



Center for Pedestrian and Bicyclist Safety (CPBS)

Year 1 Strategic Plan (2023-2024)

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Lead Institution

University of New Mexico (UNM)

Partner Institutions

San Diego State University (SDSU)
University of California, Berkeley (UCB)
University of Tennessee, Knoxville (UTK)
University of Wisconsin-Milwaukee (UWM)

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1. CPBS Focus Areas

1.1. Introduction

The Center for Pedestrian and Bicyclist Safety (CPBS) is a Tier-1 University Transportation Center (UTC) supported by the United States Department of Transportation (USDOT) through the Bipartisan Infrastructure Law (BIL).

CPBS's goal is to eliminate pedestrian and bicyclist fatalities and serious injuries. We take USDOT Secretary Pete Buttigieg's statement as our guiding principle: "Zero is the only acceptable number of deaths and serious injuries on our roadways." CPBS will play a critical role in realizing this target for the most vulnerable road users.

CPBS will explore the recent increase in pedestrian and bicyclist fatalities and injuries, identify transformative solutions, and disseminate that knowledge through education, technology transfer, and workforce development.

A key goal of the CPBS Year 1 Strategic Plan is to determine the direction of CPBS's research. For this Strategic Plan, we identify broad research focus areas. Project-specific goals will be determined during the Problem Statement and Project Charter steps (see Section 2.1. for the CPBS project selection process). While the primary goal of this Strategic Plan is to determine research focus areas that will be immediately addressed in Year 1 (see Section 1.2), we also want to consider how these themes will tie into future years of CPBS research (see section 1.3). Education, technology transfer, and workforce development efforts – which will coincide with CPBS's research – are detailed in Section 1.4.

1.2. Research

1.2.1. Research Focus Areas – Year 1

During Year 1, CPBS will continue to define pedestrian and bicyclist safety problems but will also begin to immediately identify solutions. In terms of continuing to define pedestrian and bicyclist safety problems, research might seek to holistically identify the who, where, and when of pedestrian and bicyclist safety issues. Solutions that may be explored include novel road designs, new vehicle or roadway technologies, policy strategies, data techniques, or other topics that align with the Safe Systems approach. We envision that as we move through the life of CPBS and make progress in holistically defining the problem, projects will transition to focus more exclusively on identifying solutions.

CPBS will also seek to pursue both fundamental and applied research. We want to ensure that CPBS research will be implemented by agencies, thereby making it transformative. The research team will therefore integrate specific technology transfer efforts into every project. Since CPBS members come from a wide geographic range, CPBS research should apply broadly in urban and rural contexts and across the socio-economic spectrum, making it transformative on a wide scale.

It is also possible for projects that are not solely examining pedestrian and bicyclist safety to be selected. For instance, research linking pedestrian and bicyclist safety to wider transportation goals – such as how enabling walking and bicycling might help reach environmental, equity, and public health goals – may be a worthy CPBS investment. Putting the importance of vulnerable road user safety into a wider context and therefore justifying continued investment in pedestrian and bicyclist safety is critically important.

To identify Year 1 research focus areas, all the research focus areas included in the CPBS proposal (**Table 1**) were ranked by each university's CPBS Director. Rankings were compiled to identify the most pressing research focus areas.

Table 1. All Proposed Research Focus Areas from the CPBS Proposal

| Research Objective | Research Focus Areas | | |
|------------------------------|---------------------------------|------------------------------------|----------------------------------|
| Safety Data | Enhanced Crash Reporting | Fatalities Expected per Time Saved | Surrogate Safety Data |
| | CMFs & Systemic Safety Analyses | Exposure in Low-Count Locations | |
| Safety Design | Arterials | Freeways | Speed Management |
| | Nighttime Safety Treatments | Urban Form & Demographic Shift | |
| Safety Culture & Behavior | Behavioral Error vs. Violation | Safe Systems & Vision Zero | Complete Streets |
| | International Examples | Tribal and Rural Safety | Funding Safety |
| Human-Technology Interaction | E-bikes & Micromobility | Vehicle Design | Distraction & In-Vehicle Devices |
| | Infrastructure Quality | CAVs | |

The research focus areas selected by the CPBS Directors to be prioritized in Year 1 are listed in **Table 2**. Note that there is a strong focus on Safety Design with three of the top six research focus areas aligning with this USDOT RD&T research objective, while no Safety Data topics have been prioritized for Year 1. This distribution is acceptable, but the CPBS leadership will be cognizant of addressing all USDOT RD&T research objectives in future years. For a full description of each of these Year 1 research focus areas, please see **Appendix 1**.

