Automated enforcement: research and practice

2024 NCSL Traffic Safety Pre-Conference

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Red light safety cameras

Reduction in likelihood of red light violations associated with red light safety cameras

Arlington, VA

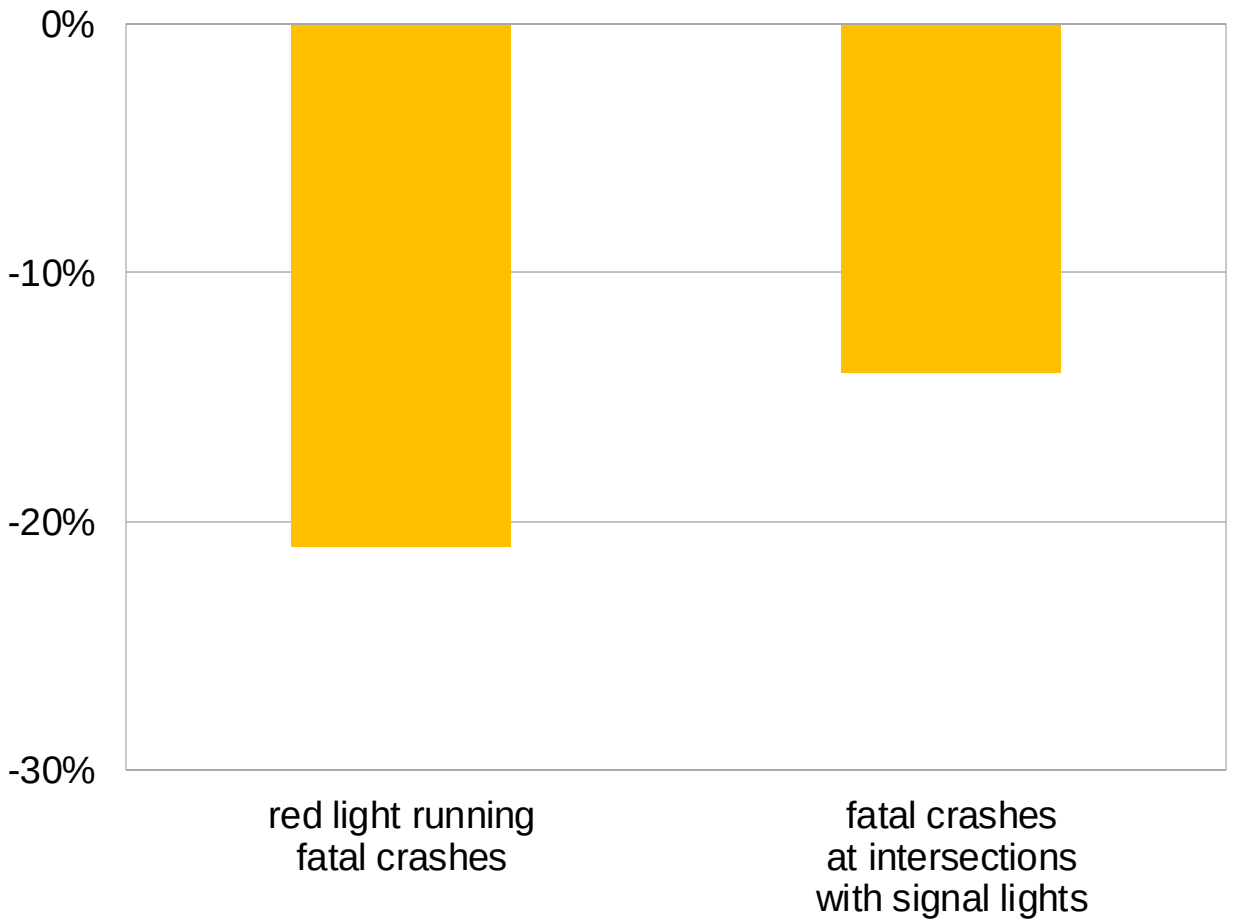
Effects of red light safety cameras on fatal crash rates in large cities

- Study groups

  57 cities that began programs

  33 cities without cameras
- Study period: 1992-2014
- Trends in per capita fatal crash rates compared
- Accounted for effects of population density and unemployment rates

Reductions in fatal crash rates associated with red light safety cameras



Effects of turning off red light safety cameras on fatal crash rates in large cities

