



# YOUR COMPREHENSIVE GUIDE **To Student GPS Tracking**



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By now, you've likely heard a lot about student GPS tracking. Increasingly, districts are incorporating this technology into their schools for a variety of beneficial reasons. You might be wondering about the facts, how to weigh the benefits versus the cost and the time associated with implementing student GPS tracking into your school.

In this guide, you'll find the answers you need to satisfy questions you may have about student GPS tracking. Learn why this technology is expanding in acceptance, the investment and the return on your investment, what hardware and software are required, legal/privacy concerns and the funding available to implement a GPS tracking system.

With this comprehensive guide to student GPS tracking, your questions and concerns need not linger in obscurity any longer.

## Student GPS Tracking Is Here To Stay

While student GPS tracking isn't exactly new to school districts, its growing acceptance is. Over time, more and more school districts have realized the accumulating benefits of using GPS tracking systems to improve student safety while also optimizing bus routes and enhancing communication with parents about transportation matters.

GPS tracking provides far more than just location information.

In fact, because of the proof-positive results, some states are actually attempting to mandate student GPS tracking. It's even safe to assume that, once the issue of student GPS tracking hits the higher courts on a state and federal level, many more states are going to follow suit.



## The Demonstrated Benefits Of Student GPS Tracking

### Student Management

- **Parent peace of mind:** Messaging platforms alert parents when a bus is late, when their child gets off at the wrong bus stop or when there's bad weather, an accident or an emergency.
- **Tracking students:** GPS tracking systems know which students are supposed to be on a specific bus, or in a classroom, but also who actually *showed up*.
- **Attendance:** Whether for route planning or classroom attendance, student GPS tracking is beneficial for mentally disabled/special needs children, truancy issues and more.

### Bus Routing And Transportation Management

- GPS tracking systems allow you to display and monitor your bus fleet, in real time, on a detailed map with speed, time and location information.
- Security alerts let you know when a bus is speeding, stops at an unauthorized location or deviates from a scheduled route.
- Download data reports to track driver times and monitor students who actually ride the bus to optimize routes and save money.



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## Tech Specs: Your GPS Tracking System Investment Checklist

- Radio- or cellular-based black box that separately collects GPS data
- A series of card readers in buses and points within the school's building to collect information
- Repeaters that are put on top of buildings in the district so signals are continual along all bus routes when using radio frequencies
- Student tracking software that integrates with bus routing software
- RFID cards that students carry and that cost next to nothing

## GPS Tracking Systems: Your Investment And Return On Investment\*

School districts that have implemented GPS tracking systems report favorable results in almost all cases. Even budget-conscious board members are experiencing the benefits of savings in fuel costs and routing efficiency. These cost savings end up covering the expense of the system in a relatively short period of time.

*\*Save \$50,000 by taking just one bus off the road.*

*With the right GPS tracking system in place, you're able to create and modify routes based on accurate, real-time information. Once the benefits of route optimization unfold, even if you only eliminate one bus from your fleet, you are saving money on fuel, maintenance, driver salary and other associated costs that amount to approximately \$50,000 a year.*

*Those concerned with student safety issues, especially in today's world – where there have been at least 62 major school shootings since Columbine – are grateful for significantly improved child monitoring and protection. This benefit of student GPS tracking is priceless.*

## Implementing Student GPS Tracking In Your District

Most of the time, school districts begin implementing a student GPS tracking system by starting with special needs buses – these are primary buses that change routes often. Special needs buses are a great way to commence implementing the technology.

Typically, once board members see the benefits, they are more inclined to add the tracking system to the rest of their bus fleet and school buildings. It's also much easier this way, because many aspects of the GPS system, from hardware to software, will already be in place.

### GPS Tracking Hardware:

- **Black Boxes:** In terms of black boxes, cellular is the most cost-effective choice. While you don't need a monthly cell service with a radio black box, frequency and travel distance are limited without one.
- **Cellular Networks:** For cellular black boxes, you have options for different networks (3G, 4G) depending on what network you choose or what is available in your area. You need a data plan and not an actual cell service, which makes the option more affordable.



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- **Readers:** Once you add student tracking, you need student card readers (scanners) that are mounted onto buses, doors at school building entrances, classrooms, cafeterias, libraries or anywhere else you'd like to monitor your students' locations throughout the day. It's recommended that readers should come equipped with a keypad, just in case a student forgets a card and needs to enter their ID manually.
- **Student ID Cards:** ID cards may have RFID chips, bar codes and biometrics such as an eye or thumbprint scan. With long-distance readers, there is also the more expensive option of having key FOBs that hang from a book bag or belt loop so students don't have to swipe in.

