

# Automated Speed Enforcement Overview for the State of Pennsylvania House Transportation Committee

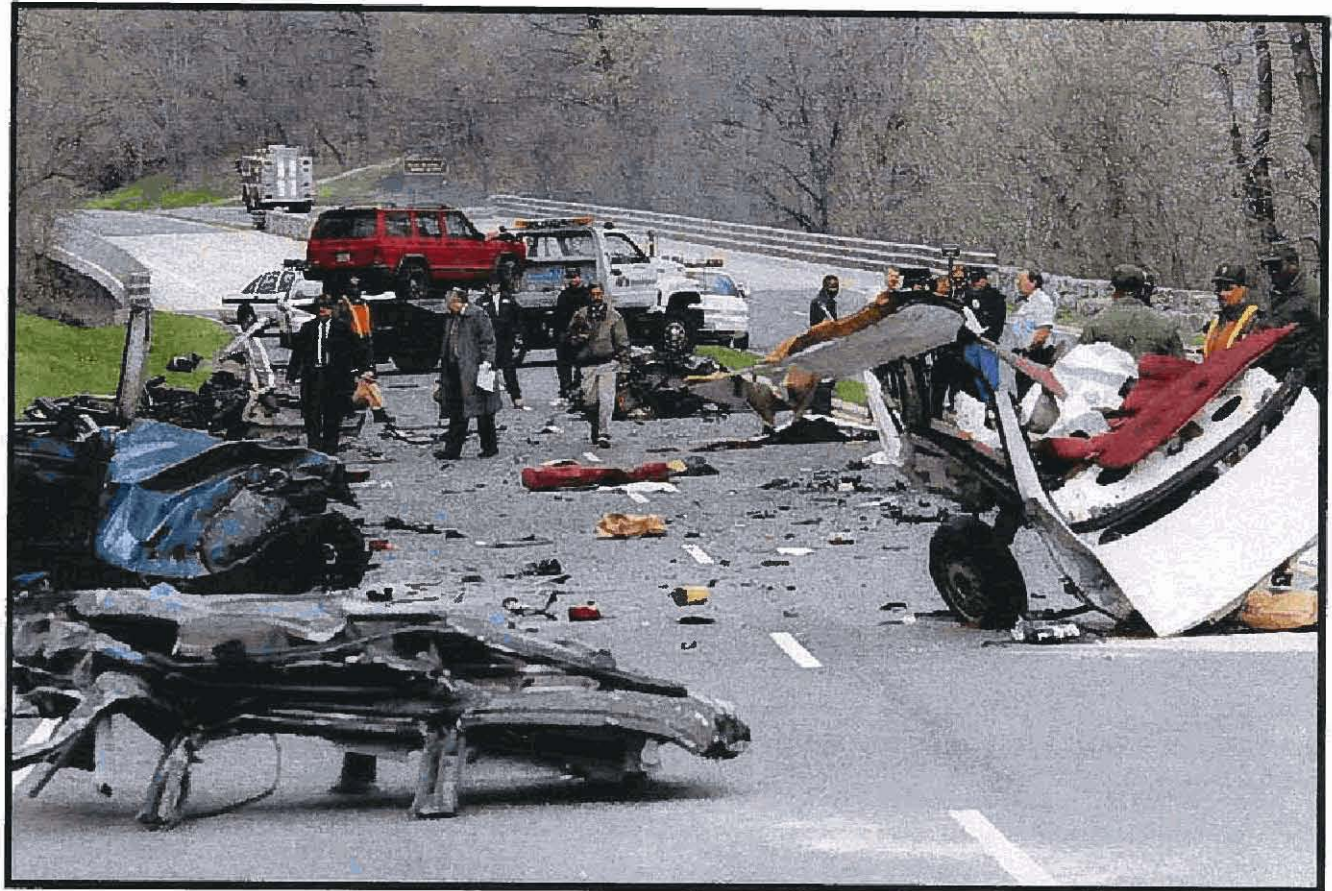
June 24, 2009





## Speed Kills

- Speeding is a factor in 31% of all fatal crashes.
- These crashes kill more than 1,000 Americans every month.
- The economic cost of speed-related crashes is estimated to be more than \$40 billion each year.





