



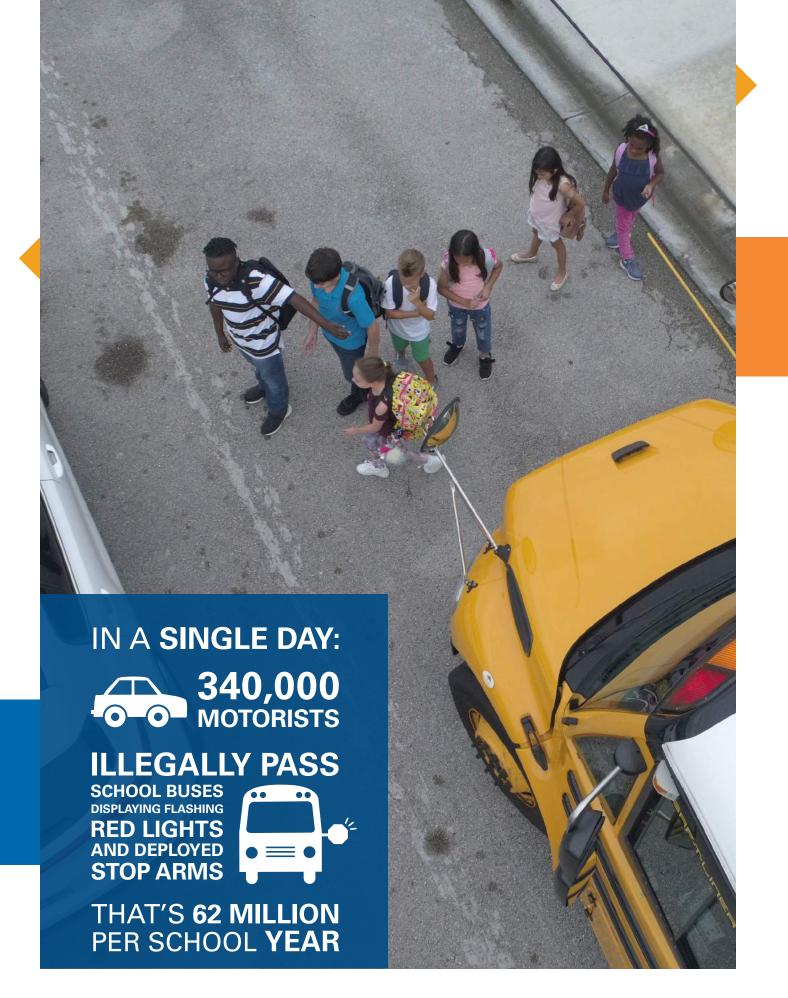
The Predictive Stop Arm and Stop Arm Cameras:

A Mission to Keep Students Safe and Change Motorist Behavior

The number of stop arm violations occurring nationwide annually is increasing. So too are student injuries and fatalities.

A 2019 NASDPTS survey on illegal school bus passing was conducted across 39 states in 20191. In a single day, 130,963 school bus drivers reported that 95,391 motorists had illegally passed a stopped school bus displaying flashing red lights and deployed stop arms. With approximately 471,000 school buses in service in the US, this equates to over 340,000 illegal school bus passes per day in the US and 62 million illegal passes per school year. The numbers of daily and annual violations based on the results of this study are staggering.

The 2018-19 school year saw 70 injuries and 17 fatalities related to school bus crossings. These numbers have not been this high since the 2008-2009 school year, in which 18 fatalities were recorded².



The Cause — More than Motorist **Distraction?**

Motorist distraction is said to be the underlying issue for the increase in the number of stop arm violations occurring nationwide.

Some experts say the situation is even worse, that we've gone beyond motorist distraction: we are less concerned about

Distraction can encompass several types of motorists who are distracted by mobile phones, food or passengers; those pre-occupied with tasks/problems on their mind; and those whose ability to focus on driving is impaired by drugs or alcohol.

