



THE UNIVERSITY
of ADELAIDE



UNDERSTANDING CRASHES

How the Centre for Automotive Safety Research
(CASR) is leading the way in road safety

casr.adelaide.edu.au

Our research assists in developing the evidence base to reduce road trauma—with the ultimate aim of achieving zero fatalities or serious injuries on our roads.

At the internationally-recognised Centre for Automotive Safety Research (CASR), we use a Safe System approach to understand the causes, characteristics and injury patterns associated with road crashes.

No level of death or serious injury is acceptable on our roads. The Safe System approach aims to prevent road deaths and injuries by ensuring we have safe road users, safe vehicles, on safe roads and at safe speeds.

Our research

Our experienced multidisciplinary team of researchers collect, analyse and interpret high-quality data from a variety of sources to support evidence-based decision making on a state, national and international level.

Unique data sources

CASR specialises in the following unique, real-world data sets:

- in-depth crash investigation conducted at the scene
- vehicle Electronic Data Recorder (EDR) downloads
- serious injury hospital data for all types of road users (linked to police reports, forensic alcohol/drug results, licensing data)
- coroner's files for fatal crashes
- traffic control centre videos of real, on-road crashes
- South Australian Traffic Accident Reporting System (TARS) crash database
- video footage of everyday driving activity (Australian Naturalistic Driving Study)

Impact of our research

Roadside safety

Our research into roadside safety, using in-depth crash investigation data, showed that roadside and centre barriers were more effective in preventing crashes than clear zones. This has led to changes in State and national engineering guidelines.

Safety benefit of new technologies

We used in-depth crash investigation data to predict the safety benefit of new technologies—such as autonomous emergency braking and cooperative intelligent transport systems—to inform government regulation and assist with the promotion of these new technologies.

Fitness to drive assessment

Our analysis of medical data related to people admitted to hospital following a crash discovered chronic medical conditions and medical events are significant factors in crashes. This study has influenced fitness to drive assessment on an international level.

Quad-bike safety legislation

Our investigations into fatal and serious-injury quad bike crashes have been used to support a push for changes to quad-bike safety legislation in Australia.

Driver inattention

Recent in-depth crash investigation data revealed that almost a third of fatal and injury crashes involved driver inattention. Of these, 13.8% involved distraction.

Collaborations

We collaborate with various industry and government organisations, including:

- Department of Planning, Transport and Infrastructure
- South Australian Police
- SA Health
- SA Power Networks
- Austroads
- French Institute of Science and Technology
- Malaysian Institute for Road Safety Research
- Nihon University (Japan)
- Transport Research Centre (Czech Republic)
- Australian road authorities and automobile associations

Our services

Internationally recognised and with over 40 years of experience, our independent expert advice is regularly sought by government and industry in Australia and overseas. Our expertise spans the following areas:

- in-depth crash investigation
- data collection and linkage
- injury analysis
- vulnerable road users (cyclists, motorcyclists, pedestrians)
- medical fitness to drive
- impaired driving (drugs, alcohol, distraction, fatigue)
- infrastructure design and evaluation
- regional and remote road safety
- risk management strategies for fleet safety

We are also able to provide expert, tailored crash investigation training.



Have a question? We can help

For media enquiries or to discuss our consulting services, vehicle testing or possible collaboration on a research project, please contact our office (details below).

FURTHER ENQUIRIES

Centre for Automotive Safety Research office
Ground Floor, Engineering Annex
Gate 5, Frome Road
The University of Adelaide SA 5005 Australia

ENQUIRIES casr@adelaide.edu.au

TELEPHONE +61 8 8313 5997

 casr.adelaide.edu.au

 twitter.com/CASR_RoadSafety



 SCAN ME