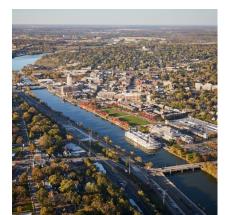


### **Safety Update**

Victoria Barrett
Transportation Planner
Chicago Metropolitan Agency for Planning



















### Regional safety overview

Addressing long-term regional traffic safety issues in a comprehensive, multi-modal, equitable, data-driven way through:

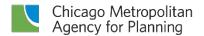
**People:** Regional coordination and collaboration

**Policy:** Policy development and legislative work

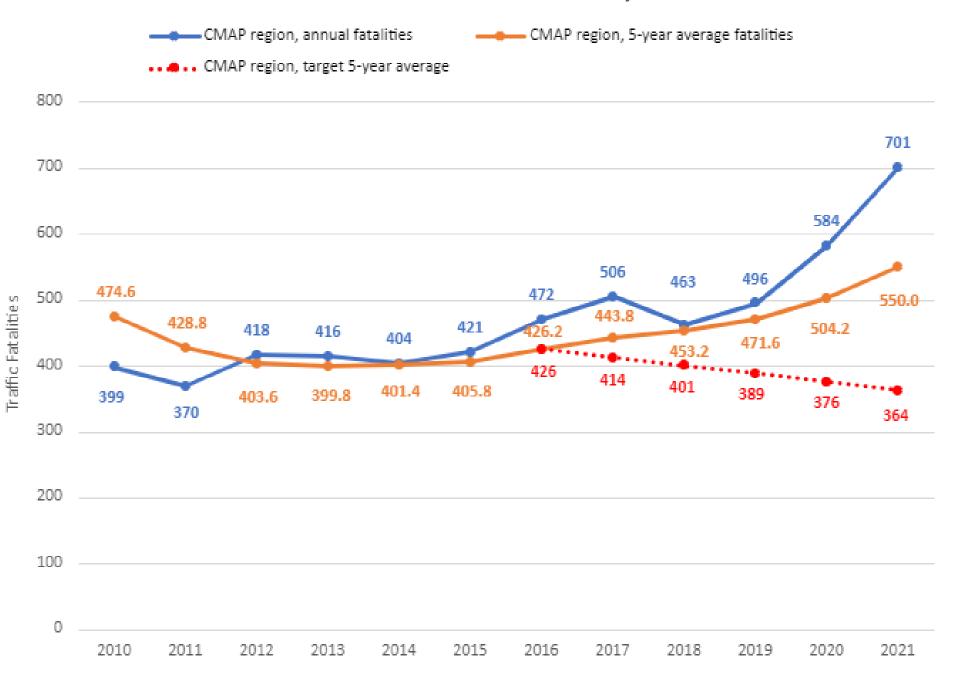
Planning: On-the-ground safety planning

Raising Awareness: promote and institutionalize safety, address equity, and help develop a regional traffic safety culture

