



Howard County Public School System

Independent Review of the Office of
Transportation

September 2024



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Executive Summary

In January 2024, Howard County Public School System (HCPSS) contracted Prismatic Services to conduct a root cause analysis of the transportation issues encountered on August 28, 2023 – Day One 2023, at the start of the 2023-24 school year.

Prismatic proposed and followed a 6-task work plan to meet the district's requirements. Project activities and report writing occurred from January through July 2024. Activities included data collection, observations, and interviews. School administrators and bus contractors provided input via online, confidential surveys. A summary of school administrator and contractor survey input is provided in Chapter 2, while the full survey results are provided in the Appendices.

Conclusions

Prismatic concluded there were 3 root causes of problems experienced on Day One 2023. Explored in Chapter 3, these root causes were:

- ◆ unfilled staff positions
- ◆ lack of deadlines or lack of adherence to deadlines
- ◆ overconfidence in and overconfidence of new contractor

Unfilled OST Staff Positions

Despite an approved plan that called for the expansion of the HCPSS Office of School Transportation (OST) as necessary to successfully implement new school start times (SSTs), multiple planned new positions were not filled in time to contribute meaningfully to the preparatory work critical to a successful Day One 2023. District staff understood the original expansion plan developed by the consulting firm Decision Support Group to include 3-4 new positions focused exclusively on routing. These positions went unfilled prior to Day One 2023 and placed a greater burden on existing staff. Leading up to Day One 2023, HCPSS



had 1 full-time router and the coordinator of transportation, planning, and technology. Best practices would indicate a need for potentially as many as 6 full-time routers.

Lack of or Ignoring Deadlines

In the new SST initiative, HCPSS either lacked some specific deadlines or ignored previously established deadlines. HCPSS had a detailed project plan to follow that included 8 tasks and 84 subtasks. Each subtask had an expected start date, duration, and completion date. Although district staff appeared to have been properly focused on adhering to deadlines initially, as plan implementation progressed, deadlines slipped or were ignored. This included the deadline for hiring OST staff, making changes to the demarcation plan and non-transportation zones weeks before Day One 2023, and failing to conclude contractor mediation until August 2023.

Overconfidence In and Overconfidence of New Contractor

District staff had almost no prior experience in onboarding a new transportation contractor. District documents and interviews indicate that the new contractor overstated their abilities and did not bring to bear a great depth of experience in rolling out new service at large scale. The data, interviews, and survey results indicated that Zūm experienced greater difficulties on Day One 2023 than the other contractors. Schools using only Zūm experienced more problems, with 85% of school administrators reporting “far more problems” than usual, compared to 38% of school administrators using only other contractors. Moreover, as late as April-May 2024, schools with Zūm as their only contractor were more likely to say that bus transportation was worse than it was in 2022-23. Corroborating the perceptions offered by school administrators, multiple central office interviewees noted that contractors other than Zūm had some difficulties on Day One 2023, but the scale of the difficulties was either not beyond the usual or not much beyond the usual. In interviews, multiple district staff used the phrase “overpromised and underdelivered” in reference to Zūm.

Recommendations

In order to be of most use to the district, Prismatic sought to draw a lesson from each root cause that might then be applied in future contexts. As the district takes on new initiatives in the future, Prismatic recommended in Chapter 3 that HCPSS answer these questions:

- ◆ If current staff are already fully employed, how can they implement new initiatives, which often require additional staff time?

- ◆ If a mandatory dependency or an activity on the critical path is delayed, can the district overcome it, or should implementation be delayed?
- ◆ How can the district efficiently and effectively monitor the performance of contractors?

Driving Forward

School districts are rarely stagnant. In the wake of Day One 2023, HCPSS implemented a number of changes. As part of this project, Prismatic assessed the district's progress in transportation operations since the start of school. Overall, Prismatic found that district staff had addressed or begun to address many of the underlying problems over which they had control and were aware of the underlying problems they could not control. Central office administrators outside of the OST noted they have observed improvements in transportation operations. To continue driving forward, Prismatic made 7 suggestions, detailed in Chapter 4:

- ◆ Adopt 5-7 Key Performance Indicators for regular analysis and reporting.
- ◆ Take a more proactive approach in monitoring bus contractors by adopting explicit standards then holding them accountable through the application of liquidated damages.
- ◆ Continue to work toward obtaining accurate bus opt-in data from families – by some estimates, HCPSS plans for the transport of as many as 7,000 students who never actually ride a bus, resulting in empty bus seats and wasted district dollars.
- ◆ Adhere to a routing calendar with explicit deadlines – this would include a rule that once the routing is finalized, no last-minute changes are possible.
- ◆ Develop clear circulation procedures for each school campus that prioritize bus arrivals/departures over student drivers, parents, student walkers/bikers, and staff transit – a multi-tiered bus system requires efficient and reliable campus operations.
- ◆ Explore implementing a courtesy transportation program where HCPSS finds empty bus seating.
- ◆ Explore insourcing a small portion of the transportation operation – this could be accomplished as new transportation service needs arise, or as contractors are unable to meet a portion of their obligations.

Chapter 1

Introduction

In January 2024, Howard County Public School System (HCPSS) contracted Prismatic Services to conduct a root cause analysis of the transportation issues encountered on August 28, 2023 – Day One 2023, the start of the 2023-24 school year. As noted in the district’s request for proposals (RFP), the goals of the review were to:

- ◆ *Perform a root cause analysis to identify the underlying issues in executing transportation at the beginning of the 2023-2024 school year. This may include, but not be limited to, an assessment of the following:*
 - *School start times*
 - *Communications*
 - *The zone system*
 - *Transportation vendors*
 - *Routing structure & systems*
- ◆ *Recommend an action plan to address identified deficiencies*
- ◆ *Establish efficiency metrics to meet District goals*
- ◆ *Recommend internal control improvements*
- ◆ *Recommend management best practices and training*
- ◆ *Address any other areas assigned by the Howard County Board of Education*

This report is provided in fulfillment of Prismatic’s contract. It is important to note that HCPSS voluntarily undertook this work and that this is the 3rd report to review the events of Day One 2023. The previous 2 reports were released in December 2023 and March 2024.



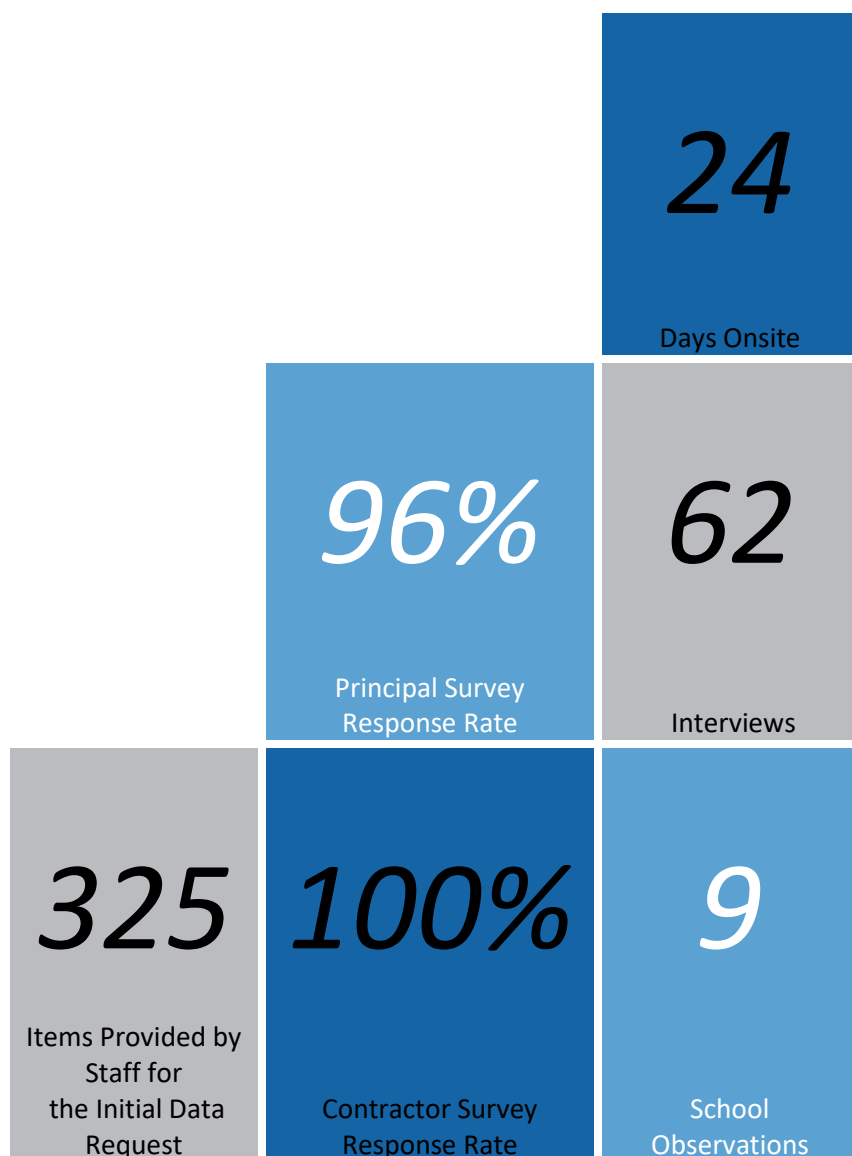
Project Approach

Prismatic proposed and followed a 6-task work plan to meet the district's requirements:

1. Initiate Project
2. Define Review Criteria
3. Collect Start of School and Operational Background Information
4. Conduct Investigation
5. Draft Report
6. Develop and Present Final Report

Throughout the review, Prismatic coordinated with the HCPSS internal auditor to discuss activities completed, review challenges or changes in project progress, review activities scheduled, and review upcoming project products and deadlines. Project activities and report writing occurred from January through July 2024. Activities included data collection, observations, and interviews, all of which enhanced the review of the transportation system. As part of this project, Prismatic:

- ◆ received 325 files from the district in response to an initial data request of 32 items, then additional data items as the study progressed
- ◆ completed 62 interviews, most with district staff (some individuals were interviewed multiple times)
- ◆ visited 9 schools to observe morning bus drop-offs or afternoon bus pick-ups
- ◆ administered a principal/school administrator survey to which all but 3 schools responded
- ◆ administered a survey to which all contractors responded, then phone follow-ups with several contractors
- ◆ spent a total of 24 days onsite across all Prismatic staff, conducting interviews and focus groups, visiting bus compounds, and completing transportation observations
- ◆ developed draft and final reports



Project Limitations

All projects of this nature have time and resource constraints. Beyond those typical constraints, this project had these limitations:

- ◆ The foundations of challenges on Day One 2023 were laid in the years leading up to it. For that reason, Prismatic asked some interviewees to recount district activities from the last several years. Few district staff reported having kept written notes regarding meetings, events, or reasoning behind decisions made. As a result, interviewees sometimes had to rely solely upon memories and could not provide definitive documentation. Likewise, some documentation that would have been of value, such as quantification of the number of route changes made in

the week leading up to the weekend prior to Day One 2023, did not exist. Prismatic does not believe these factors substantially weakened the analysis presented herein.

- ◆ Several individuals in key positions on Day One 2023 could not be reached for an interview, including the former superintendent and chief operating officer. It is not known whether the information they might have provided would have corroborated or contradicted that gathered in other interviews or whether they would have contributed unique knowledge to the project.

Report Organization

The remainder of this report is organized as follows:

- ◆ Chapter 2 – Constituent Input
- ◆ Chapter 3 – Root Cause Analysis
- ◆ Chapter 4 – Conclusions and Recommendations
- ◆ Appendices

Chapter 2

Constituent Input

Overview

Prismatic offered a survey input option regarding current transportation operations to contractors and school administrators. Exhibit 2-1 provides the number of responses received for each survey. For the contractor survey, Prismatic contacted and accepted survey responses by phone for 2 contractors in order to obtain input from all contractors. For the school administrator survey, principals were contacted with the survey link and asked to either complete it themselves or ask the school administrator most familiar with their school transportation operations to complete it.

Exhibit 2-1
Number of Responses by Stakeholder Type

Group	# of Respondents
Transportation Contractors	21
Principals	80

Survey processing included:

- ◆ eliminating substantially incomplete responses
- ◆ verifying receipt of only 1 response per school for the principal survey – the resulting data set include a response from all but 3 schools
- ◆ reviewing and thematic coding of responses to open-ended questions

Detailed aggregate results are provided in the appendices. This chapter provides an overview of selected results.



Transportation Contractor Survey Results

Prismatic requested that transportation contractors provide survey input regarding Day One 2023 and related transportation operations. The survey, conducted between April 22 and June 10, 2024, received responses from all 21 contractors.

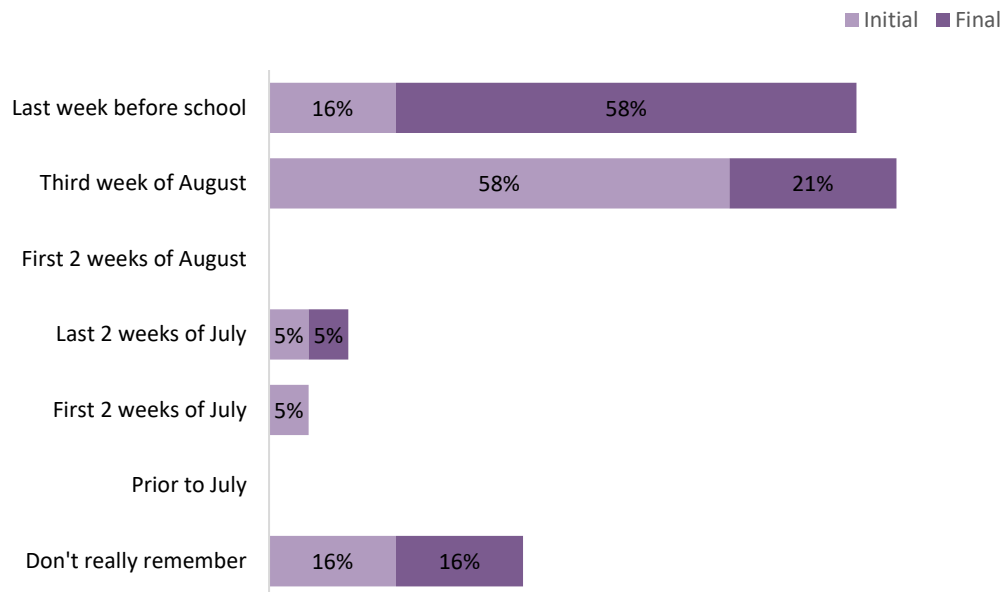
When asked to rate overall the level of preparation the district provided to them as contractors for Day One 2023 on a scale from 1 to 10 (with 10 being the highest), contractors rated the district an average of 3.5.

In preparation for Day One 2023, most contractors reported receiving the initial regular education bus routes from the district by mid-August (15-21 August); 10% of contractors reported receiving the initial routes in July 2023 and 58% reported receiving them the 3rd week of August.

One-fourth (26%) of the contractors indicated they received final routes by the 3rd week of August or earlier. The majority (58%) remembered receiving them the last week before school started.

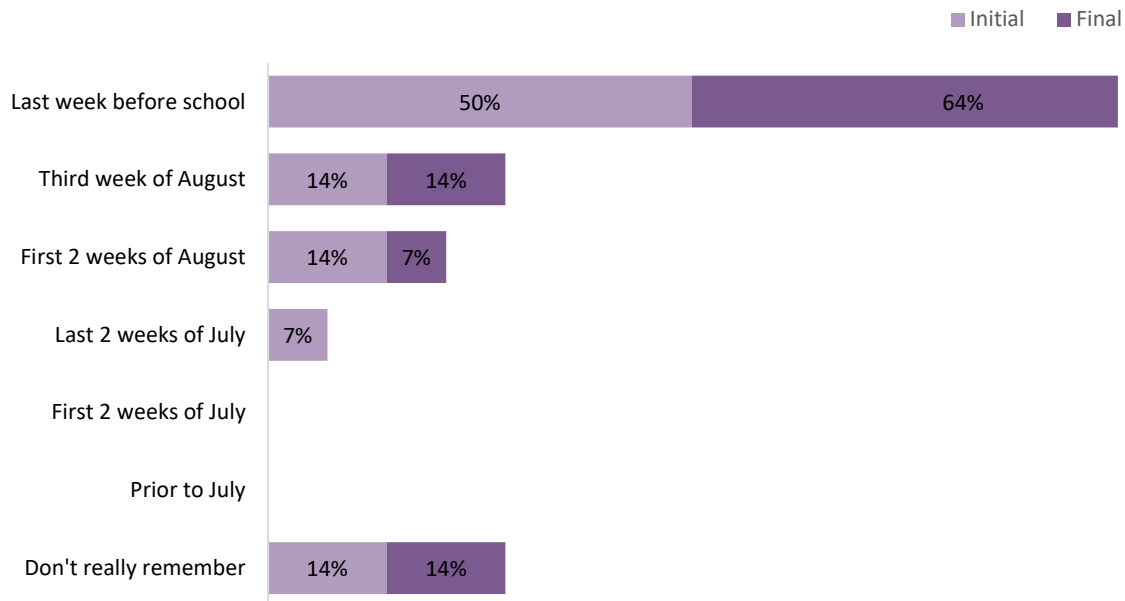
Contractors rated HCCPS-provided preparations for Day One 2023 as 3.5 out of 10.

Q4-5: When did you receive regular education bus routes for 2023-24?



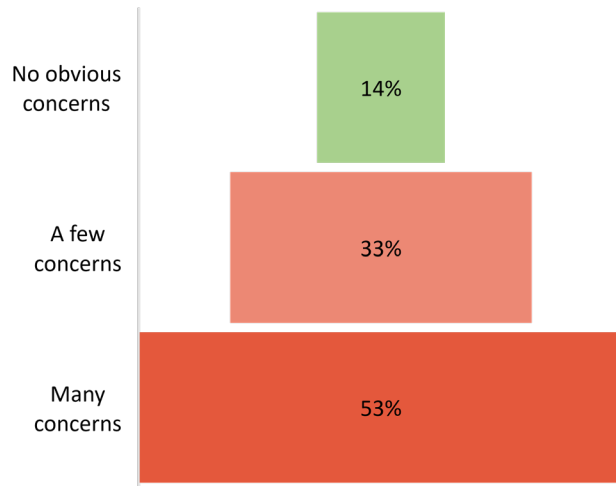
The receipt of special education bus routes generally trailed that of regular education routes. Less than a majority of contractors (35%) remembered receiving initial special education routes by the 3rd week of August. Only 21% remembered receiving the final special education routes by the 3rd week of August.

Q6-7: When did you receive the special education bus routes for 2023-24?

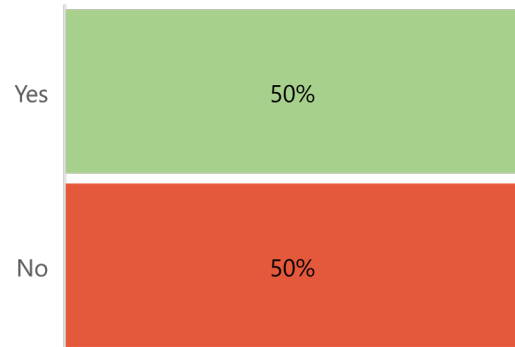


Leading up to Day One 2023, the majority of contractors had concerns regarding the routes received from the district. Overall, 53% indicated they had “many concerns” with the transportation plans, and 33% said they had “a few concerns.” Of those reporting concerns, half felt that at least some of their concerns were addressed prior to Day One.

Q8: Did you have any concerns about the transportation plans or routes for 2023-24?



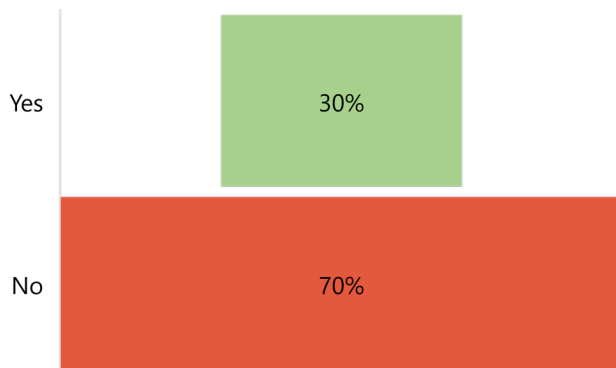
Q11: Were any of your concerns addressed before Day One?



Despite having concerns about the transportation routes, most contractors had no issues with providing on-time service to HCPSS schools. Specifically, 70% of contractors felt they did not have any major challenges with providing on-time services. When asked to rate their own performance on Day One 2023, on a scale from 1 to 10, with 10 being the best, contractors gave themselves an average of 8.9.

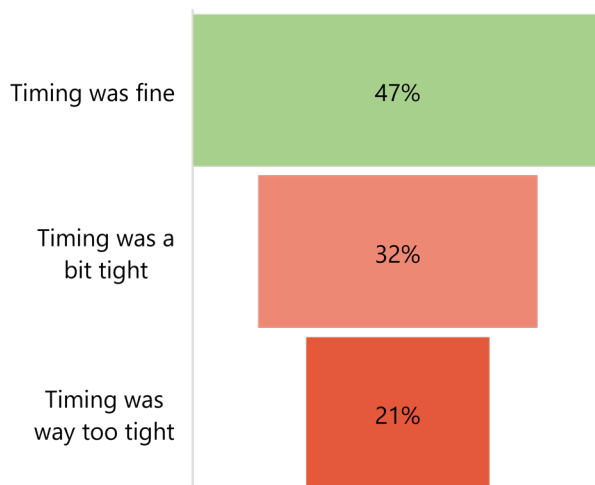
Contractors rated their Day One 2023 performance as 8.9 out of 10.

Q12: On Day One, did you have any major challenges providing on-time service?



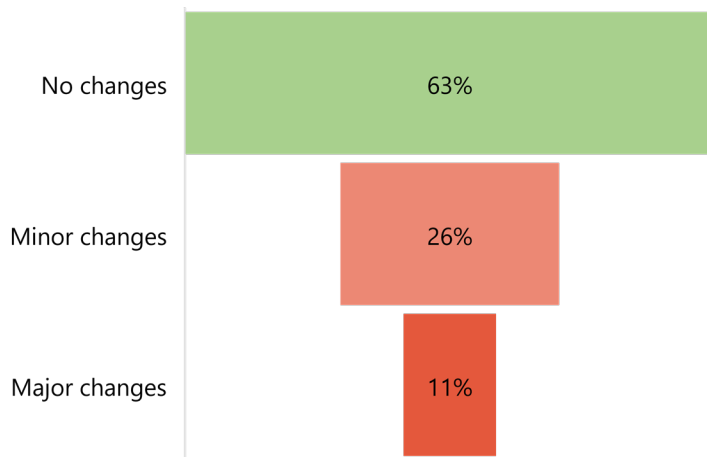
Although confident in their performance during the opening week, some contractors remained concerned about meeting the timing of the scheduled bus routes. Specifically, 21% of contractors reported concerns that the timing was “way too tight,” and 32% reported that it was “a bit tight.”

Q16: After the first week of school and before September 20, 2023, did you have concerns about the bus route timing?



Contractors were also asked to indicate the extent of changes made to their routes (beyond the school drop/start times) following the adjustment of school start times on September 20, 2023. Few contractors (11%) reported experiencing major changes to their routes beyond the adjustment of school start times. Some contractors (21%) reported minor changes, while the majority (63%) indicated that their routes were unchanged except for the school start times.

Q17: After Day One, did HCPSS provide updated routes following the school start time changes on September 20, 2023?



Thinking about current operations (April-June 2024), when asked to rate communications from the transportation department, contractors gave an average score of 5.5. Some contractors rated it a 1, while 1 contractor rated it a 10 and others scored it somewhere in between. When asked to rate their current working relationship with the transportation department, contractors gave it an average score of 6.2. Only 1 contractor rated it a 1, while several rated it a 10, and others scored it somewhere in between.

Contractors rated current communications from the transportation department as a 5.5 out of 10.

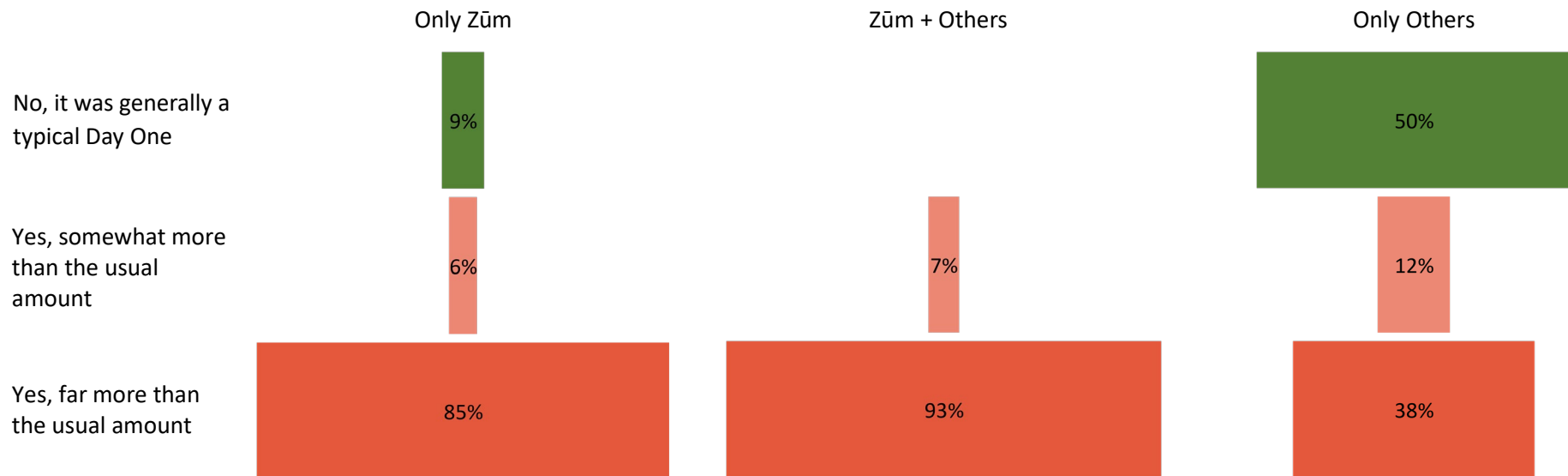
Contractors rated their current working relationship with the transportation department as a 6.2 out of 10.

