Executive summary

Speed Management

Addressing our regional traffic safety crisis

Chicago Metropolitan
Agency for Planning

June 2024

Addressing northeastern Illinois' traffic safety crisis

As the federally designated metropolitan planning organization for northeastern Illinois, the Chicago Metropolitan Agency for Planning (CMAP) is responsible for setting and reporting on highway safety performance targets. CMAP's first report on the region's highway safety performance targets in 2019 showed **increases in fatalities for drivers and non-drivers alike. There was also a rise in serious injuries among bicyclists and pedestrians.**

In response, CMAP launched the Safe Travel for All Roadmap (STAR), a comprehensive program to understand and address traffic safety issues in the region. STAR is a multiyear effort to improve roadway safety and reduce the number of traffic fatalities in the region through policy change, planning, and resources. This work is being done in collaboration with federal, state, and regional partners.

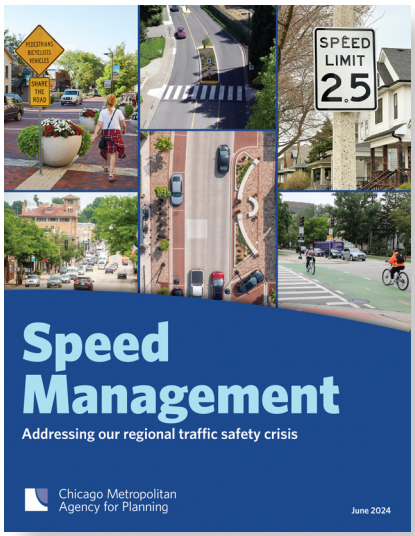
STAR
Safe Travel for All Roadmap

Learn more about STAR and CMAP's regional traffic safety work at cmap.is/safety

STAR includes:

- A resource group of regional safety stakeholders
- A policy development initiative to establish recommendations to improve travel safety
- A data assessment for CMAP and local partners
- Technical assistance to plan traffic safety improvements
- Regionally-coordinated safety action plans for counties

Purpose



Read the full report at cmap.is/safe-speeds

Addressing speeding can help achieve regional safety goals

Improving travel safety is a key goal of ON TO 2050, the comprehensive plan for northeastern Illinois. That goal has become more urgent with upward trends in traffic fatalities, including concerning increases in pedestrian and bicyclist fatalities over the past few years.

CMAP's *Speed Management* report examines the causes of speed-related injuries and fatalities — particularly among vulnerable travelers like pedestrians and bicyclists — and highlights opportunities to reduce vehicle speed through research-based policies, designs, programs, and resources, using the Safe System Approach.

The research findings detailed in the report inform recommendations, including lower speed limits in urban areas, alternative methods of setting speed limits, and self-enforcing street designs that use physical and visual elements to inherently slow drivers down. Equitable enforcement and a traffic safety culture that aligns social norms across disciplines and environments can support these tools and promote safe driving speeds.

Putting safety first

Safe System Approach principles

1. Death and serious injuries are unacceptable
2. Humans make mistakes
3. Humans are vulnerable
4. Responsibility is shared
5. Safety is proactive
6. Redundancy is critical

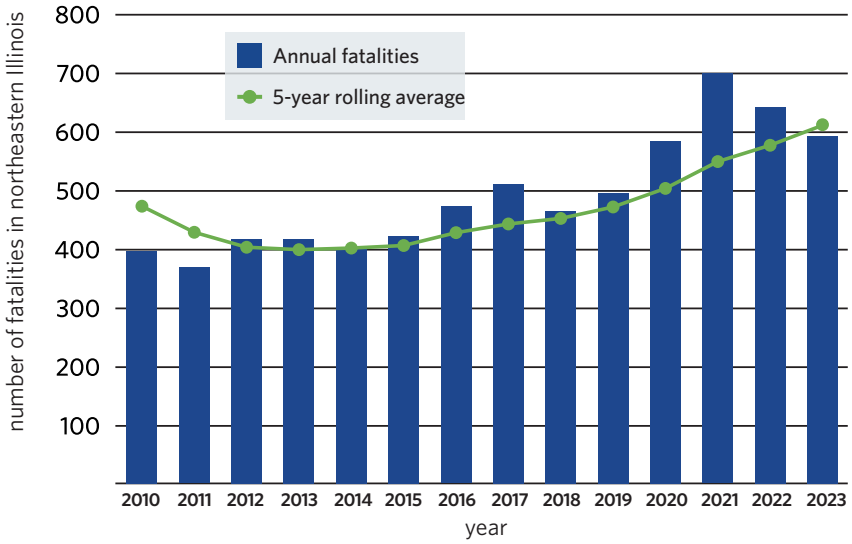
The region should adopt policy, design, and enforcement practices that prioritize safety over speed

