



Source: Adobe Stock

# Speed Safety Camera (SSC) Program Planning and Operations Guide

Federal Highway Administration

November 15, 2023



# Speed Safety Camera Systems



- Consist of technology to remotely:
  - Document evidence of a speeding violation
    - Radar/LIDAR
    - Roadway sensors
  - Capture images/video to identify the violator
    - Owner of the vehicle and/or
    - Driver of the vehicle
  - Remotely transmit the information to be processed for speeding notices, tickets or citations to be issued to the responsible party.



# Speed Safety Cameras are a Proven Safety Countermeasure

- The 2021 update includes Speed Safety Cameras as a Proven Safety Countermeasure:
  - Fixed units can reduce crashes on urban principal arterials up to 54% for all crashes
  - Mobile units can reduce crashes on urban principal arterials up to 20% for fatal and injury crashes
  - In New York City, fixed units reduced speeding in school zones up to 63% during school hours
- Automated Speed Enforcement is listed as a 5-star countermeasure in NHTSA's 2020 *Countermeasures That Work* guide.

**Speed Safety Cameras**

**Safety Benefits:**  
Fixed units can reduce crashes on urban principal arterials up to: **54%** for all crashes, **47%** for injury crashes.

**P2P units can reduce crashes on urban expressways, freeways, and principal arterials up to: 37%** for fatal and injury crashes.<sup>2</sup>

**Mobile units can reduce crashes on urban principal arterials up to: 20%** for fatal and injury crashes.<sup>3</sup>

**In New York City, fixed units reduced speeding up to 63% during school hours.<sup>4</sup>**

For more information on this and other FHWA Proven Safety Countermeasures, please visit <https://safety.thrua.dot.gov/proven-countermeasures/> and <https://safety.thrua.dot.gov/speedmat/>.

FHWA-5A-21-070

Source: FHWA

**Countermeasures That Work:**  
A Highway Safety Countermeasure Guide  
For State Highway Safety Offices  
Tenth Edition, 2020

U.S. Department of Transportation  
National Highway Traffic Safety Administration  
NHTSA

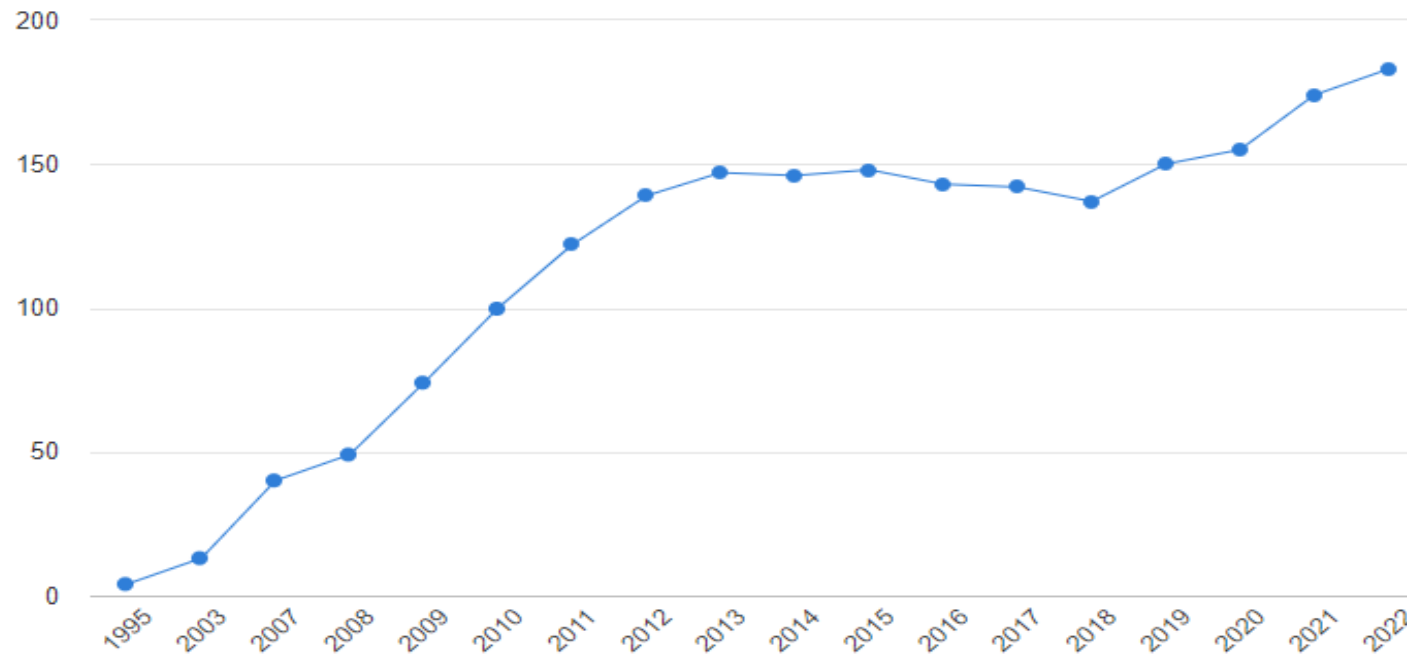
Source: NHTSA



# Growing Number of SSC Programs

SSC programs have grown in the United States since the publication of the 2008 Guide.

