



More Dangerous, More Costly:

An Analysis of Transportation Outsourcing

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EXECUTIVE SUMMARY

The decision to outsource school district functions like transportation is a serious one, and it carries significant safety and financial risks.

Times have been tight for many Minnesota school districts, and the pressure to spend money wisely is intense. In this climate, outsourcing district functions like transportation to outside vendors can become politically appealing, as the argument for outsourcing often comes with promises of financial savings and a quality of service as good as (or better than) what the district can provide in-house. These promises, however, often go unfulfilled.

After analyzing safety inspection and financial data gathered by Minnesota state agencies, this report finds that outsourcing transportation services leads, on average, to higher safety inspection failure rates and higher spending on transportation. Taken together, these findings suggest that the argument for outsourcing is, in fact, a weak one for Minnesota schools. While individual counter-examples may exist, the overall data pattern is that outsourcing is less safe for students and more costly for districts than keeping transportation in-house.

Based on these findings, it is recommended that school districts exercise caution when making the decision to outsource. Specifically, they are encouraged to compare their existing safety record with that of possible vendors and to investigate the real transportation spending of many similar districts that have chosen to outsource. Failure to do so may lead to greater safety concerns for students paired with greater financial costs for the district.



SAFETY CONCERNS ABOUT OUTSOURCING TRANSPORTATION

Contrary to popular belief, outsourced school transportation services generally have weaker safety records than districts that operate their own transportation services.

School buses used to transport children are inspected each year by the Minnesota State Patrol, a division of the Minnesota Department of Public Safety. They are evaluated on a 100 point scale that centers on ensuring safety and reliability of the vehicle. (See Appendix A)

Buses are given one of three designations when inspected; pass, temporary certification, or fail. This initial designation is what is recorded and reported by the Minnesota State Patrol. Those that score 96 points or greater are deemed as having passed inspection and may transport children.



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An annual decal is affixed to the bus certifying that it has passed. Those buses that score 80-95 points are given a temporary inspection certificate. The cited violations must be corrected and the bus must be re-inspected in fourteen days. The bus may not transport students until it passes this re-inspection.

If the State Patrol finds the necessary changes have been made, the bus will receive an annual inspection decal certifying it has passed and is allowed to transport children.

Buses scoring lower than 80 points fail inspection and are deemed unsafe to carry children. Those buses are given a rejection decal. Such a bus may not carry students until the State Patrol determines all violations have been remediated and the bus owner or designee signs a certificate proclaiming they have fixed all the violations.

The certificate of re-inspection must be carried on-board the failed bus at all times. The bus retains the decal until its next annual inspection. More information can be found on the Minnesota Department of Safety's website.

Some school districts have their busing entirely in-house, some have outsourced their busing to one or more contracted companies, and some districts have a combination of in-house and outsourced operations.

The Minnesota State Patrol groups inspection reports by carrier, as opposed to grouping by school district area or county the bus operates in. Buses operated in-house by school districts are reported on separately from those outsourced to contracted companies. For the purposes of this report, data for outsourced companies was combined across districts if multiple locations had a common owner.

The top twenty largest in-house and outsourced fleets together comprised 46% and 45% of all school buses in 2012 and 2013 respectively. A comparison of the aggregate numbers of the twenty largest out-sourced companies and the twenty largest in-house fleets show only 86% of outsourced buses passed initial inspection as compared to 93% of in-house district buses. In 2013, the numbers were similar, with 87% of outsourced buses passing initial inspection and again 93% of district buses passing.

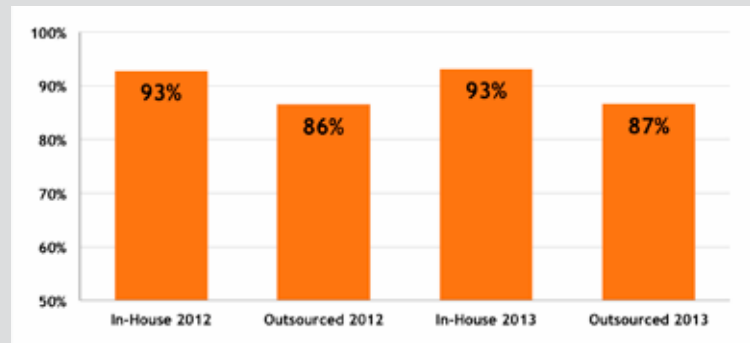
Table 1 illustrates pass, temporary, and failure rates and Graph 1 shows a comparison of pass rates.

