



Putting the Pieces Together to Maximize Your Efficiency











Dear Transportation Leaders and School District Officials:

This is an open letter to leaders looking to make big improvements to their transportation operations or minor tweaks that will have major impacts.



Really, this is more like a roadmap to help you maximize your department's efficiency. After all, that's what we deal with... maps!

And people. Because **Transfinder** is more than a cutting-edge technology company. It's an award-winning professional services company with experts in the industry that can come alongside you and your team to find areas where wholesale changes or little tweaks can be made to get the most out of your fleet and your team.

We know that, in essence, you are running your "business" – the safe transportation of students to and from home every day – within a larger "business," the school district, where students are being educated to prepare for their futures.

We know you answer to two sets of bosses, the administration and the parents/guardians. On the one hand you need to explain and justify your own budgets and purchases as well as your processes. And on the other hand, you have consumers (aka parents and guardians) who have ever-increasing expectations. They want to know where their children are in real-time. They want their children on the bus for as little time as possible. They want assurances that their children truly are on the safest mode of transportation available. (If they ride the bus, they are!).

When you partner with **Transfinder** you receive the critical answers these sets of bosses need and you have at your fingertips the most efficient and safest transportation management technology in the industry.

One in four children ride a bus routed by Transfinder. Couple that with Transfinder's award-winning support and you are well positioned to have the most efficient and safest operation possible. Transfinder's **Professional Services** team can complete the work you need, such as a *Bell Time study*, in as little as two months or the better part of six months or longer depending on the size of the district and the scope of the work.















Efficiency starts with reviewing goals, policies and strategies

[Spoiler Alert: The greatest place where you can find efficiencies in transportation is in the routing and scheduling of students].

You will need to review your district's policies to determine if they are in alignment with your goals and strategies and once that is determined, constantly analyze your routes and student ridership to drive improvements. For example, are there actions you can take, such as adjusting your bell times to maximize your resources (your buses and your drivers)?



One key is measuring what you are doing so you can see where improvements have been made and where more work needs to be done.

Beyond the policies, plans, procedures and hard data are the people that are the backbone of your operation. To function at the top of your game, it takes a team.

If you've read this far, then I know you really care about your transportation operation and want to make it better. I've asked one of our experts what I should include in this letter to help you make an informed decision. His name is **Terrell Doolen**. We call him "**T**" and he's **Transfinder's manager of Professional Services**. He's been with the company for more than 16 years and when it comes to student transportation, he has seen it all.

Doolen and his team are very hands on and people--centric. He said the same is true for your transportation operation.



The driver shortage is on everybody's mind. If you want to be successful, you've got to pull in your drivers to your overall goal. You've got to include them as part of the solution.

Terrell "T" Doolen,
Transfinder's Manager of Professional Services

Routing and Scheduling

Doolen cut to the chase:

The place to maximize efficiency in transportation is routing and scheduling. In Transfinder's award-winning routing solution **Routefinder PLUS**, you can build routes with your district's walk-to-school policy and walk-to-stop policy imbedded in the program. You can also build into



















your routing a maximum ride time to limit how long students are on the bus.

Doolen, during a presentation before attendees of a **New York Association for Pupil Transportation conference**, demonstrated an inefficient route, displaying a map circling seven routes within a half mile area.

"You could at least consolidate that down from seven different stops to just three," Doolen said. "Each stop takes additional time for the vehicle to come to a complete stop and to pick up the kids and then move on. If you can do fewer stops sometimes it can be enough time that then you can pick up more students in the time window that is available."

Multiply this scenario a number of times and you see the ripple effect.

"The goal should be to utilize all the available seating on the bus or as much as possible without overloading," Doolen added.

Ridership

The fact is, not all students who are eligible for transportation actually take the bus. How do you factor this into your routing? Nationally, 75 percent to 85 percent of elementary students ride the bus. At the middle school level, the number drops to 65-75 percent and at the high school level it drops even more to 50-65 percent.



"You should plan for this," Doolen said. "That's why it's important to actually count, so you know which students really are riding. Because then you can account for those students who aren't riding by adding more students to that bus."

Doolen said there are still districts that feel they need to reserve a spot on the bus for every eligible student, whether they ride or not. But most states have provided guidance that does not require this "saved seat" approach. The key is that every eligible student is offered transportation.

"If any student wants to ride, you need to offer them a ride. But you need to do it in a reasonable amount of time," he said. "So, if you've got to change the routes, you've got a few days to make that happen."



















The problem Doolen and his team sees is that often districts set a route and leave it in place rather than making adjustments throughout the school year. With additional seats on the bus available, the transportation department can absorb whatever changes come up.

"But that's not efficient," Doolen said.

Know Thy Bus

Doolen said outside of those who drive a bus, few realize the ins and outs of a school bus, let alone student transportation. For instance, he noted that capacity is in the eye of the beholder ... of the seat.



A bus may say it has a capacity of 77 students. But that's based on three students per bench with 13 inches allotted for each student.

"It doesn't work for most high schoolers," Doolen said. But these are the factors transportation departments need to incorporate when making decisions on runs, because capacity is different for an elementary school run versus a high school run. Transfinder helps districts manage these complexities.

In one case, Doolen showed how Transfinder provided the efficiency routing for a district. In the scenario Doolen presented at the conference, the vast majority of middle school routes had one student to a seat and often there were multiple seats left empty.