A certified installer must be in charge of installation for the various hardware components of a GPS tracking system. Before using the system, a local installer should also test the system and activate the ID cards to ensure the system is reading sample test cards and collecting the GPS and student data correctly.

### GPS Tracking Software:

- **School Bus Routing:** Bus routing software allows you to view, modify and retrieve information pertaining to your school bus routes. This software helps you keep student information – such as pick-up and drop-off locations – accurate and up to date, while a detailed map shows you routes where buses are traveling and where kids are getting on and off those buses.
- **Student GPS Tracking:** Student tracking systems not only let you track students wherever they swipe their ID cards, but the system has built-in alerts that notify the school and parents when a student gets on at a wrong stop, didn't get off the bus at all or didn't show up to the bus. There's also a web application for parents to monitor their child's whereabouts.
- **Vehicle GPS Tracking:** This real-time tracking software program allows you to see where your buses are as they travel their routes in real-time on detailed, zoomable maps. Software features also include security alerts when a bus breaks the speed limit, idles too long or deviates from the scheduled route.



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With the right GPS tracking system provider, all the hardware and software components work together seamlessly, providing you with updated, refreshed information within a minimum of 10 seconds.

## Legalities And Privacy Issues Surrounding GPS Tracking

### Data Security And Privacy Issues

A big concern of student GPS tracking is data security. Especially if the GPS tracking system provider is hosting the data, you need to ensure that access is limited to only the appropriate parties.

Your GPS tracking system should account for:

- Software that is encrypted and password protected
- Limited access on a need-to-know basis (e.g. salespeople don't have access)
- Your school district's own private database, with nothing shared amongst different school districts
- ID cards that aren't hackable, containing just the assigned numbers with no student information attached to the actual cards

The privacy concerns of student GPS tracking are the same as any other encrypted and password-protected software that we rely on daily.

Both HIPAA and FERPA have data protection laws that schools must abide by, such as medical information that cannot be released publically, and these laws apply to student GPS tracking.

### Legal Issues

Regardless of how beneficial GPS tracking is for both the school district and parents, some families are never going to accept it, especially if it violates certain religious beliefs. Are children of those families able to opt out? While the mandate of having to use GPS tracking is state-by-state at the moment, parents who want to opt out must explain why.

As far as children's privacy rights, there is nothing specific to GPS and children that has been legislated. And, because the child is not considered an adult until 21 years old, the law generally extends parents the legal right to *extensive* control over their children, and this includes GPS tracking.

Children's rights are simply not equal to adults' constitutional rights because children are more vulnerable and unable to make informed, critical decisions.

## How Do I Fund My Student GPS Tracking Project?

Even though you'll see a return on your tracking system investment within a few years, many school districts face too many budgetary setbacks to justify the upfront purchase. However, many districts don't realize there are options to help fund the project and ease the direct expense on the school district.



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## The Future Of Student GPS Tracking

Student GPS tracking is a technology that is growing in acceptance and increasingly utilized in school districts to amp up student safety. Unfortunately, schools seem more willing to adopt the technology after a problem or emergency has occurred – and after student tracking could have prevented an incident from occurring in the first place.

The good news is that schools *are* realizing the benefits to student safety and money-saving efficiency.

The future of student GPS tracking will also see technology continually improve to ensure the highest standards of safety and privacy, such as readers that accept retina or thumbprint scans.

While it may be slightly disconcerting to have student GPS tracking mandated by your state, the technology is only going to improve and become more cost-effective for school districts. As a result, your students are going to be kept safe from possible harm and your savings from optimizing transportation management may be put to other areas of your education programs in dire need of funds.

Here are a few funding options available for student GPS tracking:

- **Subscription Services:** Schools have the option of setting up a service in which parents pay a small fee per month for the notification system. If every family chips in, the cost of the system is affordable.
- **Local Advertising:** Right on your GPS tracking web apps, you may sell ads to local businesses to help pay for the system, which alleviates the cost burden from parents and the district.
- **Tax Incentives And Grants:** Whether it's a tech-related tax credit or a grant for special needs children, there are a number of state and federal governmental incentives available to provide financial relief for funding a GPS tracking system.

Funding your GPS tracking system implementation is up to the financial needs of your school. You may choose one or all of the above to make it affordable for your school district.

**Ready to learn more about the benefits of student GPS tracking to help improve student safety and optimize your transportation management? Click below to receive a no-cost consultation. You may also call 484-941-0820 to speak directly with a student transportation expert at BusBoss.**



**Receive A No-Cost Consultation**



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