School districts operating large fleets of one-hundred or more buses have especially impressive pass rates as compared to large outsourcers with fleets of one-hundred or more buses.

In 2012, 96% of school district operated buses passed as compared to 86% of outsourced companies' buses. In 2013, 98% of school district operated buses passed as compared with 87% of outsourced buses.

Table 2 illustrates pass, temporary, and failure rates and Graph 2 shows a comparison of pass rates.

GRAPH 1: INITIAL PASS RATES FOR 2012 & 2013
Top 20 Largest In-House vs. Outsourced Carriers



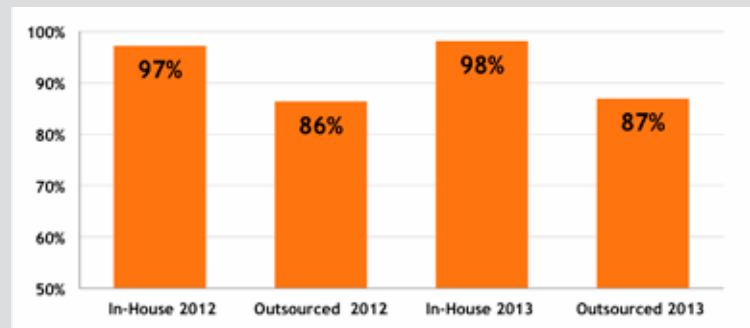
Percentage of Buses Passing Initial Inspection 20 Largest In-House Carriers vs. 20 Largest Outsourced Carriers

MN2020 Analysis of Minnesota State Patrol Data Reported at <https://dps.mn.gov/divisions/msp/commercial-vehicles/pages/school-bus-safety.aspx>

TABLE 1: AGGREGATE DATA FOR 20 LARGEST IN-HOUSE AND OUTSOURCED CARRIERS

	Passed	Failed	Temporary	Total Buses Inspected
In-House 2012	1841	88	55	1984
Outsourced 2012	4387	378	308	5073
In-House 2013	1751	67	62	1880
Outsourced 2013	4541	391	313	5245

GRAPH 2: IN-HOUSE VS. OUTSOURCED INITIAL PASS RATES FOR 2012 AND 2013



Percentage of Buses Pasing Initial Inspection for Large Fleets (100 or more buses)

MN2020 Analysis of Minnesota State Patrol Data Reported at <https://dps.mn.gov/divisions/msp/commercial-vehicles/pages/school-bus-safety.aspx>

TABLE 2: AGGREGATE DATA FOR FLEETS WITH 100+ BUSES

	Passed	Failed	Temporary	Total Buses Inspected
In-House 2012	961	18	10	989
Outsourced 2012	4399	384	314	5097
In-House 2013	870	8	9	887
Outsourced 2013	4592	388	304	5284

The largest outsourced carrier in Minnesota is Cleveland, OH based First Student Incorporated — the North American subsidiary of British multinational transportation corporation FirstGroup. In 2013 they operated 1440 buses and had a pass rate of 85%. The twelve largest school-district operated fleets must be combined to reach a similar comparison number of 1396 buses. These twelve school-districts had a pass rate of 97% in 2013.

The above data show that school districts are capable of managing large fleets with remarkable inspection records. While inspection data alone cannot fully capture quality of service, they do speak to how districts prioritize maintenance and an orientation toward child safety.

As with all large data sets, individual exceptions can be found. By looking at the largest providers of transportation, however, it is clear that districts need to be very careful about pursuing outsourcing.

TABLE 3: FIRST STUDENT INC. AND 12 LARGEST IN-HOUSE BUS FLEETS							
Transportation Provider	Buses Passed	Buses Failed	Temporary Certificate	Total Buses Inspected 2013	% Passed	% Failed	% Temporary
Out-Sourced							
First Student Inc	1231	96	113	1440	85%	7%	8%
In-House							
Independent School District 196	210	4	3	217	97%	2%	1%
Minneapolis School District	162	0	2	164	99%	0%	1%
Bloomington School District	126	0	0	126	100%	0%	0%
Eden Prairie School District	109	0	2	111	98%	0%	2%
South Washington County School District	145	0	0	145	100%	0%	0%
Forest Lake Area Schools	118	4	2	124	95%	3%	2%
Independent School District 31	95	3	1	99	96%	3%	1%
Cambridge Public Schools - Isd 911	86	7	5	98	88%	7%	5%
Independent School District 622	86	4	5	95	91%	4%	5%
Grand Rapids School District	74	0	0	74	100%	0%	0%
Edina Schools	71	1	0	72	99%	1%	0%
St Louis County Public Schools - Isd 2142	69	1	1	71	97%	1%	1%
In-House Totals	1351	24	21	1396	97%	2%	2%

THE HIGHER AVERAGE FINANCIAL COSTS OF OUTSOURCING TRANSPORTATION

Current data from across Minnesota contradict the arguments used to justify outsourcing for financial reasons.