- Study groups

  14 cities that terminated programs during 2010-14

  29 regionally-matched cities with continuous camera programs
- Study period beginning the year city turned cameras on through end of 2014
- Trends in per capita fatal crash rates compared
- Accounted for effects of population density and unemployment rates

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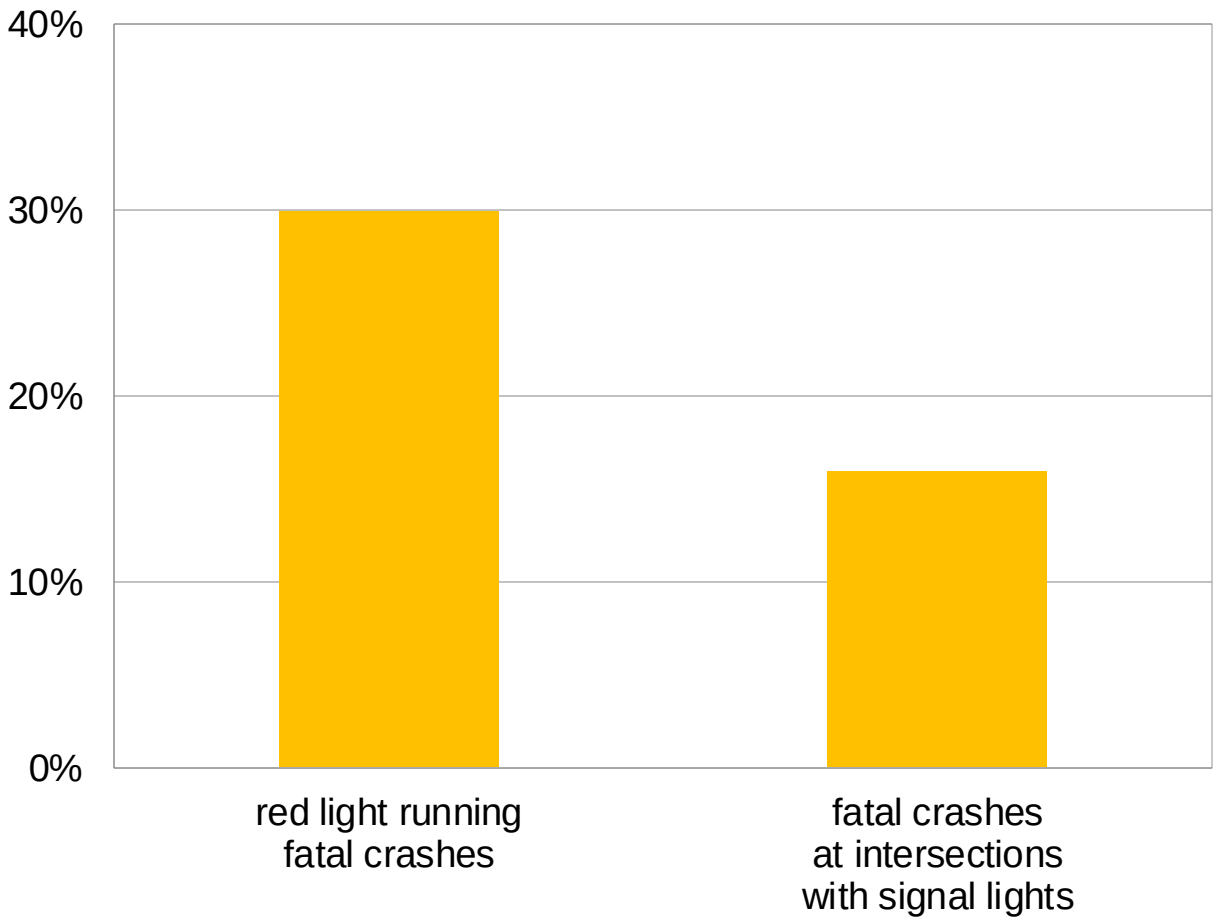
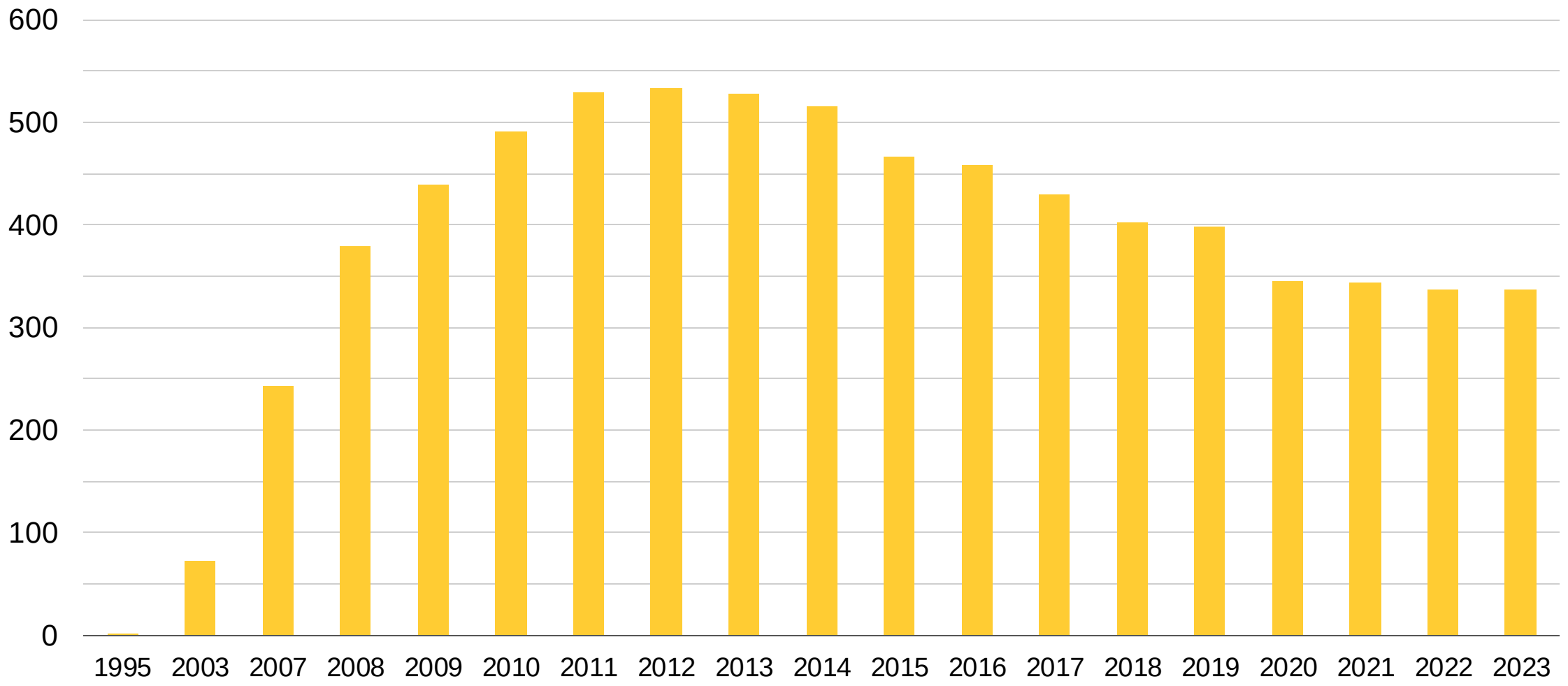
Increases in fatal crash rates associated with turning off red light safety cameras