School Administrator Survey Results

School administrators also provided input regarding HCPSS bus operations. They provided survey input between April 18th and May 19th, 2024. Prismatic received a survey response from all but 3 schools. Prismatic analyzed school administrators' input based on whether the school uses only Zūm for transportation, Zūm in combination with other contractors, or only other contractors.

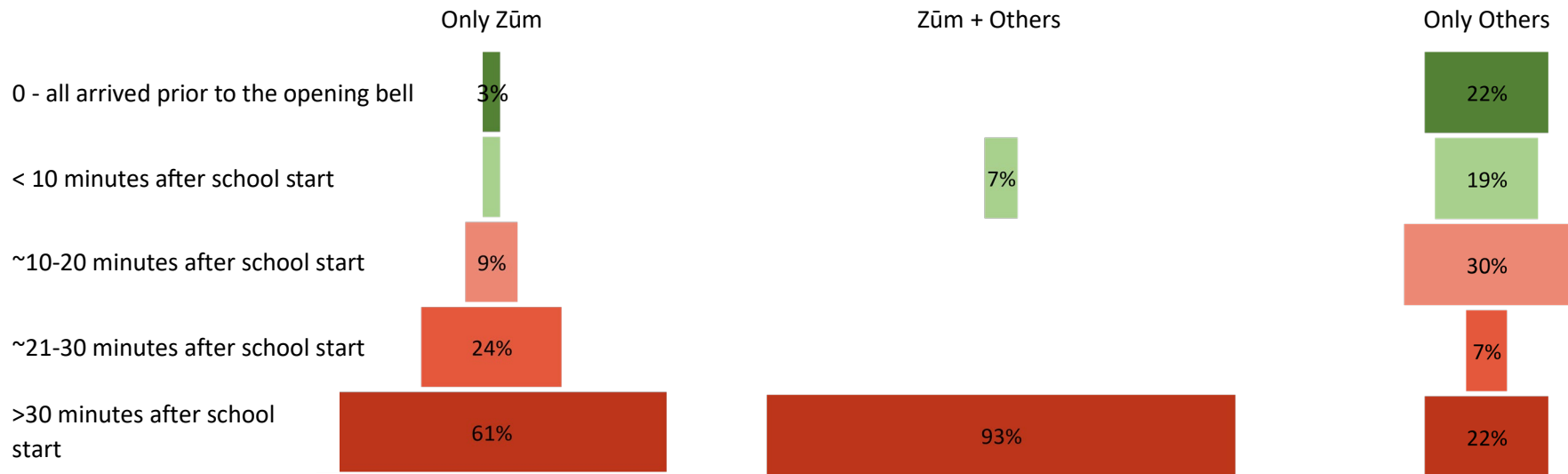
On Day One 2023, school administrators reported encountering an unusually high number of transportation challenges – overall, 70% indicated they had “far more than the usual amount” of transportation challenges for a 1st day of school. However, the extent of these challenges varied by transportation provider. Among schools that use only other contractors, 38% of schools reported experiencing far more challenges than usual, while 50% found the first day to be typical. In contrast, 85% of schools that use only Zūm reported having far more issues than usual, with only 9% considering Day One to be typical. Similarly, 93% of schools that use Zūm in combination with other contractors reported facing a greater number of issues.

Q7: This year, on Day One 2023, did you have more than the usual amount of transportation challenges for a first day of school?



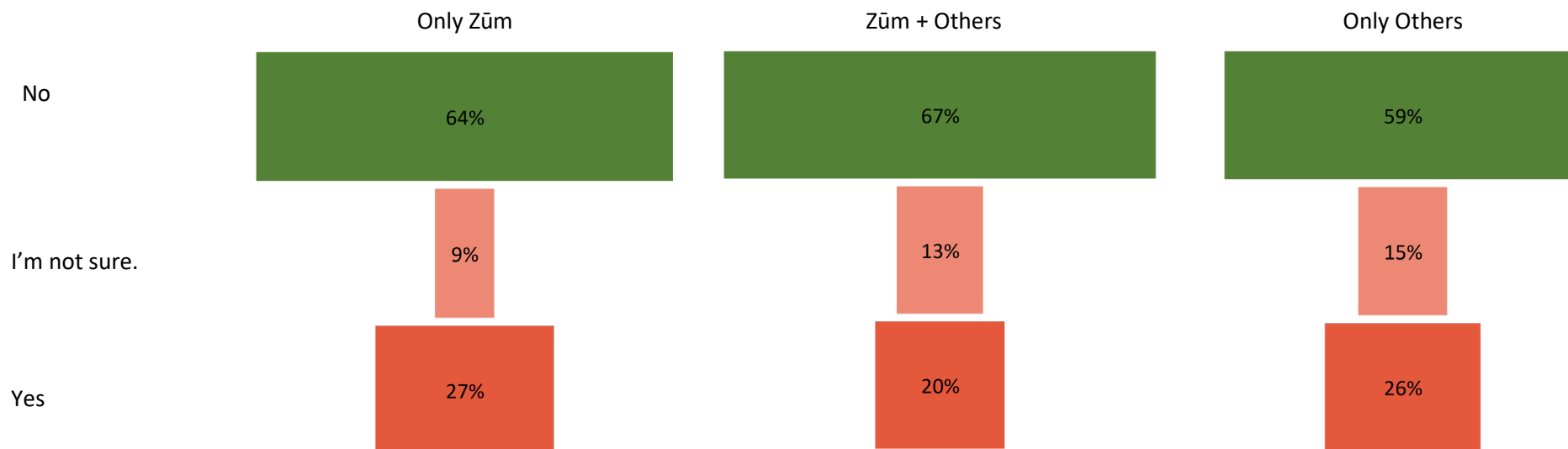
The prevalence of last bus-riding students arriving late on the first day of school also varied by transportation provider. Among schools that use Zūm in combination with other contractors, 93% of principals reported that these last students arrived more than 30 minutes after the start of school. In schools that use only Zūm, 61% reported similar delays. However, only 22% of schools using only other contractors reported that bus-riding students were more than 30 minutes late.

Q8: This year, on Day One 2023, how late were the last bus-riding students in arriving at your school in the morning?



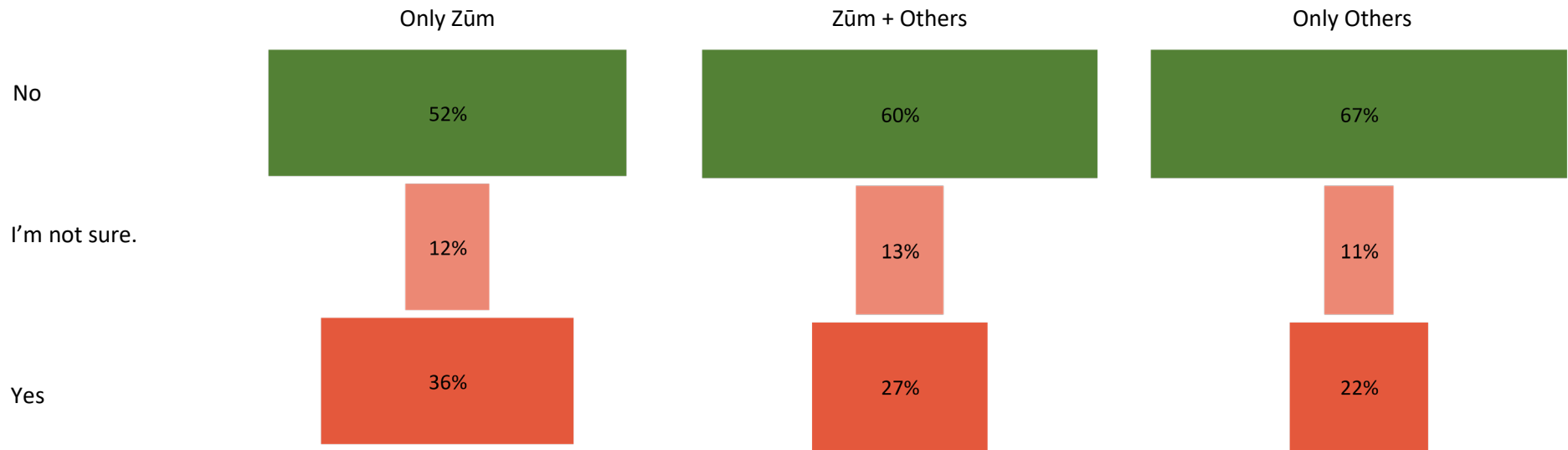
After the first few days of school, not all schools experienced substantial changes to their bus routes before the September 20th bell time change. Overall, 27% of school administrators reported that their bus routes were changed substantially after Day One 2023 and prior to the September 20th bell time shift. These changes were fairly evenly distributed among schools by transportation provider. Among schools that use only Zūm, 27% reported such changes. Similarly, 26% of principals at schools using only other contractors reported experiencing route changes.

Q11: After the first few days of school, were the bus routes serving your school substantially changed prior to the September 20th change in bell times?



Following the bell time change on September 20th, few schools experienced substantial changes to their bus routes. However, schools that only use Zūm reported a higher rate of changes (36%) than those that use Zūm in combination with others (27%) and those that only use others (22%).

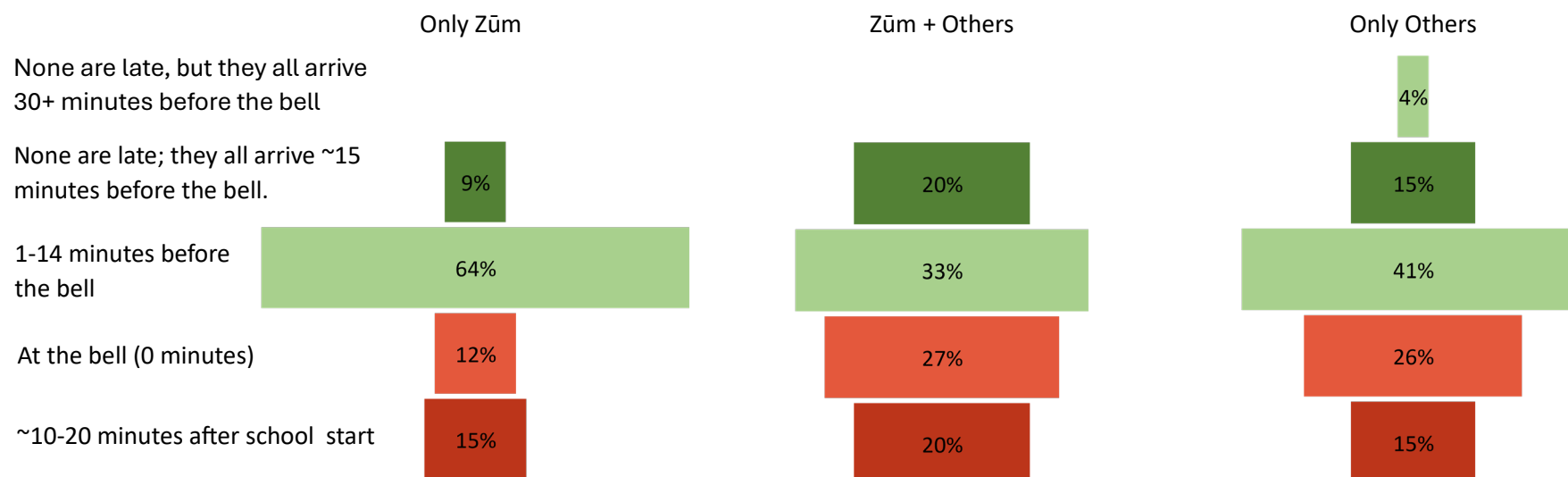
Q12: With the bell change on September 20th, were the bus routes serving your school substantially changed?



In addition to asking about Day One 2023, Prismatic also asked school administrators about their current transportation services. In the morning, ideally buses arrive at school ~15 minutes prior to the opening bell. This gives students time to get school breakfast if desired and to arrive on time to their 1st classroom. Arriving between 1 and 14 minutes before the bell is also acceptable, but less preferable. Based on the documentation provided by HCPSS to Prismatic, it does not appear that HCPSS had explicitly communicated these best practices standards to contractors nor sought to enforce compliance to them as of Day One 2023.

When asked about the current arrival times of the last buses in the morning, which would have been mid-April to mid-May 2024, 13% of schools overall reported that their last bus arrived ~15 minutes prior to the bell, while 17% indicated their last bus arrived 10+ minutes after the start of school. This variation in performance also varied by bus contractor. Administrators at schools using Zūm in combination with other contractors reported the highest rate of last buses arriving ~10-20 minutes after school started (20%), while schools using only Zūm or only other contractors reported this issue at a rate of 15%.

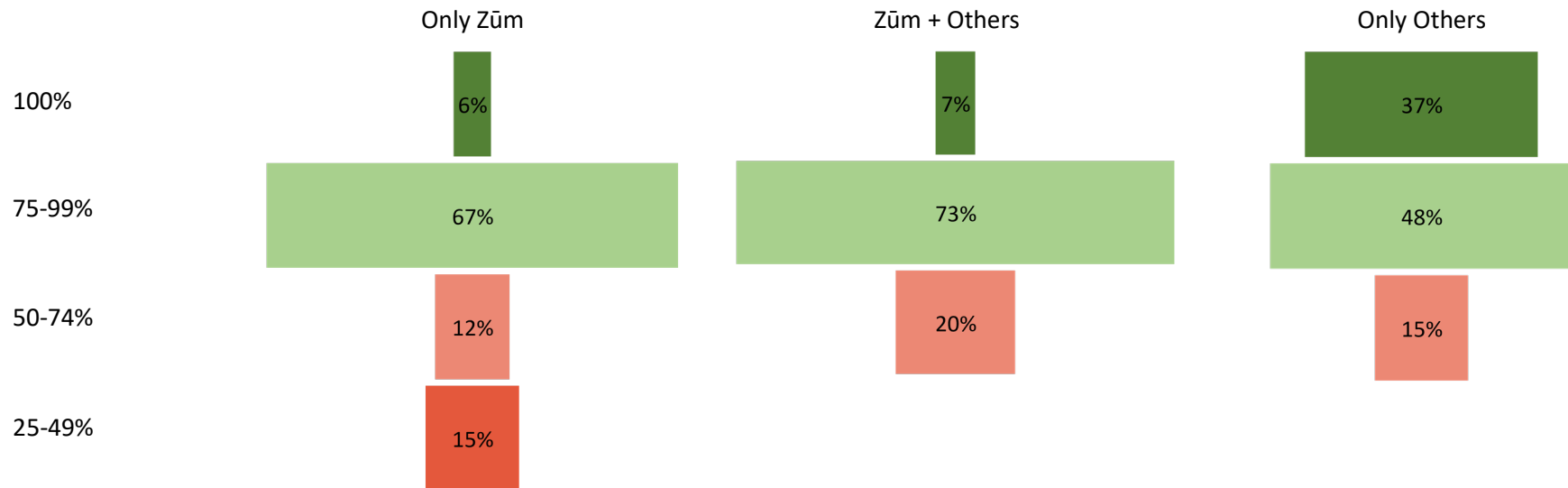
Q13: Currently, how late are the last buses in arriving to your school in the morning?



In the afternoon, as a matter of standard practice, all buses are lined up and ready to receive students at the closing bell. As with on-time morning performance, as of Day One 2023, it does not appear that HCPSS had explicitly communicated this standard expectation to contractors, but it does appear to have been generally understood.

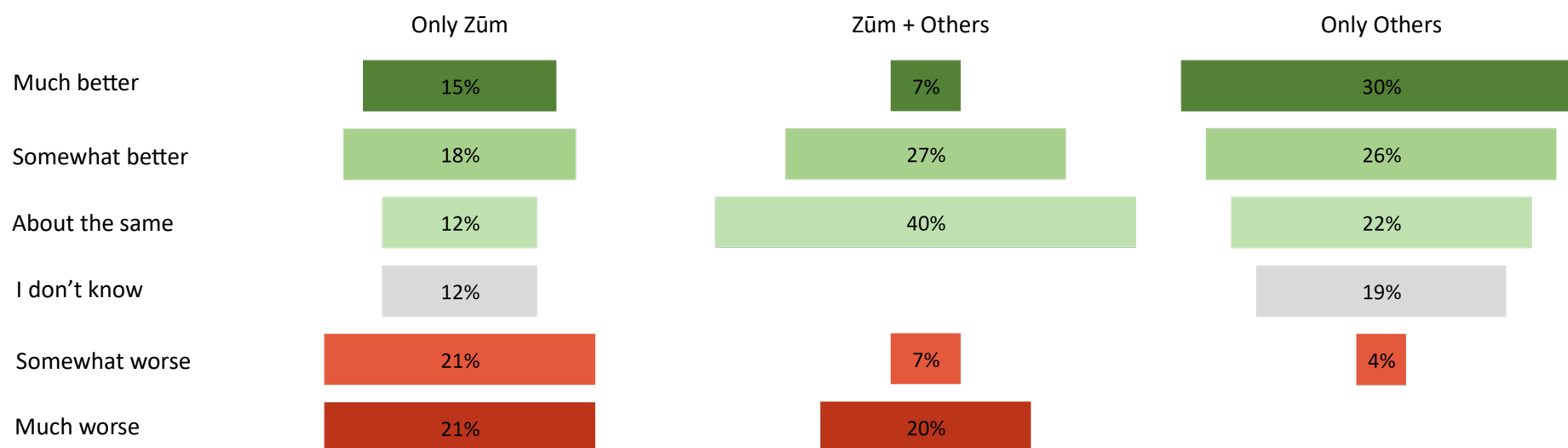
As of mid-April to mid-May, when school administrators responded to the survey, only 16% overall reported that 100% of their buses were lined up and ready to receive students at the closing bell. This varied by bus contractor. Among schools that use only other contractors, 37% reported that all buses were lined up at school end. Only 6% of schools using only Zūm and 7% of those using Zūm in combination with other contractors reported the same readiness.

Q14: Currently, at the official end of the school day, how many of your school's buses are lined up and ready to receive students?



Comparing 2023-24 to 2022-23, 41% of school administrators overall reported that transportation was either “much better” or “somewhat better” while 27% reported it was “somewhat worse” or “much worse.” The results varied by bus contractor. None of the schools with only other contractors stated their transportation situation was “much worse.” In comparison, 21% of principals at schools using only Zūm reported that their transportation situation was “much worse.” The majority of administrators at schools using only other contractors reported improvement, with 30% stating that operations were “much better” and 26% stating it was “somewhat better” this year. Only 34% of schools using Zūm in combination with other contractors and 33% of schools using only Zūm said that transportation was improved (either much or somewhat).

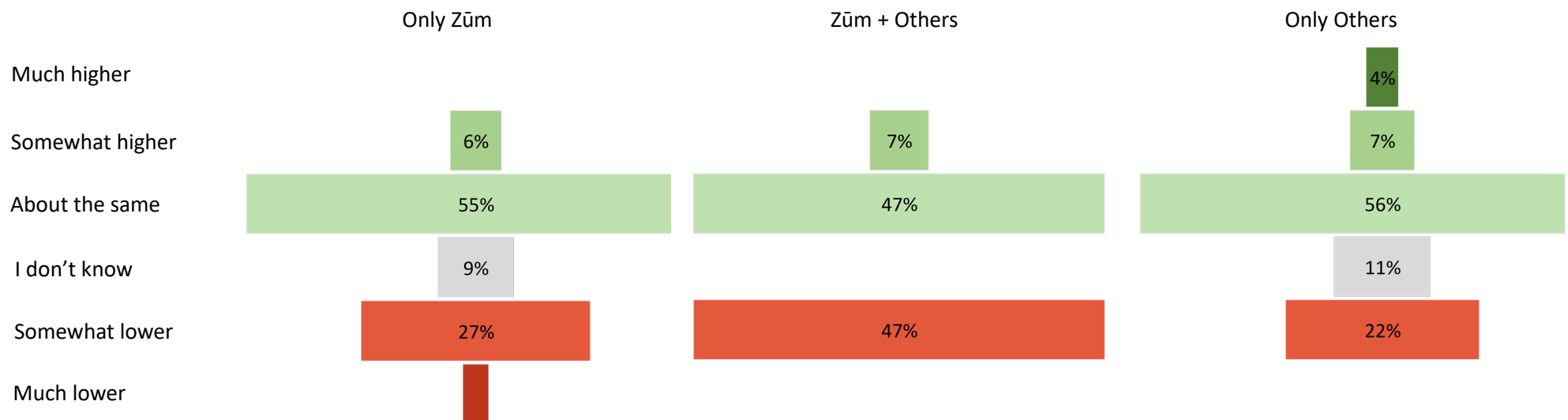
Q15: Is the bus transportation situation at your school better or worse than it was in 2022-23?



An important consideration when a district or school makes changes to the transportation system and/or school start times is whether the volume of ridership changes in response. While not always true, in general, if bus ridership decreases as a result of a change, that can typically be interpreted as the change had a negative impact on the student, resulting in the student finding another way to school. For example, an earlier pickup time or a longer bus ride time can lead more students to become car riders. In the case of HCPSS, this is complicated by the concurrent changes to the non-transportation zones, so these data should be viewed with some caution.

Overall, a majority of school administrators (54%) reported that the volume of school bus ridership has remained the same from last year, regardless of the contractor(s) serving their school. Principals at schools using only Zūm or only other contractors reported similar rates of consistent ridership (55% and 56%, respectively), while 47% of those using Zūm in combination with other contractors reported the same.

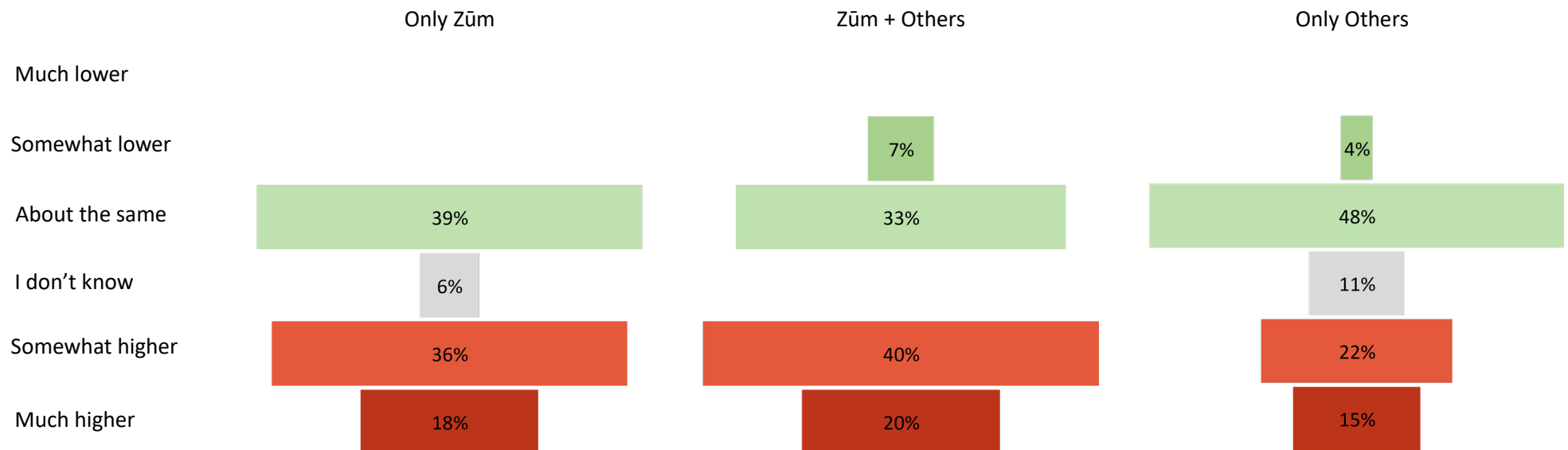
Q16: Compared to last year, what is the volume of school bus ridership at your school now?



As with changes in school bus ridership, changes in parent drop-off volume can also occur when a district makes changes to the transportation system or school start times. Decreases in school bus ridership along with increases in parent drop-off typically indicate that students that were formerly bus-riding students have switched to being car-riders. In the case of HCPSS, this is complicated by the concurrent changes to the non-transportation zones, so it is possible that increases in parent drop-off volume are due to the increase in the number of students newly in a non-transportation zone.

Compared to last year, the volume of parent drop-offs has varied at approximately half of the HCPSS schools – overall only 42% of administrators stated that the volume of parent drop-offs has remained about the same. Principals at schools using only other contractors reported the highest rate of consistent parent drop-offs (48%), followed by schools using only Zūm (39%) and those using Zūm in combination with other contractors (33%). Schools using Zūm and other contractors were more likely to see increased volumes, with 60% of school administrators reporting higher parent drop-off volumes. In comparison, 54% of schools using only Zūm and 37% of those using only other contractors also noted increased parent drop-offs.

Q17: Compared to last year, what is the volume of parent drop-offs at your school now?



Chapter 3

Root Cause Analysis

Background

As a function, transportation is typically a small but noticeable portion of the overall school district budget. Over the past 10 years (excluding the COVID year of 2020-21), HCPSS transportation has varied from 3.9% to 4.3% of overall expenditures. Industry best practices usually state a range of 4-6% of the overall budget as ideal. Compared to the closest Maryland peers based on the number of students eligible for transportation, HCPSS had the 2nd highest cost per student but was in the middle of peers for percent spent on transportation (Exhibit 3-1). However, HCPSS is the only large Maryland district that completely outsources its bus operations.

Most of the HCPSS transportation budget is spent on contracted services – over the past 10 years (excluding the COVID year), contracted services expenses have varied from 93.1% to 95.6% of all transportation expenses. There are no industry best practices to guide contractor expenses. However, given the role the HCPSS Office of School Transportation (OST) plays in developing routes, managing contractor contracts, and overseeing contractor operations, it is reasonable to conclude that some portion of the budget must be reserved for in-house transportation operations. Only 4 other Maryland districts also contract out for all of their student transportation services and all are smaller.¹ They spent a range of 90.3% to 93.7% on their transportation budgets on contracted services in 2022-23. In the same year, HCPSS spent 93.7% of its transportation budget on contracted services (Exhibit 3-2).

¹ Calvert, Carroll, Garrett, and Worcester.