Traditional transportation planning practices emphasize fast and efficient automobile travel when considering roadway design, speed limits, and who roads should serve. **These vehicle-centered priorities are often at odds with the safety needs of pedestrians, bicyclists, and other vulnerable travelers.**

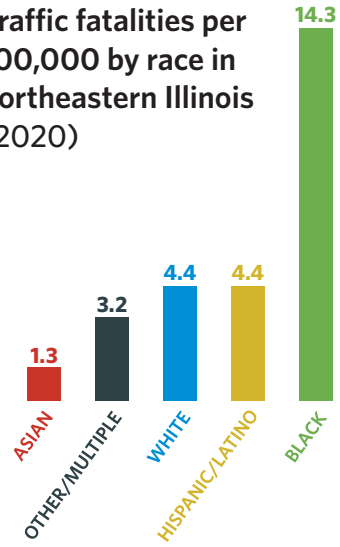
Many agencies in the U.S. are adopting the **Safe System Approach** to traffic safety, which is informed by Vision Zero successes in other countries. The Safe System Approach offers a set of principles and objectives that work together to create multiple layers of protection against the risk of crashes occurring and the risk of those crashes resulting in deaths.

Background

Traffic fatalities have been increasing in northeastern Illinois



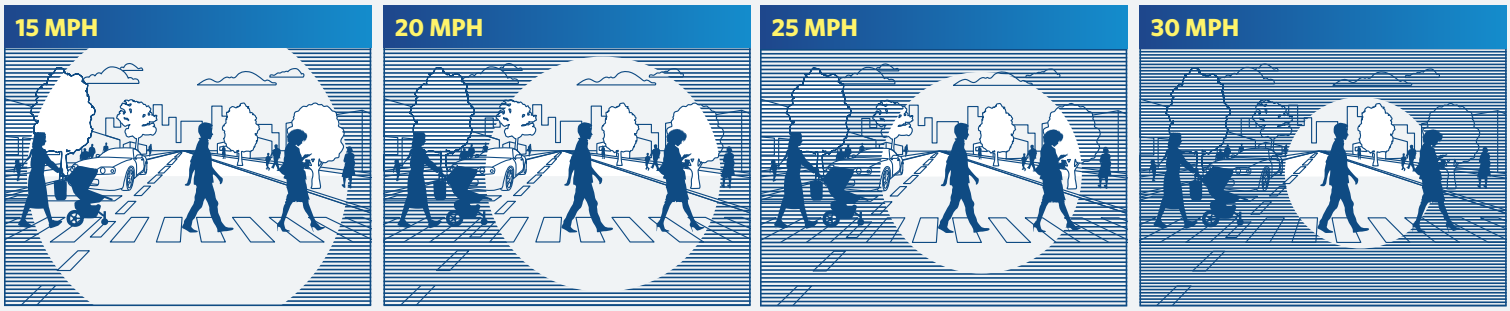
Traffic fatalities per 100,000 by race in northeastern Illinois (2020)



Traffic fatalities in our region have been increasing since 2014, with a significant spike during the COVID-19 pandemic that was paralleled by higher levels of pedestrian and bicyclist fatalities. Over the past several years, **speeding has been identified as a contributing factor in approximately 35-40% of fatal crashes in Illinois**. The impacts of speeding are not equitable; Black residents in our region experience disproportionately high rates of traffic fatalities, highlighting the need for equity assessments.

Speeding-related crashes are increasingly prevalent on lower-speed urban roads and coincide with higher rates of fatalities and serious injuries. These roads have frequent intersections, access to businesses, schools, and neighborhoods, and tend to serve multiple modes of transportation including people walking, biking, rolling, and accessing transit. In these complex environments, speeding creates dangers related to field of vision, reaction time, and the severity of injury.

Drivers perceive less of their surroundings at higher speeds



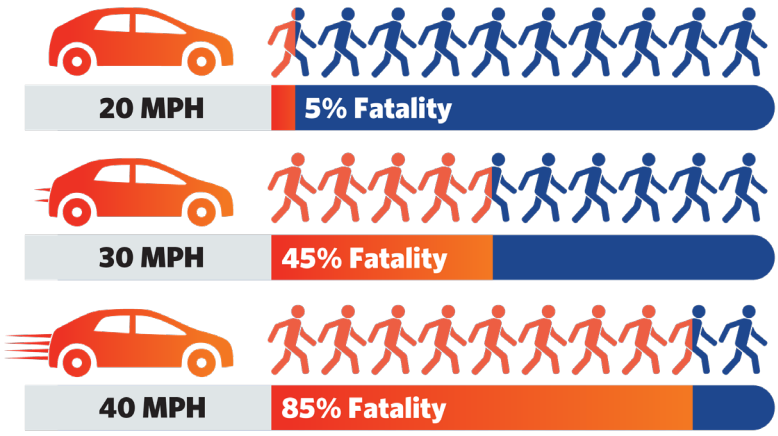
Source: "Walkable City Rules," 2018.