After analyzing three years' worth of detailed financial reports from the Minnesota Department of Education's Uniform Financial Accounting and Reporting System (UFARS), and accounting for variations in districts' student populations and physical size, it is clear that average transportation costs are higher for districts that outsource most of their transportation compared to those that keep most transportation spending in-house. These findings are statistically significant.

UFARS reports offer a finely detailed level of financial reporting, particularly with regard to expenditures. This allowed for the identification of outsourced transportation costs for every school district in Minnesota in fiscal years 2011, 2012, and 2013.

From that data, it was possible to calculate the percentage of total transportation expenditures that went to outside vendors for each district. As expected, some districts outsourced all or nearly all of their transportation spending, others kept all or nearly all transportation spending in house, and still others struck a balance somewhere in between.

The remaining analysis focused on the first two groups (the outsourcers and the in-house districts), since the intermediate outsourcers' spending patterns reflected a wide range of individual needs rather than a generalizable pattern.

"In-house districts" are defined as those which outsourced 5% or less of their transportation expenditures, on average, during fiscal years 2011-13. "Outsourcers" are defined as the districts which outsourced 95% or more of their transportation expenditures, on average, during the same time frame. There were 142 in-house districts and 81 outsourcers in the years studied.

Districts in both samples were assessed on their average transportation expenditures per pupil per square mile. Comparing districts on per pupil expenditures is a standard method of adjusting for variations in student population size. Similarly, the per square mile adjustment was included to reflect the fact that transportation costs are substantially affected by the geographic area buses must cover.



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After calculating average transportation expenditures per pupil per square mile for both samples, outlier districts which could disproportionately skew a statistical analysis were identified. As it happened, each sample contained a single outlier (in both cases, a district spent over \$100 per pupil per square mile, and more than twice the next highest expenditure in the sample). For the sake of accuracy, those outliers were removed in the following analysis.

Summary statistics were calculated for both samples, as well as a z-statistic test comparing the two. These results are displayed in Table 4. Histograms presenting the distribution of expenditures are displayed in graphs 3 and 4.

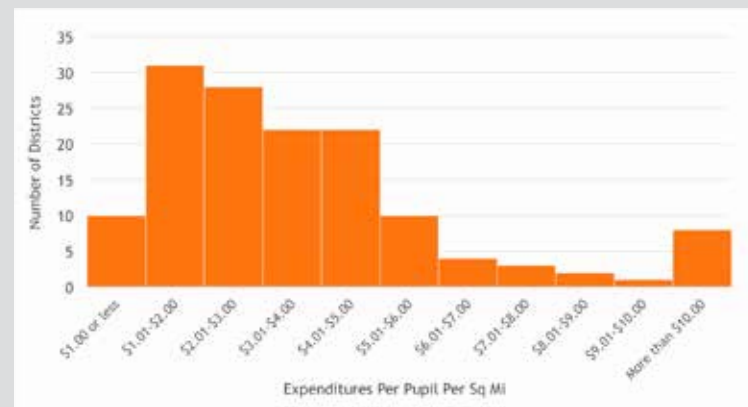
As seen in the table and figures, the average expenditure per pupil per square mile was higher for outsourcers (\$7.37) than for in-house districts (\$3.97). The z-statistic indicates that the difference between the two is statistically significant. The one-tailed p-value of 0.0003 indicates that there is only a 0.03% chance that these results are the product of random variation. This puts the difference well within the standard 95% confidence range.

Thus, while some individual outsourcers may have lower transportation expenditures per pupil per square mile than some individual in-house districts, on average, it is the in-house districts that spend less on transportation. This poses a serious challenge to the idea that outsourcing saves money. If anything, this analysis suggests the opposite: Keeping transportation in-house appears less expensive than outsourcing, on average.

