bus collisions: Insights from the National Transit Database. Manuscript submitted for publication.
- 30. UTK: Usman, S., Adeel, M., Khattak, A., & Brakewood, C. (2025). Uncovering crash narratives: Enhancing safety reporting for unprotected road users in transit bus collisions. Manuscript submitted for publication.

Books or other non-periodical, one-time publications

None to report

Research reports

- 1. UCB CPBS-related: Griswold, J., Khoshnevis Asl, N., Banerjee, I., Mahdinia, I., Sohrabi, S., Miah, M. M., & Grembek, O. (2024). Phase 4: Strategies for reducing pedestrian and bicyclist injury at the corridor level (SMART4) final report. California Department of Transportation.
- 2. UCB CPBS-related: Banerjee, I., Luo, W., Champlin, J., Griswold, J., & Mitman, M. (2025). Safe system research and implementation final report. California Department of Transportation.
- 3. UCB CPBS-related: Griswold, J. B., Aguilar, E., Wang, H., & Miah, M. (2025). Creating an inclusive bicycle level of service: Virtual bicycle simulator study. UC Office of the President: University of California Institute of Transportation Studies.
- 4. 23UNM04: Losada-Rojas, L. L., & Habib, K. (2024). Understanding external factors and workload's impact on cyclist safety. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of New Mexico.
- 5. 23UNM05: Losada-Rojas, L. L., Chaves, Y., & Ferenchak, N. N. (2024). Exploring the role of arterial roads' characteristics on pedestrian and cyclist crashes. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of New Mexico.
- 6. 24UNM02: Ferenchak, N. N., & Lucaci, A. M. (2025). NMDOT pedestrian outreach program. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of New Mexico.
- 7. 24UTK02: The role of built environments factors in enhancing pedestrian and bicycle safety: A comprehensive analysis and policy implications. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of Tennessee Knoxville.

- 8. 24UTK03: Effectiveness of pedestrian crash avoidance technologies: Comparing day vs. night performance. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of Tennessee Knoxville.
- 9. PS25UTK03: Applying AI for crash narrative analysis to identify common and edge cases. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of Tennessee Knoxville. Project in development.
- 10. 24UWM01: Schneider, R. J. (2025). Analysis of geographic, temporal, and socioeconomic shifts in pedestrian & bicyclist traffic injuries. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of Wisconsin Milwaukee.
- 11. 24UWM02: Shi, X. (2025). An unsupervised learning framework for detecting abnormal driving behavior via utility-feature sequences. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of Wisconsin Milwaukee.
- 12. 24UWM03: Qin, X. (2025). Exploring the impact of funding for unconventional data collection on vulnerable road user (VRU) safety improvements, Phase II. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of Wisconsin Milwaukee.
- 13. 24UWM04: Schneider, R. J. (2025). Mid-block pedestrian crossing exposure: Count protocol and database. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of Wisconsin Milwaukee.
- 14. 24UWM05: Schneider, R. J. (2025). Pedestrian level of traffic stress (PLTS) application and validation. Center for Pedestrian and Bicyclist Safety, University Transportation Centers Program, University of Wisconsin Milwaukee.

Policy papers

Nothing to Report

Conference papers

- 1. Bayati, Z., & Khattak, A. (2026). Beyond the norm: Identifying rare and high-risk pedestrian crash patterns using unsupervised learning. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-02408, Washington, DC.
- 2. Bayati, Z., & Khattak, A. (2026). Identifying rare and injurious pedestrian crash types: Using isolation forest combined and cumulative link mixed model with a focus on built environment factors. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-02741, Washington, DC.
- 3. Usman, S., Adeel, M., Khattak, A., & Brakewood, C. (2026). Uncovering crash narratives: Enhancing safety reporting for unprotected road users in transit bus collisions. To be presented at the Transportation Research Board 105th Annual Meeting, Washington, DC.
- 4. Fahad, M., Tasnim, A., Xiong, T., Damaraju, A., Zhao, T., Qin, X., & Shi, X. (2026). A comprehensive evaluation framework for roadside perception systems. To be presented at the Transportation Research Board 105th Annual Meeting, Washington, DC.
- 5. Fahad, M., Tasnim, A., Xiong, T., Damaraju, A., Zhao, T., Qin, X., & Shi, X. (2026). A trajectory dataset of pedestrian—vehicle interactions at crosswalks via deep learning and roadside cameras. To be presented at the Transportation Research Board 105th Annual Meeting, Washington, DC.
- 6. Jung, S., & Qin, X. (2026). Data-driven approach to prioritizing emergency facility deployment in high-risk freeway tunnels. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-03507, Washington, DC.
- 7. Liang, X., Yang, C., & Shi, X. (2026). An unsupervised framework for abnormal driving detection using utility-based feature sequences. To be presented at the Transportation Research Board 105th Annual Meeting, Washington, DC.
- 8. Overstreet, J., Qin, X., Parajuli, S., Cherry, C., & Li, Y. (2026). Does height matter? An analysis of contributing factors to tall vehicle-pedestrian crashes. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-00762, Washington, DC.