U.S. communities with red light safety cameras

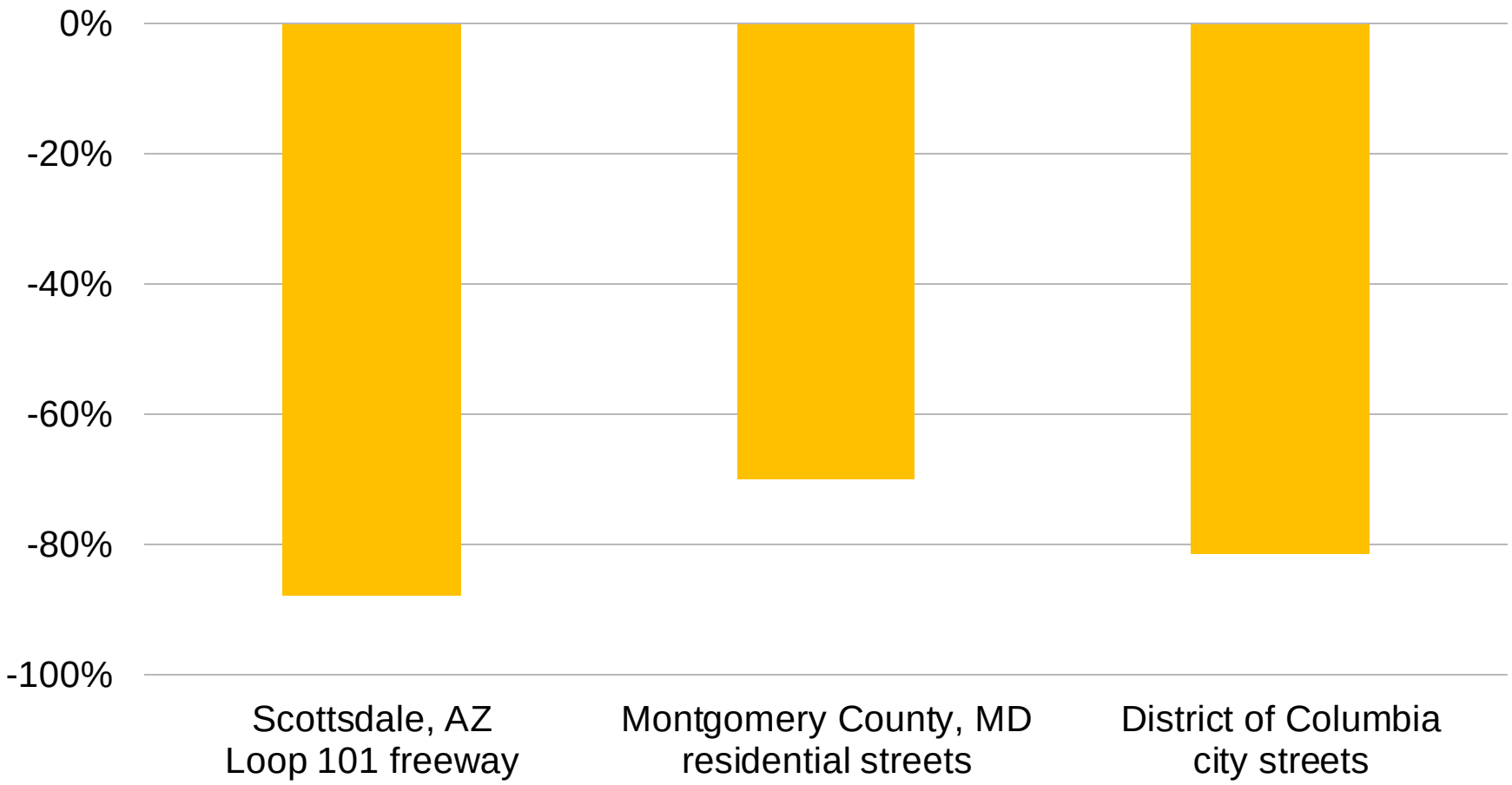
1995 to 2023



Speed safety cameras

