

INTEGRATING THE SAFE SYSTEM APPROACH IN THE HIGHWAY SAFETY IMPROVEMENT PROGRAM

The Illinois Department of Transportation (IDOT) integrated the Safe System Approach as the foundational principle of the Illinois [2022–2026 Strategic Highway Safety Plan](#) (SHSP). IDOT encourages community building for safety to support their vision of zero public roadway fatalities in Illinois. The SHSP also defines a specific emphasis area titled “Safe System Administration” to promote and ensure collaboration and intentional consideration of equity and safety data improvements.



NOTEWORTHY PRACTICES

SAFETY IS PROACTIVE. IDOT is developing tools and guidelines to encourage proactive implementation of systemic safety improvements. The agency also is exploring ways to make these resources more accessible to non-transportation practitioners, sharing the responsibility for a Safe System with other stakeholders. For example, as part of the implementation of the Vulnerable Road User Safety Assessment, IDOT developed a dashboard for stakeholders to identify overrepresented crash locations, which can be used to identify and prioritize systemic safety improvements in a proactive manner.

RESPONSIBILITY IS SHARED. Within IDOT, the Office of Highways Project Implementation houses the Safety Programs and Engineering Division (comprising both the Highway Safety Improvement Program and State Highway Safety Office) and the Bureaus of Design and Environment Division, Construction, and Operations. This organizational structure allows IDOT to coordinate initiatives, collaborate, and leverage stakeholder relationships across programs. For example, the HSIP program leverages existing relationships that the Highway Safety Office Law Enforcement Liaisons have with local communities to perform outreach. These shared resources and responsibilities ensure Illinois has a proactive and redundant traffic safety management system.

SAFETY IS PROACTIVE. IDOT developed the Crash Characteristics Overrepresented Flags (CCOF) tool to analyze crash types at specific roadway locations with repeated crashes. The CCOF tool analyzes crash characteristics and identifies locations where certain characteristics occur frequently and are likely to continue occurring unless safety countermeasures are implemented at the location (table 1). Characteristics include specific crash types, lighting conditions, roadway conditions, and driver conditions at the time of crash. The CCOF tool also acknowledges that Humans Make Mistakes by incorporating human factors into its proactive decision-making processes. For example, the CCOF tool identified locations overrepresented for left-turn crashes at rural intersections with stop-control on minor approaches only; IDOT is exploring options to turn these specific locations into all-way stop control or roundabouts.

Crash Frequency	Low Severity	Medium Severity	High Severity	Severe
Frequent	C	D	E	F
Occasional	B	C	D	E
Infrequent	A	B	C	D
Rare	A	A	B	C

Source: IDOT.

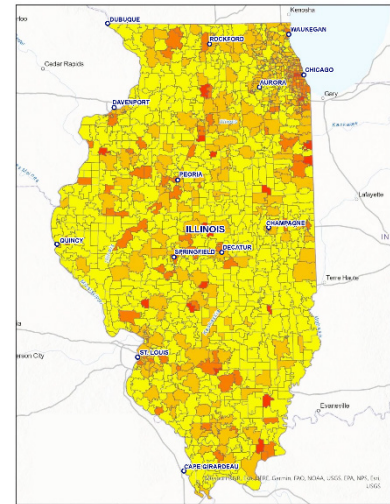
Table 1: Matrix. Crash Characteristics Overrepresented Flags (CCOF) risk categories.



UPCOMING/IN-PROGRESS INITIATIVES

DEATH/SERIOUS INJURY IS UNACCEPTABLE. Underreporting of crashes involving pedestrians means that not every death and injury are accounted for—including those involving members of vulnerable communities. The Illinois Traffic Records Coordinating Committee has initiated the [Motor Vehicle Data Linkage Project](#), with the goal “to help promote the health and safety of everyone in Illinois.” In partnership with the Illinois Department of Public Health, the University of Illinois Springfield’s Center for State Policy and Leadership is linking statewide crash data with hospital records. Based on [positive correlations](#) between a high level of poverty by ZIP code and percentage of underreported pedestrian-involved crashes (figure 1), IDOT is developing an “adjustment factor” to determine a more accurate rate of crashes in vulnerable communities. This research supports IDOT’s commitment to intentionally consider equity and safety data improvements under the SHSP Safe System Administration emphasis area.

RESPONSIBILITY IS SHARED. A July 2023 amendment to the [Department of Transportation Law of the Civil Administrative Code of Illinois](#) calls on the Illinois Secretary of Transportation to convene a Zero Traffic Fatalities Task Force on or before July 1, 2024 to develop a process for early engagement of all parties to develop policies to reduce traffic fatalities to zero. Task Force members include the Director of State Police, Secretary of State, Director of Public Health, and representation from universities, municipalities, advocacy groups, and others. This amendment also requires the IDOT Secretary of Transportation to submit a report of findings based on the Zero Traffic Fatalities Task Force’s efforts to the Illinois General Assembly on or before January 1, 2025, covering the topics of speed management and speed limit setting. The Task Force operates on the foundational principles that Death/Serious Injury is Unacceptable, Safety is Proactive, and Responsibility is Shared to achieve zero traffic fatalities.



Source: IDOT.

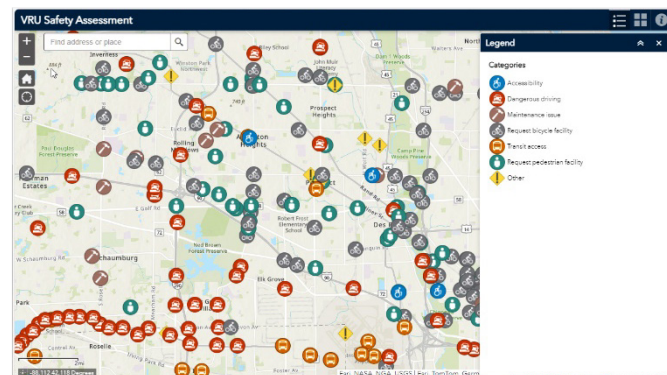
Figure 1: Map. Pedestrian crash victims discordant rates at the ZIP code level per 100,000 population across Illinois (2016–2018).



LESSONS LEARNED

SAFETY IS PROACTIVE. The Illinois HSIP project selection committee continues to look for opportunities to prioritize and fund more systemic safety projects. One example is IDOT’s decision to award additional points to projects within underserved communities. IDOT is also exploring how to prioritize more projects that implement [FHWA Proven Safety Countermeasures](#) and whether to allocate a certain percentage of funding for systemic safety projects as part of their proactive approach to building and maintaining Safer Roads.

HUMANS ARE VULNERABLE. In addition to being physically vulnerable to crash forces, people may experience disproportionate barriers to a safe, reliable, and accessible transportation system. IDOT is proactively considering and addressing the perspectives and needs of vulnerable groups. For example, as part of the Illinois Vulnerable Road User Assessment, IDOT developed the [Vulnerable Road User \(VRU\) Tool](#) (figure 2). The VRU Tool collected public input about potential roadway safety concerns and helped identify the high-injury network. Based on the analysis, IDOT learned that 52 percent of roadway miles with a high potential for safety improvements are within census tracts identified as historically disadvantaged by [Justice40](#), validating the need for roadway safety investments in these communities.



Source: IDOT.

Figure 2: Map. Road safety concerns submitted by the public.

For more information, please visit <https://highways.dot.gov/safety/zero-deaths>.

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