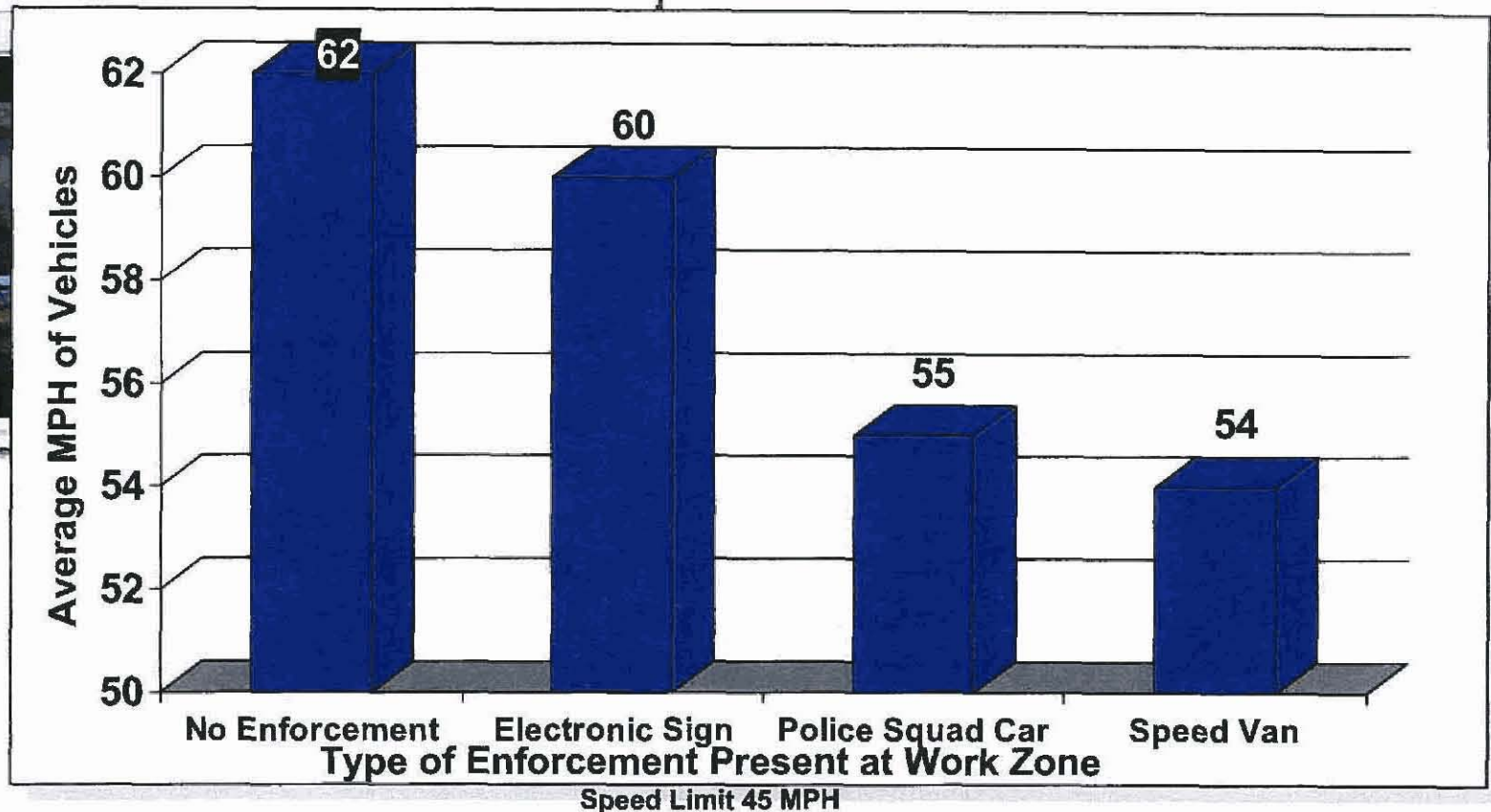
Chicago Tribune

## Photo enforcement vans more effective than signs, police cars, U. of I. study says

More effective deterrent than others, study says

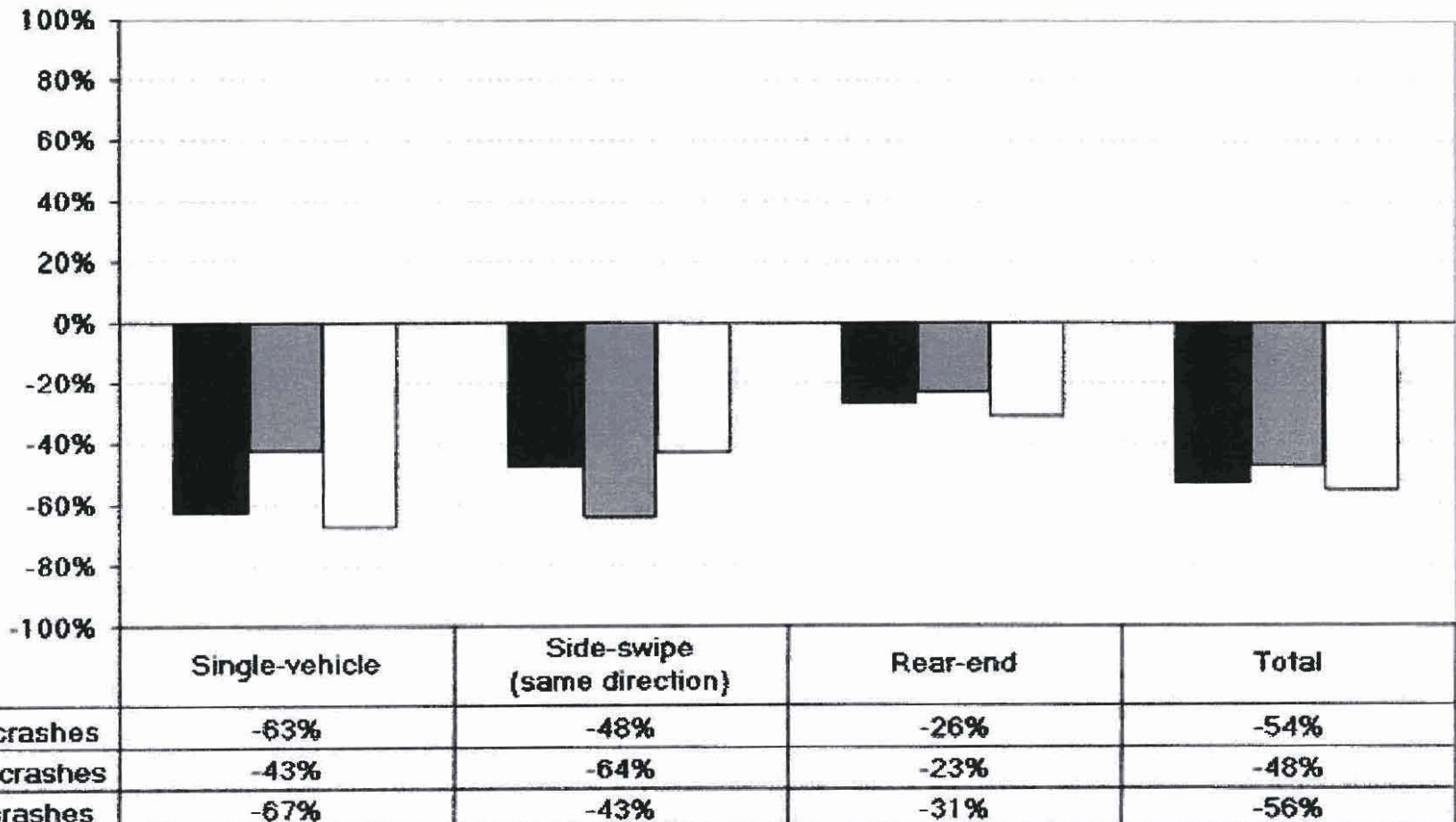
Jon Hilkevitch | Getting Around  
September 8, 2008