Exhibit 3-1
HCPSS Compared to Similarly Sized Maryland Peers
2022-23

District	# Students Eligible for Transportation	Transportation Cost per Student	% of Route Buses Outsourced	% of Current Expenditures Spent on Transportation	% of Transportation Spent on Contracted Services
Howard	43,619	\$849	100%	4.1%	93.7%
Anne Arundel	61,865	\$784	91%	3.9%	83.3%
Baltimore City	35,626	\$674	81%	4.1%	33.9%
Baltimore County	79,750	\$784	18%	4.1%	27.6%
Frederick	30,890	\$542	0%	3.1%	3.9%
Harford	31,139	\$1,137	79%	6.1%	75.8%
<i>Peer Average</i>	<i>47,854</i>	<i>\$784</i>	<i>54%</i>	<i>4.1%</i>	<i>45.3%</i>
<i>State</i>	<i>628,866</i>	<i>\$853</i>	<i>46%</i>	<i>4.3%</i>	<i>49.8%</i>

Source: MSDE, 2024

Exhibit 3-2
HCPSS Compared to Other Fully Outsourced Maryland Districts
2022-23

District	# Students Eligible for Transportation	Transportation Cost per Student	% of Current Expenditures Spent on Transportation	% of Transportation Spent on Contracted Services
Howard	43,619	\$849	4.1%	93.7%
Calvert	10,699	\$1,374	7.3%	90.3%
Carroll	25,111	\$1,047	6.1%	93.7%
Garrett	3,488	\$1,475	6.5%	93.7%
Worcester	6,339	\$1,234	5.0%	92.7%
<i>Peer Average</i>	<i>11,646</i>	<i>\$1,252</i>	<i>5.9%</i>	<i>93.5%</i>
<i>State</i>	<i>628,866</i>	<i>\$853</i>	<i>4.3%</i>	<i>49.8%</i>

Source: MSDE, 2024

The road leading to the new school start times (SSTs) and subsequent Day One 2023 difficulties extends back as far as the 1990s. In 1997 the district developed 3 scenarios that would require 0-80 additional school buses. A renewed effort began in Fall 2013. That research effort was deliberative and lengthy. It concluded in February 2017 with a school board motion to adopt new SSTs in 2018-19 of no earlier than 8:00a and no later than 9:25a. The board rescinded its motion in December 2017. Staff noted that SST change efforts up to this point failed because district leaders wanted a "no cost" option.

The effort to adjust SSTs resumed in earnest in Spring 2021, with the stronger implementation of routing software, board instructions to the superintendent to develop a recommendation for new times for 2022-

23, and the subsequent hiring of a consulting firm, Decision Support Group (DSG) to assist in the work. The routing software implementation represented a sea change in OST operations. The routing software, Versatrans, was purchased just prior to the COVID-19 pandemic, but “just kind of sat” during that period. Versatrans replaced another routing system that was acknowledged to have been both lacking in features and lacking in effective use within the OST. At the time, there was little technical ability within the OST and little impetus to critically examine existing bus routes until the OST restructured, created a router position, and assigned that position primary responsibility for routing. It had previously been 1 of many duties of the transportation area managers.

The district’s work with DSG spanned June 2021 through May 2023. The original contract had an end date of August 2023. As with previous SST change efforts, DSG was charged with developing a path to a “no cost” or “low cost” option. DSG invoices indicate that the last services were provided in May 2023 but those were for some support services not associated with the contractual milestones. The last milestone invoice dated March 2023 covered work for the final deliverable completed in January-February 2023.

The SSTs adopted for Day One 2023 changed the morning school drop-off window from 7:25-9:25a to 8:00-9:15a, a 38% time reduction, from 120 minutes to 75 minutes. In the afternoon, the reduction was 43%, from 2:10-3:55p (105 minutes) to 2:45-3:45p (60 minutes). The afternoon reduction was greater because of the differing lengths of the school days.

A final bit of relevant background information was the district’s lack of performance monitoring tools and metrics. For example:

- ◆ Expectations of school administrators regarding how quickly buses should load and depart campus each afternoon do not appear to have been clearly communicated in the past and some staff felt they were not clearly communicated in preparation for Day One 2023. As one former school principal noted, within the old routing system school load times “didn’t matter before.” They became an issue as the SST window was compressed, but explicit discussions with principals leading into Day One 2023 do not appear to have happened. As one former principal noted, “experts didn’t realize that we didn’t know that.”
- ◆ Historically, HCPSS did not assess bus contractors liquidated damages for any failures to perform according to the contract. The older HCPSS contracts do not contain explicit language regarding liquidated damages, which may have made the development of processes for assessing them difficult. The newer contract incorporates some liquidated damage specifics via the

“Liquidated damages are funds withheld by the district for a contractor’s service failures.”

- Dan Roberts,
*Best Practices in
School
Transportation*

This resource lists 21 areas where liquidated damages could be assessed, ranging from failing to keep an updated seating chart (\$25 deducted) to failure to operate an assigned trip (125% of the daily rate deducted).

district's Request for Proposal,² but these were not used until March 2024. Some staff also noted a perception that the historical lack of GPS equipment on the buses of many contractors made assessing damages difficult or potentially impossible. Yet, liquidated damages can be an effective tool in both establishing service expectations and incentivizing contractors to meet those service expectations.

- ◆ Unless expectations are clearly stated and performance monitored, there is a tendency for buses to arrive in the morning earlier than planned for schools on the 1st tier. Some HCPSS staff noted that this was happening at some HCPSS schools well into Spring 2024. Some indicated that this arrival “creep” was also a factor in the perceived improvement of transportation service over the course of the year.

Preceding Day One 2023 Analyses

In the aftermath of the Day One 2023 transportation difficulties, HCPSS completed 2 analyses prior to Prismatic beginning work:

- ◆ *Transportation Service Delivery Plan/School Start Time Initiative Internal Action Report (Initiative IAR)*
- ◆ *Internal Audit Report on Procurement of the New Transportation Service Model (Procurement IAR)*

The 1st was completed by a retired district staff member while the 2nd was completed by the district's internal auditor. Neither study alleged or found issues of non-compliance with laws or district policies.

With different areas of focus, those reports found different root causes for the problems experienced on Day One 2023 (Exhibit 3-3). The *Initiative IAR* found fault with 11 “concurrent initiatives.” In its conclusion, the *Initiative IAR* noted that the success of the SST Initiative overall “relied on having enough bus drivers and proper staffing levels, as suggested in the Office of School Transportation's organizational chart. However...neither of these crucial elements was fulfilled” (p. 39). Prismatic added this as the 12th area identified in that *IAR*. The *Procurement IAR* identified 5 problem areas.

Of these 17 root causes, 1 was the same across both *IARs* – lack of OST staffing. Prismatic concurs that this was a root cause. Of the 15 other causes identified, Prismatic agrees that:

² <https://purchasing.hcpss.org/sites/default/files/2022-10/019.23.B3%20Student%20Transportation%20Services%20RFP.pdf>

- ◆ 4 of the *Initiative IAR* causes contributed to Day One 2023 problems. Of those 4, Prismatic asserts that 3 of them contributed to Day One 2023 problems largely because of their timing, typically because they happened late in the preparation cycle for Day One. Prismatic found that the remaining Initiative IAR causes were typical start-of-school challenges.
- ◆ the remaining 4 causes noted in the *Procurement IAR* contributed to the specific problems experienced on Day One 2023.

Exhibit 3-3

Root Causes Identified in Internal District Reports

Report	Root Cause	Prismatic Finding
<i>Initiative IAR</i>	1. New Technology	Typical school start challenge
	2. Re-Districting Exemptions	Typical school start challenge
	3. Waivers, Appeals, and Exemptions	Typical school start challenge
	4. Expanded Non-Transportation Areas	Contributed to Day One 2023 problems due to timing
	5. Demarcation Line	Contributed to Day One 2023 problems due to timing
	6. Mandatory Registration	Typical school start challenge
	7. New Bell Schedule	Contributed to Day One 2023 problems due to timing
	8. New Bus Contractor	Contributed to Day One 2023 problems
	9. Driver Training	Typical school start challenge
	10. Administrators	Typical school start challenge
	11. Family File Completion	Typical school start challenge
	12. Insufficient OST staff	Root cause
<i>Procurement IAR</i>	◆ Misalignment Between RFP and Contract Specifications	Contributed to Day One 2023 problems
	◆ Lack of Training in Best Practices in Contract Management	Contributed to Day One 2023 problems
	◆ Insufficient OST Staffing	Root cause
	◆ Lack of Existing District Guidance on Contract Management	Contributed to Day One 2023 problems
	◆ Ineffective New Contract Management	Contributed to Day One 2023 problems

Source: HCPSS documents and Prismatic analysis, 2024

Root Causes

Root cause analysis can be approached in a variety of ways, but is typically

...predicated on the belief that a problem is best solved by attempting to address, to correct, or to eliminate fundamental cause(s) of the problem. Identifying these causes can lead to remedial actions that drive continual improvement...³

Prismatic agrees with the 2 internal reports in that it found no evidence of non-compliance with laws or district policies. In its review, Prismatic identified 3 primary root causes:

- ◆ unfilled staff positions
- ◆ lack of deadlines or lack of adherence to deadlines
- ◆ overconfidence in and overconfidence of new contractor

ROOT CAUSE 1: Unfilled OST Staff Positions

Despite an approved plan that called for the expansion of the HCPSS OST as necessary to successfully implement new school start times (SSTs), a number of the planned positions were not filled in time to contribute meaningfully to the preparatory work critical to a successful Day One 2023. The unfilled positions placed a greater burden on existing staff; leading up to Day One 2023, HCPSS had 1 full-time router and the coordinator of transportation, planning, and technology.

HCPSS did not begin Summer 2023 with a full team of transportation routers. Instead, the transportation coordinator noted that he was the only router of the general education route system. He oversaw the work of 2 OST staff who completed the special education route system, but only 1 staff member worked full-time on that effort. According to the previous transportation director, the original request for staffing leading into the new SSTs was for 6 positions: 3 field specialists, 2 routers, and 1 planner/analyst. Some of these positions were in recognition of the lack of departmental staffing increases over time, even as the district has grown, while some were specifically to leverage the investment in routing software and provide the labor to craft the new routes needed for the new SSTs. The expansion of OST staffing was discussed in the DSG project plan as early as February 2022.

In both 2020-21 and 2021-22, the OST had 16.0 authorized positions. This was increased to 21.0 in 2022-23 and 24.0 in 2023-24. However, none of

A root cause is “the most basic reason the problem occurs.”

- Joseph C. Fields,
Total Quality Schools

Root Cause – “the deepest underlying cause, or causes, of positive or negative symptoms within any process that, if dissolved, would result in elimination, or substantial reduction, of the symptom.”

- Paul G. Preuss,
*School Leader’s
Guide to Root Cause
Analysis: Using Data
to Dissolve Problems*

³ https://assets.pcaobus.org/pcaob-dev/docs/default-source/documents/root-cause-spotlight.pdf?sfvrsn=55f82206_2

the positions were filled with sufficient time for the new staff members to have a substantial impact on the activities leading up to Day One 2023. One OST staff member characterized the filling of the new positions as “a year late.”

Multiple staff members noted that the HCPSS hiring process is typically slow, so it does not appear to have been a lack of funding for the new positions or a failure to create the positions. One staff member gave as an example the selection by OST of a person to fill a specific, available position but that it took the human resources department 3 months to contact the person with an offer and by that time the person was no longer interested in working for the district.

As part of its proposed work, DSG offered to provide the district with essentially supplementary staffing to complete routing tasks. Ultimately, DSG was not asked to provide this supplementary staffing.

The impact of unfilled OST positions impacted routing in particular and overall initiative implementation in general.

Bus Routing

The DSG plan called for the expansion of the routing team. OST staff noted that they understood the DSG plan to include 3-4 router positions that would work under the coordinator of transportation, planning, and technology to work “exclusively” on the extensive routing work required for the new school start times. Instead, HCPSS essentially had 1 staff member for regular education routing who was also the transportation coordinator, and less than 2 staff members for special education routing whose work needed to be checked by the transportation coordinator.

None of the district staff interviewed expressed satisfaction with the timing of route finalization in the Summer of 2023 and that timeline was only achieved via an apparently substantial amount of overtime. Only a few contractors reported that they received draft runs in July, which, given the massive changes in which routes were assigned to which contractor, would have been ideal. Finalizing routes earlier could have enabled contractors to complete dry runs and provide feedback. Contractors completing dry runs under typical conditions might have uncovered any timing problems associated with the new SSTs – if contractors found that they could not make the desired times during dry runs they more than likely would not have been able to make them on Day One 2023.

There are no industry best practices in this area, but a rule of thumb is 1 router per 7,000 routed students. With 44,000 eligible students, this would mean 6 full-time routers in HCPSS. By comparison, Anne Arundel County Public Schools, with ~62,000 students eligible for transportation, has 5 full-time router positions. This yields a ratio of 1 router per 12,400

A good rule of thumb is 1 router per 7,000 routed students. This would suggest that 6 full-time routers would be appropriate for HCPSS.

students. Fairfax County Public Schools (VA), with ~141,000 students eligible for transportation, has a team of 37 routers. This yields a ratio of 1 router per 3,800 students.

The unfilled OST staff positions likely led the existing staff to have less time available to support all contractors in the rollout of new routes. With all positions filled, staff could have spent more time on such activities as:

- ◆ observing dry runs and verifying they were completed correctly, including that they were done at the same time of day as they will be run in practice
- ◆ engaging contractors in substantive discussions around how to improve routes and, specifically for Day One 2023, whether the routes and times appeared to be workable for the new SSTs
- ◆ developing technology-based tracking and reporting systems to monitor the on-time performance of buses

During the 2023-24 school year, the OST hired additional routing staff. The OST committed to the provision of draft runs to contractors by August 9th and final runs by August 16th, 2024 for the 2024-25 school year.

Management of the SST Initiative

With the conclusion of the DSG contract, HCPSS staff were expected to complete the work necessary to launch the new SSTs. In interviews, the transportation director was generally seen as the staff member primarily responsible for implementing the remaining steps of the plan. This was problematic for a number of reasons:

- ◆ As the transportation director, he already had a full-time job. His regular duties were then substantially expanded in 2023 with the need to onboard a contractor completely new to HCPSS.
- ◆ Success in the plan required oversight in various areas beyond the OST. The transportation director did not have the authority to force departments to adhere to plan components.

As DSG ended its work with HCPSS, the district's adherence to the project plan timing waned. As part of its work, DSG developed a project management chart, typically termed a Gantt chart. The Gantt chart included tasks and due dates for activities, but in Prismatic interviews, it was apparent that it was little used once DSG ended its work. The insufficiently staffed OST was pulled in multiple directions. New problems arose, such as re-districting exemptions and demarcation line appeals. All of these and more required the attention of the transportation director and OST staff. They could not remain focused solely on the SST Initiative activities. District staff in other departments did not assume the role of

project champion as the initiative was largely seen as a transportation initiative, even though SST changes impact every aspect of district operations.

Lesson Learned #1

In order to be of most use to the district, Prismatic sought to draw a lesson from each root cause that might then be applied to district considerations and actions moving forward. In assessing the lesson of Root Cause #1, Prismatic concluded that the district approved a broad SST plan that called for the expansion of OST staffing as fundamental to the success of the initiative, but then failed to fill those positions even as it proceeded with the plan. Moreover, despite the far-reaching nature of the SST Initiative, the district did not appoint an explicit project champion, someone with a level of seniority to be able to direct the activities of multiple departments.

As the district takes on new initiatives in the future, Prismatic recommends that it answer this question:

If current staff are already fully employed, how can they implement new initiatives, which often require additional staff time?

Lesson Learned #1

If current staff are already fully employed, how can they implement new initiatives, which often require additional staff time?

ROOT CAUSE 2:

Lack of or Ignoring Deadlines

Of all the changes that a school district can implement, there are few that truly impact every single constituent. A new SST is one of them. With such a large change, it is critical to not only have a detailed plan, but to also have deadlines for various task dependencies and a contingency plan for any delays along the critical path (the string of subtasks that comprises the longest task). This is particularly true in a large district like HCPSS. In the new SST initiative, HCPSS either lacked some specific deadlines or ignored previously established deadlines. This became the 2nd root cause of the problems experienced on Day One 2023.

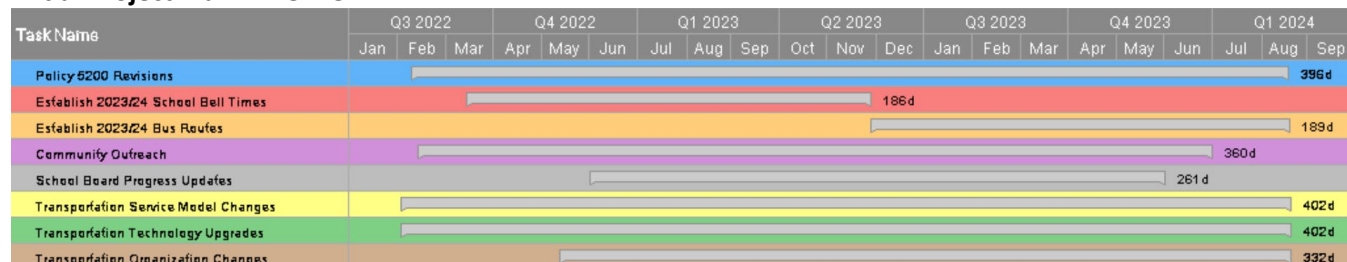
In the multi-year move to new SSTs, HCPSS had a detailed project plan to follow. It included 8 task areas:

- ◆ Policy 5200 Revisions
- ◆ Establish 2023-24 School Bell Times
- ◆ Establish 2023-24 Bus Routes
- ◆ Community Outreach
- ◆ School Board Progress Updates
- ◆ Transportation Service Model Changes
- ◆ Transportation Technology Upgrades
- ◆ Transportation Organization Changes

The 8 areas included a total of 84 specific subtasks. Each subtask had an expected start date, duration, and completion date. Dates ranged from February 2022 through August 2024 (Exhibit 3-4). DSG was the primary author of this project plan.

Exhibit 3-4

Initial Project Plan Timeline



Source: HCPSS, 2024

One item not apparent in the Gantt chart were dates for intermediate, “go or no go,” project continuance decisions. For example, given the delays in hiring the additional routing staff, there should have been a discussion in Spring 2023 whether it was appropriate to continue forward with the new SSTs for 2023-24. The former transportation director noted that the school board did entertain such a discussion in February 2023, but it was not begun based on the district’s failure to hire staffing as a likely reason to delay implementation. Instead, the board was seeking assurances that implementation could continue.

In the March 2022 board meeting, how board members would be able to monitor plan implementation was discussed. The district and DSG established a dashboard that was apparently only available to board members. It was intended to show the status of each item in real-time and to provide warnings if deadlines were not met. According to some OST staff, the dashboard was little accessed. In the same meeting, how the activities and timeline would be communicated to the public was also discussed. Staff indicated that a webpage would be developed to share updates. So, district staff were properly focused on adhering to deadlines in the SST Initiative at the beginning. However, as plan implementation progresses, deadlines slipped or were ignored. A staff member noted that the communications plan around the initiative “fell apart really quickly” because decisions could not be made “timely enough it order for them to be communicated.” Some examples of the district not imposing or ignoring deadlines occurred with:

- ◆ the previously covered transportation staffing expansion plan
- ◆ last-minute demarcation plan and non-transportation zone changes
- ◆ bus contractor negotiations

Each is reviewed below.

Transportation Staffing Deadlines

The need for additional OST routing and other staff positions was noted as the 1st root cause. Based on the DSG plan, the filling of those positions was recommended well prior to Summer 2023 in order for the new team members to have a positive impact on Day One 2023. However, those positions were not filled on time.

The hiring of transportation staff was included as part of subtask 84 in the original DSG plan as of February 2022, “implement transportation office staffing and associated process changes.” The subtask was predicated on prior tasks to assess the OST structure, make organizational and position recommendations, and adopt the recommendations. Subtask 84 was scheduled to begin in July 2022 and conclude in August 2023. Left undetailed was how quickly the organizational changes should be made so that all needed changes to processes could be completed by August 2023. However, it was understood by OST staff that adding staffing was supposed to happen well before Day One 2023.

Last-Minute Demarcation Line Changes and Poor Timing in Non-Transportation Zone Implementation

With a school start on August 28th, the district’s changes around the demarcation line policy on August 14th left essentially no time for an orderly routing process prior to Day One 2023. This could have been avoided had the school board and district observed a deadline for making changes that impact routing. The policy changes to non-transportation zones were made timely, but their implementation, coinciding with the new SSTs, created pressures on the OST that could have been avoided with earlier timing or enforced deadlines for protest.

Adjustments to the non-transportation zones and the creation of demarcation lines were part of the revisions to Policy 5200 recommended by DSG. The revised non-transportation zones around schools were adopted in May 2022 and set around schools at:

- ◆ PreK-Grade 5 – 1.0 miles
- ◆ Grades 6-8 – 1.5 miles
- ◆ Grades 9-12 – 2.0 miles

Each was a 0.5-mile increase from the previous boundaries. HCPSS planned for the distance changes to take effect K-12 for the 2023-24 school year.

Non-transportation zone distances often do not align perfectly with the shapes of neighborhoods. To accommodate this, Policy 5200 allowed HCPSS to establish demarcation lines. Demarcation lines extend non-

transportation zones slightly in some neighborhoods, ensuring that the last few houses at the back of a neighborhood, which might be just beyond the zone limit, were included. As noted in the policy,

In establishing the demarcation line between transported and non-transported areas, the Student Transportation Office may extend these distances to coincide with breaks in the pattern of homes, such as cul-de-sac, street intersections, major roadways, streams, parks, walking easements, commercial property, vacant land, unusual contour variations, and other features.

The district anticipated that the adjustment in non-transportation zones and the commonsense development of demarcation lines would remove ~3,500 students from the list of those eligible for bus transportation and thereby help the district achieve its goal of shifting to new SSTs at minimal cost. Although introduced in 2021-22, the transportation zone adjustments and demarcation lines were generally not a concern until late Spring 2023, perhaps because most HCPSS families and district staff were focused on the impacts of and planning for new SSTs. The bus route plan for 2023-24 included the use of the zones and lines, as well as the COMAR rule stipulating that no bus stop can be closer than 0.25 miles to another unless there is a safety concern.

Once the zone/line process was fully implemented in early Summer 2023 and some families were notified that they were no longer eligible for bus transportation, they began complaining to the school board and district staff. One district staff member stated the OST was “flooded” with requests for reviews of demarcation line decisions. Parents staged a protest in April 2023 over the issue. Bowing to parent outcry, the school board determined that since the demarcation line was a part of implementation rather than an official policy, it had to be removed. The removal of demarcation lines necessitated a complete re-evaluation of bus stop placements and the overall bus routing plan to ensure compliance with both COMAR regulations and the new board/leadership directive. While within the purview of the HCPSS school board and leadership to make such a change, making it with only 2 weeks before Day One 2023 left the OST in an untenable position. It did not leave sufficient time for routes to be reworked, communicated to the bus contractors, tested, revised based on contractor feedback, finalized, and published to the HCPSS community.

The removal of demarcation lines less than 2 weeks before Day One 2023 did not leave sufficient time for bus routes to be reworked, revised based on contractor feedback, and published to the HCPSS community.

The timing of implementation of the new non-transportation zone distances compounded Day One 2023 challenges. Although approved in May 2022, they were not fully implemented until Day One 2023. Had they been implemented in the 2022-23 school year, district families and staff could have worked through the myriad questions, concerns, protests, and appeals processes a full school year before the introduction of the new SSTs. The school board was apprised of the implementation procedures

for the non-transportation zones as early as sometime in 2021, prior to the adoption of the policy revisions. However, HCPSS families apparently did not focus on the issue before April 2023. Leading up to Day One 2023, OST was then forced to spend precious staff time on non-transportation zone issues instead of issues more directly related to new SSTs. Implementing the new zones in 2022-23 or establishing a deadline for parent appeals to something well before late Summer 2023 would have freed staff to focus more on new SST planning.

Moreover, earlier implementation would have allowed the OST to more completely assess the impact of the revised zones before it had to develop the route plan for the new SSTs. Even in a year without changes to the zone diameters, addressing walk-to-school complaints that can result from zone boundary disputes consumes significant time and effort. In HCPSS, the planning manager personally visits complaint locations to assess if safety is genuinely a concern. Each year, when bus enrollment opens, it introduces a new group of parents who might be unaware of previous changes, leading to repeated issues. The walking route committee handles appeals, reviewing them with the same policies as the transportation department and can also suggest safety improvements. The zone changes made for implementation in 2023-24 were not substantially protested until Summer 2023, which then added more work to a limited amount of time.

One staff member noted that, in the wake of the new zones, some families determined which homes in their neighborhoods still qualified for transportation, then claimed them as “off books day cares” to the district. The result of this type of maneuver was no reduction in the number of students that had to be transported from that neighborhood, which then impacted how routes could be constructed, given bus capacity constraints.

In discussing the timing of non-transportation zones and demarcation lines, multiple HCPSS staff noted that “saying no” to last-minute changes was “never an option.” One termed it as “the goal posts kept shifting.” In discussing Day One 2023 problems generally, another staff member stated that in 10+ years of district employment, “last-minute directives from on high have been the norm.” These sentiments point to perhaps an incomplete understanding by the school board of how labor-intensive school transportation routing is and how it simply cannot be overhauled in a few days, given the large size of HCPSS. They may also point to a more general incomplete understanding of the length of time most changes require in a large, complicated system such as HCPSS.

Bus Contractor Negotiations

The district’s negotiations with the ‘legacy’ bus contractors (those who had been working for HCPSS in 2022-23 and earlier) concluded too close

to the start of the 2023-24 school year. This left details about contractor operations up in the air until the last minute.

The decision to rework the bus contracts was not made as a result of dissatisfaction with the service quality of the legacy contractors. It was instead made in an effort to correct a long history of contracting oddity that may be unique to Maryland school districts, that of each bus route requiring a separate contract. Instead of contracting with a transportation provider to serve an area or a set number of routes, Maryland districts have historically signed a separate contract for each bus route. Thus, if a contractor provided 40 bus routes to a district, there were 40 contracts to maintain. As early as January 2022, DSG identified addressing this issue:

Efforts here will begin with defining the contract service specifications and developing the future form of contract. While the actual contracts to be executed by vendors and HCPSS won't be needed until early 2023, the specifics will be required for internal review and buy-in to the approach and will form the basis of talking points for early and ongoing discussions with the vendors. They will then be included as an integral part of the solicitation for service that will be released early in the 2022/23 school year. Transparency regarding intent and process with all stakeholders will be a critical success factor.

