

Comment from Greg Shaw

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Field data is important, and I am happy that resources exist to upgrade CISS.

1. A brief survey of cases available on the public viewer found many “unknowns” for crash avoidance feature activation. With time, crash avoidance information may become part of the EDR report. This information is especially useful for pedestrian cases, for example, knowing the vehicle speed at time of impact. Presently, for some vehicles this information is available in modules that must be downloaded separately. This requires extra time and resources and likely will require manufacturer support.

2. Scene diagrams plot vehicle motion and interactions. A comment is needed to indicate confidence in the provided vehicle paths/orientations.

3. The Crash Investigation Sampling System Analytical User’s Manual should be expanded to better inform the audience of researchers who will use the data but who do not have experience investigating CISS cases. For example, a CISS crash investigator knows that scene diagrams can be best guesses and that vehicle positions may be off by several feet or more. Occupant contacts require an investigator to associate a body part interaction with an element in the vehicle interior. For example, a researcher should know how a smudge on the instrument panel was attributed to a hand rather than to an arm or head. This occupant contact information is used to decide injury causation scenarios (ICSs) and to identify involved physical components in the vehicle interior (IPCs). In CIREN, which originated ICS and IPC coding, this effort involves weeks of research and a review involving the crash investigator, engineers, and medical experts. Because of a greater case load, the CISS effort involves a different, less resource-intensive, approach. While CISS includes IPC and ICS Confidence coding, the manual does not include an explanation of how the confidence levels are defined as is done in the CIREN Process and Coding Manual.

4. Maximizing the use of CISS data would be served by developing a way to combine CISS and CIREN data for analysis. CISS has many more cases but CIREN cases, by design, include, on average, the more severely injured. Helping researchers to combine federal and state field crash databases would provide easier access to the wealth of collected data correctly weighted to reflect sampling variation. Admittedly, this would be resource-intensive. Less ambitious efforts might involve researcher aids to identify CISS entry errors such as variable over or underage warnings.

In summary, while more CISS cases more completely entered should be a goal for additional resources, I also recommend work to maximize the database’s utility by aiding researchers in being able to assess data validity and to be able to combine CISS data with other US field crash data.