Table 2. Priority Research Focus Areas for Year 1 CPBS Projects

| Priority Rank (1= <i>highest priority</i>) | Priority Research Focus Area | USDOT RD&T Research Objective |
|--|--------------------------------|-------------------------------|
| 1 | Urban Form & Demographic Shift | Safety Design |
| 2 | Speed Management | Safety Design |
| 3 | Arterials | Safety Design |
| 4 | Vehicle Design | Human-Technology Interaction |
| 5 | Funding Safety | Safety Culture/Behavior |
| 6 | Tribal and Rural Safety | Safety Culture/Behavior |

In addition to the above research focus areas that have been prioritized from the proposal, other pressing research topics that were identified by CPBS leadership are detailed in **Table 3**. We refer to these as “secondary research focus areas” and they are simply listed, not prioritized or ranked.

Table 3. Secondary Research Focus Areas for Year 1 CPBS Projects

| Secondary Research Focus Area | USDOT RD&T Research Objective |
|------------------------------------|-------------------------------|
| Pedestrian Level of Traffic Stress | Safety Data |
| Which Communities are Doing Well? | Safety Culture/Behavior |
| Transit Access and Ped/Bike Safety | Safety Design |
| Unhoused Populations | Safety Culture/Behavior |
| Equity in Police Enforcement | Safety Culture/Behavior |

It is not imperative that all projects align with the above research focus areas. Extra points will be awarded during problem statement selections for those statements addressing the above research focus areas, but other projects are still feasible if they are otherwise highly ranked.

1.2.2. Research Focus Areas – Years 2 and Beyond

The CPBS Directors also ranked research focus areas for Years 2 and beyond (**Table 4**). Note that there will be a more even distribution of USDOT RD&T research objectives addressed during Year 2 and beyond with a strong focus on Human-Technology Interaction. These are preliminary rankings and may change as new priorities are identified during Year 1’s research.

Table 4. Priority Research Focus Areas for CPBS Projects in Year 2 and Beyond

| Priority Rank (1= <i>highest priority</i>) | Research Focus Area | USDOT RD&T Research Objective |
|--|----------------------------------|----------------------------------|
| 1 | Nighttime Safety Treatments | Safety Design |
| 2 | E-bikes & Micromobility | Human-Technology Interaction |
| 3 | Distraction & In-Vehicle Devices | Human-Technology Interaction |
| 4 | Enhanced Crash Reporting | Safety Data |
| 5 | International Examples | Safety Culture/Behavior |
| 6 | CAVs | Human-Technology Interaction |

1.3. Education, Technology Transfer, and Workforce Development Efforts

CPBS’s education, technology transfer, and workforce development initiatives may be either inter-institutional/center-wide (e.g., CPBS’s newsletter and social media accounts) or specific to individual institutions (e.g., a study abroad course offered at an individual university). We detail both goals for Year 1 and goals for Year 2 and beyond in the sections below.

1.3.1. Education

The baseline for CPBS’s education program is the integration of CPBS research into each university’s coursework. This should be initiated immediately in Year 1.

UNM

UNM will establish a study abroad course in Year 1 and will explore options for collaboration with partner universities in Year 2 and beyond. The two-week study abroad course will take place in the Netherlands (Amsterdam, Rotterdam, and Utrecht) and will be focused on multimodal transportation systems. The course is offered to all students, but UNM civil engineering students are prioritized.