The request for proposals (RFP) for bus services under the new transportation model was released in November 2022. All routes were available for bid in the new RFP. The school board had previously voted in June 2022 to cancel its existing bus contracts with an effective date of June 2023. The board rescinded that decision in December 2022 after the legacy contractors filed a class-action lawsuit. Cancellation of the contracts left the legacy contractors worrying about the survival of their businesses beyond the 2022-23 school year. All but 1 of the legacy contractors, Tip Top, declined to respond to the RFP. The school board made awards to service providers who responded to the RFP and were selected by a district committee in February 2023. The new awards covered 288 routes. District staff had hoped to have new contract awards for 478 routes, but did not receive qualified bids that covered all those routes.

Although the lawsuit from the legacy contractors was withdrawn in January 2023, mediation was not settled until early August 2023. The late settlement date hindered the legacy contractors' readiness for opening day. Some legacy contractors lost drivers who saw no future staying with an employer without a busing contract. Legacy contractors surrendered to the district ~58 routes, more than 10% of the total daily routes, that they could not cover in mid-August. The Blue Horizon bus company turned in 29 routes, 16 of which were special education routes, and announced they would no longer work for HCPSS. The delay in finalizing

which contractors would complete which packages of work also hindered the readiness of the OST.

Lesson Learned #2

As the district takes on new initiatives in the future, Prismatic recommends that it identify any mandatory dependencies, those actions which must be completed before it can expect subsequent actions to be completed. Then, the district should identify the critical path, which is the longest stretch of dependent activities and measuring the time. This requires both understanding the dependency of various activities and developing reasoned answers to how long each will take to complete. For example:

- ◆ If the school board had engaged in such a discussion around the shifting of demarcation lines and understood that assessing and then completely redoing numerous routes would potentially take longer than the time left before school started and almost certainly reduced the time available to practice new routes, the school board might have chosen to leave the demarcation lines in place for 2023-24.
- ◆ Once HCPSS entered the mediation process with the legacy contractors, it likely kept an eye on the dwindling number of days remaining before the start of school. If the board and the district had accepted that successful mediation had to be completed with at least “x” days remaining to prepare for the school year, when that deadline was past, the district might have chosen to delay SST implementation for a year, while contracting details were worked out. Some staff members noted that even as the mediation issue continued to drag on they perceived from leadership that “pumping the brakes was not an option.” Clearly, this was a cultural issue at that time and one that should not be continued.

Once mandatory dependencies and critical paths are identified and vetted on future initiatives, the district will be in a position to answer this question:

If a mandatory dependency or an activity on the critical path is delayed, can the district overcome it, or should implementation be delayed?

ROOT CAUSE 3:

Overconfidence In and Overconfidence of New Contractor

The final root cause Prismatic identified was the district’s general overconfidence in the new contractor, concurrent with the general overconfidence of the new contractor - Zūm. On the district side,

Lesson Learned #2

If a mandatory dependency or an activity on the critical path is delayed, can the district overcome it, or should implementation be delayed?

leadership and staff had almost no prior experience in onboarding a new transportation contractor or working with a contractor who would be responsible for such a large portion of daily transportation operations. On the contractor side, district documents and interviews indicate that Zūm overstated their abilities and did not bring to bear a great depth of experience in rolling out new service at large scale. In interviews, multiple district staff used the phrase “overpromised and underdelivered.” One staff member stated “Zūm clearly could not do the things they said they could do on Day One.” In various contexts and with various HCPSS staff, Zūm repeatedly provided assurances to HCPSS that preparations for Day One 2023 were going well. This was underscored in interviews with OST staff and those outside the OST department.

Prismatic has categorized the overconfidence issues into:

- ◆ district unfamiliarity with onboarding new contractors/SOPs
- ◆ new contractor unfamiliarity with managing operations, both of the startup and routine varieties
- ◆ new contractor lack of practice
- ◆ new contractor technology failures

Unfamiliarity with Onboarding New Contractors/SOPs

Prior to 2023, HCPSS staff had little to no experience in onboarding a new bus contractor. Staff had no experience in onboarding a new bus contractor who was expected to provide 40% of the district’s route service. This lack of onboarding experience was compounded by a concomitant lack of staff experience in managing daily bus operations. All district transportation operations are outsourced; none of the OST personnel on staff as of Day One 2023 had prior first-hand experience managing a bus lot, hiring bus drivers, practicing bus routes, etc.

The OST’s past reliance on its veteran bus contractors may have contributed to an expectation that Zūm, the new, modern, well capitalized, large, national bus contractor, would capably adjust to its new environs and perform at least as well, if not better than the small, “mom-and-pop”, local bus contractors. Zūm’s proposal gave the impression that it could provide HCPSS with a higher level of service and that it had great experience in doing so for other school districts with similarly sized operations. Prismatic reached out to the 3 school districts Zūm listed as references in its proposal, to verify those operations were of similar size to HCPSS. The results were:

- ◆ A representative for Seattle Public Schools responded to the request. They stated that in 2023-24 Zūm provided their district

with service for 378 routes on 158 buses. This is fewer buses than Zūm manages for HCPSS.

- ◆ San Francisco Unified School District (SFUSD) did not respond to the request. However, SFUSD only offers regular education transportation services for 43 of its 132 schools. All of the 43 are elementary or middle schools; high schools are not served. Based on these parameters, Prismatic estimated that no more than ~12,700 regular education students were eligible for transportation. Zūm is the only provider of regular and special education transportation services for SFUSD. The 2020 contract documents noted a need for daily special education transport of ~1,500 students. and daily regular education transport of ~2,000 students to 44 different elementary/middle school sites. These figures appear to indicate that Zūm’s SFUSD regular education operations are smaller in scope than those provided to HCPSS.
- ◆ Los Angeles Unified School District (LAUSD) did not respond to the request. However, in 2024 documents, LAUSD noted that it provided daily transportation services to ~49,000 students, of which ~10,000 were special education students and the balance were magnet or other special program students. LAUSD provides student transportation for ~1,800 routes via a combination of 3,000+ district-owned and contract vehicles. Zūm is not the only contractor in LAUSD. The 2022 contract documents indicate that Zūm would provide 300 (25-passenger), 55 (39-passenger) and 50 (65-passenger) buses and drivers. These data seem to indicate that Zūm manages a daily route operation for regular education students in LAUSD smaller than Howard’s, but potentially provides a greater amount of special education transportation.

From these data, Prismatic was able to conclude that Zūm likely did not have prior experience in managing substantially larger operations than it proposed to provide to HCPSS, but did have experience in managing operations of some size. Thus, the expectations of OST and district staff that Zūm would leverage its prior experiences to provide a smooth onboarding process and subsequent startup operations were not unreasonable. Of the 2 entities, Zūm certainly had more depth of experience in launching new operations than HCPSS did in onboarding a new contractor. Nonetheless, Zūm does not appear to have effectively leveraged its prior experiences in the HCPSS startup. Prismatic found no evidence of a shared, written launch management plan or a checklist of key activities.

The district’s internal audit of procurement around the Zūm launch cited the lack of oversight of Zūm by the OST and noted a lack of contract management, risk management, and absence of “best practices” in district procurement policy. These district shortfalls further underscored

the need for Zūm to have filled the gap with their knowledge and experience base. It is true that the OST had a lot of experience with managing bus contractors, anticipating risk, using best practices and preparing for the opening of school, but only with long-established bus contractors who themselves had learned HCPSS preferences and expectations over time.

The difficulty of launching a new contractor successfully was compounded by the district's outdated and inadequate standard operating procedures (SOPs). In response to Prismatic's data request, the OST provided a set of 40 documents covering topics ranging from accident review to school bus routing. Each SOP includes varying headers – some included these:

- ◆ Effective date
- ◆ Reference to HCPSS policy
- ◆ Purpose
- ◆ Scope
- ◆ Roles and responsibilities
- ◆ Procedure
- ◆ Visual flow chart
- ◆ Definitions/acronyms
- ◆ References and legal citations

Standard Operating Procedures (SOPs) are a set of written guidelines or instructions for the completion of routine tasks. Without SOPs, bus contractors cannot definitively know the district's expectations and variations in service quality between contractors will likely occur.

While generally consistently formatted, the SOPs are outdated and insufficiently detailed. For example, the bus numbering SOP (dated March 2020) includes these steps:

1. *Inquiry received in PTO office requesting bus number(s)*
2. *Access bus number database to determine available number or sequence of numbers*
3. *Assign number or numbers and record contractor that owns bus(es)*
4. *When possible, assign sequential numbers to sets of buses assigned to the same contractor (not required)*
5. *Record bus number assignment in bus number database*

The SOP does not define requirements of bus contractors for display of bus numbers, how many digits the bus numbers should be, or an overall schema for using certain sets of bus numbers to delineate special types of routes versus other routes.

In another example, the SOP for the beginning of the year (effective August 2020) lists as its purpose “to detail the actions necessary to begin a new school year” and its scope to cover the “internal steps needed and

external communications needed to begin a new school year.” It then includes these steps:

1. *Send 13 Year Waiver memo for extended service of buses to contractors*
2. *Send memo regarding orientation and preservice schedules for upcoming year to contractors*
3. *Send memo regarding upcoming year draft route assignments to contractors*
4. *Send fall inservice memo to contractors*
5. *Post updated Area Manager assignments to HCPSS Staff Hub*
6. *Prepare Start up Booklet, email to contractors*

The Start Up booklet the SOP references covered only these areas for the 2023-24 school year:

- ◆ Insurance Information for School Buses
- ◆ Insurance Coverage
- ◆ School Bus Accident Procedures
- ◆ Emergency Procedure Card
- ◆ Seating Chart
- ◆ Seating Chart Instructions
- ◆ Bus Conduct Reports Instructions
- ◆ Bus Conduct Report
- ◆ Hazardous Intersections in Howard County
- ◆ Frequently Flooded Roads in Howard County
- ◆ Snow Tires Requirement
- ◆ No Smoking Policy
- ◆ No Child Left Behind
- ◆ Post Trip Student Check Procedure
- ◆ Severe Thunderstorm and Tornado Warning Procedures
- ◆ Transit Style Buses
- ◆ After Hours Drug and Alcohol Testing Procedure
- ◆ Unauthorized Passengers on School Buses Procedure
- ◆ Cell Phones and Hands Free Device Usage Procedures
- ◆ School Bus Evacuation Drills

None of the provided district documents clearly outlined school start-up or daily operational expectations, such as:

- ◆ Preparation – To what date does the district commit to provide contractors with draft runs for regular education routes? For special education routes?

- ◆ Preparation - When should contractors complete dry runs and provide input to the district on them, so that suggestions for improvements can be incorporated?
- ◆ Service Quality Expectations – When does the district expect buses to arrive at schools in the morning – is any time prior to the bell acceptable or should buses arrive 15-20 minutes prior to the bell so that students have time for breakfast?
- ◆ Service Quality Expectations – When and how should contractors notify the OST of irregular operations? How are irregular operations communicated to the schools and parents?
- ◆ Service Quality Expectations – Should all buses be at the schools and ready to receive students when the dismissal bell sounds?

Based on its proposal, Zūm understands the importance of procedures. Although the phrase “standard operating procedure” or “SOP” is only used 5 times in their proposal, there are references to dozens of Zūm procedures. In a May 2024 interview, Zūm indicated to Prismatic that the district “didn’t provide SOPs” to them. Prismatic could not find references to the subject in the data provided, which seems to indicate that Zūm did not make obtaining, reviewing, and discussing existing HCPSS SOPs a high priority.

The lack of discussions regarding expectations and the development of explicit documentation around expectations led the new contractor and district staff to each assume what it wanted. Given Zūm’s prior experience in launching new operations, the lack of discussions and published documents should largely be viewed as a failed action on their part.

Unfamiliarity of New Contractor in New Operations

On Day One 2023, Zūm was notably unprepared to meet district needs and expectations. Zūm’s unfamiliarity extended to both startup activities and routine operations. Zūm had not practiced daily operations sufficiently to know that the processes it followed for handing out keys, handing out tablets, and exiting the bus lot would each be substantial bottlenecks on Day One.

Unfamiliarity with Startup Operations

Beginning a large new operation, there is little evidence that Zūm asked the district the kinds of questions it should have. Zūm was awarded the HCPSS contract prior to the end of the 2022-23 school year. The company could have made multiple visits to observe the ongoing daily transportation operations that might have yielded important insights. The company could have developed an extensive written checklist or

documented the results of focused meetings with district staff to ensure that was launching an operation that met both requirements and expectations. Prismatic could find little evidence that Zūm approached the HCPSS startup in this manner.

Attendants on Special Education Routes

Perhaps nowhere was it more apparent that Zūm did not ask the kinds of questions it should have in starting up operations than the area of attendants on special education routes. On Day One 2023, Zūm attempted to run what a leader in the special education department termed a “substantial” number of its assigned special education routes without an assistant on the vehicle. While an assistant is not an automatic state requirement, it has been the historical HCPSS practice to have one in each special education vehicle, regardless of the vehicle type.

Per Technical Assistance Bulletin 16-01, *Transportation of Children with Disabilities* from MSDE, the decision to assign a bus monitor (attendant) to a student is at the discretion of the IEP team. Thus, it is a special education decision, driven by the specific needs of each student, not solely a transportation decision. However, HCPSS staff indicated that it has long been considered a district “best practice” to have an attendant on every special education vehicle.

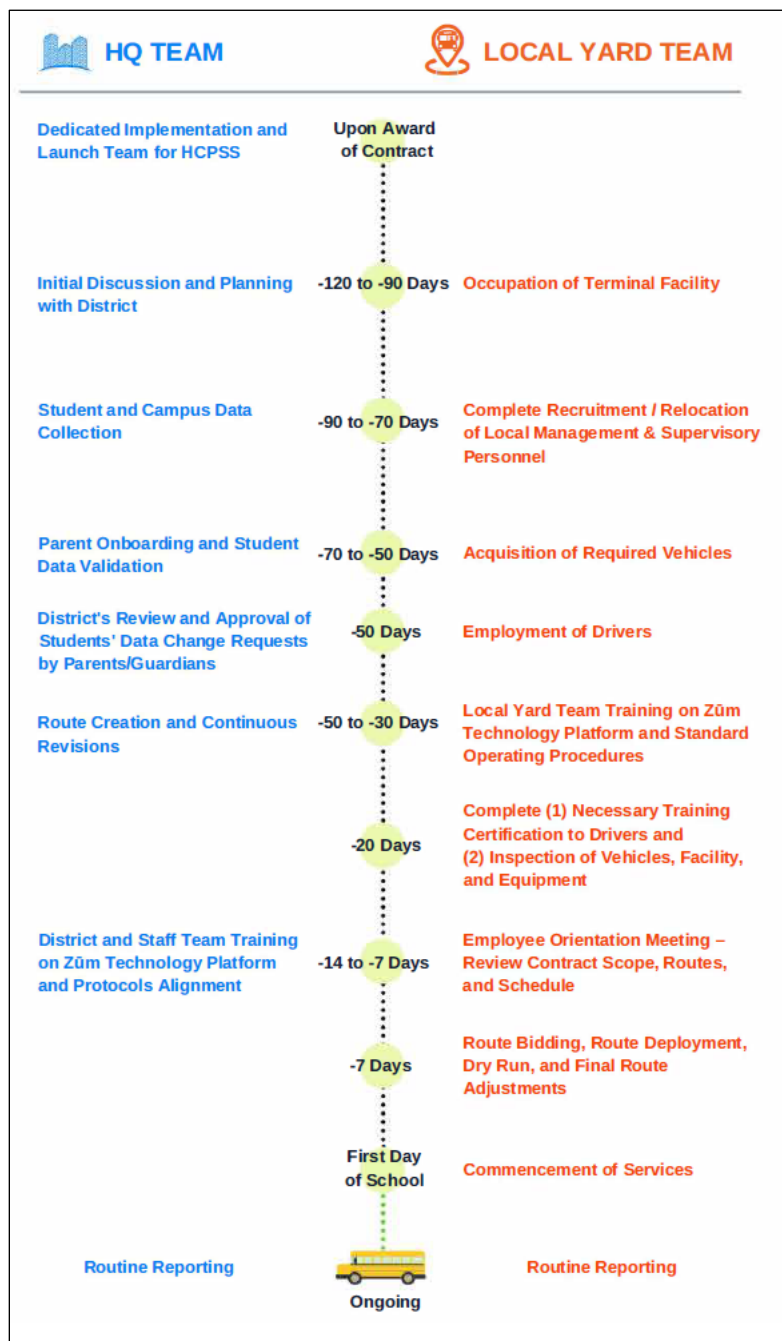
The district’s preference for an attendant on each special education vehicle was not clearly delineated in the district’s Request for Proposal (RFP). However, Zūm did not seek clarification on the subject during the proposal preparation period. Zūm also did not seek clarification on the subject after winning the contract. The district’s standard operating procedures (SOPs) do not clearly define this district-level preference. Had Zūm observed a portion of the ongoing transportation operations in Spring 2023, it is possible they would have seen the 1-to-1 assignment of attendants on the special education routes. Had Zūm requested data along the lines of staff counts for 2022-23 for the portion of the routes most similar to those they were preparing to assume, they might also have noticed the bus attendant staff counts.

Instead, they began Day One 2023 without attendants on a number of special education vehicles. According to HCPSS, district staff were pulled to supplement Zūm staffing for approximately 6 weeks. Staff noted that almost every Zūm special education route had a district employee as an attendant for the first 3 weeks of school. To do this, HCPSS created a pool of 60 staff members (30 for the morning and 30 for the afternoon). The district compensated district staff for those who worked outside their duty day as an attendant, but did not seek liquidated damages from Zūm.

Timeline for Startup

A startup operation of the size Zūm planned required the development, training, and coordination of a large number of people who had not previously worked together or worked with HCPSS. The Zūm proposal included a launch timeline (Exhibit 3-5) that showed a breakdown of responsibilities between Zūm’s headquarters and local staff. District documentation provided to Prismatic does not indicate that this schedule was used after contract award or that passing through the various deadlines noted without completing an item was cause for concern – at least Zūm did not appear to express concerns of that nature to HCPSS.

Exhibit 3-5
Timeline Graphic Included in Zūm Proposal



Source: HCPSS, 2024.

Zūm does not appear to have provided the district with a timeline that was based on its previous startup experiences or that allowed for bumps in the road. As a district that had little experience in onboarding new contractors and no experience in onboarding such a large new contractor, Zūm's experience in this area would have been valuable, had it been effectively provided.

Unfamiliarity with Routine Operations

Prior to, on, and after Day One 2023, Zūm made errors that seemed to indicate a lack of familiarity with routine school transportation operations. Beyond the previously mentioned problems with getting 200+ buses out of a single lot in a timely manner, Zūm made assumptions that were largely proven incorrect, assumptions that a more seasoned contractor would have been unlikely to make. For example:

- ◆ Zūm seemed unprepared for driver callouts, then had “no plan B” for when drivers called out. Some interviewees felt this was a “rookie” mistake.

Zūm started the 2023-24 school year assuming that employing 110% of the drivers needed for its assigned routes would be sufficient. In an interview in May 2024, Zūm noted that they had 249 drivers plus 15 extra which equated to 10% spare drivers⁴, but that they had determined that 10% for spare drivers was too low. Zūm had found that their HCPSS driver callouts were “closer to 20% daily.” Prismatic could not find any national or regional historical data that would provide definitive figures as to what the correct driver overage should be, but asserts that 10% would be overly optimistic for most school transportation operations. Other clients routinely had daily shortages due to drivers using leave of 20%+, even prior to COVID-19. Post-COVID, some districts routinely record driver outage rates of 30%+, particularly on Fridays and Mondays. In a June 2024 meeting with Prismatic, Zūm staff expressed surprise that they had 55-60 driver callouts on the Friday of high school graduation, as many of their drivers had children graduating. Yet, this is a typical challenge in a school district.

It is typical for districts to experience driver outage rates of 30%+, particularly on Mondays and Fridays.

The district’s RFP required a 10% spare ratio for contractor vehicles, but was silent on the number of spare drivers. None of the prospective proposers asked the district about historical data regarding the number of spare drivers that might be needed. It does not appear that between contract award and Day One 2023 that Zūm attempted to gather data on what might be the local historical driver callout levels, nor to be overly cautious and staff in excess of what might be needed for at least the first few weeks.

⁴ Prismatic was unable to determine how Zūm came to the May 2024 10% figure. As of June 2024, Zūm was responsible for 205 bus and 13 van routes for a total need of 218 drivers. The figure of 249+15 cited in May 2024 would yield a total of 264 drivers. For 218 routes, that would lead to a 21% spare factor $((264-218)/218)$.

- ◆ In 1 meeting, a district staff member was told by Zūm that an entire class of 25 drivers would graduate the following week. Instead, only 3 graduated. It is normal for a portion of aspiring drivers to fail to complete training and frequently it is normal for a majority to fail to complete training.
- ◆ The system established to communicate with the district about route changes was not in place prior to Day One 2023.
- ◆ No system for receiving, managing, and responding to field trip requests was in place prior to Day One 2023.
- ◆ No system for receiving, managing, and responding to athletic trip requests was in place prior to Day One 2023.
- ◆ No system for handling driver reports of student misconduct was in place prior to Day One 2023. Until approximately a month into the school year, Zūm did not have either an app on its tablets or paper forms on its buses to report student behavior problems. This problem was discovered by HCPSS staff. A bus misconduct form was included in the 2023-24 Startup Booklet distributed to bus contractors. Chapter 10 of the *School Bus Driver and Attendant Manual* developed by HCPSS also references a discipline referral form.

Another example of Zūm’s apparent ignorance of routine operations was provided by OST staff. For a particular apartment complex, the designated pickup point is in the back of the complex. Zūm instead stopped at the front of the complex, had no students board, then left. A seasoned bus contractor would know it is unlikely that a bus stop with a fairly high number of students assigned to it would have zero students show up for the bus. In such a situation, a seasoned contractor would raise the issue with the school district to identify the problem. Zūm did not identify picking up no students to be a problem.

Lack of Practice

The events of Day One 2023 provide ample evidence that Zūm did not sufficiently practice operations leading up to it. As a contractor with experience in other school districts, it is not apparent why Zūm failed to practice operations sufficiently.

Despite occupying a large lot on Dorsey Run Road for several months and knowing that they were expected to dispatch ~230 buses from this bus yard, Zūm did not anticipate delays in distribution of bus keys out of a single dispatch trailer followed by the dispatch of tablets in a separate line. Likewise, Zūm did not anticipate traffic snarls as 200+ buses tried to leave the lot via a single exit point at the same time.

Zūm’s timeline, as documented in emails, was to hold bid day on August 21st and then to complete dry runs August 23-25. Planning to complete dry runs on the last business day before the start of school is not a best practice. It provided no time for route modifications. It provided no time for drivers to practice their routes multiple times or to seek clarification if the route directions did not make sense. It provided no time for drivers to make suggestions that could improve the routes. It does not appear that Zūm communicated this timeline to district staff before August 20th. The timeline communicated by Zūm in its proposal was that Route Bidding, Route Deployment, Dry Run, and Final Route Adjustments would be completed 7 days prior to the start of school.

A former district staff member who was onsite at the Zūm lot the day after Day One 2023 remembered it as being a “disaster” and stated that it was district staff who instructed Zūm managers to assign a staff member to direct traffic on Dorsey Run Road so that buses could exit the lot. Another indicated that it was an HCPSS staff member who told Zūm to revise its process of key and tablet distribution so that buses could leave the lot closer to the desired times. There is no reason that district staff should have anticipated that a veteran contractor would have difficulties with these kinds of routine operations. According to district staff at the time, the onsite Zūm manager was fired within the 1st week of school.

These substantial Day One 2023 problems are strong indications that Zūm failed to complete dry runs in a best practices manner. Had they done so using the draft routes provided weeks before the opening of school, it is probable they would have identified and corrected these logistical challenges prior to Day One 2023.

Zūm did not dry run the final routes received the weekend prior to the start of school, even though they knew they were receiving final runs that differed in some respects from the draft runs they previously received. When the district provided the draft runs 2 weeks prior to the start of school the former transportation director was told in a phone call from Zūm that the routes could not be further optimized using the Zūm software, indicating that HCPSS had provided routes that were already “optimized” in the opinion of Zūm. However, Zūm provided no written documentation of this route analysis. This may have contributed to a lack of concern on the part of the OST when Zūm provided no written documentation of the results of dry runs for the final routes. It was not until the afternoon of Day One 2023 that Zūm first raised the issue of perhaps the route timing was too tight. Zūm contacted the HCPSS chief academic officer and stated, “We are still not sure there is enough time...” Had Zūm properly tested the route system via dry runs (either draft or final), they likely would have discovered any substantial timing problems prior to the start of school.

In multiple interviews, district staff and some school board members faulted a lack of “stress testing” of the planned SST changes. However, the district did sufficiently model the new routes with the new SSTs in its routing software. The district had assurances from its hired consultant, DSG, that the new SSTs were possible, based on their modeling work. Among the OST staff, leading up to Day One 2023, most believed that new SSTs could work, an indication that they were not holding back bad news, but rather that they were working in good faith on a workable plan.

Routing software does calculate travel times between stops and allow route planners to assess whether a particular run can be completed in the allotted time. However, unlike Google maps or mapping software individuals might use in their personal vehicles, school bus routing software typically does not have built-in data that would assume slower or faster travel times on a particular road due to historical traffic conditions. School bus routing software would calculate a travel time that would be sufficient under most conditions, but might miss that traffic is particularly heavy and therefore slow between 7:00 and 7:15a during a shift change outside a military base. For that reason, dry runs are invaluable in assessing and adjusting planned bus routes. However, the district owns no school buses and has no drivers on its payroll. The district cannot fully “stress test” any routes without the assistance of its contractors.

In the immediate aftermath of Day One 2023, district staff correctly pointed out that Zūm failed to run 20 routes at all, ran ~20 completely incorrect routes, ran another ~20% of their routes incorrectly,⁵ and ran late on ~100 routes. However, with a lack of internal district technology available to home in on these specifics and to further identify that it was Zūm as the source of most of the difficulties experienced on Day One 2023, the narrative was influenced by Zūm officials. As stated by a staff member, the school board and district leaders “started to listen to Zūm instead of internal people.” Zūm then began to state the SSTs were not workable, ignoring the months before the start of school when they could have been analyzing bus needs relative to the planned SSTs and the weeks before when they could have been practicing the draft routes to prove or disprove the viability of their assigned routes vis-à-vis the new SSTs.