- 9. Parajuli, S., Cherry, C., Overstreet, J., Li, Y., & Qin, X. (2026). Impact of tall vehicles on pedestrian injury severity outcomes: Insights from multi-state pedestrian crash data. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-01383, Washington, DC.
- 10. Rukhsana, F., Qin, X., & Schneider, R. J. (2026). A sequential spatial-ML framework for interpretable macro-level pedestrian crash modeling. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-04239, Washington, DC.
- 11. Schneider, R. J., Hemze, N., Barbee, H., Sveen, C., Thorne, K., & Ogunniyi, O. E. (2026). Midblock pedestrian crossing volumes and crash rates in Milwaukee, WI. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-01344, Washington, DC.
- 12. Schneider, R. J., Gu, X., Nelson, K., Ferenchak, N. N., & Qin, X. (2026). Neighborhood-level shifts in fatal and severe injury pedestrian crashes: 2008-2012 vs. 2017-2021. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-02418, Washington, DC.
- 13. Vajari, M. A., McRoy, S. W., Devadiga, M., & Qin, X. (2026). Enhancing data accessibility through automated PII de-identification in crash narratives. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-02489, Washington, DC.
- 14. Vajari, M. A., Shi, X., & Qin, X. (2026). A computer vision pipeline for crosswalk detection, classification, and quality evaluation. To be presented at the Transportation Research Board 105th Annual Meeting, TRBAM-26-05005, Washington, DC.

Presentations

- 1. UCB: Griswold, J. (2025, April 4). Toward safe speeds: A multipronged approach to addressing speed-related crashes in California. Presentation at the ITS Davis Seminar Series. (~50 participants)
- 2. UCB: Griswold, J. (2025, April 17). Safe speeds T3 project. Presentation for the Active Transportation Resource Center (ATRC) online session for Caltrans Safety Awareness Week 2025. (~500 participants)
- 3. UCB: Lutzker, L. (2025, June 11). Trends and disparities in pedestrian injuries and fatalities in hit-and-run crashes. Poster presentation at the Society for Epidemiologic Research (SER) 2025 Annual Meeting, Boston, MA. (~90 participants)
- 4. UCB: Raifman, M. (2025, July 16). Trends in road user injuries and vehicle fleet characteristics. Presentation to the California Transportation Commission. (~33 participants)
- 5. UCB: Lutzker, L. (2025, July 25). Examining the safety-safety dilemma: Preliminary findings from a study of conflicts between safe streets improvements and emergency response. Presentation to the City of Oakland Pedestrian and Bicycle Advisory Committee. (~25 participants)
- 6. UCB: Raifman, M. (2025, July 28). Trends in road user injuries and vehicle fleet characteristics. Presentation to the Caltrans ZEV Technical Advisory Committee. (~66 participants)
- 7. UCB: Griswold, J., & Raifman, M. (2025, September 9). Safe system approach overview and landscape of policy solutions for road user injuries and fatalities. Presentation at the meeting of the Vehicle Weight Safety Study Task Force for AB 251 for the California Transportation Commission. (~40 participants)
- 8. UCB: Griswold, J. (2025, September 17). Panelist for movement & place for community of practice meeting. Presentation for the FHWA Improving Pedestrian Safety on Urban Arterials Project for the UNC Highway Safety Research Center. (~35 participants)
- 9. UCB: Raifman, M. (2025, September 23). Trends in vehicle fleet characteristics and implications for safety. Presentation for the CalTrans IIJA Reauthorization Subworking Group. (~60 participants)
- 10. UNM: Arnold, L., Cherry, C., Ferenchak, N. N., Littlefield, D., Luecke, K., Schneider, R., & Tefft, B. (2025, April). Improving pedestrian safety on urban arterial roads: Understanding the problem and identifying solutions. Workshop at the AAA Safe Mobility Conference, Madison, WI.
- 11. UNM: Ferenchak, N. N. (2025, June). The state of pedestrian and bicyclist safety. Plenary presentation at the ITE Mountain District Annual Meeting, Santa Fe, NM.
- 12. UNM: Lucaci, A. M., & Ferenchak, N. N. (2025, August). Best practices for pedestrian outreach in transportation planning. Presentation at the Colorado Traffic Safety Summit, Breckenridge, CO.

