

TransPar's RouteYield™: A Data-Driven Approach to Mitigating the Driver Shortage

Assessing actual operational data provides direct insight into how well “time” and “capacity” are being utilized on each run, which begins to reveal where there may be opportunities to improve upon the service delivery and efficiency of routes.



Amidst the worst school bus driver shortage that the nation has ever experienced, and with transportation costs rising beyond what districts can sustainably manage, there has never been a more important time for school districts to consider all possible options to enhance operational efficiency. While cost used to be the primary motivator for school districts to achieve maximum operational efficiency, the past 10 years have seen a shift from expense-minded operation to resource minded-operation. Put differently, while it has never been more expensive to provide student transportation, it has also never been more difficult to find enough school bus drivers to fully provision a system based on demand.

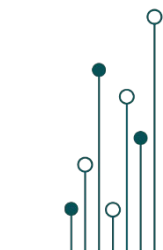
The average annual cost for most districts to operate a single bus route ranges from \$60,000 to \$80,000. Thus, operating an inefficient student transportation system can be extremely costly. Beyond cost, however, is the very real shortage of school bus drivers that has dramatically shrunk the talent pool from which service providers pull resources. Current macroeconomic forces, like a record low national unemployment rate, indicate this trend will continue despite the record-setting driver pay increases occurring across the country.

Understanding Time and Capacity Utilization

Within any student transportation operation, there are two primary levers that school districts can pull to achieve greater efficiency: time and capacity. As such, any operation seeking to gain greater efficiency must be willing to assess the current utilization of both time and capacity across all runs and routes. This must be done by evaluating what is occurring in the field on each run by collecting and analyzing actual operational data.

The emphasis on actual operational data is key. Planning data accounts for the way in which runs and routes were originally designed to be executed, including the placement of designated stops, the number of students assigned, start and end times, path, duration, and mileage of each run and route. Conversely, the actual operational data captures which stops are utilized, how many students rode the bus, and the real-time metrics of each run as it was executed versus how it was planned.

More simply put, while what is planned in the routing software gives the overview of what should be happening on each run and route, the reality of what is happening can vary significantly from what is planned. Assessing actual operational data provides direct insight into how well time and



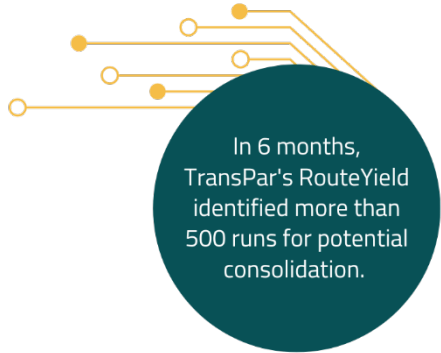
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capacity are being utilized on each run, which begins to reveal where there may be opportunities to improve upon the service delivery and/or efficiency of routes.

Although transportation departments have every intention of executing according to their plan, factors and extenuating circumstances such as the driver shortage, daily driver absenteeism, and changing demands for service to students, schools, and special programs can all quickly render a plan invalid or inaccurate. If the routing team is unable to update planned or unplanned changes to runs and routes as quickly as they are occurring, then the data within the routing system, which is so often used to gauge efficiency and as a baseline to plan future changes, is a flawed starting point at best.

TransPar’s RouteYield™ Time and Capacity Utilization Analysis Tool and Process

TransPar’s RouteYield is a proprietary tool that collects actual operational data and analyzes core bus runs within a district’s transportation system to immediately identify opportunities for consolidation or system improvement. Essentially, RouteYield is designed to find the “needle in the haystack” that is only attainable from the collection of actual data. RouteYield produces analysis and charts that are easily digestible by school boards, district leadership, and school administrators not as intimately familiar with the operations of the transportation department as its own team. By identifying runs in each tier, in both the morning and the afternoon, TransPar’s team is able to help districts identify where entire buses can potentially be repurposed within the system, reducing both the need for an additional CDL driver to be sourced and hired, and the costs associated with the inability to meet the system’s full operational capacity.



In the transportation operations that TransPar manages, its teams perform a RouteYield – our time and capacity utilization analysis – each year to ensure that the districts served are operating as efficiently as possible, given the bell time parameters and policy constraints under which they must operate. By performing a RouteYield annually, TransPar has achieved the best method yet for repurposing underutilized resources to ensure maximum resource availability and system performance.

With its consulting and advisory clients over the past six months alone, TransPar has identified more than 500 possible runs, or approximately 100 routes, for consolidation across five (5) different school districts. Our teams are working collaboratively with these districts to determine which routes they may be able and/or willing to consolidate ahead of next school year. If only 20 percent of those routes are able to be repurposed within the system, that will be 20 fewer CDL drivers needed in districts which are chronically short drivers and which were previously unable to meet the full demands of their systems.

To learn more about how TransPar can help your district maximize its transportation resources and mitigate its driver shortage, visit transpargroup.com or contact our Director of Advisory Services, Micah Brassfield, at mbrassfield@transpar.com.