UNM will integrate CPBS research into the UNM Summer Transportation Institute (STI) beginning in Year 1. The UNM STI is a program hosted at UNM for students in 9th through 12th grade to encourage them to get into the transportation field. The program is free for New Mexico residents and has been run for 20 years. The program typically has 25 students attend annually, but we hope to grow the reach of UNM STI beginning in Year 2.

UNM will also begin the establishment of a dual degree program between civil engineering and community/regional planning during Year 1. The dual degree program will likely not be officially established until Year 2. We will seek to integrate colloquiums and other activities into the dual degree program in Year 3 and leverage the dual degree program to establish a Tier-3 UNM Center focused on transportation.

UNM will take a general approach to education – not necessarily a specific program – by investing in undergraduate students. Doing so will ensure that promising young students are pulled into the transportation field.

SDSU

SDSU will work to fund graduate students in their thesis research (and other CPBS research) in Year 1, and in all subsequent years.

SDSU will create a program for undergraduates on financial aid to ensure that promising young students are excited to get into the transportation field. Special focus will be paid to students at the SDSU Imperial Valley Campus, whose minority population is over 90%.

UCB

UCB will develop and deliver courses that integrate CPBS concepts, including the Spring C265 Traffic Safety and Injury Control course, and the Fall PH285 Injury Prevention and Control Course.

UCB will engage students through student-directed activities and professional opportunities, including a CPBS Pedestrian and Bicyclist Safety Fellowship for graduate students from a diverse selection of academic programs on the Berkeley campus, including electrical engineering and computer science; history; civil and environmental engineering; public health; public policy; the school of information; and city and regional planning. This would provide graduate students with the opportunity to generate high quality research advancing the CPBS mission to eliminate pedestrian and bicyclist fatalities and serious injuries.

UTK

UTK will develop Pedestrian and Bicycle Safety content for CE 559 Transportation Safety. This class includes advanced modeling approaches for different modal safety outcomes. Non-motorized safety content will expand in this course. At the undergraduate level, CPBS content will be added to the senior-level design class and lab sequence, CE 455/456, which will include added road safety audits for pedestrian safety and vision zero content.

UTK will have one graduate student fellowship in the Civil and Environmental Engineering department. This fellowship will allow promising students with novel ideas to have resources to pursue those ideas to support their graduate education. After the first year, students from across campus will be eligible to earn a graduate student fellowship. Likely departments include electrical engineering and computer science, industrial engineering, public policy, public health, architecture, or others.

UWM

UWM will redesign its transportation dual degree program in Civil Engineering and Urban Planning to attract additional students into transportation courses. This will include removing an engineering thesis requirement, exploring reduced urban planning course requirements, and developing new marketing materials by Year 2. Enrollment in the program has dropped over the last 10 years, and this effort will help lead to educating more students about pedestrian and bicyclist safety.

UWM will integrate new pedestrian and bicyclist safety content into its undergraduate level Urban Planning (UP 140 and UP 141) and Civil Engineering (CE 490 and CE 590) courses.

UWM will explore offering pedestrian and bicyclist safety audits near local schools in Southeastern Wisconsin. This may be done in conjunction with other Safe Routes to Schools efforts.

1.3.2. Technology Transfer

CPBS's center-wide technology transfer efforts to be led by UNM during Year 1 include establishing a website and designing marketing/branding materials. UNM will also set up CPBS social media accounts (including LinkedIn and/or Twitter) which all CPBS institutions will be able to utilize to disseminate their research. UNM will also establish a CPBS newsletter and utilize existing pedestrian/bicycle listservs from TRB organizations to disseminate the newsletter. The goal of the CPBS website/social media/newsletter is to 1) promote CPBS efforts and 2) promote other efforts toward pedestrian and bicyclist safety more broadly. We will not try to act as a repository of resources as that would be too time-intensive to keep such an effort updated.

In addition to the above center-wide technology transfer efforts, each research project should have specific technology transfer activities. We will structure the projects on 18-month cycles that will include a 12-month

Research Phase and a 6-month Implementation Phase. The Research Phase will consist of the actual research and the Implementation Phase will allow for the research to be organized into technology transfer deliverables. Plans for technology transfer will factor into the project selection process during the problem statement step.