Many distracted motorists may respond positively in time to education campaigns and tools that are currently in use to address stop arm violations: public reminders to put down the phone while driving, flashing lights and mechanical devices such as extended stop arms and citations for violators. There still remains a small group of motorists who despite all precautions may be distracted in the moment or may operate a vehicle under the influence. This group is not reachable through advocacy or safety products, and it poses significant and ongoing risk to students outside the bus.

We are left with sizable gaps. The behavioral changes referenced above won't happen overnight. Children remain at risk today and it will take some time before this level of risk diminishes. How can we effect immediate change? And how can we change the narrative related to that group that poses the most risk? Is there a way we can control the outcome?



¹ www.nasdpts.org/stoparm

² stnonline.com/special-reports/school-bus-injuriesfatalities-initial-report-for-2018-2019-school-year/

Short-Term Risk Reduction to Reduce Harm to Students Immediately

When we talk about the injury or death of one more child being one child too many, the key to keeping this one child safe today is proactive technology. Education, awareness and accountability have long been part of ongoing efforts to address the issue of risk to students outside the bus, but on their own are not effective at bringing about immediate change.

Proactive, **advanced technology** is the prime tool aiding in the immediate **reduction of risk to students** outside the school bus.

Safe Fleet's Predictive Stop Arm™ uses radar and predictive analytics to monitor oncoming vehicle traffic for probable stop arm violations. The Predictive Stop Arm (PSA) aids bus operators in not initiating a stop if the system deems a violation is likely and alerts both the bus operator and students of potential risk —students are alerted to stay back, through speakers mounted on the outside of the bus. The Predictive Stop Arm (PSA) can be an effective tool to keep students safe even as the number of stop arm violations increases. Other products in the market, including lighting, cameras, and extended stop arms, can have an impact over the long term, but do little to reduce risk in the short term.



Long-Term Risk Reduction — The PSA and Stop Arm Camera Working Together

A combined **PSA** and **Stop Arm Camera** solution would focus on **keeping students safe today**, but would also help **alter motorist behavior** for the greater long-term good of students.

The PSA helps keep children safe from motorists who don't respond to education campaigns and current safety tools on the bus, while the stop arm camera captures an image of the license plate on each vehicle that illegally passes a stopped school bus, for the purposes of issuing citations after-the-fact and changing behaviour in the long-term. Fines and the risk of a rescinded motorists license provide much-needed additional deterrence of unwanted motorist behavior.

The PSA, however, presents an opportunity to deliver increased student safety the same day the system is installed.











Changing the High-Risk Narrative

As noted above, we can never account for the truly distracted motorist, or those under the influence. This group, representing a small percentage of stop arm violations, poses the most significant and ongoing risk to students outside the bus.

The PSA is the only solution in the market that reduces the risk attributed to the behaviors of this sub-set of motorists. And the PSA combined with the Stop Arm Camera is the only comprehensive solution on the market to help keep students safe while enabling the accountability necessary to potentially limit/ remove motorists from the road.



A Comprehensive Approach – **Improving Safety and Reducing Risk Today and Curbing Long-Term, Unsafe Motorist Behavior**

to **reducing risk to students** from stop arm violations and curbing unsafe behavior that stems from distraction, a lack of awareness and/or a disregard for the rules then, is education and awareness, advanced technology (the PSA) and accountability (stop arm cameras).

The ultimate goal is an environment in which a stop arm violation is an infrequent occurrence. In the event a passing motorist doesn't stop, students can be notified and alerted to stay back and not cross the street. If the passing motorist continues to pass the stopped school bus, the license plate of the passing vehicle is captured for a citation.

Safe Fleet has a vision to reduce preventable deaths and injuries in and around fleet vehicles, with a goal of ZERO accidents.

> Contact us to learn more about Safe Fleet's Predictive Stop Arm and Stop Arm Camera solutions.









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1090-BuyersGuide-BR-SB-022620

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