Creating Resources: expand access to high quality data and guidance



#### Traffic Fatalities in northeastern Illinois, 20102021



Chicago Metropolitan Agency for Planning



Speeding and safety in northeastern Illinois



## Fatal or Serious Injuries Associated with Speeding or Aggressive Driving Crashes in northeastern Illinois (2019)

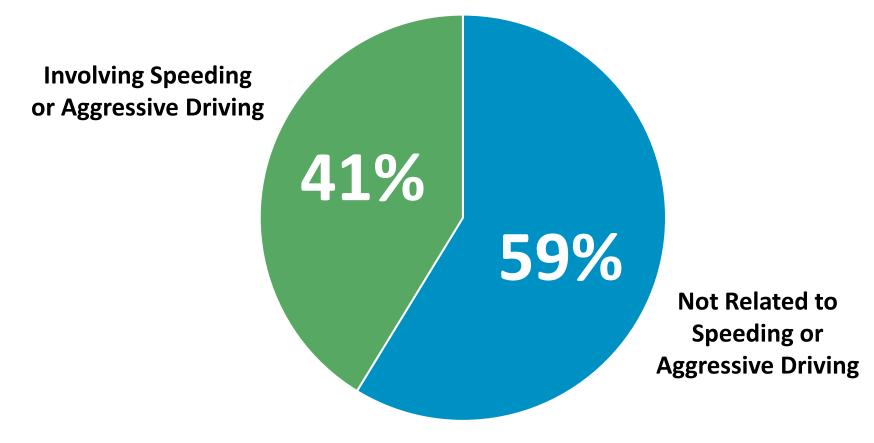
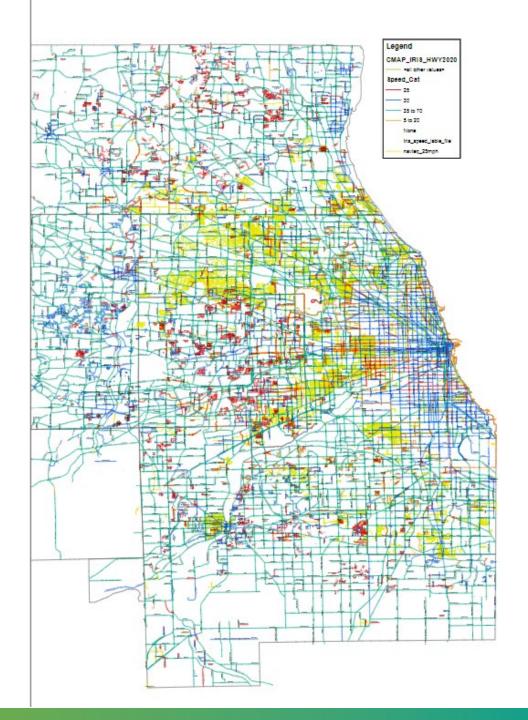


Chart reports the share of crashes related to speeding or aggressive driving where the causes of crashes are known in crash reporting.





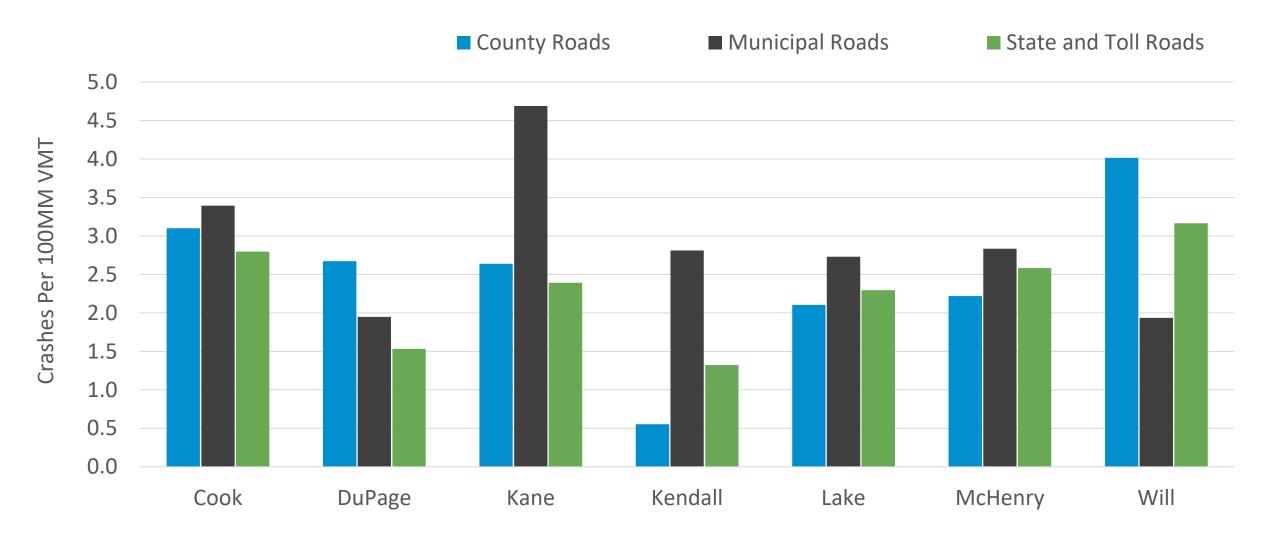
#### Significant Data Gaps Exist in Understanding Speeding in the Region