Because we want to ensure that our research is implemented (and therefore transformative), project-specific technology transfer should primarily take the form of policy changes, patents, or being able to show that agencies are implementing tools or metrics that CPBS has developed. Secondary technology transfer might take the form of journal publications or conference presentations which, while still important, might not necessarily be considered transformative.

Starting in Year 1, CPBS will support travel for students presenting at the Annual TRB Conference in Washington DC.

SDSU

SDSU will establish an Active Transportation Research Technology Transfer Laboratory that will work to create web-based tools and apps based on the work of CPBS consortium members to help inform active transportation research and decisions.

UCB

UCB has ITS which has a center called Tech Transfer, devoted specifically to that topic, and they could develop courses or workshops.

UTK

UTK has a strong working relationship with road safety staff in Tennessee cities and state agencies, including State DOT and DOSHS. We regularly brief staff and practitioners on outcomes from research and will continue to do so under this grant.

UTK will work with the Knoxville Police Department that operates Safety City with the goal of evaluating, improving, documenting, and replicating best practices for child safety education.

UWM

UWM will contribute to CPBS technology transfer efforts by sharing pedestrian and bicyclist safety research products and results through its annual Institute for Physical Infrastructure and Transportation (IPIT) Southeastern Wisconsin Transportation Symposium. The IPIT Symposium typically attracts more than 150 transportation practitioners from the private and public sectors.

UWM will participate in project- and program-level committees for the Wisconsin Department of Transportation and other local agencies. Through this collaboration, UWM researchers will share new research results and tools that will come from CPBS. In some cases, UWM will conduct research that will benefit state and local agencies directly, as UWM will seek CPBS matching funds from these agencies.

UWM will explore adding pedestrian and bicycle safety content into its professional engineer licensing maintenance program.

UWM will develop a data clearinghouse for pedestrian and bicyclist exposure data. This will include manual and automated pedestrian and bicycle counts and model-based pedestrian and bicyclist volume estimates. Initially, the database will house data from Wisconsin, but it could be expanded to include other states.

1.3.3. Workforce Development

CPBS will reach out to the Institute of Transportation Engineers (ITE) regarding their Road Safety Professional (RSP) transportation professional certification program and offer to ensure that their pedestrian and bicyclist

material is up to date. A specific contact on the ITE Transportation Professional Certification Board is Kohinoor Kar who serves on the TRB Pedestrian Committee with some CPBS leadership.

UNM

UNM's workforce development strategy will focus on leveraging the existing infrastructure that has been established through the New Mexico Local Technical Assistance Program (NM LTAP), which is housed in the Civil, Construction & Environmental Engineering Department at UNM. CPBS research will be organized into deliverables that will be disseminated through NM LTAP to communities throughout New Mexico (with a strong focus on rural and tribal communities). We plan to build this connection between CPBS and NM LTAP immediately and have deliverables disseminated to agencies by the end of Year 1.

UNM's other key workforce development strategy is investing in undergraduate students. Since many UNM graduate students come from outside New Mexico and leave the state when finished with their degree, we are particularly interested in investing in students that are committed to building the future of New Mexico. That will involve hiring promising undergraduate students to pull them into the transportation field. We plan to hire undergraduate students immediately during Year 1 and already have several promising students identified.

UNM will also continue to participate in the Transportation Research Board (TRB) Minority Student Fellows Program and a local competition of the Dwight David Eisenhower Transportation Fellowship Program. UNM has historically supported two or three students annually through the TRB Minority Student Fellows Program, which involves mentoring the students through a research paper, submitting to the TRB Annual Meeting, and attending the TRB Annual Meeting. UNM runs a local competition of the Dwight David Eisenhower Transportation Fellowship Program which usually has five or six students participate. These programs are excellent ways to encourage promising students to enter the transportation field and we will support these programs and students beginning in Year 1 of CPBS.

SDSU

SDSU will lead the development of a pedestrian and bicyclist street safety design webinar for professional workforces nationwide, and especially all CPBS regions.