Technology Failures

Perhaps the most surprising area of failure was in the area of technology. Zūm promoted technological operations that were not fully complete or not highly innovative. In contrast to an industry magazine article

⁵ 20-30% was the staff estimate of the minor adjustments made between the draft and final routes

published in November 2023⁶ and the promises made in its proposal and press releases, the Zūm rollout included several technology failures:

- ◆ There was no dashboard to provide district staff with daily updates on key indicators during preparations for Day One 2023.
- ◆ At least one needed technology-enabled process was not built prior to Day One 2023.
- ◆ The Zūm numbering system did not match that used by the district and was not adjusted for Day One 2023.
- ◆ There was no application programming interface (API) in place between Tyler and Zūm until after Day One 2023. **This was a critical failure point.**

Technology Failure – Preparations Updates

Summer 2023 was busy for both Zūm and the OST. After being awarded the contract in February 2023, Zūm needed to secure a bus lot, acquire 200+ buses, hire drivers and attendants, learn HCPSS processes and preferences, and prepare for the 2023-24 school year. The lack of documentation available seems to indicate that Zūm did not apply typical project management tools to these efforts. The district was not kept routinely well-informed of the status of Zūm’s efforts beyond vague email and oral assurances.

In its proposal to serve HCPSS, Zūm included a graphic indicating their ability to manage the startup of new operations (Exhibit 3-6). None of the district staff Prismatic interviewed said they observed the use of something similar. Use of something similar would have helped ensure that Zūm implementation remained on schedule and provided accurate status updates to HCPSS.

⁶ <https://stnonline.com/partner-updates/Zūm-case-study-transportation-lessons-from-the-2023-2024-school-year-launch/>

Exhibit 3-6
Graphic Included in Zūm Proposal

Sample Project Tracking/Launch Planning Template

Today: 5/30/2021					
Task Name	Duration	Start by	Finish by	Status	
Facility Access Date	1		Thu 7/1/2021	On Track	
Driver Start Date	1		Mon 7/19/2021	Not Started	
Start of Service	1		Mon 8/2/2021	Not Started	
New Location Start-up Plan	139	02/12/2021	07/01/2021	27%	
Move in Process for Facilities Dept.	14	Sat 5/1/2021	05/15/2021	Completed	
Photograph facility for condition of property	14	Sat 5/1/2021	05/15/2021	Completed	
Complete move-in condition checklist	14	Sat 5/1/2021	05/15/2021	Completed	
Submit photos and checklist to Facilities	14	Sat 5/1/2021	05/15/2021	Completed	
Move into Facility	14	Sat 5/1/2021	05/15/2021	Completed	
Review valuation model for OE and CE expense items	7	Tue 5/25/2021	06/01/2021	Completed	
Review outstanding items required for purchase	7	Tue 5/25/2021	06/01/2021	Completed	
Procurement Setup	77	Tue 3/30/2021	06/15/2021	Completed	
Set up site approval hierarchy for purchasing	3	Sat 5/29/2021	06/01/2021	Completed	
Set up item master for location	3	Sat 5/29/2021	06/01/2021	Completed	
set up national account vendors for location	3	Sat 5/29/2021	06/01/2021	Completed	
Identify local suppliers and services	60	Fri 4/2/2021	06/01/2021	Completed	
Identify all suppliers for goods and services	5	Thu 5/27/2021	06/01/2021	Behind Schedule	
Obtain W9's for each supplier	5	Thu 5/27/2021	06/01/2021	On Track	
Submit W9's and Supplier Creation Form to AP	5	Thu 5/27/2021	06/01/2021	On Track	
Create Supplier in Oracle	2	Sun 5/30/2021	06/01/2021	On Track	
Environmental Permits	46	Tue 3/30/2021	05/15/2021	On Track	
Conduct Phase 1	46	Tue 3/30/2021	05/15/2021	On Track	
Obtain SPCC Plan	20	Sun 4/25/2021	05/15/2021	On Track	
Obtain SWP	20	Sun 4/25/2021	05/15/2021	On Track	
Business Licenses	148	Wed 2/3/2021	07/01/2021	Not Started	
Complete business license checklist	5	Thu 5/27/2021	06/01/2021	Not Started	
Review and assess need for business license	5	Thu 5/27/2021	06/01/2021	On Track	
Apply for business license(s)	5	Thu 5/27/2021	06/01/2021	On Track	

Source: Zūm proposal, 2023.

The district provided evidence of multiple google meets meetings between OST and Zūm staff leading up to Day One 2023. Written documentation of the results of those meetings does not appear to exist. In the weeks leading up to Day One 2023, there are references to a “weekly update” being provided by Zūm, but this seems to have been handled orally, with occasional updates via email. The email updates Prismatic reviewed were neither comprehensive nor provided regularly.

In the early morning of Day One 2023 before buses began to roll, Zūm staff provided an email update that read in part:

We were able to secure enough buses to run all 230 routes...All routes are assigned with vehicles and drivers for Day 1. We have:

228 certified school bus drivers in the system

33 white van routes and drivers in the system

There was no mention of the number of bus attendants available.

Leading up to Day One 2023, the provision of similar figures by Zūm was infrequent. A simple shared googlesheet with space for all critical figures

to be updated weekly would have provided HCPSS with far greater transparency into Zūm’s startup operations.

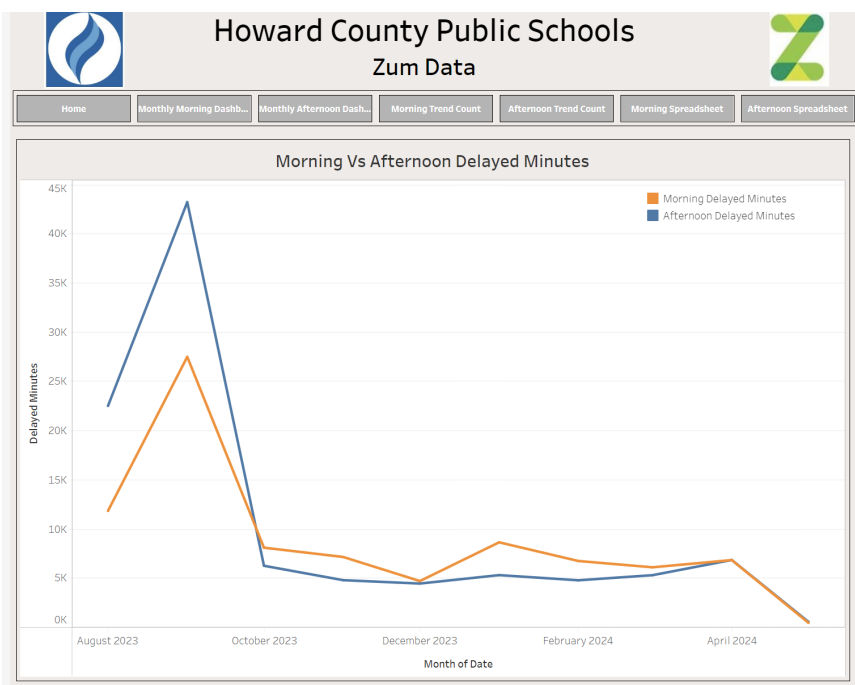
Technology Failure – Lack of Built Processes

Zūm did not come to HCPSS prepared with technology-based processes for routine operations. Examples of this include:

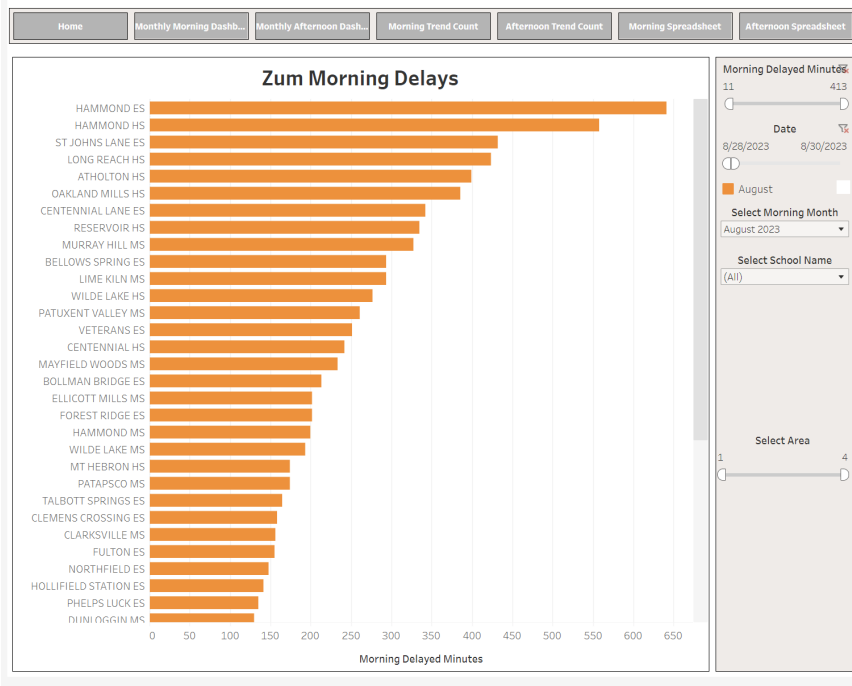
- ◆ a system for reporting delayed bus operations at the contract level – While the Zūm technology provides information on individual bus problems, it doesn’t provide overall operational data in a format that HCPSS staff can quickly review. As of April 2024, OST staff was building an overlay to the Zūm data feed in order to provide this kind of visibility (Exhibit 3-7).⁷

Exhibit 3-7

OST Development of Bus Operations Dashboard



⁷ It should be noted that as OST staff is developing this capability, they are identifying issues with the accuracy of the data in the Zūm feed.



Source: HCPSS, 2024.

- ◆ a system for handling field trip requests – Zūm was initially unaware that field trip requests would come individually and not in bulk like the athletic schedules. They seemed to have been unaware as late as August 15th that some field trips would occur as early as the 1st week of school. Once the former director of transportation asked them on August 16th about their process for handling field trips (because principals began complaining that they were not receiving responses from Zūm), Zūm's response was "We will send a process to you today to share – likely a google sheet for request and a specific email as well."
- ◆ a system for verifying athletic schedules – District documentation indicates that coordination over transportation for athletics did not begin in earnest with Zūm until mid-August 2023. At that point they were notified as to which schools they were to serve. A few days later, district staff provided athletics schedules for all but 1 assigned school. This was a district oversight, but Zūm did not catch it until it failed to provide expected service on August 16th.
- ◆ a system for tracking route change requests – In the final days before Day One 2023, some route changes were communicated via email – the stop order and location for 1 student on 1 route was communicated in an email from OST staff to Zūm on August 26th, for example. At that point and in the 1st several weeks of school, Zūm did not appear to have an established process and technology-driven solution to receive routes changes from the

district and to communicate their implementation. As of June 2024, the district and Zūm were using a google sheet to manage immediate requests for route adjustments. For routine adjustments, the Zūm and Versatrans systems communicate nightly and those changes ultimately populate to the tablets Zūm drivers use. The navigation system on the Zūm tablet does indicate to the driver when something has changed. However, Zūm does not appear to have a method for tracking such routine changes at an overall contract level.

A system for analyzing operational data at the district level would be fairly routine for most large districts. An online form and documented process including deadlines for how far in advance requests must be submitted for athletics trips, field trips, and route changes would be a routine item in transportation operations, whether in-house or outsourced.

Technology Failure – Bus Numbering

Although low-end “technology,” Zūm’s bus numbering system was also an indication of their insufficient preparation for Day One 2023. The Zūm system uses 6-digits for their buses. However, the HCPSS nomenclature has historically been a 4-digit number. The 4-digit numbers were communicated to Zūm during the process of sharing draft and then final bus routes. The 4-digit numbers were also communicated to HCPSS families and schools. It should have been noted by Zūm that they needed to adapt their bus numbering to reflect the numbering given to them.

Instead, Zūm began Day One 2023 without any signage on its 200+ buses that reflected the 4-digit numbering. This created confusion when multiple buses, en route to different schools, traveled through Howard neighborhoods. Without a concordance, families and students had no way to visually confirm which bus was which. According to district staff, the buses remained without the needed 4-digits codes prominently displayed on them for approximately 1.5 weeks of school, at which point district staff provided printed signs to Zūm.

Technology Failure – No API

Both the district’s route planning and Zūm’s route management use technology systems. The district uses the Tyler software product Versatrans to develop all of its bus routes. Zūm uses its own software to feed route information to the tablets on its buses. Leading up to Day One 2023, there was no API in place between these systems. Instead, the district provided Zūm electronic copies of route sheets (the same pdfs provided to other contractors) and an electronic download of Versatrans data that was essentially a list of students and stops. Zūm did not inform staff that the translation of the electronic data to populate their tablets required ~4 days. As a result, Zūm did not run the final routes provided

An API is software that enables 2 software components to communicate with each other using a set of definitions and protocols.

by HCPSS the weekend before Day One 2023 and instead ran the draft routes.

When 2 software systems need to share data, an API can make the process automatic and routine. For example, the HCPSS student information system, PowerSchool, communicates nightly with Versatrans to inform it of new students who need to be routed, changes in student addresses, etc. The Tyler API is called OnBoard iPaaS.⁸ The difference between an API and the electronic data HCPSS provided up through Day One 2023 is that the API provides to Zūm the fully developed routes, which would include stops the district wants but that might not yet have students assigned, the specific streets to use, turn-by-turn directions, etc. HCPSS staff understood that Zūm was to use the paper routes sheets to verify that its translation of the electronic data into its system was completed correctly. Prismatic could not find evidence that Zūm provided to the district any kind of written documentation that it had completed comparisons of the paper sheets and the data it populated into its tablets.

HCPSS staff raised the API issue with Zūm leading up to Day One 2023. One staff member reported that Zūm stated early in the onboarding process that they already had a “data feed” with Tyler, implying the presence of an API between the 2 software systems that could be used in HCPSS. However, as of July 15, 2023, HCPSS staff determined this was not true. At that time, Zūm asked the district to devote staff time to essentially develop an in-house API for them. The district declined as it did not have the staff resources available, and the Tyler API was already available. Staff indicated that this problem was known as far up the leadership ranks as the previous chief operations officer and they assumed that the superintendent was informed.⁹ When OST staff met with Zūm about it, district staff said that Zūm termed it a “minor problem.” There is documentation that Zūm indicated it was discussing the API with Tyler as early as July 19, 2023, but that the required non-disclosure agreement was “with legal department.” By the middle of August 2023 Zūm was telling district staff said it would take too long to develop API calls from their system to Tyler.

Instead of establishing an API between Versatrans and Zūm, Zūm chose to receive an electronic file from OST staff. This file was not automatically sent to Zūm, but was created each time the OST sent routes to Zūm. This required OST staff time that should not have been needed. This was also an imperfect solution that would have been better addressed by Zūm contracting with Tyler for OnBoard iPaaS.

One result of not establishing an API was that Zūm needed to devote time to verifying the electronic data from HCPSS with the paper route sheets

⁸ <https://www.tylertech.com/products/onboard-ipaas>

⁹ Neither the previous superintendent nor the previous chief operating officer responded to Prismatic’s request for an interview.

from HCPSS. OST staff asserted that Zūm was told “in no uncertain terms that the paper copies were the data that they must go by as that absolutely matched our system.” Prismatic did not find documentation that Zūm did a rigorous comparison of the electronic data and the pdfs leading up to the start of school, until the weekend before. At that point, a Zūm staff member noted:

We received the data. We will validate and focus on importing SPED routes first. Some caveat: We get multiple files from [HCPSS]. All of those files are not generated at the same time at their end. Some of them were generated at 7p EST or 9p EST. So, there will be some inconsistencies with what we received from [HCPSS] through route sheets, which we got around 1a EST. Will validate the data. Should be OK for our processing. We will get one more data refresh tomorrow morning.

Then, the day before school started, a Zūm staff member stated in an email about special education routes:

there are still many discrepancies between pdf routsheets sent via email and data transferred via FTP - there are routes missing or students missing in one vs another source of data. We have done our best to stitch this together to the best of our knowledge.

Zūm did not provide specific examples or quantification, so it is not possible to determine the extent of the problems they noted (or whether they were truly problems, as what Zūm described could have been problems with their processing of the received data). The same email and subsequent emails did not raise the same concerns about regular education routes, so it is not known if Zūm saw the same kinds of problems with those data at that time or not. It should be noted that in the same email Zūm noted that they had contacted all special education families with transportation details and did not explicitly raise it as a strong concern that they might not have all the special education students covered.

Another result of Zūm relying on something other than an API with Tyler was that Zūm needed 4 days from receipt of the electronic file before the data populated their tablets. With that timeline, there was no way Zūm could have expected to use the final routes provided by the district’s electronic data in the early morning hours the Saturday before Day One 2023. There is no evidence that Zūm informed the district of this timing problem prior to Day One 2023. Although the district also provided the pdfs of the final routes at the same time, it appears that Zūm did not direct drivers to rely upon the paper sheets in cases where the paper and the tablets disagreed. In fact, district staff indicated that HCPSS printed the route sheets for Zūm a few days after the first day of school, which would indicate that Zūm did not on its own provide paper route sheets to their drivers for Day One 2023.

In the week after the start of school, OST and Zūm staff met to address the lack of an API. According to district staff, Zūm was initially unwilling to pay for the API and wanted the district to somehow be in between Tyler and Zūm, as Zūm saw Tyler as a competitor. It was not until 4 days after the start of school that Zūm reached out to Tyler to contract for an API. District staff indicated that at no point did Tyler demonstrate any unwillingness to provide the API, only that Zūm, as the recipient of the data feed from Versatrans, would need to complete the non-disclosure agreement and pay the annual fee (estimated to be \$15,000 - \$20,000).

The lack of an API between Verstrans and Zūm, along with Zūm's failure to inform the district of the processing time required to use the electronic data provided via the manual download (compounded by not then relying upon the pdfs provided by the district), was a critical point of failure on Day One 2023. **It resulted in Zūm running the wrong routes on Day One 2023.**

Zūm confirmed to HCPSS that they obtained access to Tyler's API on the afternoon of September 6, 2023. At that point they stated, they were "beginning to review the data" from the API.

Zūm now does rely upon the Tyler API to receive data updates from HCPSS. As of April 2024, the lag between receipt of new/updated data via the API and the population of the Zūm tablets is 2 days. OST staff is aware of this lag; OST and Zūm have a communication system and process in place that accommodate this timeline as routing changes are made.

Lesson Learned #3

In assessing the lesson of Root Cause #3, Prismatic concluded that the district placed too much faith in the new contractor and that the new contractor did not rise to meet expectations. Historically, the OST had not made use of technology to monitor the performance of legacy bus contractors and was potentially unaware of some problems. The HCPSS principals, in their survey, asserted that 2022-23 operations were not perfect. Once deadlines were ignored and new burdens were added to plates of an insufficient number of OST staff, there were not enough hours left in the day to develop new systems to check the readiness claims of the new contractor. In simple terms, HCPSS violated the adage attributed to business management icon W. Edwards Deming, "In God we trust. All others must bring data."¹⁰

Lesson Learned #3

How can the district efficiently and effectively monitor the performance of contractors?

¹⁰ Walton, M., *The Deming Management Method*, (1986).

As the district takes on new initiatives in the future, Prismatic recommends that it answer this question:

How can the district efficiently and effectively monitor the performance of contractors?

Prismatic's recommendations for answering this question in relation to bus contractors are provided in Chapter 4 of this report.

Chapter 4

Conclusions and Recommendations

Conclusions

The 1st internal study on the subject characterized the events surrounding Day One 2023 as a “tangled mass of misevents.” Thinking though of these events as a ball of knotted strings from which the root causes can be untangled as separate, distinct strings is not an analogy that works fully because the causes were not separate, physical items but instead were choices, approaches, policies, practices and decisions with bearings on each other and the outcome of the opening day events. Nor were the events on and before Day One 2023 a “perfect storm” as some interviewees termed it. The events and developments surrounding Day One 2023 were not the products of nature; they were man-made, or, in too many instances, the result of people not making decisions or completing tasks on time.

As to whether the original new school start times (SSTs) were a root cause, Prismatic could not reach a definitive conclusion. While it is possible that the originally planned routes to accommodate the new SSTs, reducing the transportation window by 45 minutes in the morning, were “simply too tight” as many have assumed, in truth the district never road tested those routes. Zūm, the largest contractor, never completed dry runs on the final routes, ran the draft rather than the final routes on Day One 2023, and also suffered from myriad operational problems unrelated to route timing but which impacted their ability to meet planned schedules. The other contractors seemed to have and reported having fewer difficulties meeting the time demands of the new SSTs but may also have fewer runs per bus than Zūm.

After reviewing available documents/files, interviewing HCPSS leadership and staff, interviewing several persons not employed by HCPSS, observing a sample of routine transportation operations, and surveying



principals and contractors, the Prismatic team concludes that a number of root causes gave rise to the problems experienced on Day One 2023:

- ◆ unfilled staff positions in the Office of School Transportation (OST)
- ◆ a lack of deadlines or failure to meet deadlines
- ◆ overconfidence in and overconfidence of the new bus contractor

In order to be of most use to the district, Prismatic sought to draw a lesson from each root cause that might then be applied to district considerations and actions moving forward. As the district takes on new initiatives in the future, Prismatic recommends that it answer these questions:

- ◆ If current staff are already fully employed, how can they implement new initiatives, which often require additional staff time?
- ◆ If a mandatory dependency or an activity on the critical path is delayed, can the district overcome it, or should implementation be delayed?
- ◆ How can the district efficiently and effectively monitor the performance of contractors?

Driving Forward

School districts are rarely stagnant. In the wake of Day One 2023, HCPSS implemented a number of changes as part of its recovery efforts. To be most useful to the district, Prismatic assessed the district's progress in transportation operations. Overall, Prismatic found that district staff had addressed or begun to address many of the underlying problems over which they had control and were aware of the underlying problems they could not control. Central office administrators outside of the OST noted they have observed improvements. One stated they now view transportation as a "strength" of the district.

In 9 observations of morning arrivals and afternoon departures, Prismatic found only 1 bus arriving after the start of school (Exhibit 4-1).

Exhibit 4-1
Results of Bus Observations, April 2024

	School Start Time		
	7:50a	8:30a	9:25a
# of schools observed in morning	2	1	2
# of schools where at least 1 bus arrived after start of school	0	0	1 (Sped)
# of schools observed in afternoon	2	1	1
# of schools where at least 1 bus arrived 15-30 minutes after dismissal	0	0	0
# of schools where at least 1 bus arrived >30 minutes after dismissal	0	0	0

Via the survey, school administrators also noted that much was going well in school transportation by April/May 2024 (Exhibits 4-2 and 4-3). A majority of school administrators rated transportation professionalism and reliability as excellent or good for both regular and special education routes. However, some work remains. More than 10% of school administrators rated transportation operations as poor or very poor in a number of areas.

Exhibit 4-2
School Administrator Ratings of Regular Education Transportation
As of April-May 2024

	Excellent/ Good	Average	Poor/ Very Poor
Professionalism	67%	25%	8%
Reliability	59%	26%	15%
On-time Performance	62%	27%	11%
Communications	46%	34%	19%
Student Behavior Management	36%	38%	27%

Exhibit 4-3
School Administrator Ratings of Special Education Transportation
As of April-May 2024

	Excellent/ Good	Average	Poor/ Very Poor
Professionalism	61%	31%	8%
Reliability	57%	27%	16%
On-time Performance	48%	28%	24%
Communications	49%	37%	13%
Student Behavior Management	54%	31%	16%

In April 2024, HCPSS felt the need to complain in writing to a bus contractor who was still experiencing multiple route delays/cancellations daily. Staff within the Office of School Transportation (OST) had begun to develop systems for monitoring all bus operations in real time and to be able to provide excellent overview data, but the systems were not yet complete. Finally, while 41% of school administrators indicated that transportation was either “much better” or “somewhat better” compared to 2022-23, 27% reported it was “somewhat worse” or “much worse.”

Finally, both the request for proposal and individual school board members requested further explorations into how the HCPSS school transportation program could continue to improve. The rest of this chapter is devoted to meeting those requests.

Key Performance Indicators

The OST does not routinely use key performance indicators (KPIs) to monitor bus contractor performance and support continuous improvement. As a result, the department has few ways to assess performance, gauge progress, or report on operations to constituents.

In *Best Practices in Student Transportation* (Roberts, 2013), the author emphasizes how critical it is to share the results of KPI collection and the need to make the collection and distribution process transparent so that others will have trust in the findings. Exhibit 4-4 provides example transportation performance metrics, drawn from work originating from the Council of the Great City Schools (CGCS). The 2021-22 figures are the most recent ones available from CGCS. HCPSS is not a member district of the CGCS, but could still glean valuable insights from the annual data provided. For many of these metrics, the best value to a school district lies in analyzing them over time.

KPIs are the standards by which school transportation can be judged. They provide an objective view into the true efficiency and effectiveness of the transportation operation.

Exhibit 4-4
Example Transportation Performance Metrics from CGCS

Metric	Definition	CGCS Median in 2021
Average Age of Fleet	Average age of bus fleet	8.5 years
Cost per Mile Operated	Total direct cost plus total indirect cost plus total contractor cost of bus services, divided by total miles operated	\$5.96
Cost per Rider	Total direct cost plus total indirect cost plus total contractor cost of bus services, divided by number of riders	\$1,234
Cost per Bus	Total direct cost plus total indirect cost plus total contractor cost of bus services, divided by total number of buses	\$70,293
On-Time Performance	One minus the sum of bus runs that arrived late, divided by the total number of bus runs over two	99.882%
Bus Equipment – GPS Tracking	Number of buses with GPS (Global Positioning Software) tracking, divided by total number of buses	100%
Accidents – Miles Between Accidents	Total number of transportation accidents divided by total miles driven	42,698
Accidents – Miles Between Preventable Accidents	Total number of transportation accidents that were preventable divided by total number of miles driven	101,659
Bus Fleet – Alternately-Fueled	Number of alternately-fueled buses, divided by total number of buses	20%
Bus Fleet – Daily Buses as % of Total Buses	Number of daily buses, divided by total number of buses	81%
Bus Usage – Daily Runs per Bus	Total number of daily bus runs, divided by total number of buses used for daily yellow bus service	3.88
Fuel Cost as % of Retail – Diesel	Per gallon price paid by the district for diesel, divided by the per-gallon price of diesel at retail	92.8%
Fuel Cost as % of Retail – Gasoline	Per gallon price paid by the district for gasoline, divided by the per-gallon price of gasoline at retail	92.9%
Daily Ride Time – General Education	Average one-way (single trip) daily ride time, in minutes – general education students	32
Daily Ride Time – SWD Students	Average one-way (single trip) daily ride time, in minutes – students with disabilities	39

Source: CGCS, compiled by Prismatic, 2024

In another example, the Texas Legislative Budget Board administers a robust schedule of comprehensive school district performance reviews in its state. They consider the metrics shown in Exhibit 4-5 to be critical areas for measurement in transportation operations for school districts of all sizes.