CMAP received a grant from IDOT to establish a Regional Speed Data project to:

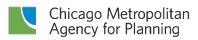
- Purchase extensive third party speed probe data
- Analyze and compile that data into actionable speed insights using computer science techniques



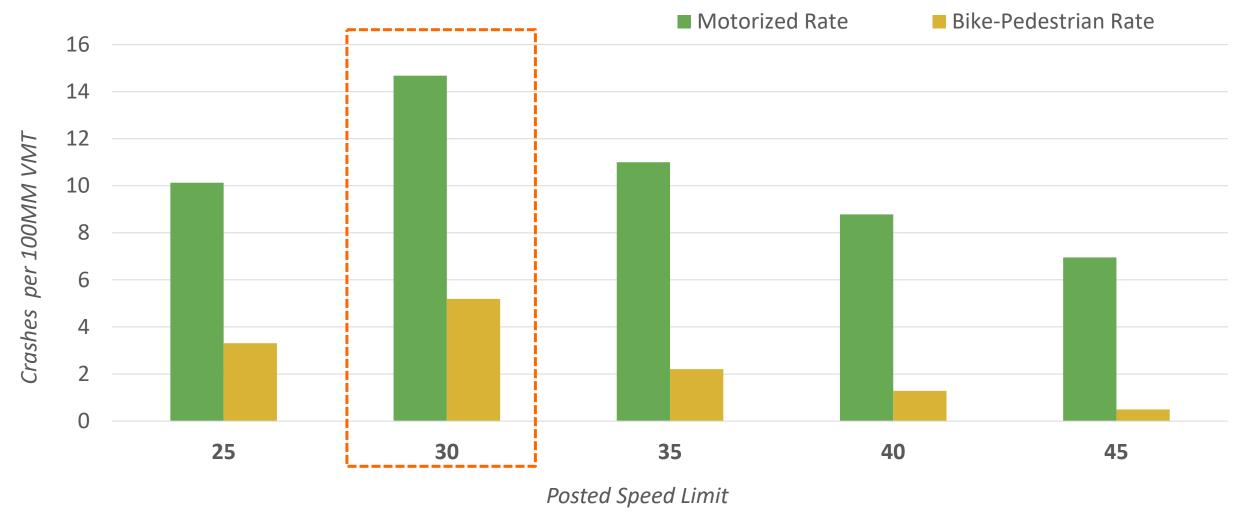
### Fatal or Serious Crashes per 100 Million Miles of Vehicle Travel (VMT), by County and Road Jurisdiction (2019)

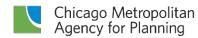


The Municipal VMT for the region is approximately half with a functional class of "local roads" and the other half being on arterials and collectors. Within each county the share of VMT on arterials and collectors varies. Source: Illinois Department of Transportation Safety Portal and HERE



