



# CAMERA ENFORCEMENT OF SCHOOL BUS STOP ARM VIOLATIONS

Bryan J. Katz, Ph.D.

**toXcel**

*Scientific Excellence to Serve Others*

# BACKGROUND

- In 2016, 33 States plus the District of Columbia participated in the NASDPTS National Stop Arm Violation Count
- Over 96,000 bus drivers reported 74,421 violations on a single day
- Approximately 13 million violations for the school year
- Enforcement is essential, but law enforcement officers can't be everywhere



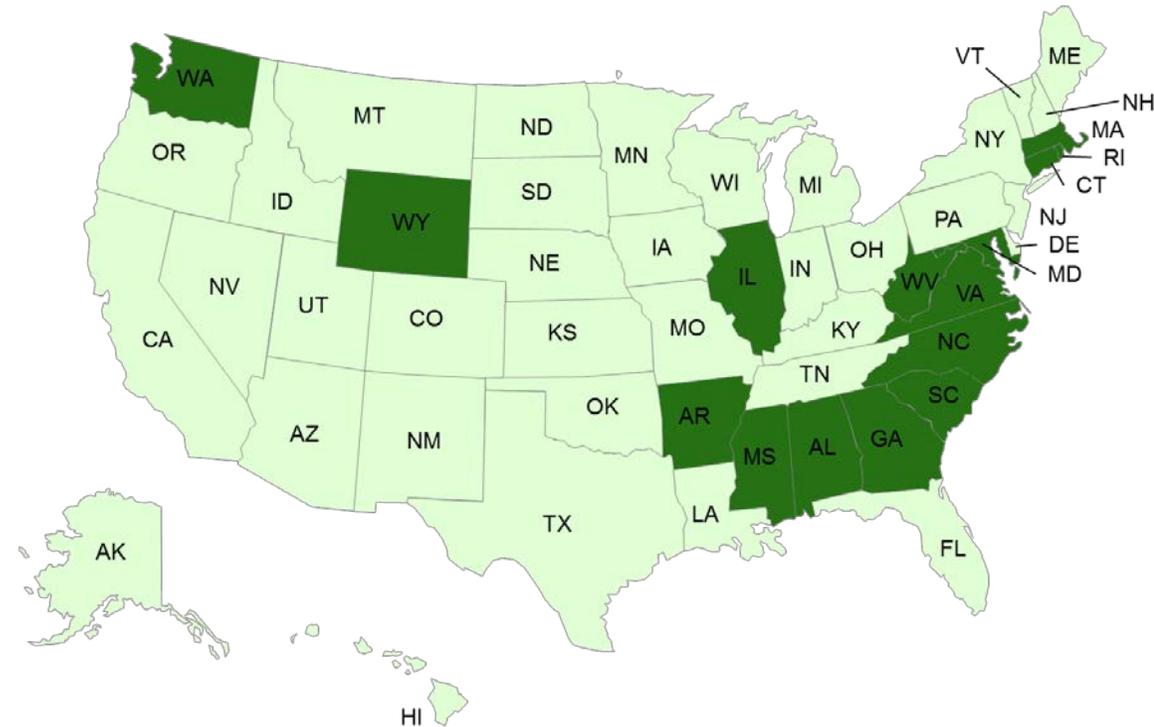
# OVERVIEW

- State laws vs. local ordinances
- Private vendor (turnkey vs. fixed fee) vs. self-run programs
- Video captured and then reviewed by vendor or law enforcement agency
- Evidence for conviction
  - Facial vs. license plate recognition
- Civil vs. criminal offense
  - Processed similar to a parking ticket vs. a moving violation
- Fines
  - Flat fee
  - Tiered fee



# LEGISLATION

- 15 states have explicit legislation related to the use of automated school bus stop arm enforcement
- Details vary by state
  - Who is involved in implementing & issuing citations
  - What's required to issue citations
  - Distribution of fine revenue
- Nearly ½ of all states have motioned to approve legislation



## STATE LAW VS. LOCAL ORDINANCES

- Most state laws allow local school districts or municipalities to decide whether to implement stop arm cameras
- Presence of State law does not indicate that all localities maintain ordinances that support automated stop arm enforcement
- Some localities have implemented local ordinances despite lacking an official state law
- Wyoming has directed that by the 2016-2017 school year, each bus shall have external video systems capable of automated enforcement

# FINES & PENALTIES

- Vary based on local laws
  - Flat Fee System
    - Municipality in Connecticut: \$465 fine per recorded incident
    - Washington State: \$394 fine (like parking ticket, does not go on permanent record)
  - Tiered Fee System
    - Georgia: \$300 (first violation), \$750 (second), \$1,000 (third violation in 5-year period); 6 points to license per violation
    - North Carolina: Failure to yield is Class 1 Misdemeanor and \$500. Fine increases if person is struck (\$1250) or killed (\$2500).
    - Municipality in South Carolina: \$500 fine + 6 points to license. Fee quadruples (\$2000) for additional violations.
- May also include jail time