Exhibit 4-5
Example Transportation Performance Metrics Texas School
Performance Review Program

Cost Efficiency	Cost Per Mile Cost Per Bus Cost Per Student
Cost Effectiveness	On-Time Performance Spare Bus Ratio Driver Absentee Rate Average Student Occupancy Rate
Safety	Accidents Per 100,000 Miles Student Behavior Incidents Per Month
Maintenance	Preventative Maintenance Inspections On-Time Bus Fleet Miles Per Gallon (Diesel) Miles Between Road Calls (Reactive Maintenance) Maintenance Cost Per Bus (Annual Report)

Source: Texas Legislative Budget Board School Performance Review Team,
 December 2016

In *Best Practices*, Roberts recommends collection and study of KPIs related to accidents, costs, inclusion of classified students on general education buses, complaints, on-time performance, actual ridership vs. bus capacity, spare bus availability, bus fleet age, bus inspections, driver turnover, and more. In *Managing for Results*, CGCS recommends some of the same and other related KPIs for measuring safety, efficiency and economy.

Prismatic recommends that HCPSS consider the adoption of 5-7 KPIs for regular analysis and reporting. The OST should capture performance data from a set period to establish a baseline. The OST staff should regularly analyze actual financial and operational performance against the selected benchmarks to determine where improvements are needed. Annually, the OST should report on transportation performance, including areas of efficiency, effectiveness, as well as areas in need of improvement. Quarterly performance should be published on the department's webpage in a dashboard format. Prismatic recommends the metrics shown in Exhibit 4-6 as a starting point.

Exhibit 4-6
Recommended Transportation Department Performance Metrics

Metric	Refinement
Cost per Mile Operated	This should be reported broken down by regular/special education and by individual contractor.
On-Time Performance – Morning	This should include an analysis of the number of buses that arrive late (less than 10 minutes prior to the start of school), that arrive really late (after the start of school), and that arrive too early (more than 20 minutes prior to the start of school).
On-Time Performance – Afternoon	This should include an analysis of the number of buses that arrive for afternoon pickup late (after student dismissal) and really late (more than 20 minutes after student dismissal).
Accidents – Miles Between Preventable Accidents	Total number of transportation accidents that were preventable divided by total number of miles driven.
Daily Ride Time – General Education	Average one-way (single trip) daily ride time, in minutes – general education students.
Daily Ride Time – Special Education Students	Average one-way (single trip) daily ride time, in minutes – special education students.
Service Complaints	This should be reported by complaint type and bus contractor.

Source: Prismatic, 2024

Liquidated Damages

The district lacks systems to provide consistent hands-on oversight of the bus contractors. As a result, the district has not historically assessed liquidated damages as a way to penalize poor contractor performance and to ensure compliance with the terms of the bus contracts.

On the survey, school administrators gave several indications that bus contractors were not routinely providing high quality services. In interviews, central office staff also indicated that they are aware that at least some bus contractors were not routinely providing high quality services. The older HCPSS contracts do not contain explicit language regarding liquidated damages, which may have made the development of processes for assessing them difficult. The newer contract incorporates some liquidated damage specifics via the district's Request for Proposal,¹ but these were not used until March 2024. Yet, liquidated damages can be an effective tool in both establishing service expectations and incentivizing contractors to meet those service expectations.

The district's bus contracting RFP includes a performance management section that seeks to define "minimum services levels and standards of

¹ <https://purchasing.hcpss.org/sites/default/files/2022-10/019.23.B3%20Student%20Transportation%20Services%20RFP.pdf>

performance.” As written, the 4 minimally acceptable standards and the liquidated damages are a bit confusing, but appear to assess these penalties:

- ◆ 100% of the daily contract rate when a route is not operated due to a lack of driver or monitor
- ◆ 75% of the daily contract rate, multiplied by the percentage of delayed routes multiplied by 5, when more than 2% of a contractor’s vehicles in a week or month are delayed by more than 5 minutes²
- ◆ 50% of the daily contract rate, multiplied by the percentage of delayed or missed routes multiplied by 5, when more than 2% of a contractor’s routes in week or month are delayed or missed because of a mechanical problem
- ◆ 25% of the daily contract rate each time a contractor fails to report every incident of delay or injuries to students within 15 minutes of occurrence.

While a solid start, these penalties are somewhat open to interpretation, do not penalize for each individual instance of a poor performance, and could potentially lead to no penalties for larger contractors despite subpar performance. For example, a contractor with 100 HCPSS routes could consistently be late on 1 of its routes by an hour each day and, because that is only 1% of its routes, would not face a penalty. The same contractor could be consistently late by an hour on 15 routes on a particular morning, but with 100 morning and 100 afternoon routes each day, that would only equate to 1.5% of the routes for the week, so no penalty would be applied.

Other Maryland districts have laid the groundwork for assessing liquidated damages on a per incident basis, which is likely easier to monitor and to assess penalties. Anne Arundel County Public Schools includes numerous items in its contract for which contractors are fined, including:

- ◆ failure to perform any or all portions of a route or trip per day as assigned – \$100 fine per incident
- ◆ failure to have an aide on the bus when required by the district – \$100 per incident

² The RFP appears to reference an incorrect clause here. Prismatic has presumed the correct clause to be 3.5.4.2 4).

- ◆ failure to submit timely and proper documentation as required – \$25 per day
- ◆ failure to identify the regular number on a spare bus – \$5 per incident
- ◆ late arrivals (>10 minutes) at stops or schools – \$25 per incident
- ◆ failure to have a working camera system on an eligible school bus – \$250 per incident

The current contract between San Francisco Unified School District and the Zum includes numerous fines for contract violations, including:

- ◆ route does not have a regular driver by the beginning of the school year - \$150 per incident
- ◆ a student is picked up 10+ minutes after the pickup time or the trip arrives 10+ minutes late to school - \$200 per trip, plus any costs the district and/or parents incur to transport the student(s)
- ◆ contractor does not provide the district with a list of known driverless routes for the next school day by 4:00p - \$250 per day
- ◆ contractor does not provide the district with a daily list of planned drivers per bus and route versus actual drivers per bus and route, indicating which specific routes are covered by standby or new drivers - \$250 per day
- ◆ missed trip, any trip that is 60+ minutes late or does not happen at all - \$300 per trip, plus any costs the district incurs to transport the student(s)
- ◆ blown route, any route where all of the trips are 60+ minutes late or do not happen at all - \$900 per route plus any costs the district incurs to transport the students
- ◆ more than 2 regularly scheduled drivers are assigned to a route over the course of a school year (except where changes are due to drive retirements, resignations, or district requests) - \$900 per incident

The timely delivery of students is paramount to the education process. When contractors are not assessed a service level penalty there is no sense of urgency to provide corrective action. The current practice of not seeking damages for service delivery failures provides no incentive to get better. The district then becomes dependent on the goodwill of contractors to provide good service.

Prismatic recommends the district take a more proactive approach in monitoring the performance of contractors who collectively receive more than \$30M in payments each year. To accomplish this, the district should:

- ◆ adopt standards and rubrics for OST staff to monitor contractor performance in the field, including instances of non-performance like doubling-up buses or failing to run routes at all
- ◆ implement a technology-based tool to track field observations of OST staff – this will provide documentation for contractor deductions, support regular measurement of contractor performance, and document work of OST staff in the field
- ◆ implement technology-based tools to track bus timeliness to monitor contractor performance
- ◆ adopt standards for school-based staff members to report on timeliness and complete performance of contractors
- ◆ implement a technology-based tool for school-based staff members to report daily on bus timeliness and operations that will provide documentation for contractor deductions and support regular measurement of contractor performance. Such a system could supplement GPS monitoring and provide space to report violations that GPS will not catch, such as failure to have an attendant on a bus.

Transportation Opt-In

The district first implemented opt-in for transportation in 2023-24. The desired result of an opt-in process is for families that are eligible for bus transportation but that rarely or never use it to officially inform the district. According to multiple staff members, the opt-in process did not have the desired result, at least in part because the message many parents seemed to have received was that if they ever want to use the bus even once during the school year or think they might need it later they should opt-in.

By some district estimates, HCPSS plans for the transport of as many as 7,000 students who never actually ride a bus. This results in empty bus seats and wasted district dollars.

Prismatic recommends that the district continue to work toward obtaining accurate opt-in data. The district should further consider other areas where it has historically allocated a bus seat to a student who is unlikely to use it. With full implementation of RFID and a process for students to scan in and off the bus daily, HCPSS will be able to precisely determine which students are not using a bus seat and then to adjust routes accordingly. Likewise, high school students who have parking

spots at school are not using a bus seat, so routes could be adjusted there.

Routing Calendar

As a large system, HCPSS should have a calendar for routing that is understood by all and to which all departments and leadership adhere. Once a deadline is passed, it should be understood that no changes will be made until at least 2 weeks after the start of school.

The routing calendar followed in 2023-24 did not provide time for bus contractors to make efficiency or safety recommendations once their drivers completed dry runs. As a result, the district did not benefit from drivers' expertise. The calendar also left until the last minute far too many special education transportation requests.

According to district staff, a large part of the lateness of the historical routing calendar has lain with the special education department. The special education department has traditionally held to dates of around May 16th for summer school transportation requests (with summer school starting around July 1st) and August 12th for school year transportation requests (with school starting around August 26th). In interviews, staff within the department indicated that adjusting those dates earlier was not possible because of an inability to hold all the required IEP meetings in time for summer school and because there are typically no non-public placements meetings held over the summer. These are constraints that can be overcome. The OST needs at least 2 weeks before Day One to have contractors dry run routes and make adjustments, which would be August 12th. This leaves zero days for the routing work. In other districts, a deadline of up to 1 month before school start is enforced for special education transportation requests.

Finally, as noted in Chapter 3, the later completion of routing due to the noted root causes was a source of contractor missteps and the skipping dry run testing at a best practices level. Adhering to a routing calendar that also does not allow for changes by leadership will leave the OST only to have to potentially deal with the unexpected, such as a contractor dropping out at the last minute.

Prismatic recommends that the district develop a routing calendar with at least these deadlines:

- ◆ The last date on which the special education department can make a transportation request for it to be honored on Day One.
- ◆ The last date on which parents can enroll children for school and expect to be provided a bus ride if eligible. Any family that enrolls after that deadline should be informed that transportation for

eligible students will not be provided until after the 1st 2 weeks of school.

- ◆ The last date on which the OST will provide draft general and special education routes to contractors.
- ◆ The last date on which contractors can complete dry runs and provide feedback to the OST.
- ◆ The last date on which the OST will communicate final general and special education routes to contractors and families.

Bus Arrival and Departure Efficiency

Separating walkers, car riders, and buses on school campuses is a best practice. Prioritizing bus operations is also a best practice and important when a district has a tiered bus schedule.

In each school's traffic circulation plan, buses should come first. On a per vehicle basis, they carry the most students. Delays in bus movement impact a far greater number of students than delaying a single parent car. Leading up to Day One 2023, the importance of buses being able to drop and leave in the morning or to load and leave in the afternoon was a surprise for some HCPSS school administrators. One former HCPSS school administrator noted that they had previously as a school administrator worked hard to clear a campus in 7 minutes each afternoon, but this was not a general district expectation prior to or on Day One 2023.

Prismatic recommends that HCPSS:

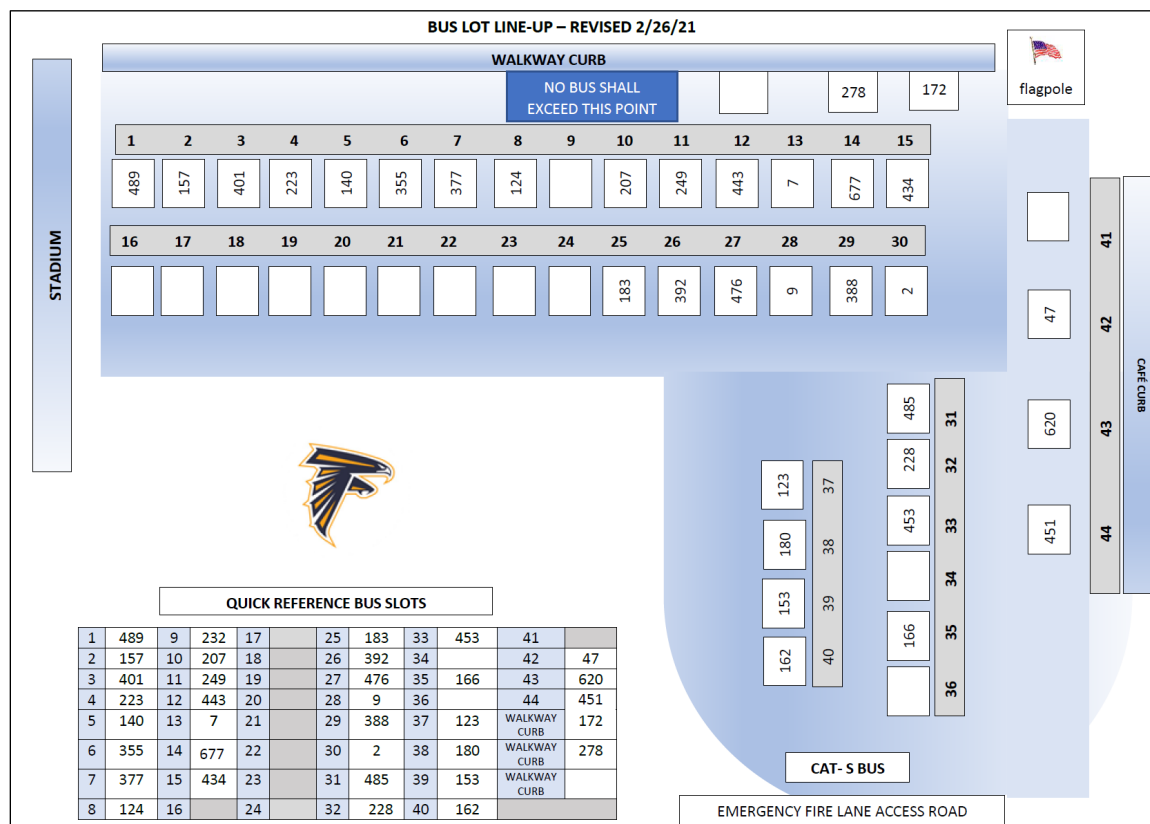
- ◆ Develop expectations regarding:
 - the acceptable window for buses to arrive to campuses in the morning – Prismatic suggests a range of 10-20 minutes before the opening bell as a best practice
 - the staging of buses on campuses prior to the dismissal bell – Prismatic suggests requiring all buses to be on campus prior to dismissal
 - the acceptable window for clearing buses from campuses in the afternoon – Prismatic suggests a range of 7-12 minutes to provide some leeway for larger campuses
- ◆ Develop and communicate clear procedures outlining the priority of bus arrival and departures over student drivers, parents, student walkers/bikers, and staff transit. If necessary due to the site layout, all other forms of transit to/from campus should be held until buses have rolled.

HCPSS should develop explicit service expectations around morning arrival and afternoon pickup windows for bus contractors.

- ◆ Designate dedicated bus lanes or loading zones at school entrances to facilitate smooth bus flow, and coordinate with local authorities to enforce regulations prioritizing bus movement during school hours. Each school should develop a bus line-up diagram similar to Exhibit 4-7. The diagram should be shared with the OST and each bus contractor serving the school. School staff monitoring bus operations should also have a copy on hand.

Exhibit 4-7

Example School Bus Lot Line-Up



Source: Anne Arundel County Public Schools, 2022

- ◆ Promote alternative transportation modes like walking, biking, or carpooling to reduce private vehicle traffic.
- ◆ Monitor and evaluate campus bus operations, traffic patterns, and stakeholder feedback to make necessary adjustments for new processes. This should include an online method for campuses to report contractor infractions daily.

The OST staff should monitor the success of each school's efforts and work with school staffs and bus contractors as needed to support improvements.

OST and Bus Contractor Communications with Schools

The current communications efforts of the OST and the bus contractors with schools sometimes leave the schools unaware of late buses, coverages, double-ups, or double-backs. This leaves the schools unable to adjust operations as needed to accommodate the irregular operations and to assist in communicating with parents and students.

The OST and bus contractors have no consistent method for communicating irregular operations, such as late buses to schools, at the systems level. When a bus is stuck in traffic in the morning, if the driver communicates the problem to their contractor, the contractor may contact the OST and the school, or may contact neither. The largest contractor has a parent app available, but this is not an efficient method for the OST to oversee operations. The OST is developing internal monitoring capabilities at the system level, but these are not intended to be public-facing, which would include the school staffs who must contend with the negative consequences of irregular bus operations.

Some school districts publish information regarding late buses on their web pages (Exhibit 4-8). If the information is comprehensive and accurate, it can be an effective communications tool for schools and parents. Prismatic recommends that HCPSS adopt something similar.

Exhibit 4-8 Sample Webpages for Alerting Stakeholders to Late Buses

THIS INFORMATION IS ONLY AVAILABLE FOR BUSES THAT ARE AT LEAST 10 MINUTES LATE OR FOR UNUSUAL SITUATIONS					
DATE	TIME	SCHOOL	BUS	INFORMATION	UPDATE
11/14/19	6:35AM	Special needs	140	In spare bus #289	
11/18/19	6:19AM	CHS, MES, SLES	121	In spare bus #269	
11/20/19	6:15AM	CHS, CMS, MES, SLES	118	In spare bus #296	
11/25/19	6:10AM	HHS, PPMS, PPES, HES	128	In spare bus #210	
11/26/19	7:21AM	CMS	79	In spare bus 295 and running approx 25 min late to CMS.	
11/26/19	1:47PM	HHS, PPES, BES	29	In spare bus 280 this PM.	

Bus Status Updates

To see all the bus status updates, hover over or touch the table below and use the scroll bar to the right of the Action Taken column to scroll through the list. Click on the column headers to sort the list and use the School menu to filter by school.

Bus Status for Nov 3, 2023

School ▼

Bus #	AM/PM	Serving School	Type of Problem	Minutes Late	Action Taken
16	PM	North Point HS	Not Running	10	95
19	AM & PM	Henson MS	Not Running	0	208
19	AM & PM	Indian Head ES	Not Running	0	208
19	AM & PM	Lackey HS	Not Running	0	208
29	AM	McDonough HS	Running Late	15	None
47	AM & PM	McDonough HS	Not Running	0	None
47	AM & PM	Craik ES	Not Running	0	None
81	AM & PM	Lackey HS	Not Running	0	558
81	AM & PM	Smallwood MS	Not Running	0	558
81	AM & PM	Indian Head ES	Not Running	0	558
104	AM & PM	Thomas Stone HS	Not Running	0	541
104	AM & PM	Stoddert MS	Not Running	0	541
104	AM & PM	Barnhart ES	Not Running	0	541
116	AM & PM	Craik ES	Not Running	0	519
116	AM & PM	McDonough HS	Not Running	0	519
136	AM	McDonough HS	Not Running	0	574
136	AM	Higdon ES	Not Running	0	574
155	AM	Billingsley ES	Not Running	0	None
155	AM	Davis MS	Not Running	0	547
155	PM	Mattawoman MS	Not Running	0	None
155	AM	St. Charles HS	Not Running	0	None

Source: *Prismatic from Chesapeake County Public Schools (VA), 2019 (top) and from Charles County Public Schools (MD), 2023 (bottom)*

Courtesy Transportation

Perhaps one of the bigger misnomers in school transportation is that of “walk zones.” Historically, the circles drawn around schools at distances of a mile or more were meant to designate areas in which the district expected students would walk to school. Over time, however, living nearby no longer means that a student will walk to school. In 1969, 89% of students living within a mile walked or biked to school; by 2011 that figure was just 35%.³ As a result, efforts to reduce the burden on a school district transportation system by increasing the size of the non-transportation zone around a school can often lead not to an increase in the number of students walking or biking but rather an increase in the

3

[http://guide.saferoutesinfo.org/introduction/the_decline_of_walking_and_bicycling.cfm#:~:text=In%202009%2C%2031%25%20of%20students,2011%3B%20USDOT%2C%201972\).](http://guide.saferoutesinfo.org/introduction/the_decline_of_walking_and_bicycling.cfm#:~:text=In%202009%2C%2031%25%20of%20students,2011%3B%20USDOT%2C%201972).)

number of cars crowding the campus each morning and afternoon. Where a district can take action to help reduce traffic on its campuses, school bus circulation is easier.

Another unintended negative consequence of expanding non-transportation zones is that it does not necessarily benefit all bus routes equally. For example, expanding the zone from 1.0 to 1.5 miles may reduce the number of students eligible for transportation to a particular school by 100 students. Depending on where they live, it may eliminate the need for 1 bus completely (55 students), enable the district to combine 2 buses into 1 for another 30 students, and open up 15 seats across 5 other buses. Absent a courtesy transportation program, those 15 seats would potentially go unused.

A courtesy transportation program provides a way for otherwise ineligible students to get a seat on a bus. Typically, courtesy transportation:

- ◆ is not available for the 1st 2 weeks of school, which allows the transportation department to assess the quality of its routes, make adjustments, and determine where it has open seats
- ◆ is only made available on a semester or a school year basis
- ◆ requires parents/students to apply for a seat
- ◆ awards courtesy seats on a first-come, first-served or lottery basis
- ◆ provides bus stops only at convenient places on the existing bus route

Prismatic recommends that HCPSS explore implementing a courtesy transportation program where it finds empty bus seating.

Insourcing Versus Outsourcing

As noted in Chapter 3, HCPSS is the only large district in Maryland that outsources all of its student transportation operations. Given the historical context of student transportation in Maryland, it is unlikely that the district completed a rigorous insourcing versus outsourcing analysis at the time it began to contract for bus services. Even if it did, such a comparative analysis should be completed every few years to help the district affirm that it is still on the right track.

There are 4 main potential benefits to HCPSS of insourcing a small portion of its transportation operations:

- ◆ District staff would gain firsthand experience in managing bus drivers, vehicles, and dispatch. This would help them to better understand the challenges and capabilities of the contractors.
- ◆ The district would have available a small fleet that could handle the portions of the operation that have historically been most costly and/or complicated. For example, transporting McKinney-Vento (MKV) students is often costly and complicated. MKV students often need to be transported singly or in small groups, so a yellow school bus is an expensive vehicle. Then, they frequently change their nighttime addresses, which can be difficult to communicate to contractors in real-time. A small fleet of vans operated by the district is both the ideal vehicle type and the shortest communication line for supporting MKV students.
- ◆ The district would have some backup resources in the event a contractor is unable to meet their required service levels. This could take the form of the district employing a dozen bus drivers full-time, with benefits, who could serve as backup drivers (for a charge) to contractors. It could take the form of the district acquiring a dozen buses to handle a designated portion of athletic/field trips, with the understanding that they could be redeployed to serve as route buses if a contractor is unable to drive all their routes.
- ◆ The district would gain a deep understanding of the costs involved in running a transportation operation. This would put the district in a better position to negotiate knowledgeably with contractors.

Prismatic recommends that HCPSS explore insourcing a small portion of its transportation operation. This could be accomplished as new transportation service needs arise, or as contractors are unable to meet a portion of their obligations.



Appendices

Howard County Public School System

Independent Review of the Office of
Transportation

September 2024



112 S. Tryon St, Suite 1170
Charlotte, NC 28202
(704) 438-9929
PrismaticServices.com

Appendix A

Principal/School Administrator Survey Results

This survey was distributed to all Howard County Public School System principals, with a request that the school administrator most knowledgeable of school transportation respond. Responses were collected between April 18, 2024, and May 19, 2024, and have been aggregated for comprehensive reporting.

(n=80)

Demographics

1. What is your current position?

Principal	68%
Assistant Principal	24%
Principal and Assistant Principal completed this survey together	4%
Other school administrator/administrative team completed this survey	1%
Other (please specify)	3%

2. Which transportation contractors currently serve your school?

B L Corn Inc	3%
B W A Transportation	4%
Baruch Transportation	1%
Bayer Bus Service	1%
Bowens Bus Service	19%
C T T A Enterprises	0%
Dents Bus Service	0%
H O B Enterprises	1%
K A M Enterprises	4%
M B G Enterprises	5%
Mellors Bus Service	3%
Mina Transportation	3%
Sharons Bus Service	1%
Tip Top Transportation	20%
Transwhite	1%
Viennas Transportation	11%
Ward Sharon	4%
Whitehead Glenwood G	7%
Woodlawn Motor Coach	16%
Y & L Transportation	4%
Zum Services	65%



3. Were you assigned to the same school in 2022-23?

Yes	73%
No	28%

Last School Year

Questions regarding last school year were only asked of those who were assigned to the same school in 2022-23 and 2023-24.

4. In 2022-23, did you regularly have some buses arriving in the morning after the official school start time?

Yes	51%
No	44%
Not Sure	5%

5. In 2022-23, at the official end of the school day, did you regularly have buses that were not lined up and ready to receive students?

Yes	72%
No	24%
Not Sure	3%

6. In 2022-23, approximately what percent of your buses regularly arrived after school start time?

100%	0%
75-99%	3%
50-74%	7%
25-49%	17%
<25%	73%

7. In 2022-23, approximately what percent of your buses were not regularly lined up at school at afternoon dismissal?

100%	0%
75-99%	2%
50-74%	21%
25-49%	36%
<25%	40%

This School Year

8. What is your school's current start time?

7:50a	26%
8:30a	21%
8:45a	16%
9:25a	36%

9. This year, on Day One, did you have more than the usual amount of transportation challenges for a first day of school?