### Motorized and Bicycle/Pedestrian Fatal or Serious Crashes per 100 Million Miles of Vehicle Travel (VMT), 2015 - 2020

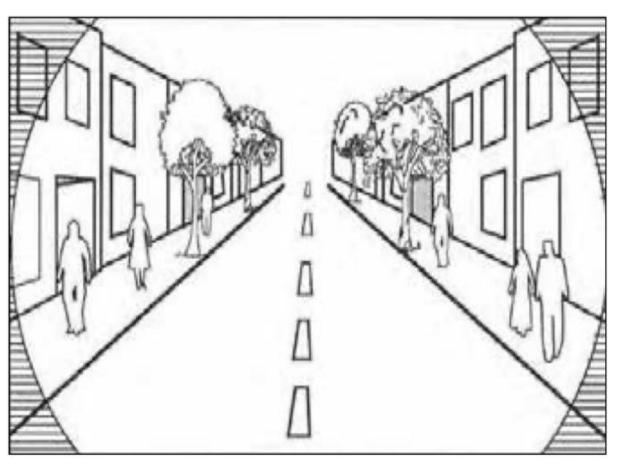




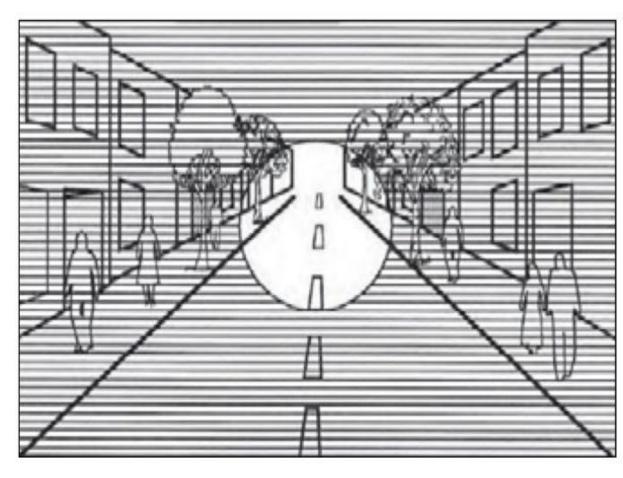




### Speed decreases field of vision

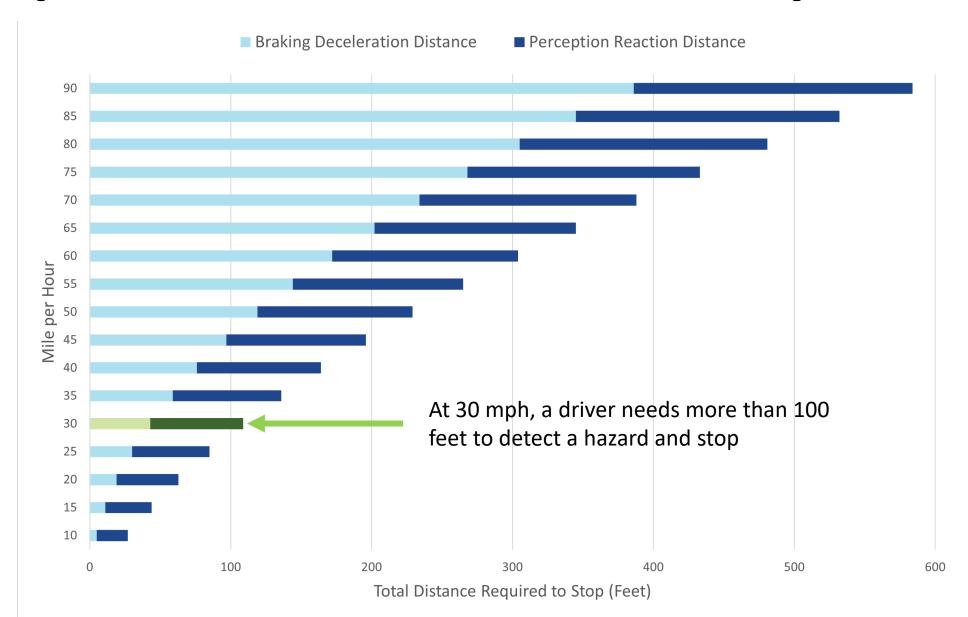


Field of vision at 15 MPH



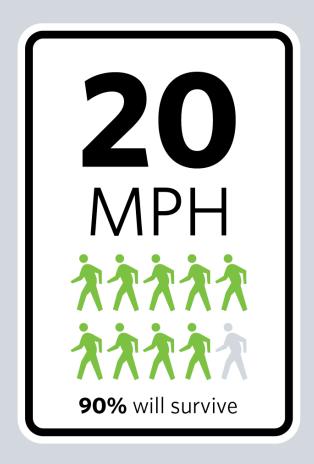
Field of vision at 30 to 40 MPH

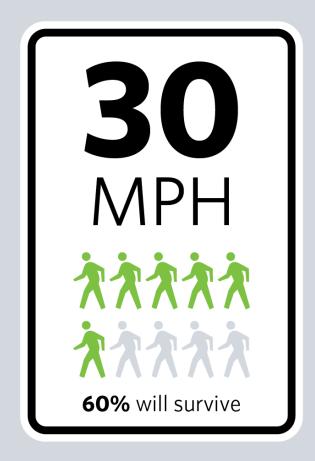
### Speed raises the distance required to stop