- 13. UNM: Ferenchak, N. N. (2025, September). Design recommendations for urban NMDOT roadways. Workshop at the New Mexico Transportation Safety Summit, Albuquerque, NM.
- 14. UNM: Lucaci, A. M., & Ferenchak, N. N. (2025, September). Best practices in pedestrian outreach in transportation planning. Workshop at the New Mexico Transportation Safety Summit, Albuquerque, NM.
- 15. UTK: Rewalt, A. (2025, April). Using fatal crash data to analyze nationwide trends in pedestrian safety at bus stops. Presentation at the Safe Mobility Conference, Madison, WI.
- 16. UTK: Mansourifar, F., Haworth, N., & Cherry, C. (2025, April). Identifying factors affecting the uptake of private and shared e-scooters or both. Presentation at the Safe Mobility Conference, Madison, WI.
- 17. UTK: Cherry, C. (2025, May 19). Instrumented micromobility: Opportunities to get the most out of the best modes. Invited keynote at the ScooterLab Workshop.
- 18. UTK: Parajuli, S., Cherry, C., Kazemzadeh, K., & Tiwari, H. (2025, May). Assessing pedestrian safety perceptions in low income cities. Presentation at the Transportation Research Symposium, Rotterdam, Netherlands.
- 19. UTK: Parajuli, S., & Cherry, C. (2025, May). Pedestrian safety policy should tackle dangerous streets and dangerous vehicle design. Presentation at the Transportation Research Symposium, Rotterdam, Netherlands.
- 20. UTK: Aryal, S., Cherry, C., Jones, L., & Macarthur, J. (2025, May). The role of e-bike incentives on CO2 emission reduction: An evaluation of purchase incentives and emission savings. Presentation at the Transportation Research Symposium, Rotterdam, Netherlands.
- 21. UWM: Schneider, R. J. (2025, April). Introduction to pedestrian level of traffic stress. Workshop and walking tour at the AAA Foundation for Traffic Safety Safe Mobility Conference, Madison, WI. (~20 participants)
- 22. UWM: Schneider, R. J. (2025, April). Lessons from developing a ten-state pedestrian and bicycle crash database. Presentation as part of "Toward the modernization of state DOTs' crash data systems" panel at the AAA Foundation for Traffic Safety Safe Mobility Conference, Madison, WI. (~20 participants)
- 23. UWM: Liang, X. (2025, April). An unsupervised learning framework for detecting abnormal driving behavior via utility-feature sequences. Poster presentation at the AAA Foundation for Traffic Safety Safe Mobility Conference, Madison, WI. (~30 participants)
- 24. UWM: Li, Y. (2025, April). Enhancing vulnerable road user safety analysis through improved crash data collection in Wisconsin. Panel presentation at the AAA Foundation for Traffic Safety Safe Mobility Conference, Madison, WI. (~20 participants)
- 25. UWM: Shi, X. (2025, April). Modeling pedestrian-vehicle interactions at crosswalks: Insight into anomaly detection. Presentation at the ITE Wisconsin Traffic Engineering Workshop. (~100 participants)
- 26. UWM: Schneider, R. J. (2025, May). Walkable places. Presentation as part of Rescuing Walkable America: The Hilltop Community Commercial Area (HCCA) in Rock Island, IL. (~30 participants)
- 27. UWM: Schneider, R. J., & Ferenchak, N. N. (2025, September). Spatial and temporal shifts in pedestrian fatalities & serious injuries. Webinar presentation at the Center for Pedestrian and Bicyclist Safety University Transportation Center (CPBS UTC). (~230 participants)
- 28. UWM: Schneider, R. J. (2025, September). Pedestrian level of traffic stress: Using human perception to improve street safety. Presentation at the UWM College of the Arts and Architecture "Works in Progress" lunchtime speaker series. (~20 participants)
- 29. UWM: Liang, X. (2025, October). An unsupervised framework for abnormal driving detection using utility-based feature sequences. Poster presentation at the 2025 Southeast Wisconsin Transportation Symposium. (~200 participants)
- 30. UWM: Fahad, M. (2025, October). A trajectory dataset of pedestrian—vehicle interactions at crosswalks via deep learning and roadside cameras. Poster presentation at the 2025 Southeast Wisconsin Transportation Symposium. (~200 participants)
- 31. UWM: Fahad, M. (2025, October). A comprehensive evaluation framework for roadside perception systems. Poster presentation at the 2025 Southeast Wisconsin Transportation Symposium. (~200 participants)