How speed impacts safety

Speeding is especially dangerous to people walking, bicycling, using wheelchairs, and other vulnerable road users (VRUs)

Did you know? Small changes in vehicle speed can have a big impact on the severity of a vehicle-pedestrian crash. For example, the **risk of pedestrian fatality drops by 64%** when cars travel an average of 26 mph rather than 30 mph.

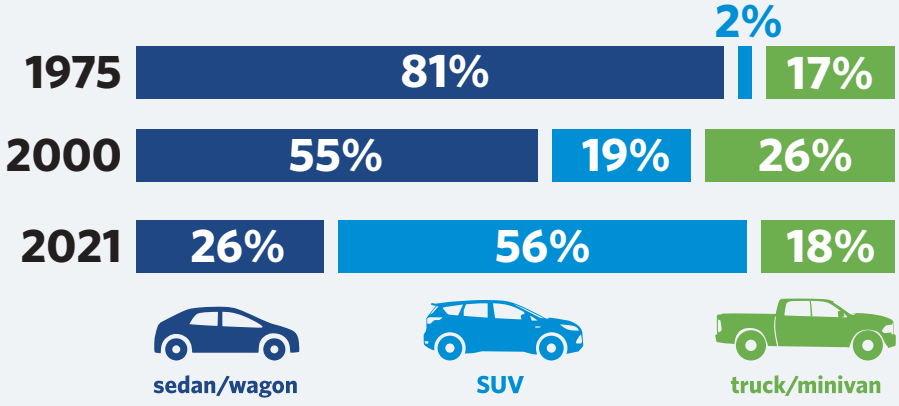
VRUs do not have the protective shell of a vehicle to absorb some of the **kinetic energy — the damaging force that is a function of an object's speed and weight —** generated in a crash. This means that higher vehicle speeds significantly increase the risk of pedestrian fatality.



Modern vehicles are larger and heavier on average, meaning they deliver more kinetic energy in a collision and pose a greater risk to other drivers and VRUs. Electric vehicles also tend to be heavier than their gas-powered counterparts. Lower-income drivers are more likely to drive older and smaller vehicles, further increasing the inequity of collision risks.

Policies, design standards, land use planning, education, and enforcement need to consider the features and risks of the modern vehicles on the road as they relate to safety of other drivers and VRUs.

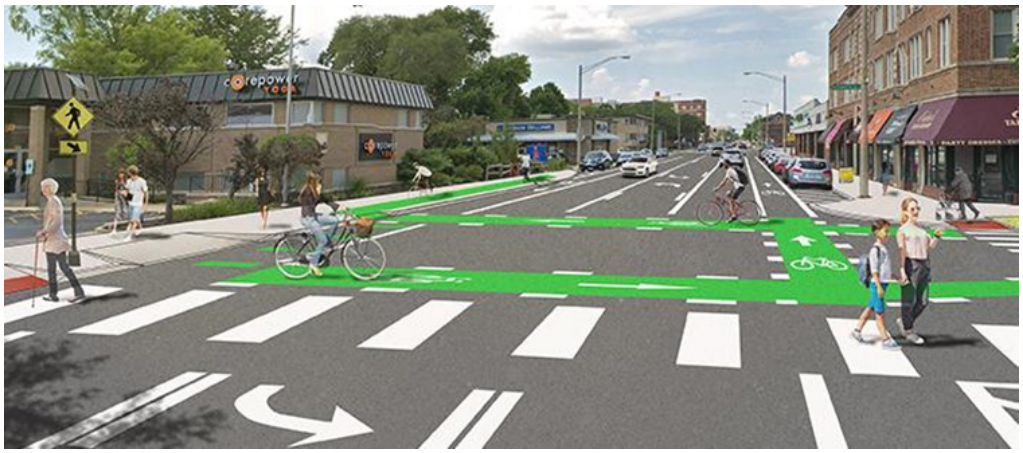
Larger and heavier vehicles make up a greater share of vehicles on the road today compared to the past several decades.