UCB

UCB will develop a module about their bicycle simulator research for the youth STEM summer programs organized by the College of Engineering.

UTK

UTK will work with the Center for Transportation Research (CTR), who hosts the statewide LTAP program (Tennessee Technical Assistance Program – TTAP). The TTAP program offers dozens of trainings annually. Work from CPBS will be integrated into TTAP materials as appropriate.

UWM

UWM will hire at least six graduate students in Year 1 and each subsequent year to assist with CPBS research projects. Through this experience, these students will be well-equipped to enter the transportation field and provide their employers with the latest knowledge and innovations related to pedestrian and bicyclist safety.

2. Project Selection Process

2.1. Introduction

The overall goal of the CPBS project selection process is to divide the funding into specific projects, each of which will have specific deliverables. The CPBS funding should not be used to simply fill gaps in a program's budget. The CPBS project selection process will strive to minimize administrative burden so that the maximum amount of time can be spent on research, education, technology transfer, and workforce development.

CPBS will strive to ensure that the budget negotiated for each university during the proposal stage remains consistent throughout the life of the UTC. However, it is possible that funding will be shifted if USDOT requirements are not being met.

UNM plans to establish one primary subcontract with each partner university. The funding in that subcontract will be divided into specific projects following the below process.

2.2. Problem Statements

Once the primary subcontracts are established, the Center Director will organize a Call for Problem Statements for all CPBS. The Call for Problem Statements will prioritize those topics identified as priorities by the Center/Associate Directors and Advisory Board in the CPBS Strategic Plan. A problem statement will be a short one-page summary of a project idea consisting of proposed objective, budget, and deliverables.

It is up to each Center/Associate Director to define the most appropriate way to advertise the Call for Problem Statements within their own university. This will likely depend on the size and structure of each university and may be advertised across the entire university, specific departments, or through direct contact with possible PIs that are known to work on pedestrian and bicyclist safety. The Call for Problem Statements should be advertised widely to ensure a good mix of ideas.

Once PIs have submitted their problem statements to their respective Center/Associate Director, all Directors should send all submitted problem statements to the Center Director. The Center Director will review all projects to identify areas of overlap (i.e., potential collaborations) and make the individual universities aware of the potential collaborations. Then, all problem statements will be scored and ranked by members of the Advisory Board using an objective merit-based methodology (including alignment with Strategic Plan priorities and level of collaboration) that has been agreed upon by the Center/Associate Directors. Using third-party members of the Advisory Board will avoid conflicts of interest in project scoring.

The scored and ranked problem statements will be returned to their respective Associate Directors. Each Associate Director will make final problem statement selections for their own university and then submit their final recommendations to the Center Director. Each Director's final selections will be guided by 1) the scores/ranks from the Advisory Board (but final selections do not need to align perfectly with Advisory Board scores) and 2) proposed project budgets (to ensure the projects fit within each university's annual CPBS budget). We estimate that each partner university will select three or four problem statements with each having a budget of around \$75,000-\$125,000, although this is flexible with consultation with the Center Director. The Center Director will then ensure that there is not too much overlap between selected problem statements.

2.3. Project Charters

Each Associate Director will direct the PIs from their university who have had their problem statements selected to then develop their problem statements into Project Charters. The Project Charters will be approximately five pages in length and detail proposed data, methods, outcomes, tasks, budget, timeline, and deliverables.

Associate Directors will review each of their university's Project Charters and ensure that the project will meet the goals of CPBS, have concrete deliverables that align with USDOT requirements, and fit within the available

timeline and budget. Once each Associate Director reviews and confirms all their Project Charters, they will submit the finalized Project Charters to the Center Director who will also give a final review.

The Call for Problem Statements – with the objective, external scoring/ranking system – will be the competitive part of the project selection process. The Project Charters will simply serve to further develop the selected problem statements and to set down each project’s details in writing. Other researchers will not be able to compete with a PI during the Project Charter stage.