TABLE 4: FINANCIAL SUMMARY STATISTICS				
	n	Mean	Median	Std. Dev.
In-House Districts	141	\$3.97	\$3.06	\$4.11
Outsourcers	80	\$7.37	\$4.61	\$8.32
z = -3.42 p = 0.0003 (one tail)				

GRAPH 3: IN-HOUSE DISTRICTS

Mean = \$3.97, n = 140



GRAPH 4: OUTSOURCERS

Mean = \$7.37, n = 80



POLICY RECOMMENDATIONS

Based on both the safety and financial ramifications of outsourcing, it is clear that school districts need to be cautious about deciding to outsource transportation services. Despite the commonly heard arguments that outsourcing can provide savings while maintaining or improving quality, the available data from Minnesota suggests the opposite. While individual exceptions can be found, the overall pattern suggests that, on average, outsourcing introduces greater risk and higher financial costs than keeping transportation services in-house.

Given these facts, it is recommended that school districts considering outsourcing take the following steps:

- ✓ Evaluate their existing in-house safety record against the records of possible outside contracts, relying on state data rather than self-reported data from vendors.
- ✓ Review the financial experiences of districts with similar student populations and geographic size to evaluate whether real transportation expenditures in those districts are materially better than in-house options.

The decision to outsource should not be made lightly, as it can prove difficult to undo. As this analysis shows, it can also introduce greater risk for students while costing more than keeping transportation in-house. Districts should exercise care and use a critical eye when weighing the decision to outsource. Too often, reality has proven more disappointing than the promise.



APPENDIX A

TABLE OF POINTS TO BE DEDUCTED PER MN ADMINISTRATIVE RULE 7470.0700		
	Equipment Defect	Points Deducted
Tires	Tires, front	each 25
	Tires, rear	each 25
Exhaust	Inadequate pipe	25
	Leak in system	5
	Muffler defective	5
School bus color <i>(multifunctional school activity buses are exempt)</i>	Not basic yellow	25
	Improper trim color	2
Required lettering	No school bus sign (type A, B, C, or D)	25
	Other lettering - nicknames	2
	Stop arm (octagonal)	25
	Reflective material cracked, scratched, or separated	5
	Optional lamps on stop arm	2
Crossover mirror	Missing or inoperable	25
	If only line of vision is distorted, flaking or cracked	5
	Headlamps out of adjustment (allow mechanic time to adjust)	5
	Headlamp out	5
	Both low beams out	25
	One low beam out or either or both high beams out	each 5
	Dimmer switch inoperable	5
	Turn signals inoperable	25
Eight lamp warning lamp system	Lamp system not working	25
	Eight lamp indicator malfunctioning	10
Indicator lamps	High beam	2
	Turn signals	5
	Clearance lamps or optional white strobe lamp	each 1
Rear lamps	One out	5
	Both out	25
Stop lamps (minimum of 2 required)	Not working	each 15
	Auxiliary stop lamp not working	each 2
	Backup lamps	5
Brakes - service (foot)	Not working	25
	Hose blistered but no fluid leakage	each hose 5
	Brakes - emergency (auxiliary)	25
	Defective or no warning horn	25
Rear view mirror	Interior	15
	Exterior	25
	Slight crack, discolored or flaking	5
	Windshield wipers (not working at all)	25
	Wiper blade only	5
	One speed not working on left side or the right side not working	10
	Windshield glass	10
	Steering	25
	One kingpin bad (more than 1/2 inch)	15
	Two kingpins bad (more than 1/2 inch)	25
	Driver seat belt, missing or not usable	25
	Entrance door, out of adjustment	5

	Equipment Defect	Points Deducted
Interior lamps	Step-well	2
	Other interior lamps (mention only)	0
First aid kit	Missing	25
	Short supply - per unit missing	1
All other areas	Fire extinguisher, missing or in inoperable range	15
	Flags and flares (electric or reflector) (for up to three missing)	5
	Side glass and rear glass - each defect	5
	Loose objects interior	each 2
	Seats loose (floor mount)	each 5
	Seat condition	each 2
	Bus interior (cleanliness)	2
	Carbon monoxide	25
	Emergency exit, inoperable	25
	Emergency lettering missing	2
	Bad door gasket	5
	Speedometer	10
	Suspension, main leaf	25
	Other than main leaf, 25 percent or more of the remaining leaves broken	25
	Other than main leaf, less than 25 percent broken	10
	Loose or leaking shocks	10
	Wheels	25
	One stud nut missing if less than 20 percent of stud nuts on wheel	10
	20 percent or more of stud nuts are missing on wheel	25
	Body condition	2
	Hazardous protuberance or sharp edge	25
	Two cross members bad, must be replaced	2
	Cross members rusted, to be written up	0
	Drive shaft guard	25
	Frame	25
	Defroster fan or heaters in excess of one in multiple heater buses	each 5
	Battery	10
	Body mounting	10
	Fuel system	10



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