Back to School, Back to Safety: A Guide to Improving Outcomes for Your Bus Fleet

SAMSARA FOR **PUBLIC SECTOR**





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01
Introduction

Big yellow school buses are hard to miss, but accidents on the road are inevitable. In fact, while school buses remain one of the safest ways for children to get to school, there has been a yearly average of 108 fatalities involving school buses since 2014, reaching 1,079 deaths in total. And that doesn't include the events that can happen inside a school bus that may also put students at risk.

Managing school bus safety is more complex than it used to be. Today, it's not just about getting students from point A to point B. You also need to focus on driver safety and training, parent concerns, as well as compliance, maintenance, and a host of other factors.

The old, reactive way of handling issues like these is ineffective and often comes too late. To help ensure children are safe, you need to get ahead of risks and prevent incidents before they happen. Now, with AI, districts can use technology to ensure schools are proactive about bus safety and have complete, real-time visibility into their operations.

This guide provides strategies to help school transportation leaders do just that, with insights on how to proactively address today's bus safety challenges. The insights here aren't just ideas—they're drawn from real-world examples from school districts that have successfully used Samsara to see results.

"Our partnership with Samsara is groundbreaking for us and the industry. It allows us to see what's happening in these smaller vehicles and provide a new level of comfort and safety for both the drivers and students."

—GREGG PRETTYMAN
Vice President, First Alt



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Prioritize student, driver, and on-road safety with advanced AI camera systems

Across the country, the law in every state is clear: It is illegal for motorists to pass a school bus with an extended stop arm. However, the estimated number of stop-arm violations in the U.S. during the 2023–2024 school year was 45.2 million. That's over 251,000 illegal passes per day, creating thousands of chances for a blind spot-related accident.

That's just one measure of risk around a school bus, which is why cameras—specifically those that provide real-time visibility from multiple locations inside and outside the bus—are the core of any modern school bus safety solution.

There are several common camera types to consider:

AI Dash Cams

Placed on the dashboard, these cameras can provide a full picture of what's happening both inside and outside the vehicle. They automatically capture and upload high-definition video to a cloud-based dashboard, giving administrators and law enforcement easy access to critical footage.

Advanced dash cams can also detect risky driving behaviors like speeding or harsh braking, and provide real-time in-cab alerts to the driver. In the event of an accident, this video evidence can help determine fault, protecting the driver and the school district from financial liability.

Stop-arm cameras

Installed directly below the cross-arm, stop-arm cameras capture video footage of vehicles—including license plates—that illegally pass school buses with flashing red lights. This footage can be reported to law enforcement to follow up on violations, deterring motorists and holding them accountable.

Side and rear cameras

These cameras provide a full perimeter view of a school bus, helping to monitor incidents like sideswipes and providing visibility into student ridership processes, such as when students embark and disembark. Capturing video footage of students exiting the bus helps minimize parent calls about their child's whereabouts and streamlines investigations if a student goes missing.

AI Multicam

Samsara AI Multicam gives drivers 360° visibility around buses. AI Multicam supports up to four auxiliary HD camera feeds, allowing districts to consolidate video footage from cameras and automatically upload data to the Samsara Dashboard. This unifies camera data and makes it easy for schools to integrate cameras for interior, rear, and side camera footage. AI Multicam also provides real-time AI detections, alerting drivers to pedestrians, cyclists, and other risks.

Improved safety outcomes with Samsara AI Dash Cams

Berkeley County School District uses dual-facing AI Dash Cams to gain full, real-time visibility into driver and student safety. The system can detect risky behaviors like distracted driving and allows administrators to provide proactive, in-the-moment coaching to drivers. This kind of video-based coaching has helped them nearly eliminate risky behaviors like inattentive driving.

Gwinnett County Public Schools used AI Dash Cams to **reduce harsh braking events by 60% and seat belt violations by 47% in just three months**. Beyond prevention, this technology is a powerful tool for accountability and exoneration. When incidents or complaints occur, the video evidence can quickly resolve disputes and protect drivers.

Mobile County Public Schools also found that with on-demand video retrieval, they could get to the truth quickly instead of relying on subjective driver and student reports. The ability to pull up video footage in minutes **saves hours of manual work** and helps **protect both employees and the district from liability**.



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Shift to proactive driver coaching for safer roads and building driving habits that stick

Dash cam technology isn't just for capturing incidents. It is a smart tool that can help managers spot risky behaviors—like distracted driving or mobile phone use—and step in and correct unsafe habits before they cause an incident.

The effectiveness of this proactive approach is clear from the experiences of school districts around the country.



In-cab alerts and real-time coaching

Berkeley County School District uses in-cab alerts to proactively coach drivers on the road, notify drivers of risky behaviors such as using cell phones, speeding, harsh braking, inattentive driving, rolling through stops, and tailgating. "We've seen bus drivers use their cell phone, which is an absolute no-no. Now, I can see what's happening and call the driver to coach them," said Eric Keesecker, Executive Director of School Transportation.

App-based training

East Allen County Schools use the Samsara Driver App to view routes and conduct vehicle inspections. They were able to train drivers to use tablets in just two hours, which included on-board driving directions, resulting in faster re-routes and improved route performance. This shift provided a driver-friendly, tablet-based solution for optimized route plans.

Proactive driver recognition

Mobile County Public Schools uses Safety Scores and dash cam footage during safety meetings to highlight positive driving behaviors and showcase drivers for exemplary performance, recognizing and rewarding safe driving with incentives like gift certificates. This has helped drivers stay motivated to perform at their best.

"Samsara has been my saving grace because it helped ensure our routes are safe and efficient and that we are fiscally responsible. And because of these new features, we've received praise from both the board and the superintendent that the new technology is working and the investment is yielding results."