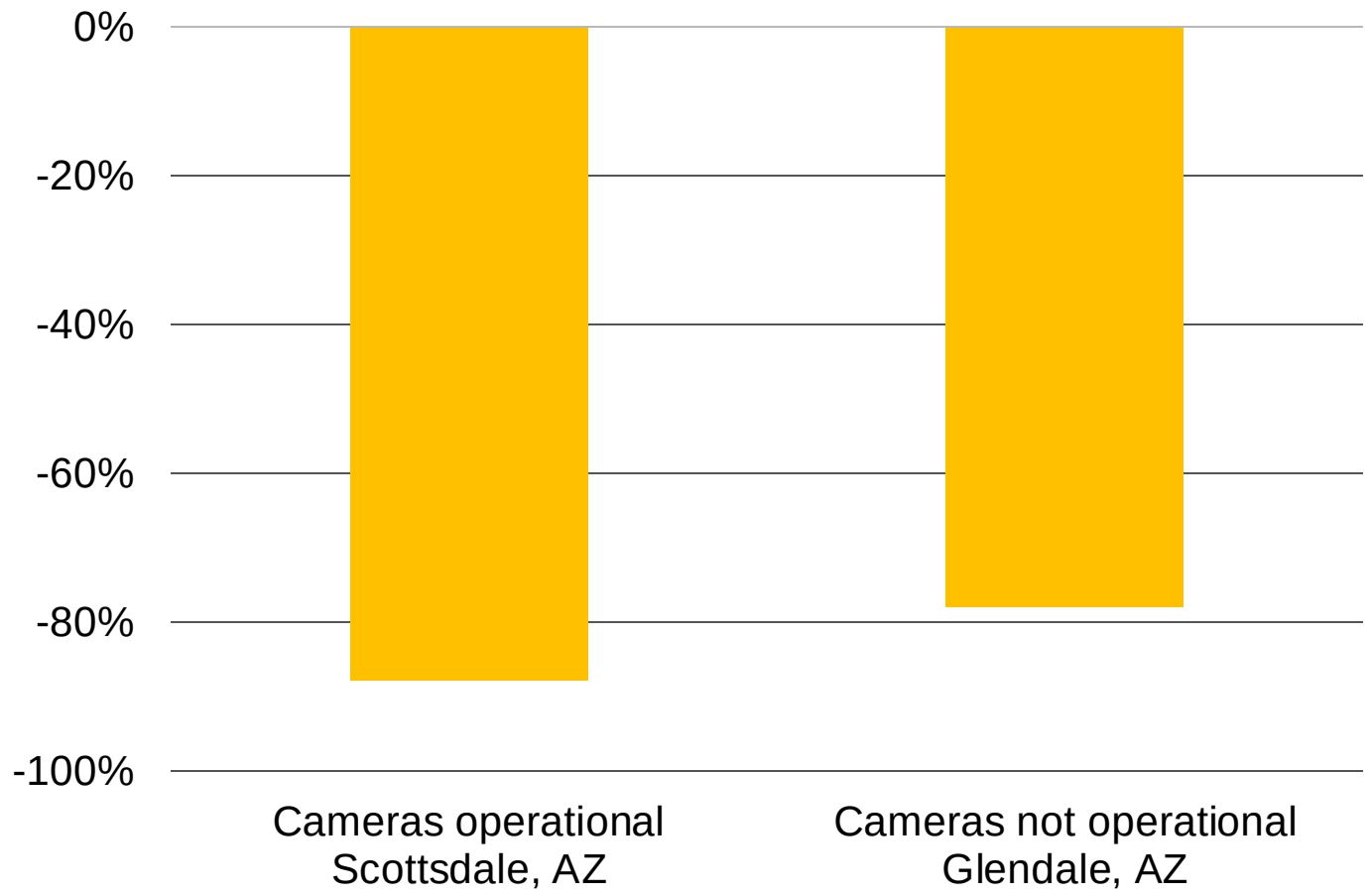
Reductions in proportion of vehicles exceeding speed limit by more than 10 mph