# OBSERVATION SITES

- Sites Selected in
  - Virginia
  - Nebraska
  - Wyoming
  - Mississippi
- Criteria
  - Approved legislation
  - School board and city/county council approval
  - No prior use of automated stop arm bar enforcement
  - Reviewing LEA to provide camera based citation data and field issued citations
  - School system to have bus drivers or on-bus observers record stop arm violations

# VIRGINIA SITE

- Large program, with half of buses equipped with cameras
- Vendor-run program
- 80% of buses are run year-round
- Challenge:
  - Interpretation of law

## **Size**

33 schools  
~25,000 students  
26 square miles

## **Buses**

163 buses; ~80 with cameras

## **Camera Program**

3<sup>rd</sup> Party Private Vendor

# NEBRASKA SITE

- No State law
  - Transportation director approached police chief about legislation to use video to issue citations
  - No need since video = evidence
- When all conditions are met (bus stopped, arm out, etc.), the cameras will capture the video beginning 5 seconds prior and they are sent to the transportation center. (drivers also complete forms)
- Challenge:
  - 1 month warning period has morphed into 1st time verbal warning pass instead of \$500 fine + 3 points
- No repeat offenders so far

## Size

20 schools  
~10,000 students  
16 square miles

## Buses

78 buses; cameras on 10

## Camera Program

Started as test of 3<sup>rd</sup> party vendor,  
now self run

# NEBRASKA SITE

*“I really believe our media coverage on the stop arm cameras has made a huge dent in our violations.” – Transportation Director*

## School Buses Are Watching You: New Cameras Catch Dangerous Passing Drivers

**Dangerous Drivers Beware: New School Bus Cameras See You**

Think again before you pass a School Bus with its Stop Arm. Channel 6 had a story today about a great program that I

on...<http://www.wowt.com/.../Dangerous-Drivers-Beware->



**Dangerous Drivers Beware: Cameras See You**

The School District has recorded 27 bus stop arm violations this year. 15 were captured on camera.

WOWT.COM | BY BRANDON SCOTT

Like Comment Share

**Dangerous Drivers Beware: New School Bus Cameras See You**

Tell us what you think.

**New Came**

By Brandon Scott | Posted: Thu 2:27 PM, Sep 10, 2015 | Updated: Thu 6:44 P

## School District eyes more cameras for school buses

Updated: 10:29 AM CDT Sep 11, 2015

Share  Melissa Fry  



## Stop-arm violations decreasing; still an issue

By Kristin Gray | Leader Staff Writer | Dec 16, 2015



Photo by Kristin Gray



# WYOMING SITE

- State law requires all buses to have stop arm bar cameras
- Challenges:
  - Police agencies and prosecutors in each county decide whether video evidence is acceptable as the sole standard to determine whether a driver illegally passed a school bus
  - Personal delivery of citations
  - Jurisdiction - County vs. City LEA labor
- Still waiting to see how they will proceed

## Size

34 schools  
~14,000 students (largest in state)  
2688 square miles

## Buses

All buses equipped

## Camera Program

TBD

# MISSISSIPPI SITE

- Nathan's Law (2011)
- Drivers log an event for review; video reviewed by transportation director; affidavit and video are submitted to sheriff (drivers also complete forms)
- Previous Challenges:
  - Jurisdiction issues (counties vs. cities)
    - Violations now routed to central hub
  - Forms alone did not provide adequate evidence for law enforcement

## Size

28 schools

~20,000 students (3<sup>rd</sup> largest in state)

757 square miles

## Buses

280 buses; 58 with cameras

## Camera Program

Self-run program

# MISSISSIPPI SITE

- Convictions so far
  - Several cases have gone to court
    - Fines
      - \$750 fine + fees = \$873
    - Jail possible (up to 6 months)
      - A few people served 4 days

# MISSISSIPPI SITE

- Bus Driver Training
  - Trained on event marker and driver forms when pick up buses
  - Development & recertification every 2 years
  - 2 staff developments per year
  - Using all of these opportunities to make sure they are recording events

# MISSISSIPPI SITE

- Media & Public Awareness
  - Media outreach handled by PR person at central office
  - Put information in the news and Press Release issued in April 2016
  - Additional news stories and articles released in August 2016 when school started up again

# SUMMARY

- Stop arm camera enforcement varies
  - Laws can be developed to be camera-specific or cameras can be used to enforce existing laws.
  - Equipment and processing can be done in-house or through third party vendors.
  - Infractions can be based on the driver or based on the vehicle.
- As the project continues...
  - Determine the extent to which drivers do not stop for school buses before and after implementation of stop arm bar passing cameras.
  - Document practices and considerations for jurisdictions planning the implementation of a stop arm program.

## FOR MORE INFORMATION, CONTACT:

Bryan J. Katz, Ph.D., PE  
[Bryan.Katz@toxcel.com](mailto:Bryan.Katz@toxcel.com)

### NHTSA Contact

Kristie L. Johnson, Ph.D.  
[Kristie.Johnson@dot.gov](mailto:Kristie.Johnson@dot.gov)