— DENISE HALL
Director of Transportation, Clayton County Public Schools

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Help give parents peace of mind with tracking, communication, and accountability

School bus safety encompasses more than driver performance. It also includes keeping parents informed about the safety and location of their children. In the past, limited visibility into real-time bus location and in-vehicle activity made it difficult for administrators to respond efficiently to parent calls and investigate incidents. Today, technology, such as those listed here, makes it easy for districts to track students and communicate with parents.

Real-time GPS tracking and estimated times of arrival (ETAs)

Real-time GPS data can accurately pinpoint bus locations and provide reliable ETAs for bus routes. This directly addresses parent concerns about bus delays and student whereabouts. GPS tracking and route data can also deliver greater visibility into bus location and driver behavior, including speeding and harsh events.

Integration with parent communication apps and routing software

Integrating safety solutions with popular parent apps can provide seamless status updates to parents. For example, Samsara's API integrations with apps—such as Edulog and Transfinder—allow schools to share real-time bus locations and ETAs directly with parents, significantly reducing inbound calls to the administrative office and giving parents peace of mind.

Video evidence and incident investigation

Cameras in and around a bus can provide critical evidence to help districts investigate and resolve incidents quickly and cost-effectively. Inside the bus, administrators can monitor for medical emergencies, student bullying, or vandalism, while exterior cameras can exonerate drivers if they are blamed for incidents. This can help provide a sense of accountability and transparency for parents, drivers, and administrators.

Student tracking solutions and workflows

NFC ID readers can automate student tracking and streamline ridership reporting, which provides an additional layer of visibility for student safety and efficient responses to parent inquiries. These readers, and similar fob solutions, help track student activity and push this information to parent communication portals. Administrators can also set up driver workflows to check for sleeping children at the end of a bus route, helping to give parents greater assurance.

Real-world benefits from Samsara safety technology

Berkeley County School District integrates with Edulog to efficiently answer parent inquiries, **saving their administrative team over 10 hours per week**.

Mobile County Public Schools integrates GPS data with their routing software, RouteFinder, to streamline routing and dispatch, allowing them to **quickly respond to parent inquiries** about bus delays and incidents.

Gwinnett County Public Schools was able to use video evidence to **decrease investigation time by 50%**, from 1-2 weeks to 24-48 hours, and streamline parent communication.



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Consider operational efficiencies to create a safer environment

There are many ways to improve safety beyond factors like driver performance and student tracking.

Taking a proactive approach to maintenance with real-time engine diagnostics and automatic fault alerts, for example, allows bus transportation teams to switch from a reactive, time-based maintenance schedule to a proactive one based on usage. A bus breaking down, especially with kids on board, is an immediate safety risk. However, by monitoring vehicle health data, transportation managers can proactively address maintenance issues, which lowers the chance of breakdowns.

Using a single platform to unify and manage bus operations is another way for fleets to be both more efficient and safer. Samsara's Qualifications Management, for example, gives managers a centralized place to track driver licensing and other important information. The solution will automatically flag when a driver's license is up for renewal, helping to ensure that drivers have the necessary documentation to lawfully—and safely—operate school buses.



"Samsara is the best decision we've made—it delivers benefits we couldn't achieve with other systems. We've cut costs by improving safety and efficiency while building trust with parents and administrators."

— ANTHONY MCCLAIN
Transportation Supervisor, Caddo Parish Public Schools

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Why smart investments in school bus technology pay off



Keep students safe, retain bus drivers, and hold motorists accountable

Besides the physical damage that vehicles incur, accidents also greatly impact the people involved. Students onboard the school bus are certainly at risk, but so are the bus driver and the motorists involved. Accidents can decommission bus drivers, leading to higher medical costs, lost wages, and unavailable work schedules. Keeping bus drivers on the road is critical, especially given the labor shortage—51% of transportation directors say the school bus driver shortage is either “severe” or “desperate.” By using cameras, telematics, and other safety technology, you can minimize accidents and keep your bus drivers safe, ensuring an exceptional driver experience, reliably transporting students, and retaining drivers.

Save money for school districts and municipalities

Though school transportation is largely a publicly funded service, costs for school buses can quickly add up. Maintaining a school bus is already expensive enough, costing around $34,000 to $38,000 per vehicle. When you consider repairs from accidents and sideswipes, rising insurance premiums, accident claims, and student injury claims, your pupil transportation budget can dry up fast.

Investing in school bus safety technology can save school districts and municipalities money by reducing accidents as well as legal and financial risk. Video footage can also help exonerate innocent bus drivers from not-at-fault accidents and prove fraudulent injury claims. In fact, camera systems such as dash cams are shown to reduce accident-related costs by as much as 86%.

Satisfy stakeholders involved in school bus safety

School boards and superintendents are also deeply invested in student safety. As the decision-makers that allocate transportation budgets and manage expenses, they need to ensure that the technology that school districts are deploying results in a positive return on investment. Solutions like safety cameras are not only cost-efficient, but the gains from reduced accident payouts and lowered insurance premiums quickly pay for themselves.

Ready to transform your school bus operations?

This guide shows that keeping school buses safe today means tackling the problem from all sides. It requires seamlessly combining cameras and video, real-time GPS tracking, student accountability features, and solid fleet management.

Shifting school transportation from a logistical task to a sophisticated, data-driven operation that upholds the highest standards of safety, accountability, and operational excellence is no easy task. That's why Samsara is here to help you every step of the way.

Visit our resources for K-12 transportation for more information, or contact us to learn more.

SAMSARA FOR **PUBLIC SECTOR**

Built for the public sector, Samsara enables agencies to improve response times, optimize workflows, and foster transparency to keep constituents safe, engaged and informed. Learn more today.