2.4. Project Implementation

CPBS projects will have a duration of 18 months. Each project will consist of a 12-month Research Phase (data collection and analysis compiled into a Final Report) and a 6-month Implementation Phase (where research is translated into education, technology transfer, and workforce development programs). Structuring the projects into an 18-month timeline will provide more flexibility in spending the money and allow for better implementation of the research. We will attempt to establish a timeline each year where new projects start at the beginning of the fall semester and end at the beginning of the second spring semester.

Appendix 1 Research Topic Descriptions for Year 1 Priorities

Urban Form & Demographic Shift

What parts of cities, counties, metropolitan areas, and states are experiencing the greatest increases and decreases in pedestrian and bicyclist fatalities? CPBS researchers found that in nine large U.S. cities over the last twenty years, pedestrian fatalities decreased by 63% in downtown areas while increasing by 32% in suburban areas (Figure 3). Hotspots were most likely in lower-income, minority neighborhoods. These trends may be related to the suburbanization of poverty, where lower-income populations with lower rates of automobile ownership move out of gentrifying downtowns and into aging, auto-oriented suburbs. Often these populations rely heavily on transit with stops located on auto-oriented arterials. The increase in pedestrian and bicyclist fatalities throughout the US since 2010 has received significant attention, but few researchers have looked closely at urban form and neighborhood socioeconomic characteristics in communities that have experienced the largest increases or decreases in pedestrian and bicyclist fatalities.



Figure 1: Pedestrian Fatality Clusters 1999-2002 (top) and 2017-2020 (bottom)

This project will identify where the increases (or decreases) have been most significant so we can identify possible solutions and know where to focus efforts. After identifying communities with the most significant increases and decreases in fatalities, we will interview engineers, planners, community advocates, and policymakers within these communities to explore why they think their local trends have occurred. Why are some road types becoming more unsafe to certain road users and specifically in particular neighborhoods? How do surrounding land use mix and development patterns in different parts of a community relate to pedestrian and bicyclist safety outcomes and in different cultural and socioeconomic contexts? We will also apply the “home-based” approach to crashes to identify spatial clustering where crash victims live, allowing us to identify if VRUs are being struck within walking distance of home, or further away, while also identifying the socioeconomics of the neighborhoods where crash victims live.

Speed Management

What treatments, individually or in combination, are most cost-effective in managing motor vehicle speeds? The chance of a vulnerable road user being killed from a motor vehicle collision is approximately 10% at 25 mph and 75% at 50 mph. Safe speeds are an important component of a safe system, particularly for VRUs. Finding effective solutions to ensure safe motor vehicle speeds will be a key goal of CPBS.

This project will examine speed management approaches consisting of physical designs, education, and enforcement, and the combination thereof. Using US DOT’s Speed Management Program Plan for guidance, we will look at street designs as if they tell a story to both drivers and vulnerable road users, identifying which facilities do the best job of not just reducing motor vehicle speeds, but also reducing the number of collisions and lowering injury severity. We will partner with agencies that have implemented automated speed enforcement programs (The City of Albuquerque is one such agency) to understand their effectiveness on different types of road configurations, in different land use contexts, and at varying times of day. We will then interview local planners, engineers and designers on what measures were used and what treatments were most effective.

Arterials

66% of pedestrians and 64% of bicyclists killed in 2020 were struck on arterials. Over 80% of the increase in pedestrian and bicyclist fatalities over the last decade occurred on arterials (Figure 2). If we want to reach our goal of zero pedestrian and bicyclist fatalities, arterials will clearly need to be a significant focus. However, while the CPBS team has done extensive work identifying arterials as a key piece of the puzzle, an important research question remains. What changed over the last twelve years that caused arterials to host such a substantial increase in fatalities? Many of these arterials were constructed well before fatalities began increasing and their designs have not changed significantly. While arterials appear to be a catalyst, what else has changed that has caused them to precipitate so many pedestrian and bicyclist fatalities? This project will constitute multidisciplinary work that explores exposure, land use, road user characteristics, and vehicles and how those factors have interacted with arterials. Deliverables will be of interest to state and local DOTs as they seek to improve safety outcomes on their high injury networks.