Trends in the number of U.S. communities with speed safety cameras



Data Source: IIHS, 2023



# What Changed?

- New title to emphasize safety
- Restructured chapters to emphasize planning, policy, communications, and organizational concerns.
- Expanded information on how program decisions affect transparency, equity, public perception, and “Focus on Safety” – pitfalls to avoid.
- Greater emphasis on SSCs as a component of a comprehensive speed management program.
- Lessons from jurisdictions highlighted throughout the Guide.



# What Changed? (continued)

- New technologies and processes, like Point-to-Point (speed over distance) enforcement and automated citation processing.
- Evidence-based guidance; considerations for program decisions when evidence is unclear or legal situation constrains choices.
- New noteworthy practices on how jurisdictions are addressing concerns to implement programs, including equity.
- Expanded range of performance measures.



# What does the SSC Guide cover?



- Chapter 1: Introduction.
- Chapter 2: Planning Part 1 – Strategic Planning.
- Chapter 3: Planning Part 2 – SSC Program Planning.
- Chapter 4: Enforcement Planning and Field Operations.
- Chapter 5: Violation Structure, Processing, Delivery, and Adjudication.
- Chapter 6: Program Startup.
- Chapter 7: Program Evaluation.
- Chapter 8: Case Studies.
- Appendix: Trends, Additional Resources.



# Integrating Equity at each stage



- Engage stakeholders throughout the planning, implementation, and evaluation of the SSC program.
- Structure and communicate the purpose of SSCs as speed management tool to reduce traffic fatalities and serious injuries, not used for revenue generation.
- Agencies are encouraged to:
  - Use funds gathered through SSCs for longer-term engineering improvements – prioritize investments in underserved communities. Recognize that adding SSCs revenue to a general fund may create unfair incentives and lead to distrust.





# Site Locations

- Underserved communities may experience disparities in traffic fatalities and serious injuries.
- Site locations should be based on safety data not citation data.
- It is important to site SSCs in overburdened communities to redress the risk of fatal and serious injury crashes caused by speeding.
- However, it is critical to **monitor any disproportionate impacts of SSCs to minimize the burdens of penalties on underserved or overburdened communities.**
- Since underserved or overburdened communities may experience a disproportionate impact from SSCs, these communities can be prioritized for longer-term engineering solutions.



# Penalty Structures



- Recognize that underserved communities may be **disparately impacted** by SSC penalties.
- Encourage **innovative penalty structures**, including:
  - Low fines
  - Alternative penalties like community service and road safety courses
  - Progressive fines based on income
  - Emphasize consistent and fair penalties as opposed to burdensome penalties



# Penalty Structures (continued)

- **Discourage punitive measures**, including driver license sanctions, that may contribute to the cycle of poverty.
- Encourage **further research** in the United States on the relative effectiveness of different penalty or reward structures, with a focus on their safety and equity impacts on underserved communities.
- Encourage use of funds gathered through SSCs for **longer-term engineering improvements – prioritize these investments in underserved communities.**



# Where to Find the New SSC Guide:



The screenshot shows the FHWA Highway Safety Programs website. The header includes the U.S. Department of Transportation logo and the text "U.S. Department of Transportation Federal Highway Administration". A search bar is located in the top right. Below the header, the page title is "FHWA Highway Safety Programs". The breadcrumb trail is "Home / Safety / Speed Management Safety". The main content area is titled "Reference Materials" and lists several documents:

- [Safe System Approach for Speed Management](#) **NEW**
- [Speed Safety Camera Program Planning and Operations Guide](#)
- [Speed Management Practices](#)
- [Self-Enforcing Roadways: A Guidance Report](#)
- [Speed Management ePrimer for Rural Transition Zones and Town Centers](#)
- Speed Management Outreach Materials
  - [Lower Citywide Speed Limits and Design Changes: Safer city arterials for all road users](#) [PDF 1.34 MB]
  - [Speed Limit Basics](#) [PDF, 1.25 MB]
  - [Speed Management Countermeasures: More than Just Speed Humps](#) [PDF 1.37 MB]
  - [Speed Management Case Study: Georgia Department of Transportation Setting Speed Limits with Help from USLIMITS2](#) [PDF 1.01 MB]
  - [Speed Management Case Study: Reducing Excessive Speeding in Rural Communities in Iowa](#) [PDF, 1.15 MB]
  - [Noteworthy Practice Booklet – Speed Management](#) [PDF, 3.98MB]
    - [Case Study 1: Strategic Speed Management Program – CITY OF AUSTIN, TEXAS](#), [PDF 824KB]
    - [Case Study 2: Self-Enforcing Roadways – CITY OF GOLDEN, CO](#), [PDF 604KB]
    - [Case Study 3: Setting Credible Speed Limits – NEW HAMPSHIRE DOT](#), [PDF 605KB]

On the left side of the page, there is a sidebar with the following links: Speed Management Safety, USLIMITS2, Facts & Statistics, Engineering Speed Limits, Traffic Calming ePrimer, Ongoing Research, Reference Materials, and Related Web Site Links. At the bottom of the sidebar, there is a "Contact Us" section with the name "Guan Xu" and the title "Program Contact".

<https://highways.dot.gov/safety/speed-management/reference-materials>

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