3.2. Website(s) or other internet site(s)

1. UCB: Safe Speeds Toolkit: https://safetrec.berkeley.edu/tools/california-safe-speeds-toolkit

- 2. UCB: CA Active Transportation Data Portal: https://catdataportal.berkeley.edu
- 3. UNM: Center for Pedestrian and Bicyclist Safety: https://www.pedbikesafety.org
- 4. UNM: Crash Data Mapping Portal: https://crash-mapping.edacnm.org/
- 5. UTK: Center for Transportation Research (CTR): https://ctr.utk.edu/
- 6. UTK: Tennessee Transportation Assistance Program (TTAP): https://ttap.utk.edu/resource/web_training.php
- 7. UTK: ITE Student Chapter: https://tesp.utk.edu/ite/
- 8. UTK: Micromobility Research: https://micromobilityresearch.com
- 9. UWM: Institute for Physical Infrastructure and Transportation: https://uwm.edu/ipit/project/

3.3. New methodologies, technologies, or techniques

At SDSU, the team developed a scalable computer vision-based framework for proactively identifying and classifying Right Turn on Red (RTOR) conflict severity using Post Encroachment Time (PET) for project 24SDSU02. This methodology enables data-driven evaluation of RTOR restrictions, signal timing changes, and crosswalk design modifications, supporting the development of targeted action plans and countermeasures. By integrating continuous video monitoring and surrogate safety analysis, the framework improves agency processes for intersection safety assessment and before-after studies of policy interventions.

At UTK, researchers advanced crash narrative analysis methodologies, utilizing unstructured text from crash reports to gain deeper insights into crash circumstances. The team also applied advanced machine learning techniques, including unsupervised learning and anomaly detection methods, to uncover rare or edge cases and enhance predictive modeling in crash data analysis.

3.4. Inventions, patents, and/or licenses

Nothing to Report

3.5. Other products

UNM developed an Immersive Virtual Environment for project 24UNM03, designed to enhance outreach efforts. This innovative tool is used by the Engineering Student Success (ESS) Center to engage high school and first-year students visiting UNM, providing interactive experiences to promote transportation safety and engineering education. The virtual environment supports CPBS's mission to inspire and educate the next generation of transportation professionals.

4. OUTCOMES

4.1. Event participation

CPBS's research, education, technology transfer, and workforce development efforts have been translated into several events, which have engaged numerous transportation students and professionals. These events and their reach are detailed below.

Research Events

UNM: At UNM, CPBS researchers and staff have been working with Albuquerque City Councilor Tammy Fiebelkorn to develop O-25-98 (Amending The Traffic Code And The Sidewalk Ordinance To Improve Protections For Bicyclists, Pedestrians, And Other Vulnerable Users; And Amending The Automated Speed Enforcement Ordinance To Direct Revenue To Vision Zero Traffic Safety Initiatives) and R-25-196 (Taking Measures To Improve Safety For Bicyclists, Pedestrians, And Other Vulnerable Road Users). These policies are aimed at improving pedestrian and bicyclist safety in Albuquerque.

Education Events

CPBS helped organize tours of local transportation facilities as part of the New Mexico Summer Transportation Institute in July 2025, a program for 9th–12th grade students nationwide to encourage transportation careers. UNM also hosted an Institute of Transportation Engineers (ITE) Student Leadership Summit in June 2025, held with the ITE Mountain District Annual Meeting in Santa Fe, NM, fostering student leadership in transportation safety. The CPBS team at UNM is also participating in the UNM Taskforce for Safe Micromobility on campus. The team involved in the CPBS project has helped create maps, provided feedback on written documents regarding future plans, and participated in outreach activities.