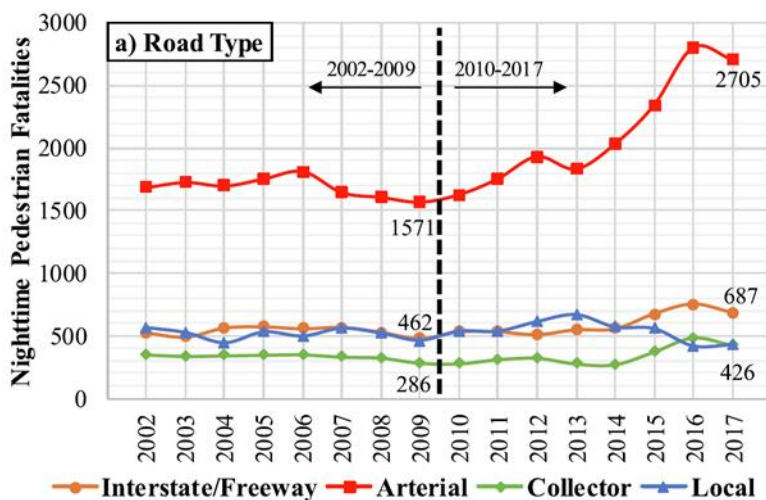


Figure 2: Functional Classifications of Nighttime Pedestrian Fatalities

Vehicle Design

The increasing prevalence of SUVs and pickup trucks is often hypothesized as a primary cause for the increase in pedestrian and bicyclist fatalities over the last decade. However, the prevalence of SUVs increased more during the 1990s and 2000s, during which time pedestrian and bicyclist fatalities were still decreasing. Pickup

trucks have consistently represented about 20% of striking vehicles for decades. While severity, if struck, tends to be higher (controlling for other variables), the growth in the number of large vehicles on the street does not account for the change in fatalities. Just focusing on the prevalence of SUVs and pickup trucks does not appear to tell the whole story.

This project will therefore examine both the prevalence of SUVs and pickup trucks and their design, especially weight and front-end height (Figure 5). We will longitudinally examine injury outcomes for pedestrians and bicyclists struck by SUVs and pickup trucks in relation to vehicle front-end height, weight, and speed of the striking vehicles to better understand the role SUVs and pickup trucks have played in pedestrian and bicyclist safety. We will also seek data on vehicle fleet composition from several metro regions to compare with metropolitan-level pedestrian and bicyclist fatality outcomes.



Figure 3: Exploration of Both Prevalence and Design of SUVs and Pickup Trucks
Used with permission from Angie Schmitt

Funding Safety

An organization's true values are often found in their budgets. Therefore, we need to ask how do we properly incorporate Safe Systems and Vision Zero criteria for VRUs into decision-making around transportation funding?

This project will involve looking at how transportation organizations, especially state DOTs and MPOs, prioritize projects and evaluate funding decisions. With UNM's status as a Minority Institution, CPBS will also focus on understanding how to best dedicate resources to safety in smaller and disadvantaged communities that may not have the means or expertise to pursue large funding opportunities. Through a review of the research and practice, we will develop a model combining qualitative and quantitative criteria to help make funding decisions that properly consider safety for VRUs.

Tribal and Rural Safety

Because of less car ownership in many Tribal and rural communities, there is a significant need to ensure pedestrian and bicyclist safety in these areas. However, there are typically fewer pedestrian and bicycle facilities in these areas. Furthermore, longer distances between destinations necessitate higher vehicle speeds, further complicating the issues.

This project will explore how pedestrian and bicyclist safety can be effectively advanced in Tribal and rural areas. We will examine multi-jurisdictional issues such as: how can Safe Systems and Complete Streets concepts be consistently implemented when road planning, construction, operation, and maintenance are often spread across several jurisdictions and agencies? We will examine how to enable small agencies with limited capacity and staff to pursue a variety of funding sources to advance their pedestrian and bicycle goals. We will also explore how to improve pedestrian and bicycle crash, exposure, and infrastructure data collection. UNM has built relationships through their Local Technical Assistance Program (LTAP) with 20 of the 23 Tribes in New Mexico.