Video Player



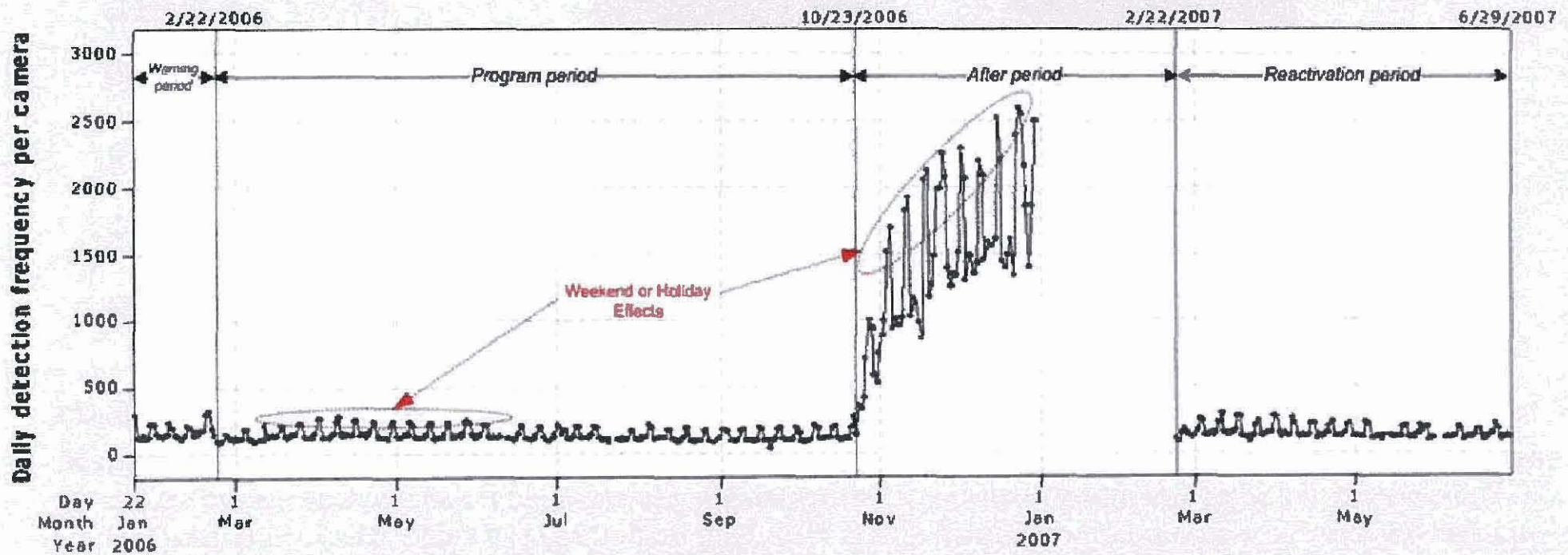
# Scottsdale 101 Photo Enforcement Study Safety Results

- Total Crashes Decreased by 54%
- Total Injury & PDO Crashes Reduced by 56%.
- All Types of Crashes were Reduced