6 to 8 months after speed safety camera enforcement



Spillover effects from speed safety cameras

Reductions in proportion of vehicles exceeding speed limit by more than 10 mph



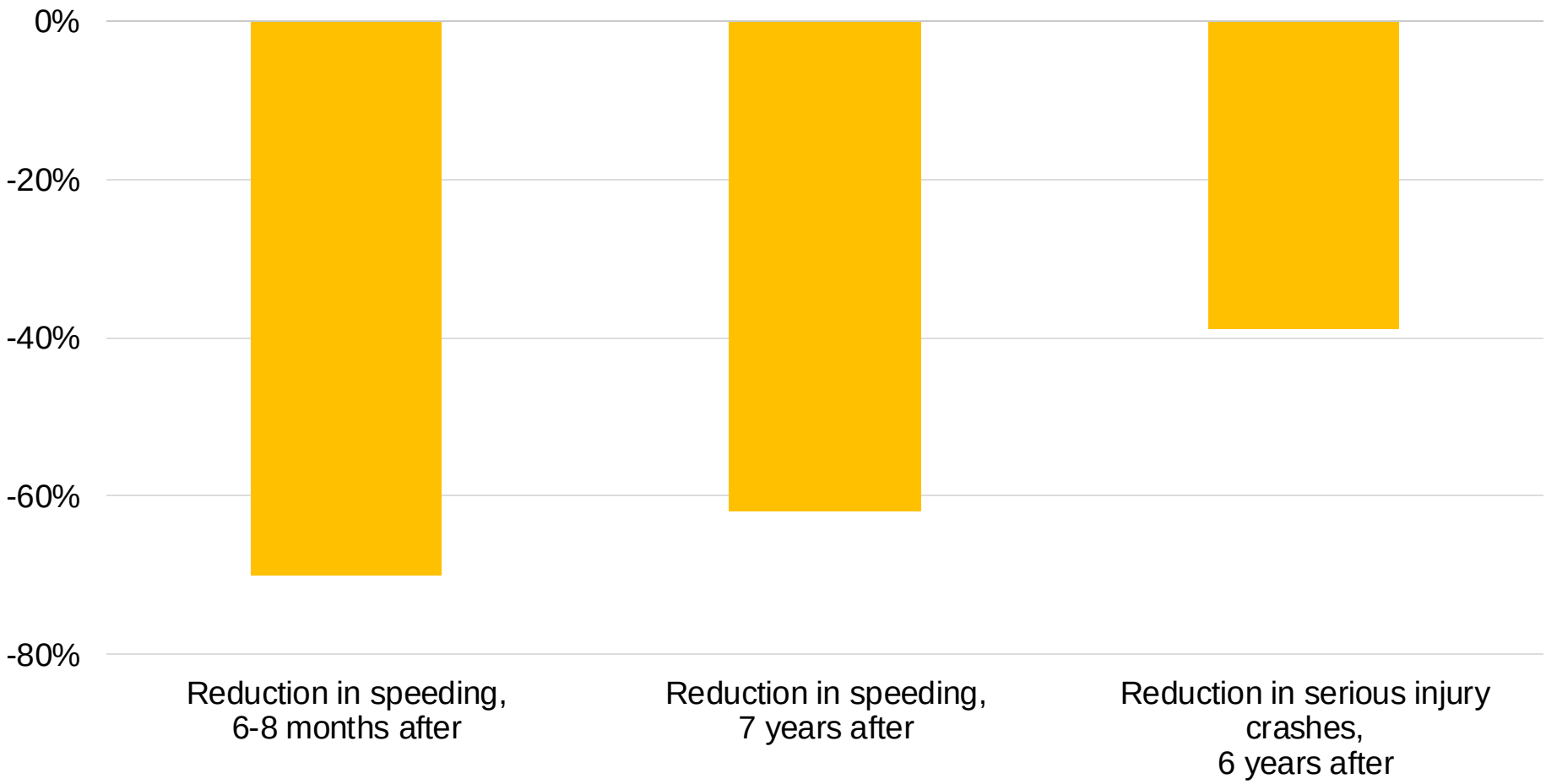
Montgomery County speed safety cameras

First Maryland community to use speed safety cameras beginning May 2007

School zones and residential streets with speed limits of 35 mph or less

Reductions in speeding and serious injury crashes associated with speed safety cameras