Workforce Development Events

CPBS advanced workforce development through diverse educational and professional activities during this reporting period. At UNM, CPBS supported the New Mexico Transportation Safety Summit in September 2025 (~300 registrants), the ITE Student Leadership Summit in June 2025, and the Summer Transportation Institute in July 2025. Two CPBS-funded students graduated, with one entering the workforce and one pursuing a PhD. At UCB, Liza Lutzker led a Vision Zero practitioners roundtable on implementing the Safe System Approach at the US Safe System Academy Training in Washington, DC. At UTK, graduate students strengthened transportation safety expertise through coursework in Transportation Planning (Spring 2025) and Intelligent Transportation Systems (Fall 2025), gaining hands-on experience with



Figure 3. Dr. Robert Schneider leads a "Pedestrian Level of Traffic Stress" workshop at the AAA Foundation for Traffic Safety *Safe Mobility Conference*

analytical methods and connected vehicle technologies. At UWM, Dr. Robert Schneider delivered multiple presentations, including the "Introduction to Pedestrian Level of Traffic Stress" workshop at the AAA Foundation for Traffic Safety Safe Mobility Conference (~20 participants) (**Figure 3**), a "Walkable Places" presentation in Rock Island, IL (~30 participants), and a CPBS webinar with Dr. Ferenchak (~230 participants). Dr. Shi presented at the ITE Wisconsin Traffic Engineering Workshop (~100 participants). At SDSU, Dr. Appleyard led pedestrian and bicycle safety audits in September 2025, providing students with practical field experience in identifying hazards and recommending countermeasures.

4.2. Popular press

CPBS researchers appeared in a variety of news publications from across the country, showing that CPBS's work has wide reach and relevance. Media citations referring to CPBS or its efforts from the last reporting period are below:

Popular press

- 1. UCB: Mercury News. (April 10, 2025). "The Bay Area's first turbo roundabout sent crashes soaring. Commuters and experts say it's still a better intersection." https://www.mercurynews.com/2025/04/09/turbo-roundabout-california-crashes-accidents-safety/
- 2. UCB: Cal Matters. (April 14, 2025). "License to Kill." By Liza Lutzker. https://calmatters.org/investigation/2025/04/license-to-kill/
- 3. UCB: LAist. (April 14, 2025). "Lack of political will and poor coordination hamper LA goal to eliminate traffic deaths, audit finds." https://laist.com/news/transportation/lack-of-political-will-and-poor-coordination-hamper-la-goal-to-eliminate-traffic-deaths-audit-finds
- 4. UCB: UC Berkeley News. (April 24, 2025). "Watch as traffic safety research is explained in 101 seconds." https://news.berkeley.edu/2025/04/24/watch-as-traffic-safety-research-is-explained-in-101-seconds/