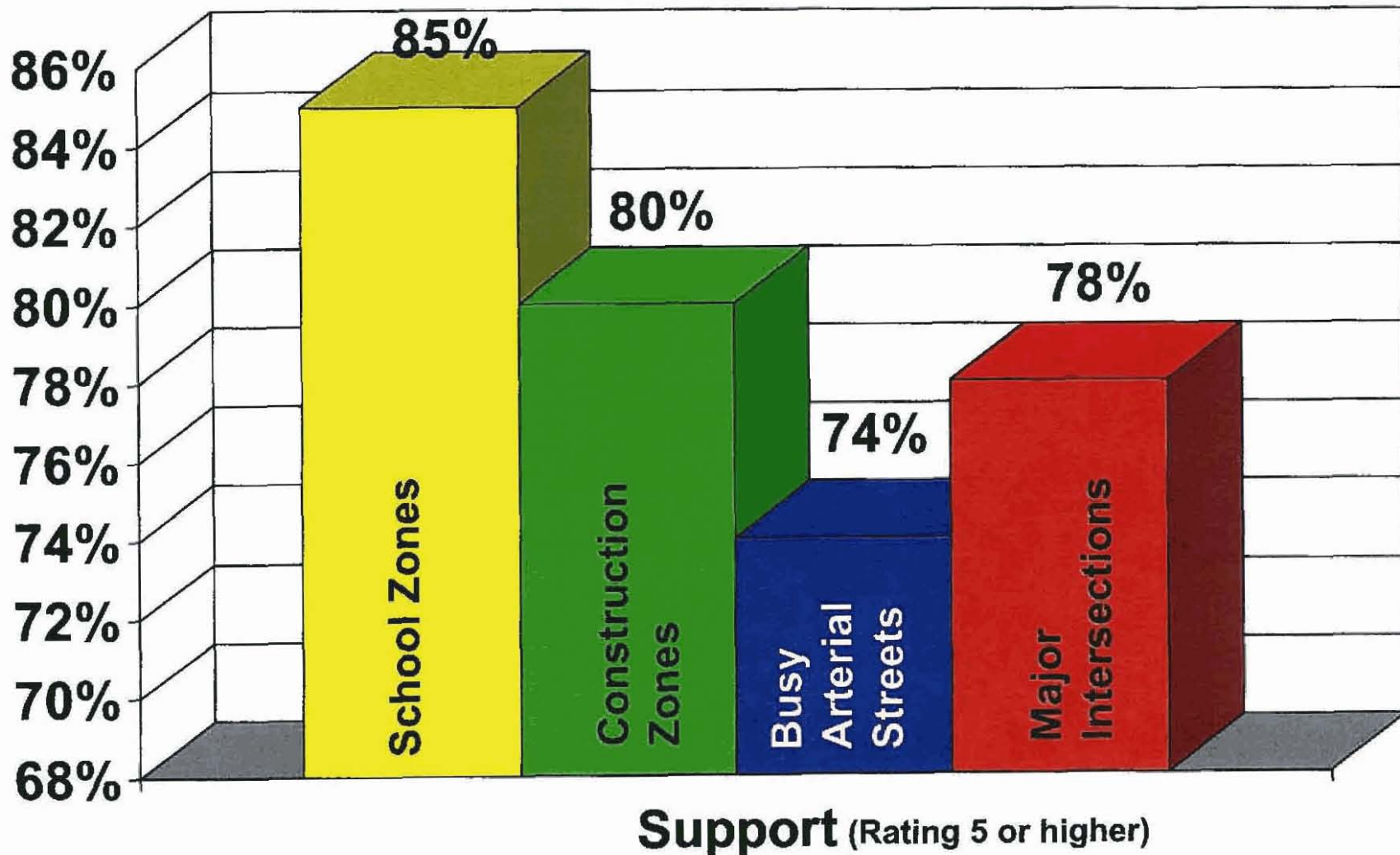




- After the program ended, the detection frequency (speeds  $\geq 76$  mph) increased by 1,047% from the *program* to *after* period.
- The detection frequency for the *reactivation* period is not statistically different than that for the *program* period

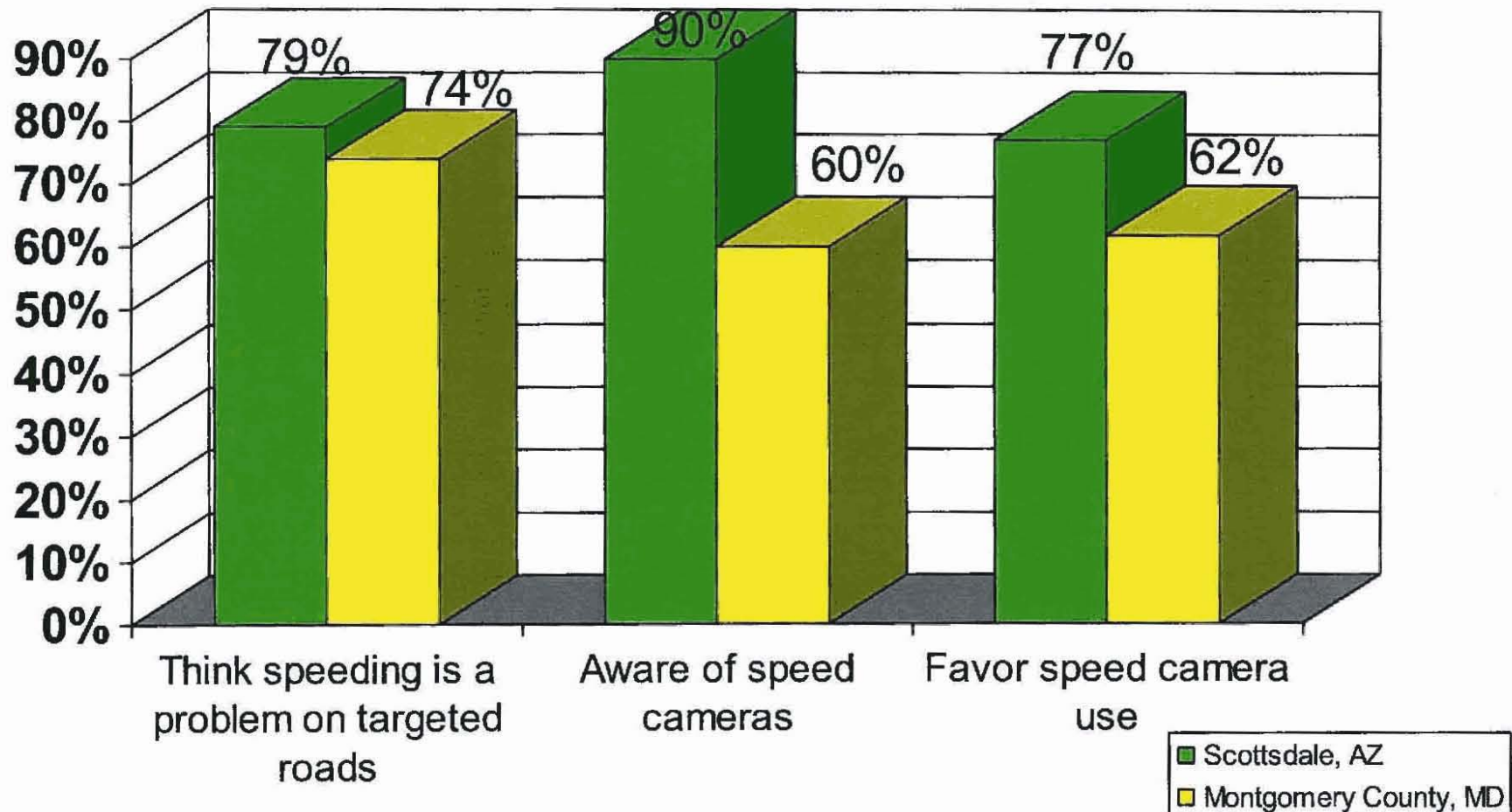


*As you may know many cities in Washington and other states use photo enforcement technology sometimes known as photo radar or speed cameras to issue citations to vehicles caught speeding on their streets. On a scale of 1 to 10, where 1 is "strongly oppose" and 10 is "strongly support", what number would you give for using speed photo enforcement technology for the following uses in Seattle?*