Montgomery County, Maryland



U.S. communities with speed safety cameras

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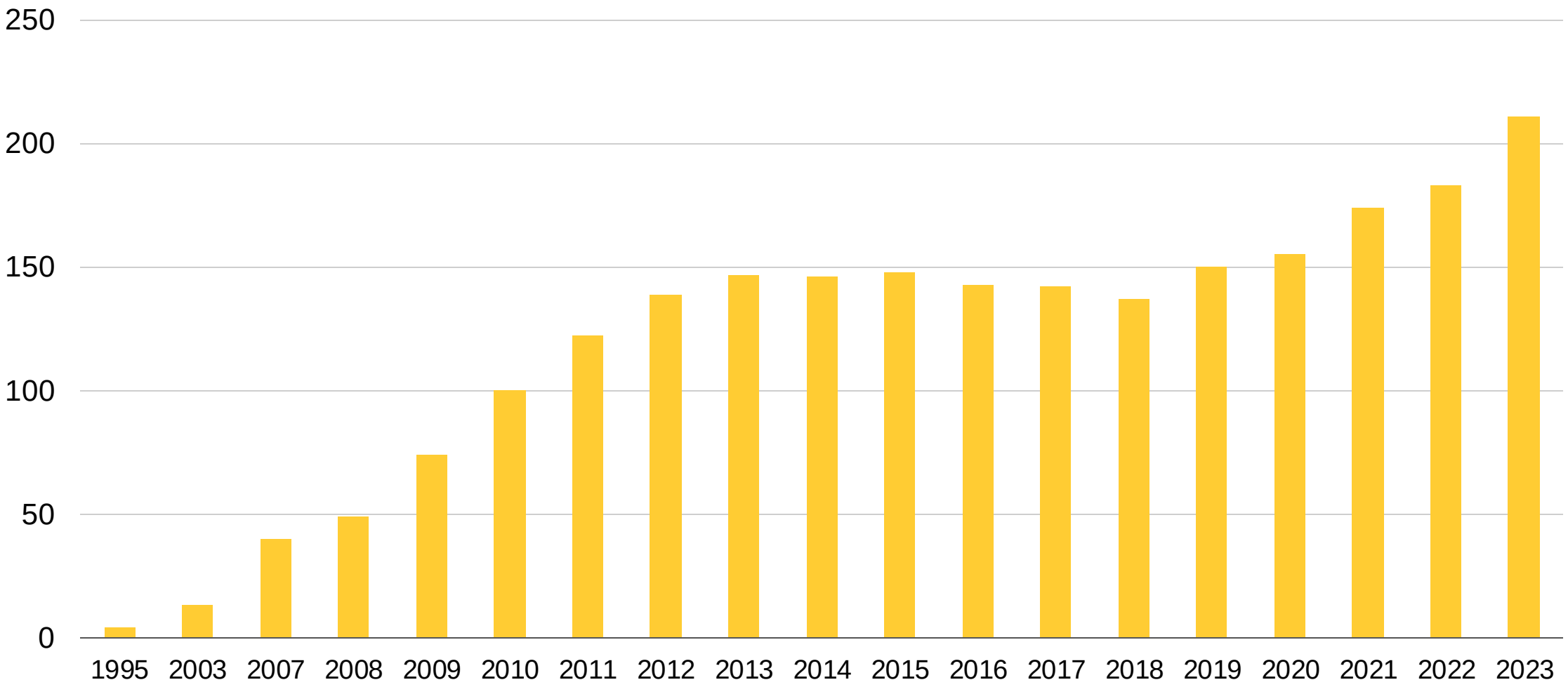

Automated enforcement program checklist

Outlines best practices for establishing successful red light and speed safety camera programs with broad public support.

ADVOCATES FOR HIGHWAY & AUTO SAFETY

GHSA Governors Highway Safety Association The States' Voice on Highway Safety

IIHS HLDI

nsc National Safety Council

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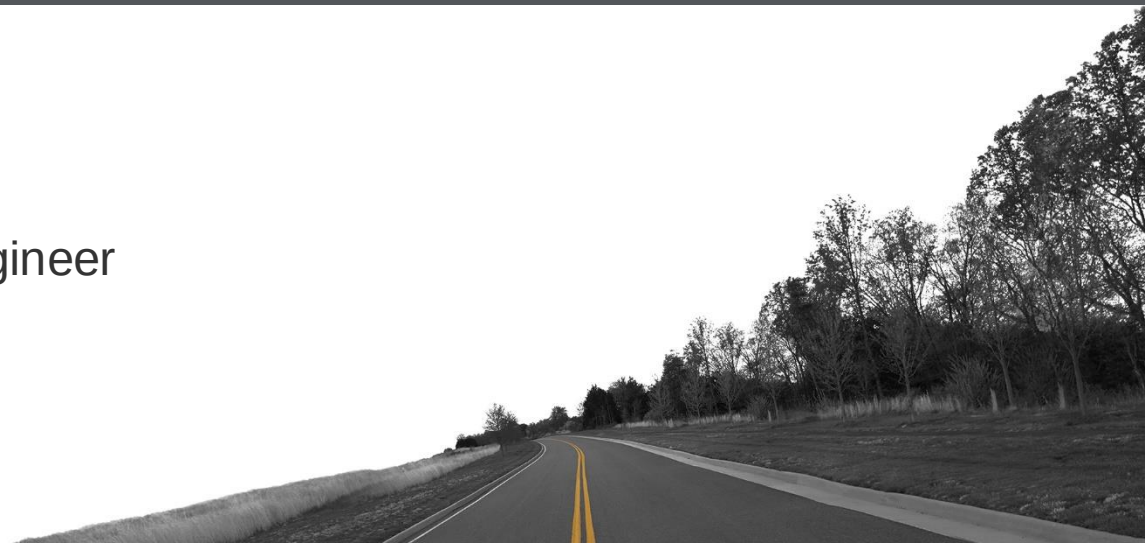
THANK YOU

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