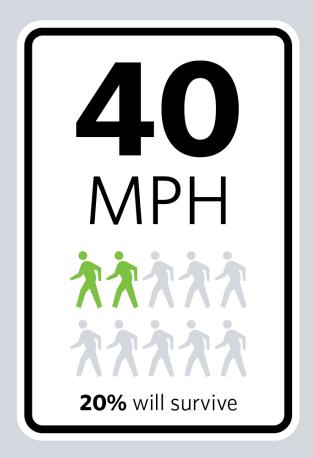




# If a pedestrian is struck by a vehicle traveling

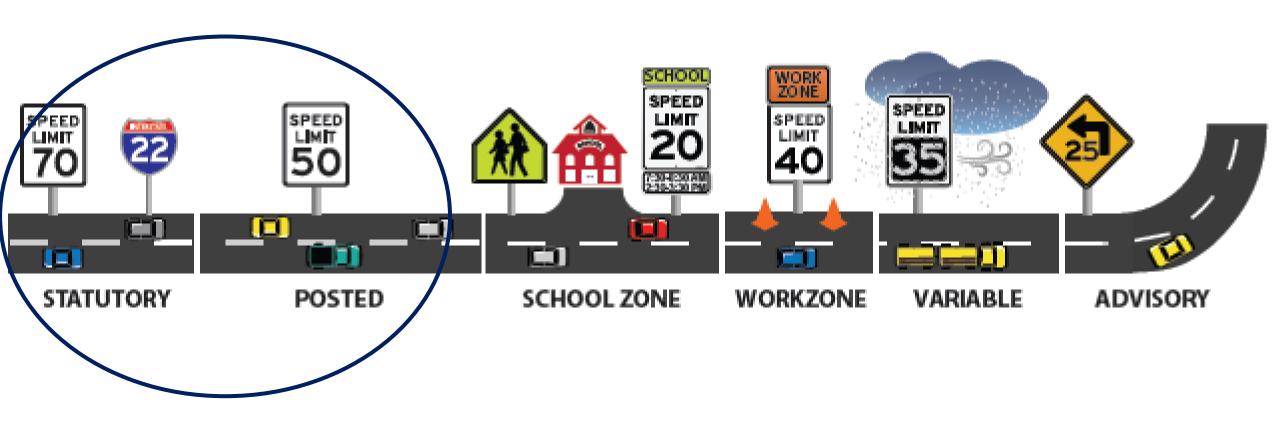




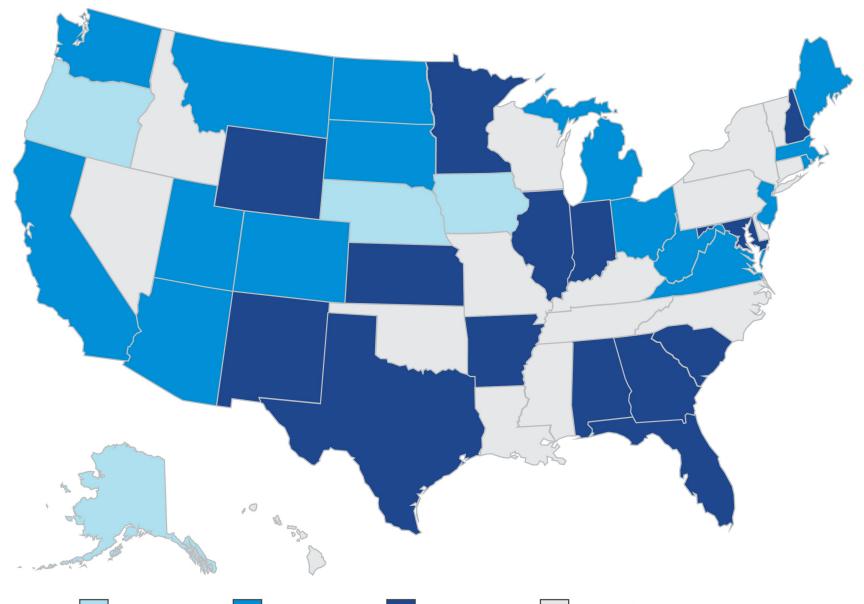


Source: U.S. Department of Transportation, Literature Review on Vehicle Travel Speeds and Pedestrian Injuries. March 2000. Analysis by the Institute of Transportation Engineers.