## Opinions of residents during speed camera enforcement programs in Montgomery County, Maryland and Scottsdale, Arizona

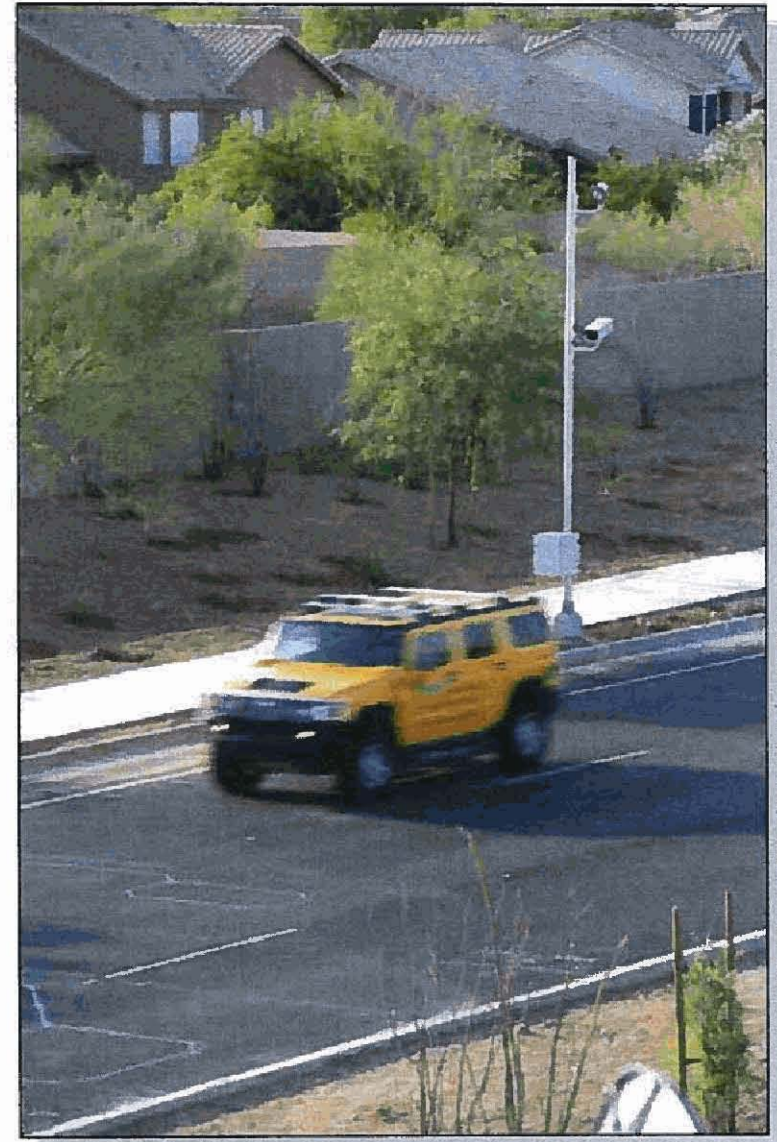






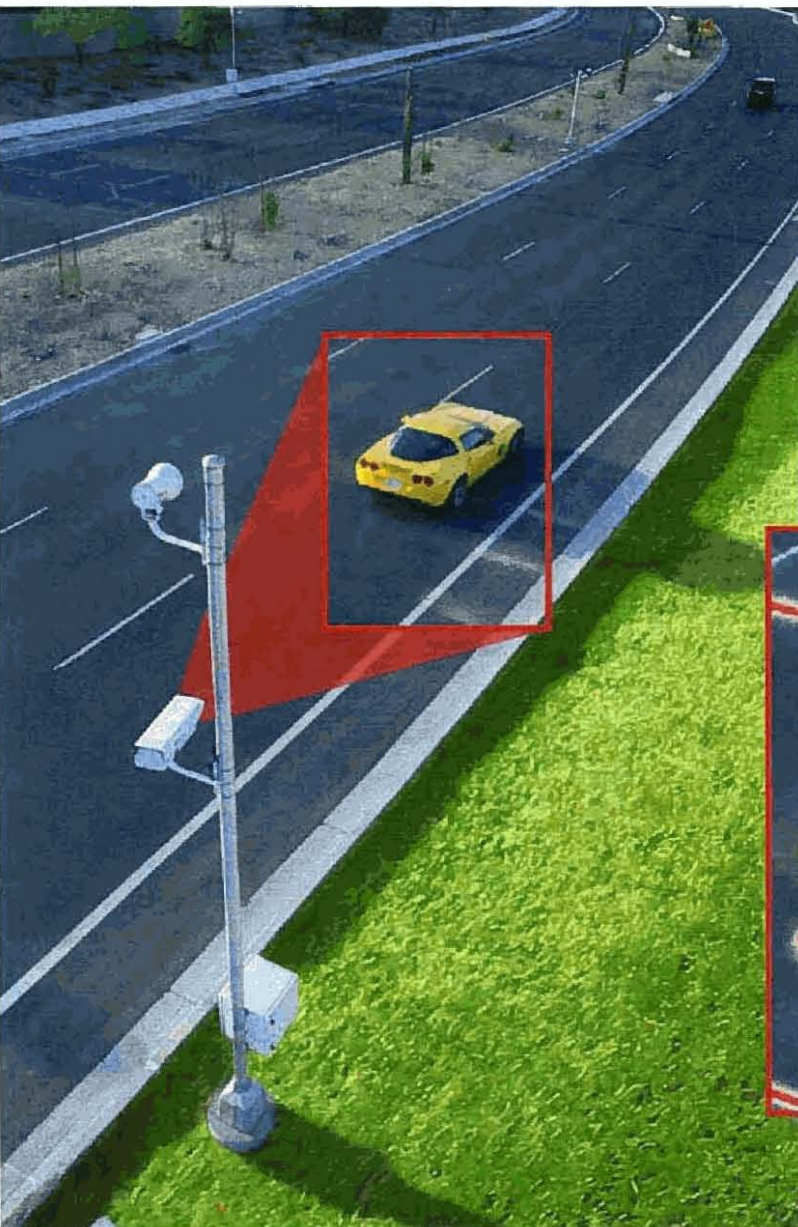
### Fixed-Site Camera Uses:

- Combination speed and red light enforcement at intersections
- Mid-block speed enforcement
- Highway or freeway speed enforcement
- School Zones



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- **Simultaneous multi-lane enforcement**
- **Full-color digital imaging for better imaging accurate review and results**
- **Wider dynamic image ranges as good as traditional film quality**



- **Fixed speed camera ideal for school zones, construction zones or other problem areas**
- **Accurate speed detection and capture to less than  $\pm 1$  mph**



**A-Shot**

Date of Violation (M/D/Y)    Time of violation    Speed Limit    Violation Speed    Violation Lane

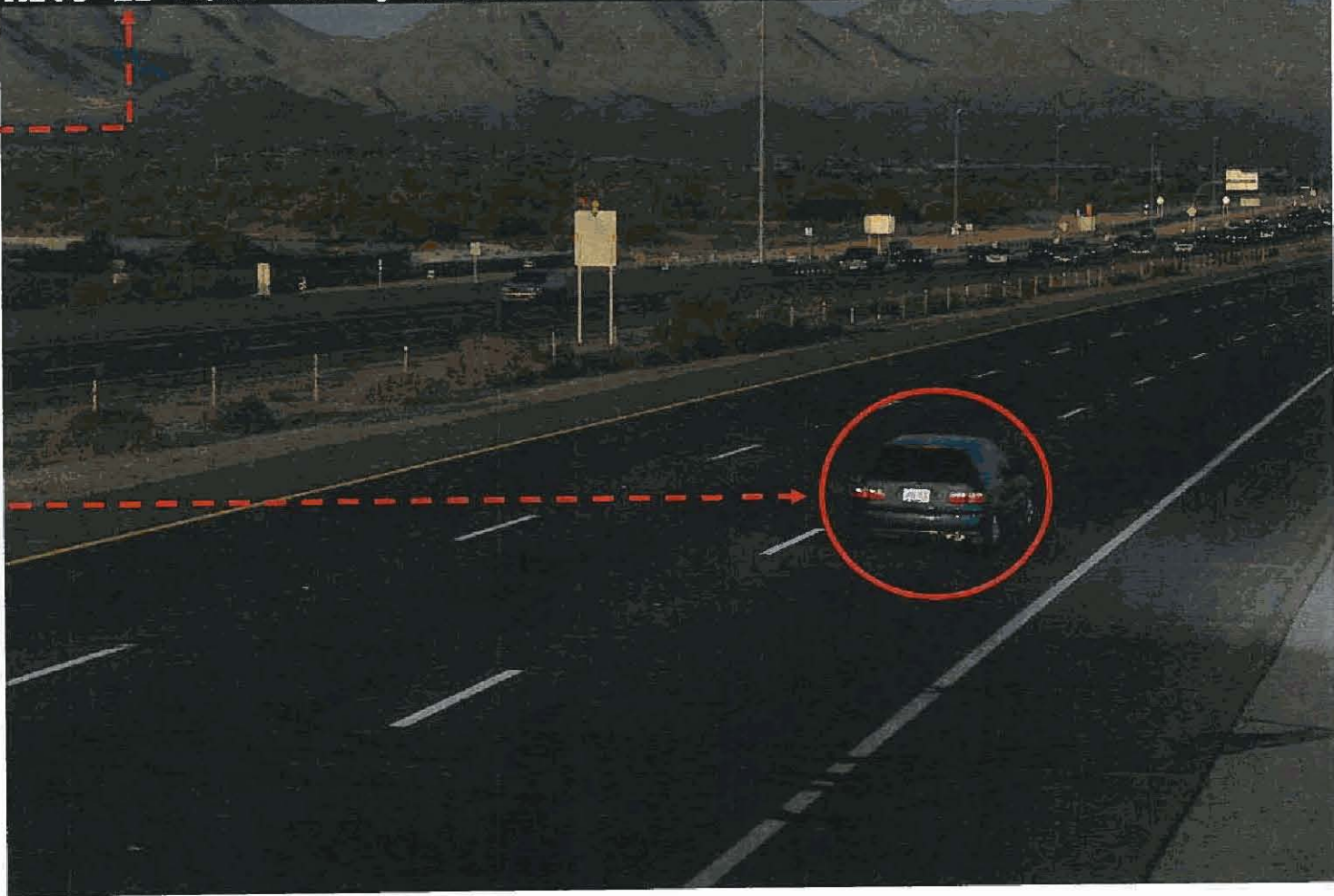
Location Code

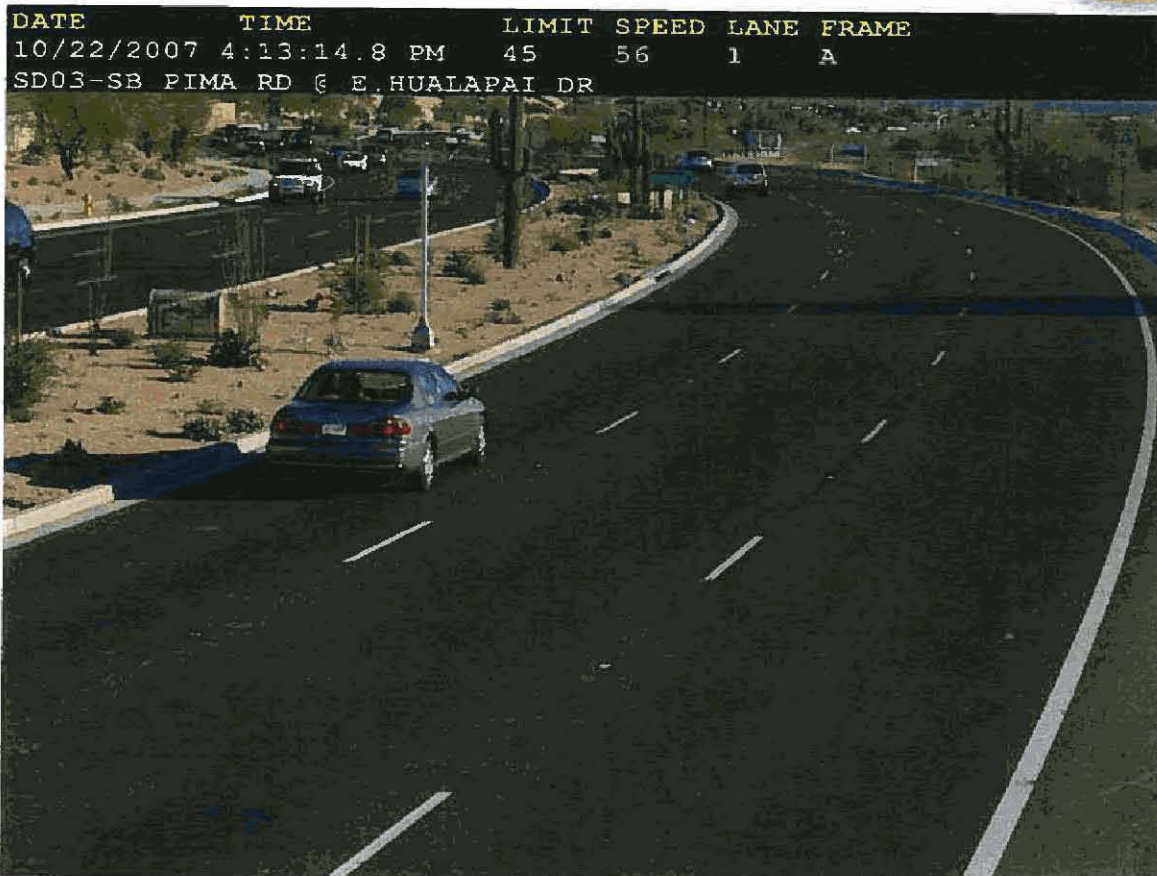
Direction of Vehicle

Motor Vehicle Committing Violation

DATE	TIME	LIMIT	SPEED	LANE	FRAME
5/13/2008	6:50:38.6 PM	65	117	3	A
AZ03-EB LOOP 101 @ SCOTTSDALE RD - MILE POST 34.7					

Frame A (shows vehicle violating)







# Overview of Presentation

- Automated Speed Enforcement Technology
- Case Study – Rhodes Junior High, Mesa AZ

## Mid-Block Fixed Speed Program

- Case Study – Rhodes Junior High
  - Fatal Pedestrian (Juvenile) Collision in 2005
  - Junior High School
    - High Pedestrian and Bicycle Rider Count
  - Adjacent to Major Artery
    - 6 Lanes with Raised Median
  - 2007 Traffic Count: >27,500 per Day
  - “Static” School Zone Speed Limit Signs
    - 35 MPH: 7:30 AM - 4:30 PM on School Days
    - 45 MPH: Other Times