"After we finished efficiency routing, you've got most of the bus at two students per seat. That reduces the total number of buses needed from 54 down to 38," he said. Fewer buses needed means fewer drivers needed as well.

Transfinder tools complement teamwork

Transfinder assists districts with the routing to pull off these changes and its driver app Wayfinder is a key component to tracking ridership. Drivers can take attendance right on the **Wayfinder** app on a mounted tablet. **Zonar's Z Pass** also integrates with Wayfinder, as well as a number of GPS vendors.

If you are not using an attendance tracking technology but still want to utilize the expertise Professional Services provides, don't let that stop you from engaging with Transfinder.





















"The vast majority of times, when we've done this for clients, they've just taken pen to paper to track that ridership and handed that information in," Doolen said. "So, it could be done in a number of different ways. Naturally if you've been taking attendance on Wayfinder you've got the historical information in your database and can do far more analysis on it."

Bell times and tiering the buses

Does your district take a one tier, two tier or multiple-tier approach to transporting students? Are there separate elementary school, middle school and high school runs? How does "tiering" improve efficiency.

Doolen shared one example of a district transporting 2,000 students with a single-tiered system, a double-tiered system and a triple-tiered system. The number of buses needed drops from 40 in the single-tiered system to just 13 buses in the triple-tiered system.

In his example, Doolen outlined a single tier system with 50 students on a bus requires 40 buses. But if that same bus goes out twice, it cuts that number in half.

Again, fewer buses needed means fewer drivers needed. At a time when drivers are in short supply, this approach has helped many districts overcome the gap.

"If you needed 40 drivers and you've been spending a year where you're short five to 10 drivers, this may be a solution for you to get past that: Change your times," he said.

Speaking from experience, Doolen added that changing start times for students will not be popular and parents can often be less than happy with the decision. But it may be better than school being canceled for lack of drivers or routes going uncovered, options schools have taken during periods of a severe shortage.

Sharing this type of information with the public can be helpful to get buy-in from the community. Doolen said the district often has to educate the community because often they are unaware of the intricacies of transportation, and areas such as bus capacity, ridership adoption and tiers.

"You've got to give them a little bit of background so that they understand the problem and what the potential solutions are," he said.



















Professional Services provides that information to help you share your story.

You're dismissed!

While there is a lot of focus on start times these days, and the tiered system also focuses on that, Doolen said it's the dismissal time that is also important in terms of determining the number of buses and drivers needed.

"Part of the reason for that is that in lots of school districts you have a different length of day," he said. He provided as an illustration a district where elementary school starts at 9am and ends at 3:40pm, a 6-hour-and-40-minute day. High school, in this example, starts at 7:20am and ends at 2:15pm, a day just shy of 7 hours. Middle school, sandwiched in the middle, has a 6-hour-and-45-minute day.

In the example, a driver may have 50 minutes to complete a run in the morning but only 40 minutes to finish the afternoon run before heading to another school to pick up students.

"It's helpful to spell out for people that you just can't look at start times. You've got to look at both start and dismissal times," Doolen said. Why? For one thing, in the morning, kids file on the bus fairly quickly where in the afternoon, once the bell has rung, students have to gather their books or bookbags, coats and other things and of course have to say goodbye to each other.

An already shorter window to transport students just got even shorter by another five or 10 minutes. All these factors among others play a role in the efficiency of your operation and has a negative ripple effect, with buses running late to the next pick up.

A review of each of these pieces of your transportation operation will help identify where there are chinks in the armor.



Measure, measure, measure

The key to becoming efficient is to review what your operation is doing, make changes and measure the results. And keep measuring.

"Measure the ridership on the buses," Doolen said. "If you aren't tracking how many students are really riding, you could have buses that are half empty and that's really not benefitting anyone."



















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"Measure your on-time arrival," he added. "Are the buses late getting to school either in the morning or the afternoon? In the morning, that's going to potentially eat into instructional time." Transfinder's **Viewfinder** and **GPS Connect** tools would be key to help you track on-time arrivals and track planned versus actual trips.

Other areas to measure, Doolen said, include: Driver absenteeism. This can be a "morale" indicator. Transfinder's **Formfinder** would be helpful to measure this.

Accident rates and breakdowns. This can be tracked in **Servicefinder**.

Using **Transfinder's Professional Services** as a partner and equipping your staff with critical technology such as the routing software Routefinder PLUS, parent app Stopfinder, driver app Wayfinder, Viewfinder and Servicefinder, will help you maximize efficiencies within your district.

Your people are at the core of your "business."

"You've really got to involve your drivers, your aides, your routers, dispatch and get them all on the same page, driving towards trying to be efficient," Doolen said. "It's not just a matter of a top down, management kind of push. Everyone needs to be involved in that. You need to also involve the administration and school board. That's why it's helpful to explain to them how all these pieces work together, how all this is like a continual lifecycle of improving transportation efficiency and effectiveness."

Well, that's all I wanted to share with you, Transportation Leader or School Official.

To learn more about **Transfinder's Professional Services team** and Transfinder solutions, visit **https://www.transfinder.com**, email **marketing@transfinder.com** or call **800-373-3609**.

<u>Click here</u> to view the "Maximizing Efficiency in the Transportation Department Workshop Session" presented by *T Doolen* from Transfinder at the NYAPT Summer Conference 2022 on July 12, 2022 in Albany, NY.

Sincerely, Transfinder