### **Types of Speed Limits**



#### **Urban/Business District State Statutory Speed Limits**



Source: Summary of State Speed Limit Laws: Twelfth Edition, 2012

20 MPH

25 MPH



30 MPH

No Urban Statutory Limit



# The traditional design and speed limit setting process supports higher speeds...

Identify roadway type

Consult design guidance

Select Design Speed Design & Construct

Conduct Engineering Study 85<sup>th</sup>percentile
speed used
as basis for
speed limit

"every effort should be made to use as high a design speed as practical in the interests of safety" AASHTO Green Book 2004, p. 67

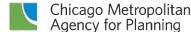


## ... But a new way of thinking is emerging

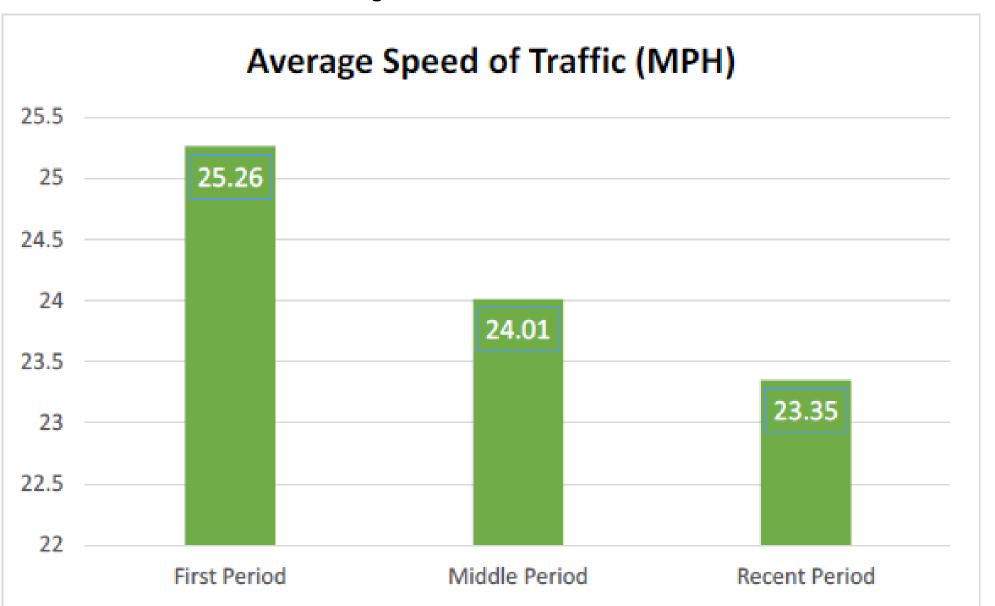
"A self-enforcing road (sometimes referred to as a "self-explaining roadway") is a roadway that is planned and designed to encourage drivers to select operating speeds in harmony with the posted speed limit."

- Self-Enforcing Roadways: A Guidance Report (FHWA, 2018)





### Visible and predictable enforcement



Observed speeds at locations with camera enforcement at 2 weeks after installation, 6 months after installation and the last two weeks of 2019.

Source: City of Chicago Automated Enforcement Program 2019 Annual Report





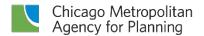


### Next steps



## Ongoing policy development and technical assistance efforts

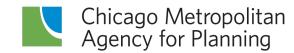
- Help partners work to reduce speed limits where they present safety risks
- Develop next generation guidance for complete/self-enforcing streets
- Provide planning and technical assistance supports
- Create new data and regional safety resources
- Study ways to center equity in effective safety policies
- Continue to convene and coordinate around regional safety topics



#### Safe Streets and Roads for All

- New IIJA competitive grant program
- \$1 billion/year for 5 years covering
  - Planning
  - Implementation
- Expanding our safety work plan to align with this opportunity by establishing a Safe and Complete Streets Program





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