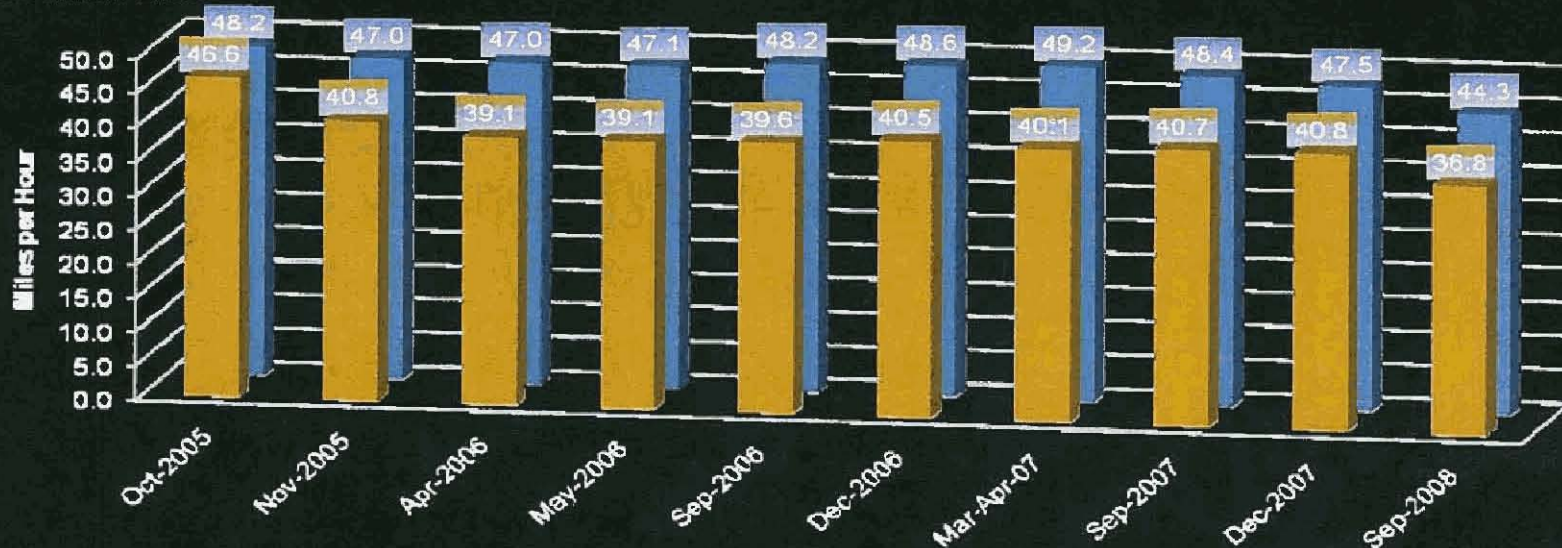


# Traffic Studies Completed

- 85<sup>th</sup> Percentile Study During School Days
  - Initial Benchmark – Oct. 05
    - 46.6 MPH in 35 mph (School Zone Speed Limit)
    - 48.2 MPH in 45 mph (Regular Speed Limit)
  - Post-Photo Enforcement Benchmark – Sept. 08
    - 36.8 MPH in 35 mph (School Zone Speed Limit)
      - 21% Reduction in Speed
    - 44.3 MPH in 45 mph (Regular Speed Limit)
      - 8.1% Reduction in Speed

## Rhodes Junior High Speed Data - Mesa, Arizona

■ 35 MPH Speed Limit In Effect  
 ■ 45 MPH Speed Limit In Effect



Static Signs	✓	✓							
Intense Police Enforcement		✓							
Driver Speed Feedback Signs			✓	✓	✓	✓	✓	✓	✓
Yellow Flashing Lights			✓	✓	✓	✓	✓	✓	✓
Photo Enforcement									✓

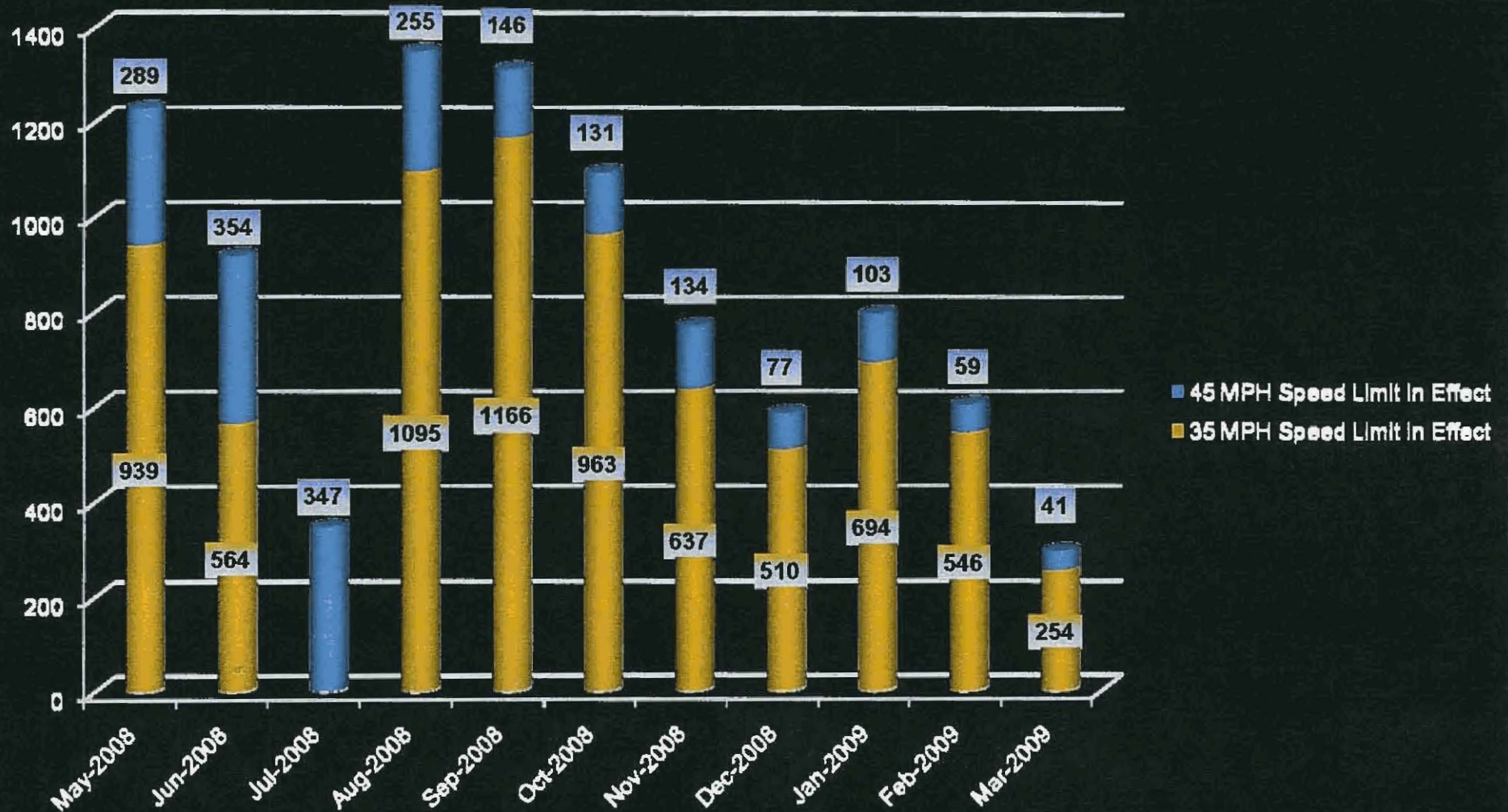


# Traffic Studies Analysis

- Improved Safety
  - Stopping Distance for 2009 Chevy Tahoe
    - 61 Feet Sooner or
    - 3.6 Car Lengths Sooner
  - Overall Driver Behavior Change
    - Significant Results
    - Sustained Results
    - No Speed Related Collisions to Date

# Traffic Studies Analysis

## Violation Count History - Rhodes Junior High - Mesa, Arizona





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