Design, policy, and enforcement

Prioritizing safety requires coordination across disciplines

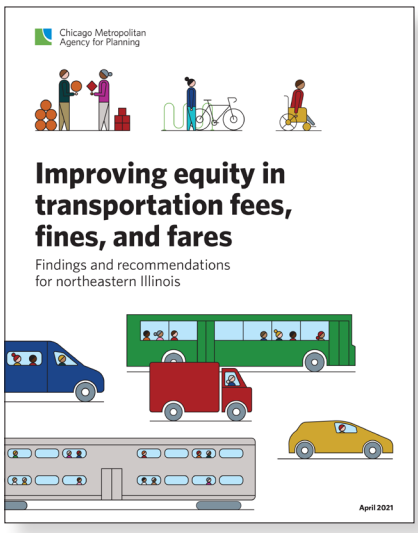
Our region must reconcile decades of infrastructure investments, policies, and practices that promote historic transportation priorities of speed and efficiency, often at the expense of safety for all road users. *Speed Management* details self-enforcing streets designs, speed limit setting methods, traffic safety culture strategies, and other tools that can support a regionally coordinated approach.



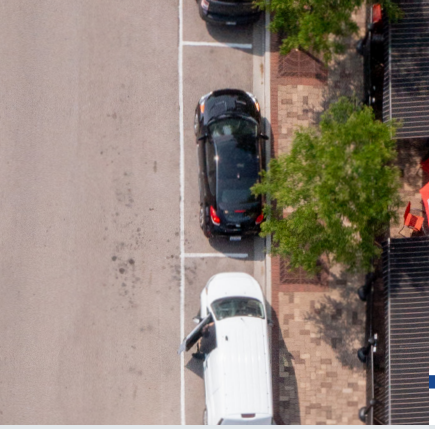
Above: The "road diet" on Madison Street in Oak Park, Illinois supports slower vehicle speeds and pedestrian/bicyclist safety through design features such as reduced vehicle lanes, marked bike lanes, and high-visibility crosswalks. Source: Federal Highway Administration.

Equitable enforcement is critical to achieving public safety goals

Law enforcement plays a role in reducing speeding and changing driver behavior, but in-person police enforcement presents equity challenges. Automated speed cameras, on the other hand, theoretically mitigate issues related to racial profiling and traffic stops escalating to violence; further study on equity impacts is needed. Cameras also effectively leverage the certainty of enforcement to motivate drivers to slow down, though there are equity concerns around fines. Any speed enforcement program should be paired with alternatives to fines to further advance equity and safety.



Learn more about CMAP's work improving equity in transportation fees, fines, and fares at: cmap.is/fees-fines-and-fares



Recommendations

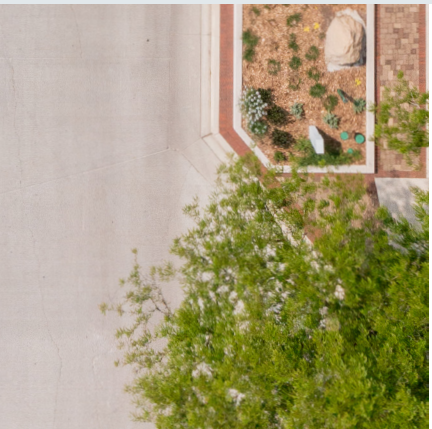
Improve roadway design and capacity guidance to reduce speeding and exposure to safety risks

- Study and pilot new approaches to roadway capacity and design that reduce travel demand, encourage slower operating speeds, and support compliance with speed limits
- Improve existing design guidance and standards to support compliance with speed limits
- Increase funding for speed management projects by updating scoring metrics
- Improve project-level design guidance and local approaches to reduce speeding

Reduce speed limits in urbanized areas where people walk, bike, and use transit

- Improve guidance to allow and encourage reduced speed limits
- Identify the most impactful changes to the motor vehicle code to support reduced speed limits
- Reduce the risks posed by larger and heavier vehicles
- Reduce speed limits by ordinance

Support safe driving behavior with education and equitable enforcement



- Adopt the Safe System Approach
- Promote enforcement techniques that have been shown to improve driver behavior, reduce speeds proactively, and advance equity
- Improve the data needed to understand and address speeding
- Create a framework for a traffic safety culture that leverages education

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The Chicago Metropolitan Agency for Planning (CMAP) is the region's comprehensive planning organization. The agency and its partners developed and are now implementing ON TO 2050, a long-range plan to help the seven counties and 284 communities of northeastern Illinois implement strategies that address transportation, housing, economic development, open space, the environment, and other quality-of-life issues.

See **cmap.illinois.gov** for more information.

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