Yes, far more than the usual amount	70%
Yes, somewhat more than the usual amount	8%
No, it was generally a typical Day One	21%
Don't really remember	1%

10. This year, on Day One, how late were the last bus-riding students in arriving at your school in the morning?

0 - all arrived prior to the opening bell	10%
< 10 minutes after school start	9%
~10-20 minutes after school start	15%
~21-30 minutes after school start	14%
>30 minutes after school start	53%

11. On Day One, what were the biggest **special education** transportation challenges at your school?

- ◆ *Making sure students were appropriately routed and actually on buses. As was standard practice, drivers did not make personal contact with parents prior to the first day of pickup.*
- ◆ *Late arriving buses. Missing student stops. Impacts behaviors due to a lack of structure and routine.*
- ◆ *Students were on transportation lists that were not confirmed to require transportation. Vans would wait for these students, but the students were already home (car rides, walkers, etc.).*
- ◆ *The drivers were not familiar with routes and pick-up's and either missed stops or did not wait long enough for the students to get on the bus.*
- ◆ *The biggest issue on day 1 were buses or vans not showing up for students at all.*
- ◆ *Students were not assigned to routes and not picked up and brought to school. We had students who were brought home very late due to bus drivers not knowing the routes and being unfamiliar with the areas they were expected to drive students home every day.*
- ◆ *The timing of the buses' arrival was off. Also, the route map for the drivers was not very efficient, causing a longer route.*
- ◆ *Students arriving on time.*
- ◆ *Bus arrival time*
- ◆ *Our Special Education Bus(es) were not picking students up the first week to two weeks of school. Parents were transporting.*
- ◆ *Buses were not arriving on time. Drivers were telling us that their previous route was taking too long. Because buses were late, students would abandon the stops and either go home or a parent would ride them. Drivers were not prepared for the timing of stops.*
- ◆ *Extremely late buses*
- ◆ *We had one bus not show to school.*

- ◆ *Late buses and some never arrived.*
- ◆ *Late buses, missing students from stops*
- ◆ *There were no significant challenges with special education transportation.*
- ◆ *Drivers were not trained to support students with special needs, parents were not communicated with, bus was extremely late picking up at dismissal, driver missed some students.*
- ◆ *Taking students off the bus without proper notification.*
- ◆ *inconsistent aides for buses that transport students in regional programs for students with emotional disabilities*
- ◆ *Students were not picked up on time. Buses arrived very late or did not arrive at all.*
- ◆ *Students were not routed correctly or did not receive confirmation of bus service.*
- ◆ *The Zum vans did not have the correct student rosters and did not know the routes. Some of the vans were extremely late or did not show.*
- ◆ *We did not have a bus for 2 of our students. One bus only had one student and the driver on the bus.*
- ◆ *Vans not on time, vans without specialized equipment or adult support as outlined in student IEP/Specialized Transportation plans.*
- ◆ *The bus drivers did not have any information about the students they were transporting. The drivers lacked training in the students and their specific needs. The routes did not account for the extra time needed to load students with wheelchairs and/or other mobility needs. Students who needed adult supervision got off the bus without making sure a school staff member was present to receive them.*
- ◆ *Bus Numbers*
- ◆ *Not having proper safety equipment (harnesses, belt locks, booster seats, car seats)*
- ◆ *Students at stops were left behind.*
- ◆ *Drivers unfamiliar with route*
- ◆ *Bus Aides*
- ◆ *App Malfunctions*
- ◆ *The buses were late dropping students off and also some of the pick-up times were extremely early for some of our students.*
- ◆ *No bus attendant to support. None of the students had their safety equipment in place on the SE buses.*
- ◆ *Lack of bus driver awareness about routes*
- ◆ *Significant delays with bus arrival and departures*
- ◆ *Bus identification mismatches with reports*
- ◆ *Lack of communication with bus stop times to parents*

- ◆ *Routing for specific buses were not efficient and impacted arrival times. AP worked with transportation to adjust routes.*
- ◆ *Buses do not pick up a number of students from their homes. Buses picking up the wrong students. Bus drivers who were unaware of the routes and where the locations of stops were.*
- ◆ *Late arriving buses*
- ◆ *Buses arrived with a different number than what we were expecting.*
- ◆ *Not enough specialized transportation*
- ◆ *Not enough assistants on buses to support the needs of students.*
- ◆ *Numerous vans / disorganized response*
- ◆ *No clear understanding of the transportation needs of students*
- ◆ *No immediate way to remedy/ correct the transportation difficulties.*
- ◆ *Always challenging in the beginning to figure routes out and communicate with our families.*
- ◆ *At Homewood all buses are individualized*
- ◆ *They did not pick up all the students they were supposed to.*
- ◆ *Bus numbers did not align.*
- ◆ *Buses were late.*
- ◆ *Driver rosters did not match our specialized roster.*
- ◆ *Drivers refusing to transport students not appearing on their rosters.*
- ◆ *Zum was not aware of general HCPSS transportation practices and routes.*
- ◆ *Portal was not useful. “*
- ◆ *The bus was very late.*
- ◆ *Students were not picked up or the buses were very late in the afternoon.*
- ◆ *We have a regional ED (EDR) program. Buses were late and too many children were scheduled to be on the same EDR bus, which caused significant safety concerns. Students in the EDR program should not all be on the same bus.*
- ◆ *Extremely late picking up the students, and oftentimes, the parents would need to find their own way to take their children to school.*
- ◆ *Bus not showing up. Driver not knowing where to pick up / drop off.*
- ◆ *Students were regularly arriving late interrupting their services and learning schedule.*
- ◆ *Routes and learning timing of pickups.*
- ◆ *There were not enough vans to pick up students. Also, the vans were not able to accommodate the needs of students.*
- ◆ *Extreme lateness or not showing up at all.*
- ◆ *Students were not picked up. Students transportation home was not on time.*

- ◆ *Some students did NOT get transported to ARL the first week + of school.*
- ◆ *Students were not picked up.*
- ◆ *Addresses were incorrect on the routing sheet.*
- ◆ *Buses and vans did not show at all or were late. A few vans and buses did not have bus aides. Students were assigned to ride vans that should not have been.*
- ◆ *4027 didn't run its route for at least a month.*
- ◆ *The van drivers didn't have the correct names that were on the specialized transportation list. The vans didn't have numbers and we were not sure who was on what bus. They didn't always have two adults in the vehicle.*
- ◆ *One bus didn't come at all. One bus was arriving very late in the morning and afternoon. About 45-55 minutes late.*
- ◆ *Buses not showing up on time, bus drivers unfamiliar with the needs of the students.*
- ◆ *Some kids were in vans and others were on small yellow buses. Our parents of van children were not comfortable with their children being so close to the driver. Also, there were changes in the driver and the arrival time at school was inconsistent in the opening weeks of school.*
- ◆ *Buses did not show up on time or not showing up at all.*
- ◆ *One student arrived at our school who was a middle school student.*
- ◆ *The transportation provided did not meet the needs of the students, there were no assistants on the bus/vehicle. Students could not be transported due to needing a lift and a minivan came to pick them up.*
- ◆ *Our special education buses are still late but that may be due to the regional programs at our school.*
- ◆ *none out of the ordinary*
- ◆ *Lack of aides on the bus and drivers not knowing the students. Extremely late buses arriving. Lack of experienced drivers*
- ◆ *All of our buses are designated for special education students. Our main issues were inexperienced bus teams, overcrowding of buses, and some students weren't assigned to a bus.*
- ◆ *Same as every year. Bus/Vans knowing traffic patterns and not missing students on pick up.*
- ◆ *A few late buses for a couple of weeks*
- ◆ *establishing a new drop off and pick up routine for students and families.*
- ◆ *Didn't know the route, didn't pick students up on time or at all, the bus wasn't equipped with the specialized seating required (seatbelts, seatbelt locks), significantly late for arrival and dismissal.*
- ◆ *Was and continues to be, timing, proper use of safety devices, proper technique in response to challenging student behavior.*
- ◆ *Not all of the students had confirmed transportation assigned even though it was in the system. Many of our parents were unable to bring their students to school until transportation issues were fixed.*

- ◆ *Students are not being picked up.*
- ◆ *Making sure the correct bus went to the correct home and the route sheets were accurate.*

12. On Day One, what were the biggest **regular education** transportation challenges at your school?

The 3 Major Reasons:

- ◆ *Late buses.*
- ◆ *Buses were too crowded/school drop-off loop too crowded.*
- ◆ *Some students were not picked up.*

Verbatim Survey Responses:

- ◆ *- Bus Numbers*
 - *Students at stops were left behind*
 - *Drivers unfamiliar with route*
 - *App Malfunctions*
- ◆ *- Bus numbers did not align.*
 - *Buses were late.*
 - *Zum was not aware of general HCPSS transportation practices and routes.*
 - *Portal was not useful.*
 - *General ed rosters did not match driver rosters.*
 - *Many drivers were not interested in hearing the school-based perspective on how things should work based upon our year's of transportation experience.*
- ◆ **Drivers were not familiar with routes*
 - *Not enough drivers assigned to our routes*
- ◆ *1. Lack of bus driver awareness about routes*
- ◆ *2. Significant delays with bus arrival and departures*
- ◆ *3. Bus identification mismatches with reports*
- ◆ *4. Lack of routes covered - late communication to inform schools of routes not being covered*
- ◆ *All buses were not at school before that start, but most were.*
- ◆ *Arrival time was late and one bus did not show for the first week*
- ◆ *At Homewood all buses are individualized*
- ◆ *Bus arrival time*
- ◆ *Bus delays, stops missed*
- ◆ *Bus drivers who were unaware and/or ill-prepared for the routes. Additionally, bus drivers were not familiar with the routing software, and or were unfamiliar with the area.*
- ◆ *Buses arrived with a different number than what we were expecting.*
- ◆ *Buses did not show up on time or didn't show up at all. We shared the same start time as the middle school so there was not enough parking space to fit all of the buses on our lot at the same time. Drivers weren't adequately trained and didn't know how to use their GPS device so they were asking staff questions about drop off locations.*

- ◆ *Buses missing stops and dropping students off early or late*
- ◆ *Buses never showed. Some routes didn't run for weeks. Buses over 30 minutes late. Some over an hour late the first few weeks.*
- ◆ *Buses were late (two more than an hour) and two or three never showed. The bus numbers published did not match the actual bus number, so students did not know what bus to get on. There were several calls from parents and kids that buses did not follow their routes and went into other counties. At dismissal only 5 of 28 were present at school at dismissal. We reported every bus challenge in the form supplied by the county. Please refer back to all of our concerns. I hope you are using that data from August and September.*
- ◆ *Buses were late running their routes or they never showed for arrival up and/or departure. The last bus arrived for dismissal around 4:30pm. In addition, the bus drivers did not know their routes and students and parents were calling about buses transporting students into other counties. The bus numbers for the routes did not match; many buses did not have bus numbers (school staff had to print bus numbers).*
- ◆ *Buses arriving too early and just sitting in the parking lot waiting for the bell to ring.*
- ◆ *Buses not showing up on time or not showing up at all*
- ◆ *Day One, and a month later, students were very late for instructional time at ARL*
- ◆ *Delays of buses. Drivers not knowing their route.*
- ◆ *Distance changes in pick up, gen ed students a few houses away not being picked up this school year. This has caused extreme attendance concerns for a few.*
- ◆ *Drivers were not familiar with routes, stops were missed, or buses arrived late to school.*
- ◆ *Excessive lateness, due to overlapping times with other schools.*
- ◆ *Extreme lateness or not showing up at all.*
- ◆ *Extremely late buses.*
- ◆ *Lack of experienced drivers and late arrivals. We did not have a bus for several weeks for one route*
- ◆ *Late arrival and dismissal. Managing multiple bus loads of students after the school day ends. Communicating for families when we did not have the answers ourselves due to poor communication from the bus companies. Bus numbers did not align with the route numbers. Bus drivers did not know the area and as a result either missed stops or had to turn around, thus causing delay.*
- ◆ *Late arriving buses*
- ◆ *Late arriving buses*
- ◆ *Late buses, buses not showing up to take students to school, the route numbers that families were provided on the bus locator in preparation for the first day of school did not match the actual numbers on the Zum buses which caused confusion for families and school staff*
- ◆ *Late buses.*
- ◆ *Late buses and some never arrived.*

- ◆ *late for arrival and late to pick up at dismissal*
- ◆ *Late pick in the afternoon. Not consistently late.*
- ◆ *Managing students at the end of the day whose bus was more than an hour delayed.*
- ◆ *Many students were not picked up by a bus. Buses were over an hour late. None of the buses arrived on time.*
- ◆ *Missing stops, late buses*
- ◆ *missing students on the route*
- ◆ *New drivers learning routes. As a result led to late arrivals to school and drop-offs.*
- ◆ *No concern*
- ◆ *none out of the ordinary other than buses showed up to school 15 minutes before doors opened.*
- ◆ *normal day one Adjustments*
- ◆ *One of the biggest challenges is now how our car loop impacts the traffic. We now have anywhere between 150-250 car riders a day. The buses get caught in the traffic which makes them late.*
- ◆ *Over and hour late at arrival and dismissal due to miscommunications to drivers about routes.*
- ◆ *Overcrowding - Francesca Graham responded to all issues quickly and efficiently and has been able to resolve anything we need.*
- ◆ *Promptness*
- ◆ *Route numbers and bus numbers did not match*
- ◆ *Same as every year. Bus/Vans knowing traffic patterns and not missing students on pick up.*
- ◆ *Several routes late at end of day*
- ◆ *students arriving on time*
- ◆ *Students were not picked up on time. Bus arrived late.*
- ◆ *The arrival time of the buses and multiple buses were assigned the same bus number.*
- ◆ *The biggest challenge was that we had one bus that was not available for the first few weeks of the school year. The bus was supposed to have a full load, from a densely populated apartment complex. These students needed alternate ways to get to school. We have a community that lost transportation due to the extended walking distances. At least one of the students from the community has had a drop in their attendance rate.*
- ◆ *The biggest issue on day 1 were buses showing up hours late or not showing up for students at all.*
- ◆ *the buses being late. It was not too bad because we only have 3 regular education buses.*
- ◆ *The buses not picking up students and students were late to school. There were also delays with picking up students in the afternoon.*
- ◆ *The buses operated as they had during the previous year. No specific challenges.*

- ◆ *The buses we had listed from the route sheets printed on Friday, were not the same bus numbers that showed up on Monday.*
- ◆ *The overlap of times with the elementary school (which was eventually fixed).*
- ◆ *There were 2 gen ed buses that didn't run for several weeks.*
- ◆ *They were extremely late and many had no idea how to get to their stops.*
- ◆ *They were often behind schedule, skipped stops, and running the wrong route. In addition, many students were not routed appropriately in the system (incorrect data from synergy).*
- ◆ *Timeliness, also that the numbers on the side of the bus did not match up with the numbers provided to us. i.e. our bus numbers were 4 digits and the numbers on the side of the bus were 6 digits starting with 233???*
- ◆ *too crowded*
- ◆ *Two buses didn't arrive in the morning. One bus was so late to pick up students that students were driven to school instead. All of the buses arrived after our start time.*
- ◆ *We had 3 routes that did not have a bus at all. Students weren't able to get to school. We had space competition with the elementary school because our bus loop is equipped to hold 10 buses and due to the same arrival and dismissal time, we now have 20 + buses. We had drivers that did not know the area and took kids on joy rides.*
- ◆ *We had a general education bus that never showed on the first day of school.*
- ◆ *We had no issues*
- ◆ *We had various drivers for various buses. Buses were unfamiliar with the transportation routes for the students they were transporting home daily.*
- ◆ *We were fortunately impacted very little by the bus challenges.*
- ◆ *What wasn't...buses were routinely late from 1 minute to 30 minutes. First day, there was no notice of late bus until the first period bell at 7:50. If buses were arriving at the first period warning bell at 7:45, students did not have time to get breakfast or see a teacher to get extra help.*
- ◆ *When the bell rang at 7:50 a.m. not a single bus had arrived at LRHS. This has never happened in 28 years of opening schools. One of our bus runs (Deep Run Park) had over 70 kids assigned to one bus (this has never been remedied). No awareness of buses needed to transport students to and from the ARL (literally not even aware we needed buses to take kids to the ARL). Bus numbers did not match route numbers or the publicized bus number. Dismissal - buses that did not show up. Buses with numbers that did not match. Drivers not aware of routes or basic traffic protocols*

13. After the first few days of school, were the bus routes serving your school substantially changed prior to the September 20th change in bell times?

Yes	27%
No	62%
I'm not sure.	11%

14. With the bell change on September 20th, were the bus routes serving your school substantially changed?

Yes	32%
No	57%
I'm not sure.	11%

15. Currently, how late are the last buses in arriving to your school in the morning?

None are late, but they all arrive 30+ minutes before the bell	1%
None are late; they all arrive ~15 minutes before the bell.	13%
1-14 minutes before the bell	47%
at the bell (0 minutes)	22%
~10-20 minutes after school start	16%
~21-30 minutes after school start	0%
>30 minutes after school start	1%

16. Currently, at the official end of the school day, how many of your school's buses are lined up and ready to receive students?

100%	16%
75-99%	63%
50-74%	14%
25-49%	6%
<25%	0%

17. Is the bus transportation situation at your school better or worse than it was in 2022-23?

Much better	19%
Somewhat better	22%
About the same	22%
Somewhat worse	13%
Much worse	14%
I don't know	11%

18. Compared to last year, what is the volume of school bus ridership at your school now?

Much higher	3%
Somewhat higher	6%
About the same	54%
Somewhat lower	27%
Much lower	3%
I don't know	8%

19. Compared to last year, what is the volume of parent drop-offs at your school now?

Much higher	19%
Somewhat higher	30%
About the same	42%
Somewhat lower	3%
Much lower	0%
I don't know	6%

20. What, if any, have been the positive impacts of the new bell schedule for your campus?

- ◆ *By midyear, our buses became more consistent than any recent year. They arrive on time in the morning and are almost all on time at the end of the school day.*
- ◆ *When the start times were changed in September, many of the issues that we had at the very beginning of the year improved.*
- ◆ *There haven't been any positive impacts to our school with the new bell schedule due to the fact that our school start and dismissal times all stayed the same, with no changes.*
- ◆ *Later start time has helped with staff being on time.*
- ◆ *Oddly our traffic flow seems better.*
- ◆ *After the change of September 20, we no longer overlap with the elementary school.*
- ◆ *Earlier end to the workday for staff*
- ◆ *Timelier. An overall better service.*
- ◆ *Buses are not as late.*
- ◆ *On most days, all buses arrive before the start of school.*
- ◆ *We no longer have the same start time as middle school. This has helped with the amount of congestion at our school.*
- ◆ *Less traffic during the arrival and drop-off process*
- ◆ *The adjusted bell schedule has supported the on-time arrival of buses.*
- ◆ *None to my knowledge*
- ◆ *Maybe it helped get the buses here since there is not overlap of so many schools.*
- ◆ *The new bell schedule reflects the previous schedule that had been followed for years at our school. After the adjustment in late September, bus delays were no longer an issue and parent drop offs returned to a normal level due to bus consistency.*
- ◆ *The buses arrived on time.*
- ◆ *We are not seeing any positives directly related to the new bell schedule.*
- ◆ *Our buses started getting to our school on time.*
- ◆ *Buses are currently on time.*
- ◆ *As a staff, we prefer last year's start time. It was much earlier.*

- ◆ *The current bell schedule is now the same as the previous year.*
- ◆ *A later start has led to more engaged students in period 1.*
- ◆ *All general education buses are lined up and ready to load.*
- ◆ *Buses arrive in a timelier manner.*
- ◆ *Since the bell changes on September 20, we finally have consistency and routine. We have not had that since prior to COVID. We should not change the bell times, even by ten minutes. This works!*
- ◆ *Brain Research says later is beneficial for high school students.*
- ◆ *Traffic within the campus has drastically improved.*
- ◆ *Having a greater difference between MVMS and MRHS has been very helpful. We had been asking for years to schedule the start times at least 30 minutes apart.*
- ◆ *Our bell schedule is the same as last year. However, it's better than the start of the year when our feeder schools were different because it allows for enough time to make the routes. Before, it was not possible.*
- ◆ *All buses arrive before the bell in the AM. All buses arrive before the end of staff contract hours in the PM.*
- ◆ *Students are able to get to their 1st period classes on time.*
- ◆ *The new bell schedule is good.*
- ◆ *The change back to our original times made it so our buses were on time. We have a shared campus with a middle school. Our times were too close, and we shared buses. It was IMPOSSIBLE for the buses to deliver the middle school buses to pick up their kids and get back in a timely manner.*
- ◆ *We did not have any issues beforehand.*
- ◆ *No positive impact*
- ◆ *Students are on time for school.*
- ◆ *The bell schedule change allowed for most buses to be on time every day for dismissal and arrival. It was an instant success.*
- ◆ *Our students have arrived on time with less late arrivals.*
- ◆ *For the majority, buses arrive on time.*
- ◆ *Students were on time at school.*
- ◆ *The same as last year.*
- ◆ *The adjustment allowed buses to arrive on time.*
- ◆ *Less late arrivals. In particular, parents that drove students did not adjust to the earlier start time.*
- ◆ *With the overall changes across the county, students are not having to wait for their bus to arrive at the end of the day.*
- ◆ *More sleep for students/staff.*

21. What, if any, have been the negative impacts of the new bell schedule for your campus?

- ◆ *Almost all of the bus riding students are dropped off and released into school at the same time, which creates supervision issues with our contractual times which we were forced to shift. Additionally, students rush in at the same time, which makes the morning entrance much more chaotic.*
- ◆ *Lack of ability to have morning professional development (that is more a central office decision). Staff having to stay late creates problems for childcare, commutes are extended due to rush hour and many live far away.*
- ◆ *We seem to have more students arriving late to school, despite the later start time. (Car Riders)*
- ◆ *Having the same start time as our campus middle school has created many challenges with the morning regarding transportation.*
- ◆ *No impact was felt to our school, either way.*
- ◆ *The timing and multiple changes have affected the morale of staff.*
- ◆ *The shift at quarter 1 was needed but the adjustment took some time to manage.*
- ◆ *Students are still coming late.*
- ◆ *It can be a challenge for some staff to arrive on time consistently. We have many late students.*
- ◆ *As a shared campus, getting smaller students out when middle schoolers are in the bus loop as well.*
- ◆ *Our staff have a short amount of time between their start time and when the students enter the building.*
- ◆ *We still dismiss at the same time as the middle school, therefore, there isn't enough room for all buses to pull into our lot.*
- ◆ *Parents dropping children off too early due to work schedules; unsupervised children on exterior of building; staff meeting schedules impacted by change of schedule.*
- ◆ *Later arrival has had a large impact on our students who walk to school. Many of them are walking by themselves due to families having to be at work way before students have to be at school.*
- ◆ *Faculty and staff are concerned with their childcare needs.*
- ◆ *It has been a challenge for some staff due to childcare.*
- ◆ *We are in the same tier as HES.*
- ◆ *Increase in congested traffic during arrival and dismissal.*
- ◆ *We have to accommodate 25 buses in a loop built for 10 in the afternoon.*
- ◆ *The distance our students travel to the bus compared to the amount of staff we can have outside leads to mischief.*
- ◆ *We have to hold students inside until their bus comes because we can't have all k-8 students hanging around outside at dismissal.*

- ◆ *Bus and Car traffic patterns lend themselves to horrible traffic jams and upset families.*
- ◆ *Parents complain about families parking in their spots in the neighborhood while walking up to pick up their children. They are parking in the neighborhood to avoid the congestion of the car loop."*
- ◆ *Our start time is late, and it is difficult for young learners.*
- ◆ *If this question is referring to school start times, before and after school meeting times with staff have been negatively impacted.*
- ◆ *More parents in the car loop for pick up.*
- ◆ *Late PM arrival for students, until after the school office closes."*
- ◆ *Buses dropping off students before contract time- this has been adjusted since but that was a challenge.*
- ◆ *Our bell times did not need to change at all since the buses servicing my school are only driving for my school and one other level. The majority of my bus riders are "door to door service" due to the location of my school. Because we are so far out in the West, many of my community pick up their students in the afternoon at the car loop so they can get to any afternoon activities on time.*
- ◆ *None regarding Transportation.*
- ◆ *With our school being a later school, this places demands on parent's schedules, so they tend to drop off students significantly earlier than usual.*
- ◆ *Staff meeting time adjustments.*
- ◆ *Reduced time for staff meetings and staff committee work in the morning. Time went from 40 minutes to 25 minutes.*
- ◆ *We are not seeing any negative impact due to the new bell schedule.*
- ◆ *Hasn't made a difference.*
- ◆ *Students and staff have the same start time.*
- ◆ *It is a VERY late day.*
- ◆ *Our youngest students are exhausted at the end of the school day. Many are in before care early and leave school at this later time.*
- ◆ *Staff and families do not like the later dismissal time in ANY way. It prevents staff from balancing work and home, has increased travel time to and from school due to our central location, staff are taking more time off for appointments, parents are sharing that they miss work due to schedule and the lack of before and after care, other schools with earlier start times have become more attractive to staff, more parents are picking students up to get them to after school activities instead of using bus transportation creating longer car loop waits. "*
- ◆ *We have many more car riders so not sure if the bell times for MS and HS have impacted the families that now drive.*
- ◆ *There is also a lot of congestion on our campus with other schools at the beginning and end of the day.*
- ◆ *The later start time has impacted after school clubs and activities.*

- ◆ *Our school community was negatively impacted by the bell change. We went from an 8:40 start time to a 9:25. This makes for a very long day for our staff and students. Elementary school learners learn best earlier in the day and this bell change makes for too long a day for our youngest learners.*
- ◆ *Really none, except for the bus situation.*
- ◆ *We are starting 10 minutes later and dismissing 10 minutes later.*
- ◆ *With the ten minute adjustment, students still have to wake up as early as they would normally to catch the bus. There is more traffic on arrival, including additional parent drop off because our community can't rely on the buses. This has had a huge impact. We are a tier one school - it is unacceptable that the buses are not on time even with the adjustment of start and end times.*
- ◆ *Staff liked the earlier schedule much better.*
- ◆ *The first few weeks of school many more parents were dropping off and traffic was much worse than the previous year. However, things have normalized and the only time we have major backups and need to delay attendance is when there is any amount of precipitation or an accident. Bus patterns have normalized after about a month. It is also very beneficial to have only 2 bus companies (Woodlawn and Viennas) this year versus 13 last year.*
- ◆ *The later end time is hard for our staff. We are unable to have staff meetings because our staff have responsibilities to their families and previously all staff meetings were in the morning. We would like to have "staff choice" as to when staff meetings can occur for the 24-25 school year.*
- ◆ *I can't think of any negative impacts of the new bell schedule.*
- ◆ *There have been no negative impacts. We still have 3 buses that do not get here on time.*
- ◆ *The old bell schedule is preferred as staff are affected by the drive home and traffic.*
- ◆ *It has impacted staff and their ability to stay after school due to other commitments.*
- ◆ *The start time is too late for our students.*
- ◆ *Tight timeline for contract hours when staff arrive to students entering the school.*
- ◆ *Cedar Lane is a unique school that requires flexibility with transportation. For instance, our students cannot be dropped off by the bus unless staff members are present, therefore, we need a 10-15 minute buffer between staff arrival time and student arrival.*
- ◆ *Increase number of tardies because there are more students walking. More traffic because more parents are dropping off.*
- ◆ *Staff and students liked coming in/leaving a little earlier. With the change we went back to our previous schedule.*

22. For **regular education** transportation, please rate the current performance of your transportation contractor(s) this school year in these areas:

	Excellent	Good	Average	Poor	Very Poor
Professionalism	25%	42%	25%	5%	3%
Reliability	26%	33%	26%	12%	3%
On-time Performance	25%	37%	27%	8%	3%
Communications	16%	30%	34%	12%	7%
Student Behavior Management	10%	26%	38%	17%	10%

23. For **special education** transportation, please rate the current performance of your transportation contractor(s) this school year in these areas:

	Excellent	Good	Average	Poor	Very Poor
Professionalism	29%	32%	31%	5%	3%
Reliability	24%	33%	27%	12%	4%
On-time Performance	16%	32%	28%	17%	7%
Communications	24%	25%	37%	9%	4%
Student Behavior Management	31%	23%	31%	11%	5%

24. We have asked you these questions to both understand the root causes of the transportation challenges experienced at the start of school and to document the extent to which challenges still exist. If you have any other ideas or thoughts about either issue, please tell us here.