- 5. UCB: San Francisco Chronicle. (May 13, 2025). "A Zoox and an e-bike collided in S.F. Here's what it says about robotaxi safety." https://www.sfchronicle.com/sf/article/zoox-ebike-crash-robotaxi-safety-20313079.php
- 6. UCB: San Francisco Chronicle. (June 2, 2025). "Waymos are getting more assertive. Why the driverless taxis are learning to drive like humans." https://www.sfchronicle.com/sf/article/waymo-robotaxis-driving-like-humans-20354066.php
- 7. UCB: Lookout Santa Cruz. (July 1, 2025). "Santa Cruz County drivers beware: So much as touching your cellphone in the car could now get you fined." https://lookout.co/santa-cruz-county-drivers-beware-so-much-as-touching-your-cellphone-in-the-car-could-now-get-you-fined/story
- 8. UCB: San Francisco Standard. (July 7, 2025). "Policing has little effect on SF traffic deaths, decades of data show." By Tomoki Chen. https://sfstandard.com/2025/07/07/san-francisco-traffic-deaths-police-enforcement/
- 9. UCB: Streetsblog SF. (August 20, 2025). "Study: Fire Departments and Street Safety." https://sf.streetsblog.org/2025/08/20/study-fire-departments-and-street-safety
- 10. UCB: Santa Cruz Local. (August 16, 2025). "Watsonville's walking and biking deaths far outpace the county average. Here's why." https://santacruzlocal.org/2025/08/16/watsonvilles-walking-biking-deaths-outpace-county-average/
- 11. UCB: SF Gate. (September 8, 2025). "Bay Area suburb grapples with car crash that killed 4-year-old boy." https://www.sfgate.com/local/article/bay-area-suburb-car-crash-killed-boy-21026882.php
- 12. UCB: San Francisco Chronicle. (September 29, 2025). "If a driverless Waymo commits a traffic violation, who gets the ticket?" https://www.sfchronicle.com/bayarea/article/waymo-robotaxi-traffic-ticket-21074138.php
- 13. UNM: Nob Hill News. (April 2025). "Monte Vista Medians Update." By Lindsay Wood.
- 14. UNM: Jalopnik. (June 2025). "Making It Safer to Bike Gets More People to Ride Bikes, Shocking Study Shows." By Collin Woodard. https://www.jalopnik.com/1876079/making-bicycles-safer-to-ride-gets-more-people-to-ride-study/
- 15. UNM: The San Francisco Standard. (July 2025). "Policing has little effect on SF traffic deaths, decades of data show." By Tomoki Chen. https://sfstandard.com/2025/07/07/san-francisco-traffic-deaths-police-enforcement/
- 16. UTK: The World. "Finland cracks down on e-scooters." https://theworld.org/segments/2025/06/18/finland-cracks-down-on-e-scooters
- 17. UWM: Milwaukee Journal-Sentinel. (April 9, 2025). "The path to Milwaukee suburbs sidewalks isn't always a smooth one. There are pros and cons." By Jim Riccioli. https://www.jsonline.com/story/communities/2025/04/09/pros-cons-sidewalks-milwaukee-suburban-communities/82406760007/
- 18. UWM: Wisconsin Public Radio. (July 21, 2025). "Why Aren't Kids Biking as much as they Used To?" Hosted by Rob Ferrett. https://www.wpr.org/shows/wisconsin-today-2/vape-ban-lawsuit-the-decline-in-kids-biking-historic-brewers-start
- 19. UWM: SFGate. (August 5, 2025). "How to avoid San Francisco's new automatic speeding tickets." By Madilynne Medina. https://www.sfgate.com/bayarea/article/sf-s-speed-cameras-now-issuing-real-tickets-20798597.php
- 20. UWM: UWM News. (January 22, 2025). "Dr. Tom Shi's work is transforming traffic data into road safety solutions." https://uwm.edu/engineering/shis-work-is-transforming-traffic-data-into-road-safety-solutions/

4.3. CPBS's reach

In addition to the direct references to CPBS research and other efforts that are listed above, there are indirect measures of CPBS's reach such as visits to the CPBS website and newsletter recipients. CPBS's reach continues to grow, with website visits up 13% and LinkedIn followers up 23%, surpassing targets. Such indirect measures of reach are detailed in the table below:

| | Reporting Period | | Visitors to CPBS website | Page visits on CPBS website | Project views on CPBS website | LinkedIn followers | Newsletter subscribers | Media mentions |
|---------|-----------------------|--------|-----------------------------|--------------------------------|----------------------------------|-----------------------|---------------------------|----------------|
| Past | 6/1/2023 - 9/30/2023 | Actual | 353 | 1,164 | n/a | 514 | 662 | 16 |
| | 10/1/2023 - 3/31/2024 | Actual | 637 | 2,822 | n/a | 875 | 696 | 18 |
| | 4/1/2024 - 9/30/2024 | Actual | 1,443 | 5,374 | 1,583 | 1,958 | 731 | 8 |
| | 10/1/2024 - 3/31/2025 | Actual | 2,428 | 7,542 | 2,097 | 2,945 | 1,395 | 22 |
| Current | 4/1/2025 - 9/30/2025 | Actual | 2,760 | 8,547 | 2,403 | 3,560 | 3,015 | 20 |
| | | Target | 2,500 | 8,000 | 2,250 | 3,250 | 1,500 | 20 |
| Next | 10/1/2025 - 3/31/2026 | Target | 3,000 | 8,750 | 2,500 | 3,750 | 3,250 | 20 |

5. IMPACTS

5.1. What is the impact on the effectiveness of the transportation system?

At UNM, CPBS projects have built transportation workforce capacity by supporting four graduate students and four undergraduate students. During this reporting period, two students graduated and entered the workforce, bringing pedestrian and bicyclist safety expertise to their professional roles, while four students continue pursuing graduate degrees in transportation-related topics, developing the next generation of transportation safety researchers and practitioners.

5.2. What is the impact of technology transfer on industry and government entities, on the adoption of new practices, or on research outcomes which have led to initiating a start-up company?

