



APPLYING FRESH APPROACHES TO ENDURING ROAD SAFETY PROBLEMS



In recent years, the U.S. has seen an epidemic of roadway injuries and fatalities. Traditional safety measures have not worked to stem this tide. In the first half of 2021 alone, motor vehicle deaths increased by 16 percent compared with the previous year, according to the National Safety Council.

“It’s time for a fresh approach.” That’s been the mantra of the Collaborative Sciences Center for Road Safety (CSCRS) since day one, when CSCRS was funded as a University Transportation Center by the U.S. Department of Transportation in 2016. The fresh approach we have taken is to apply public health principles and systems science in our work to equip current and future transportation professionals and stakeholders with more effective tools

to solve complex safety challenges. This multidisciplinary work advances Safe System concepts—such as accounting for human vulnerabilities and human behavior to proactively limit the chance of fatal injury—through research, education, workforce development, and technology transfer.

Led by the University of North Carolina (UNC) Highway Safety Research Center, in collaboration with the UNC Department of City and Regional Planning and the UNC Injury Prevention Research Center, CSCRS unites leading transportation research, planning, public health, data science and engineering programs at Duke University, Florida Atlantic University, University of California, Berkeley, and University of Tennessee, Knoxville.



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What is a Safe System?

This diagram is inspired by the USDOT Federal Highway Administration's depiction of how a Safe System works. On the left are six key principles around which a Safe System approach is built, and the right shows the work CSCRS has done to address the principles.

Within this framework, CSCRS's cross-cutting research and tech transfer activities cover the areas of Vision Zero, mobility justice, public health, technology, data, pedestrian and bicyclist safety, micromobility, behavior, and implementation.

Our accomplishments include 45 research projects, resource development, two national conferences, multiple online seminar series, college courses, student fellowships and awards, STEM activities, and much more.

But most important is our network of partnerships. Multidisciplinary collaboration is the bedrock of creating a Safe System and the foundation of CSCRS's work. We have joined forces with outside researchers, policymakers, private industry, safety non-profits, and multiple other stakeholders to further this work.



Time to Accelerate Our Work

Over the last few years we have seen wide-scale interest in the Safe System approach – it is no longer such a novel concept in the U.S. The Safe System approach has even been codified into state and national legislation and policy. USDOT has said that it “invests in the future of transportation through its [UTC] Program.” At CSCRS, we believe the future of safe and equitable transportation will require a Safe System approach, and we're proud to help provide the “why” and “how” this vision for a safer road system for all can become a reality in the U.S.

There is still work to do. It's time to accelerate our progress in implementing a Safe System to transform the transportation network. The safety of our roads depends on it.