CPBS directors, PIs, and staff are impacting government entities – and having their research implemented – through involvement on committees such as:

- 1. Ben Garland (UNM): Member, City of Albuquerque's Transit Advisory Board
- 2. Ben Garland (UNM): Member, Mid-Region Council of Governments' Active Transportation Committee
- 3. Dr. Griswold (UCB): Member, California Walk & Bike Technical Advisory Committee
- 4. Dr. Griswold (UCB): Non-voting Member, California Executive Traffic Records Coordinating Committee
- 5. Liza Lutzker (UCB): Member, City of Berkeley's Transportation and Infrastructure Commission
- 6. Liza Lutzker (UCB): Member, City of Berkeley SAFE STREETS Bond Citizen Oversight Committee
- 7. Dr. Qin (UWM): Member, WisDOT Traffic Record Coordinating Committee
- 8. Dr. Schneider (UWM): Member, WisDOT Non-Driver Advisory Committee
- 9. Dr. Schneider (UWM): Member, California Department of Transportation Active Transportation Project Benefit-Cost Tool Technical Advisory Committee

5.3. What is the impact on the body of scientific knowledge?

CPBS's leadership in committees throughout the scientific community makes them well prepared to have a significant impact on that community. CPBS researchers are members, research coordinators, and chairs of many TRB committees and subcommittees, NCHRP/BTSCRP/TCRP project panels, and other technical committees.

A list of CPBS directors and PIs and their leadership roles on TRB committees is provided below:

- 1. Allison Rewalt (UTK): Member, Pedestrian Committee (ACD18)
- 2. Dr. Appleyard (SDSU): Member, Committee on Landscape and Environmental Design (AKD40)
- 3. Dr. Appleyard (SDSU): Member, Pedestrian Committee (ACD18)
- 4. Dr. Brakewood (UTK): Chair, Transit User Experience Committee (AP016)
- 5. Dr. Cherry (UTK): Member, Committee on Developing Countries (AME40)
- 6. Dr. Ferenchak (UNM): Chair, Committee on Pedestrians (ACD18)
- 7. Dr. Khattak (UTK): Member, Committee on Traveler Behavior and Values (AEP30)
- 8. Dr. Losada-Rojas (UNM): Member, Committee on Implications of Transportation Choices and Access on Public Health (AQC14)
- 9. Dr. Schneider (UWM): Member, Committee on Integrated Transportation Safety Management (ACD11)

CPBS researchers also serve on various other technical committees, which span a variety of topics across the transportation field. This involvement will help expand CPBS's impact beyond the discipline of active mobility:

- 1. Dr. Cherry (UTK): Chair, SAE Micromobility Committee
- 2. Dr. Ferenchak (UNM): CPBS and UNM representative on Council of University Transportation Centers (CUTC)
- 3. Dr. Qin (UWM): Panel, NCHRP 07-36 Guide for Self-Explaining Roads in Context of Safe System Approach
- 4. Dr. Shi (UWM): Co-Chair, IEEE Emerging Transportation Technology Testing (ET3) Technical Committee
- 5. Dr. Shi (UWM): Member, ASCE Connected & Autonomous Vehicles (CAV) Impacts Committee
- 6. Dr. Shi (UWM): Member, American Society of Civil Engineers (ASCE) AI in Transportation Committee
- 7. Dr. Shi (UWM): Member, Wisconsin Automated Vehicle External Advisory Committee
- 8. Liza Lutzker (UCB): Panel Member, TRB's Behavioral Traffic Safety Cooperative Research Program

CPBS's directors and PIs also serve on the editorial boards of many academic journals which expand CPBS's impact on the body of scientific knowledge:

- 1. Dr. Brakewood (UTK): Associate Editor, Journal of Public Transportation
- 2. Dr. Cherry (UTK): Associate Editor, Transportation Research Part D
- 3. Dr. Cherry (UTK): Associate Editor, Journal of Cycling and Micromobility Research
- 4. Dr. Cherry (UTK): Associate Editor, Journal of Sustainable Transportation
- 5. Dr. Ferenchak (UNM): Editorial Advisory Board, Safety Findings
- 6. Dr. Khattak (UTK): Editor-in-Chief, Journal of Intelligent Transportation Systems
- 7. Dr. Khattak (UTK): Associate Editor, International Journal of Sustainable Transportation
- 8. Dr. Khattak (UTK): Special Adviser, Journal of Transportation Safety & Security
- 9. Dr. Khattak (UTK): Advisory Board Member, Analytic Methods in Accident Research
- 10. Dr. Losada-Rojas (UNM): Editorial Board, International Journal of Transportation Science and Technology
- 11. Dr. Oin (UWM): Associate Editor, Urban Lifeline
- 12. Dr. Qin (UWM): Associate Editor, Journal of Transportation Safety & Security
- 13. Dr. Qin (UWM): Handling Editor, Transportation Research Record
- 14. Dr. Qin (UWM): Editorial Board, Accident Analysis and Prevention
- 15. Dr. Schneider (UWM): Editor, Safety Findings
- 16. Dr. Schneider (UWM): TRBAM paper review coordinator (Safety Section)
- 17. Dr. Tom Shi (UWM): Area Editor, Cleaner Logistics and Supply Chain
- 18. Dr. Tom Shi (UWM): Editorial Board, Transportation Research Today
- 19. Dr. Tom Shi: Guest Editor, Neural Computing and Applications

5.4. What is the impact on transportation workforce development?

CPBS made significant strides in workforce development through various educational and professional engagement activities during this reporting period. At UNM, CPBS supported the New Mexico Transportation Safety Summit

in September 2025 (~300 registrants) and organized the ITE Student Leadership Summit in June 2025 (~40 students from 12 universities). Two CPBS-funded students graduated, with one entering the workforce and one pursuing a PhD, while the Summer Transportation Institute provided K-12 students with hands-on exposure to transportation engineering. At UCB, Liza Lutzker led a Vision Zero practitioners roundtable at the US Safe System Academy Training in Washington, DC. At UTK, PhD students Sameer Aryal and Saurav Parajuli and MS student Jaden Chin graduated, with multiple students receiving scholarships from Tennessee transportation organizations. At UWM, Dr. Robert Schneider delivered presentations and workshops reaching ~220 professionals at the Safe Mobility Conference and Southeast Wisconsin Transportation Symposium. At SDSU, Dr. Appleyard led pedestrian and bicycle safety audits providing students with practical field experience. CPBS hosted three webinars (August–September 2025, ~150–500 attendees each) disseminating safety expertise nationwide, underscoring CPBS's commitment to developing transportation safety professionals.

6. CHANGES/PROBLEMS

6.1. Changes in approach and reasons for change

CPBS completed a thorough review to ensure all activities comply with applicable executive orders (EOs) and related guidance. We have communicated these EOs to all CPBS directors, staff, and PIs to ensure ongoing compliance across the center.

CPBS archived all past projects, webinars, newsletters, and other materials that may not have complied with EOs to ensure that all public-facing content is now fully compliant.

All Year 3 projects have been submitted to the USDOT project review process and are currently under review to ensure that all future activities remain in full compliance.

CPBS established an internal review process requiring all researchers to consult with UNM before publicly discussing their CPBS projects. We also created a new internal review process for webinars, newsletters, and social media content to ensure compliance with the EOs. Following internal review, materials are submitted to USDOT for final approval before they are disseminated.

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

A handful of Year 2 projects are delayed due to various issues such as IRB approvals, data acquisition, and personnel changes. CPBS is in communication with the PIs and the final research reports should be submitted during the next reporting period.

Year 3 projects have not yet commenced as we are awaiting USDOT projects approvals. UNM has signed the Year 3 contract amendment and is working on finalizing Year 3 subawards, so CPBS PIs should be able to begin work immediately upon USDOT approval of Year 3 projects.

6.3. Changes that have a significant impact on expenditures

Expenditures are on track. Year 1 funding has been fully spent. Several consortium members are close to spending all their Year 2 funds, while one consortium member is slightly behind on spending Year 2 funds because several students were unable to register for their studies. Overall, Year 2 spending remains on track and within the 10% threshold.

We anticipate that Year 3 spending will align with the approved budget categories once we receive approval to begin project work and begin spending. The Year 3 timeline will be slightly offset as Year 3 officially began June 1, 2025, but project approvals have not yet been granted and therefore work has not begun. We anticipate that we

will set the deadline for Year 3 final reports in late 2026 to provide PIs with a full 12 months to work on their Year 3 projects.

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

Nothing to Report

6.5. Change of primary performance site location from that originally proposed

Nothing to Report

7. SPECIAL REPORTING REQUIREMENTS

There are no special reporting requirements to note. The SF425 financial reporting requirement will be met by separate reports.