- ◆ *The competence and consistency of our Zum drivers far exceeds the service that we received in previous years.*
- ◆ *Much of the inconsistency that we have experienced with Zum is related to their adherence to contracts signed for Field Trips. They have violated several contracts, after they were signed, by changing arrival or departure times.*
- ◆ *However, for day-to-day transportation, Zum has been consistent and professional.*
- ◆ *I would like for all buses to consistently arrive on time for both drop-off and pick-up. We have to wait daily, anywhere from 10-20 minutes for all of our students to be picked up.*
- ◆ *The high school and middle school would benefit from having different start times.*
- ◆ *If multiple tiers use the same buses with different numbers, put not only the number on the sign but also the mascot so the littles can identify their buses.*
- ◆ *2023-2024 is our first year. Selected "no" for anything in the survey that asked about 2022-2023 school year.*
- ◆ *Increased training for general ed bus drivers on behavior management strategies. Our previous bus companies were driving the same families for years and had built relationships. Our new company doesn't seem to have the same skill set or care to address student behaviors.*
- ◆ *We have one special education bus that arrives 10-15 minutes late each day at dismissal.*

- ◆ *The service is significantly improved from the beginning of the school year up to today.*
- ◆ *The main concern I have is with bus driver training. We are fortunate to have many great drivers, but there are some who do not interact with students, leading to negative behaviors. Seating charts are not followed, behaviors escalate, and then all the blame is placed on school administrators. I believe training for drivers should include asking them to ride along with “expert” drivers to give them tips on how to handle negative behaviors. Thanks for asking.*
- ◆ *There have been inconsistencies this year with the drivers assigned to each bus. They change on a weekly or bi-weekly basis. This is a concern because when these changes happen, it feels like the first day of school all over again. Additionally, it makes it hard for the drivers, students, and parents to develop relationships, especially for elementary aged students. We have also reported concerns regarding a couple of our driver behaviors and negative interactions towards students and following the directions of school staff when parking the bus. These drivers continued with these same concerns throughout the year.*
- ◆ *There are times when we have been notified about a late bus and times that we have not been notified. It poses a challenge when we are not notified because we need to make sure the students are supervised, contact transportation & sometimes wait for a response, and then communicate with families. When transportation is aware and informs us, they are able to send a message to our community, and we can focus on supervising students.*
- ◆ *Please do not have us in the same tier as HES. Thank you for your consideration.*
- ◆ *It would be nice to have autonomy for the general education bus riders. We have one general education bus with five students. Some students can walk to the community bus stop much closer than walking to the school. Our attendance would improve if those children could ride the large bus with only five students. Consistency of drivers for specialized transportation is also needed.*
- ◆ *In a school system that values relationships, it has been hard to get to know the drivers as in years past. Several routes have had many driver changes which erodes the consistency for our students. Simple things such as having the correct bus number in the window when there is a bus change still occurs which causes some confusion at dismissal. There is no direct communication with the drivers.*
- ◆ *It was nice when families, staff and students had a relationship with the drivers and dispatchers. Are we receiving our full value from Zoom...RFID cards and backup for the app? Consider providing drivers with a paper copy of the route.*
- ◆ *Transportation can also look at traffic patterns to and from school with car riders. Between the number of car riders- buses and cars have difficulty getting on and off campus.*
- ◆ *We would like to highlight [redacted] (Area 3 Transportation) for professionalism, responsiveness, availability beyond the school day, and problem solving.*
- ◆ *Our opinion was the start time change caused the transportation issues for arrival and dismissal at Bellows. However, the change to Zum also added challenges with drivers who do not know the routes. Once the start time changes changed back, we felt the % of late arrival (AM and PM) improved.*
- ◆ *Continue to examine routes to ensure they are reasonable to get students to school on time, including allowing additional time for special education pickups, which can frequently be prolonged.*

- ◆ *It seems that Zum does not understand or is unwilling to meet the transportation needs of our students and student athletes. Regularly buses are late or cancelled at the last minute. Allied sports games have been cancelled due to lack of transportation. Game times have been adjusted multiple times causing difficulty and confusion for parents. Multiple teams have self-transported this year. Meetings canceled 2 separate times. Concerns continue with Zum regarding drivers available to work and coverage for extracurricular activities. Field trips are another concern. We had an entire bus route canceled on Friday May 3rd, due to Zum unable to provide a bus for the route.*
- ◆ *Transportation at the Homewood Center is very complicated for various reasons. We are grateful for [redacted] and [redacted]! They are always available for us and in constant communication. Overall, we have had a great year with transportation.*
- ◆ *It appears that Zum drivers are much more disconnected from supervising student behavior on the bus and lack the necessary training to monitor, intervene, and report student behavior. This has been a struggle all year and it is trending in the wrong direction.*
- ◆ *Please do not move our elementary school start times back any later. Our high school students clearly have a strong voice for advocacy. Please provide our elementary students, who do not have the same platform, one too. Thank you! "*
- ◆ *There should be blackout times for field trip pickups and drop offs if they interfere with regular routes for transportation.*
- ◆ *Also, schools that share campuses should be able to have more time between bells and be adjusted separately from just Tier 1, 2, and 3.*
- ◆ *I think the data that is being given to the contracted companies needs to be cleaned up. We had many students who were unassigned or assigned incorrect buses at the beginning of the school year. I had to go student by student to ensure they were assigned the proper bus and then communicate that to the transportation office. Also, since we are now mainly a ZUM school, the transportation area managers aren't as helpful as we are mainly supposed to be contacting ZUM. There is not a direct point of contact for ZUM, which can be challenging.*
- ◆ *Transportation office seems to be understaffed and unable to respond quickly to school needs. Do area managers have too many schools?*
- ◆ *This is my [redacted]th year as an administrator. I have never seen transportation be this bad in all my years. The BOE needs to consider their part in the decision making when adjusting school start times. They had the narrow focus on high school without truly considering the impact to elementary.*
- ◆ *We were fortunate, our bus situation has been fantastic. I've had some driver changes but have been happy as of lately.*
- ◆ *More crowd/kid management and cultural proficiency training for drivers.*
- ◆ *We only have a 15-minute window to get 100 cars, 9 general education buses, 3 special education buses, and a handful of day car vans. The infrastructure of the school for arrival and dismissal was built for the school's original size in 1972 (400-500 students). Having buses in and out of our bus loop on time is essential to being able to unload or load students in the 100+ cars. It works this year, and I hope it can stay that way for next year.*

- ◆ *Specialized transportation is arriving too early. The students are sitting on the bus up to 15 minutes before they can enter the building. Then at dismissal the bus arrives 15 mins or more late. These buses should have priority scheduling. Students on these buses can't wait at school sitting for school doors to open and can't be at school late (we don't have the staff to stay late with all supervision needed).*
- ◆ *Please call me -- quite extensive since I get students from every high school in the county.*
- ◆ *New transportation contractor at [redacted]. There needs to be a serious conversation about buses for Athletics. Zum also is our contractor after school and there have been countless ongoing issues, even to this day, with buses not showing up at all for confirmed trips; canceling at the last minute; arriving hours late; lack of communication with the school and company. We need a new contractor. PLEASE.*
- ◆ *Things are working well at [redacted]. Please keep things as they are. [redacted] is hard-working, reliable, and personable. She somehow seems to know all the drivers on a personal level and has built a good relationship with the contractors.*
- ◆ *Bus drivers need more behavior management training. In addition, the drivers change frequently. This causes issues with preventative measures we put in place with drivers. They are only there a few days and then a new driver starts. We then need to start fresh with the new driver. This has caused repeated issues with students rather than solving the issues consistently.*
- ◆ *When there is a substitute driver for a bus, which is often, it would be helpful if the Zum transportation staff could share the afternoon parking spot locations with sub drivers. All schools should provide Zum with the parking spot map at the start of the year and this information should be shared with substitute drivers before they arrive at their designated schools in the afternoon. When drivers don't know where to go, they park in another person's spot and this makes it difficult for students to find their bus, especially at a school with 27 buses. As the person who stands outside in the morning to check in buses, I do share the parking spot info with sub drivers that I notice. However, if someone is covering for me, they aren't familiar with who is a regular driver and who is a sub to be able to share this info. I've provided paper copies of the map, but there are times when drivers are given another bus to use for the route and they do not have the map in the bus to reference. Also- it's important for sub drivers to fully know their routes and have their tablet on. There have been times when our secretaries cannot locate a bus on the map because the driver does not have the tablet turned on. There was also a time recently when one of our buses did not show up at all in the afternoon because there was no driver. HCPSS Transportation wasn't notified by Zum in a timely manner. Transportation actually found out from us because we had called Zum Dispatch directly. Therefore, there is still room for growth with communication between Zum and our school system's transportation office. Would it be better for schools to call the Zum Dispatch number directly instead of calling HCPSS Transportation office first if we are wondering about the status of a bus? Lastly, I've had to speak with two bus drivers recently who have not been picking up students at the time that's listed on the Bus Locator. It was reported that the drivers were coming too early. All drivers should follow the route times that have been provided to families at the start of the school year.*
- ◆ *Please keep the time change. If you are looking at any changes- make sure to keep the shared campus' in mind.*
- ◆ *Cancelling a bus route on any particular day is unacceptable. A bus should always show up to transport children.*

- ◆ *Specialized transportation should be consistent, the needs of the students are unique and having staff that changes regularly is harmful to our most fragile students.*
- ◆ *Zum determines “on-time” as a window. On-time should be determined by the dismissal time of the school. If school dismisses at 3:15 then showing up at 3:22 is not on time.*
- ◆ *Zum drivers need more familiarity with the Howard County community.*
- ◆ *Too many changes were made at once during the summer of 2023. Changing the contractors and school start/end times were too much for the system to handle. A lack of flexibility and slow response time from the department of transportation only exacerbated the issues.*
- ◆ *Bus drivers need behavior management training.*
- ◆ *Overall, we have been very pleased with our transportation this year. Some Special Ed buses have caused issues with families and being late, but we are able to work through them.*

Appendix B

Contractor Survey Results

This survey was distributed to all contractors working with the Howard County Public School System. Responses were collected between April 22, 2024, and June 10, 2024, and have been aggregated for comprehensive reporting.

(n = 21)

Leading up to the start of school for 2023-24:

1. Did HCPSS include your company in any of the planning for the new school bell schedules and bus schedules? (n=20)

	Responses
Yes	20%
No	75%
Not Sure	5%

2. On a scale of 1-10 (with 10 being the best), how would you rate the level of preparation that HCPSS provided you for the August 2023 school opening? (n=20)

	Responses
1	35%
2	10%
3	10%
4	5%
5	20%
6	5%
7	5%
8	10%
9	0%
10	0%
Average Rating	3.5

3. Did your assigned routes for 2023-24 require you to operate in a new geographic area from 2022-23? (n=20)

	Responses
Yes, we are operating in a totally new part of the county for 2023-24.	50%
Yes, we are operating in some new parts of the county for 2023-24.	15%
No, we are operating in roughly the same area of the county as last year.	30%
Not applicable - we did not operate in the county in 2022-23.	5%



4. When did you first receive the initial regular education bus routes from HCPSS for the August 28, 2023 school opening? (n=19)

	Responses
Prior to July	0%
First 2 weeks of July (1-16 July)	5%
Last 2 weeks of July (17-31 July)	5%
First 2 weeks of August (1-14 August)	0%
Third week of August (15-21 August)	58%
Last week before school (22-27 August)	16%
Don't really remember	16%

5. When did you receive the final regular education bus routes from HCPSS for the August 28, 2023 school opening? (n=19)

	Responses
Prior to July	0%
First 2 weeks of July (1-16 July)	0%
Last 2 weeks of July (17-31 July)	5%
First 2 weeks of August (1-14 August)	0%
Third week of August (15-21 August)	21%
Last week before school (22-27 August)	58%
Don't really remember	16%

6. When did you first receive the initial special education bus routes from HCPSS for the August 2023 school opening? (n=14)

	Responses
Prior to July	0%
First 2 weeks of July (1-16 July)	0%
Last 2 weeks of July (17-31 July)	7%
First 2 weeks of August (1-14 August)	14%
Third week of August (15-21 August)	14%
Last week before school (22-27 August)	50%
Don't really remember	14%

7. When did you receive the final special education bus routes from HCPSS for the August 2023 school opening? (n=14)

	Responses
Prior to July	0%
First 2 weeks of July (1-16 July)	0%
Last 2 weeks of July (17-31 July)	0%
First 2 weeks of August (1-14 August)	7%
Third week of August (15-21 August)	14%
Last week before school (22-27 August)	64%
Don't really remember	14%

8. In preparing for this school year, did you have any specific concerns regarding the transportation plans or routes you were given? (n=21)

	Responses
Yes, there were many concerns	53%
Yes, there were a few concerns	33%
No, there were no obvious concerns	14%
Don't really remember	0%

Transportation concerns leading up to 2023-24:

9. To whom did you express your concerns: (n=20)

	Responses
Coordinator of Transportation, Contracted Services	20%
Coordinator of Transportation, Planning and Technology	15%
Routers	10%
Area Managers	10%
Attorney for contractors	10%
Transportation Department	10%
Coordinator of Transportation, Specialized Service and Training	5%
Former Transportation Director	5%
Chief Administrative Officer	5%
Chief Operations Officer	5%
Other	5%

Other:

- ♦ *The new transportation director met with individual contractors to hear their concerns, but they did not have this meeting until 2-3 months ago and they have another meeting coming up at the end of July. This meeting is referred to as a contractors meeting, and they met under the Contractors' Association. If their contract was not for 6 years, they couldn't run their buses anymore. They mentioned being given one contract with one school, and the others were taken away. They had to get rid of buses.*

10. What were your concerns: (n=15)

- ◆ *1) Late signing of new contract -down to the wire -2 weeks before school opening. Questionable whether we would be operating in Howard Co. for the 23-24 school year. 2) Usual process was regular ed bus route drafts received by first week of August and contractor updates of bus numbers assigned for the drafts provided to HC by the second week of August however, guessing because of our late receipt of routes, HC did not process new bus numbers for assigned routes given to them on 8/21/24 for the public so the first week of school was mass chaos for both the drivers and students due to incorrect bus numbers assigned. Some concerns were addressed by signing a new contract only several weeks before school started, however bus number assignments were never addressed at all which led to many problems.*
- ◆ *Bell time changes would not work, lateness in providing routes, would not allow for proper dry runs and potential adjustments. Also, lack of clarity on routes would create confusion amongst current drivers in whether they would have work available or not, thus making them commit to work elsewhere.*
- ◆ *Buses and students arriving at the school at the same time. Will result in more traffic getting to the school. Congestion at the school. Safety of student drivers driving in busy school bus lots.*
- ◆ *Change of Bus Assignments, told everyone that the buses were changed, and they never changed them. Plus, the time and only having one school so employees lost hours even with raise.*
- ◆ *Changes in bidding procedures. Changes in area. Additional routes added.*
- ◆ *Concerns were the unfamiliar area which we were placed, contract terms and the uncertainty that HCPSS would uphold their word....many other things that I cannot even articulate at this time.*
- ◆ *How late the county sent routes for a completely new area (was sent a week before the start of school).*
- ◆ *Late signing of new contract and late receipt of bus routes- were we providing any transportation for HC for the 23-24 school year.*
- ◆ *Missing routes, Missing Students, Missing Mid-Day Routes.*
- ◆ *[Redacted] was concerned that they would lose everything they had, or they just had to push to survive. They were worried about losing all her contracts. They currently have 3 buses running instead of 5, they had to sell two buses since two contracts were not awarded.*
- ◆ *New area completely. Glad the drivers adjusted*
- ◆ *Routes not available*
- ◆ *The time/mileage/pay*
- ◆ *Timing Issues*
- ◆ *We lost 2 drivers because of school locations, and some weren't sure if we were going to have enough work for them or not. So, we lost 4 drivers in total.*

11. Do you feel that at least some of your concerns were addressed prior to Day One? (n=16)

	Responses
Yes	50%
No	50%
Not Sure	0%

12. On Day One, did you have any major challenges providing on-time service to HCPS schools? (n=20)

	Responses
Yes	30%
No	70%
Don't really remember	0%

Thinking about the start of school, 2023-24:

13. On Day One, what challenges did you have? (n=5)

- ◆ *A) Drivers did not perform dry runs, and many were seeing routes for the first time on Monday (Day 1) given final routes were provided on Saturday. Hence, all the drivers had to be called to dispatch to collect route sheets, which caused congestion. B) Not performing dry runs led to chaos while driving for the first time on the routes and in many cases in the county. Also, we had brought in drivers from out of state as per the plan approved by HCPSS and these drivers had an even tougher time driving without dry runs. C) We had trained, certified, and hired enough drivers for the start of the school year, however since drivers had not seen route sheets and were unclear that they would have work or not, they joined other companies/district within the county and or outside the county. This led to a shortfall of 20 drivers because 38 who had previously committed to joining, did not show up. D) There are no humanly possible way routes could be performed in the tiers provided on the route sheets because of lack of enough time between bell times (30 min), and also not enough driving time within and in between routes.*
- ◆ *Delays at schools (normal) and not enough travel time to remaining schools after 1st drop off.*
- ◆ *Late arrival at the elementary school - we only have 1 route and 3 schools were assigned*
- ◆ *Not enough time to get to school on time.*
- ◆ *One driver was given a duplicate run the first day of school. The driver and another company both had the same run so they were out of work for 2 weeks waiting on a new route. The other thing was time and area concerns.*

14. How could your Day One operations have been better? (n=18)

- ◆ *A) At the onset, there was a structural flaw in bell times combined with three tiers that would simply not have worked as intended. This could have only been solved by the county had they analyzed and tested new tiers and schedules prior to implementation. B) Receiving the routes 10 days before day 1 as per the contract would have solved many issues and would have allowed the ability to provide feedback and correct problems before day 1. C) On our side, we could have escalated these challenges earlier and beyond the Transportation department to county leadership, rather than assuming they were being communicated up the chain.*

- ◆ *All good with my company*
- ◆ *All handled*
- ◆ *As a veteran HCPSS contractor, [Redacted] put the necessary work into ensuring a successful starting day and beyond. Additionally, we were able to provide emergency/on-call assistance to support HCPSS operations during the start of the school year.*
- ◆ *Go back to regular start time*
- ◆ *I feel my employees did a great job and enjoyed their runs. The pre-trips help so much.*
- ◆ *If school times were correct. and if drivers were more familiar with their new areas.*
- ◆ *Less congestion/ traffic at all the schools. More parent drop off causing delays. Tight schedules between routes that had three schools. No flexibilities for any delays or extra traffic.*
- ◆ *More time to practice routes with drivers in the new area*
- ◆ *Not having the bell adjustments*
- ◆ *Nothing could have been better. For us personally this was the best year for start.*
- ◆ *Only had one school, they were ready, and they ran their operations accordingly*
- ◆ *Ran as well as they could have, they were thrown a curve ball and a complete relocation of routes. Under these circumstances they did great. There are no complaints with how they handled the first day.*
- ◆ *Transportation staff answering emails and phone calls*
- ◆ *Updated routed bus number assignments provided to students. We were able to handle driver training for new routes because of our due diligence. New bell times only impacted 5 routes or less.*
- ◆ *We didn't have any major issues. Our bus drivers and attendants did very well especially being in a brand new area.*
- ◆ *Would have been helpful to have had communications with the transportation dept. Very difficult to speak to anyone.*

15. On a scale of 1-10 (with 10 being the best), how would you rate the quality of your company's opening week performance in August 2023? (n=19)

	Responses
1	5%
2	0%
3	0%
4	0%
5	5%
6	0%
7	0%
8	11%
9	16%
10	63%
Average Rating	8.9

16. After the first week of school and prior to September 20, 2023, did you have concerns about being able to meet the scheduled timing of the bus routes? (n=19)

	Responses
Yes, the timing was way too tight	21%
Yes, the timing was a bit tight	32%
No, not really. The route timing was fine.	47%
Don't really remember	0%

17. After Day One, did HCPSS provide you with updated routes to follow when the district changed school start times on September 20, 2023? (n=19)

	Responses
Yes, HCPSS made major changes to my routes, beyond just changes to the school drop and start times	11%
Yes, HCPSS made minor changes to my routes, beyond just changes to the school drop and start times	26%
No, our routes were not changed, other than the school drop and start times	63%
Don't really remember	0%

Thinking about current operations:

18. How often does one or more of your buses arrive for afternoon pickup after the dismissal bell? (n=19)

	Responses
Daily	16%
Several times a week	0%
Once a week	0%
A few times a month	0%
Almost never	84%

19. How often does your company have to cover routes with substitute drivers? (n=19)

	Responses
Daily	5%
Several times a week	21%
Once a week	5%
A few times a month	26%
Almost never	42%

20. How many of your daily HCPSS routes do not currently have a permanent driver assigned to them? (Please enter whole number amount) (n=16)

	Responses
0	88%
1	13%
2	0%
3	0%
4	0%
5	0%

21. Is your current driver shortage better or worse than it was a year ago? (n=19)

	Responses
Better than last year (we are short fewer drivers right now)	42%
About the same driver shortage this year as last year	42%
Worse than last year (we are short more drivers right now)	11%
Not applicable - we did not serve HCPSS last year	5%

22. If you could change ONE thing about providing student transportation in HCPSS, what would it be? (n=17)

- ◆ *A collaborative and positive working relationship with the leader(s) of the HCPSS Transportation department.*
- ◆ *Better communication and support for the drivers with student/parent/school interaction.*
- ◆ *Bid higher on contracts so they can play their employees cost of living pay. They are concerned that drivers may leave due to pay.*
- ◆ *Change school start time back to the way they used to be so buses could serve up to 3 or 4 schools each morning and each afternoon.*

- ◆ *Communication; Add regular meetings between the contractors and managers (they work for other counties where they have regular check-in meetings with the managers and they are very helpful); when coming up with bids and parameters, HCPSS should get input of the experienced contractors - come to them as business owners and ask what will work for them*
- ◆ *Get route drafts out earlier. Also, because of the bell time changes, HC deleted our elementary route which caused a significant reduction in our HC payments and a decrease of pay for our driver. We requested something else to make up the difference and never received anything.*
- ◆ *Get the drafts out earlier and communicate the bus number changes more efficiently. Also, make each route more productive by not having routes with only 1 school assigned - we are losing equity.*
- ◆ *Give incentives to train and find more drivers in the county.*
- ◆ *Go back to the original bell times.*
- ◆ *Having all buses serve at least 2 tiers of schools. A bus serving one tier is not profitable for the contractor to operate.*
- ◆ *Include a contractor representative in the decision-making process. We have the experience of knowing what will or will not work.*
- ◆ *Keeping local bus contractors and drivers.*
- ◆ *Making students walk further for it is so dangerous out there for them robberies and parents have to worry so much.*
- ◆ *Route consistency. Keeping the routes the same every school year. Less changes on special needs routes. We get updates for special needs routes up to 5 times per day.*
- ◆ *SPECIAL NEEDS ROUTING NEEDS IMPROVEMENT...MAYBE BETTER KNOWLEDGE OF HCPSS SOFTWARE*
- ◆ *The number of conflicting field trips with HTS routes makes it difficult to provide on time service. County did not consider this problem in the new 3 tier service before the start of the school year.*
- ◆ *To be able to provide good health insurance and pay more than \$27 per hour.*

23. On a scale of 1 to 10, with 10 being the best, how would you rate the communications from the HCPSS Transportation Department? (n=19)

	Responses
1	21%
2	0%
3	5%
4	5%
5	16%
6	11%
7	5%
8	21%
9	11%
10	5%
Average Rating	5.5

24. On a scale of 1 to 10, with 10 being the best, how would you rate your working relationship with the HCPSS Transportation Department? (n=19)

	Responses
1	5%
2	5%
3	16%
4	11%
5	5%
6	5%
7	5%
8	21%
9	11%
10	16%
Average Rating	6.2

Wrapping up:

25. We have asked you these questions to both understand the root causes of the transportation challenges experienced at the start of school and to document the extent to which challenges still exist. If you have any other ideas or thoughts about either issue, please tell us here. (n=13)

- ◆ *1. Contract Issues and Route Reassignment: -Contractors have 12-year contracts, with an option to kick back and rebid after 6 years. -10 routes were thrown back for rebid, but the district failed to open a bid. -HCPSS ultimately assigned these routes to Tip Top and Zum. -This reassignment pushed [Redacted] into the western part of the district, unfamiliar territory (went from driving in a concentrated area now to a rural area - completely different level of driving). -[Redacted] felt deceived and experienced a significant financial loss by not running 10 buses. -Consequently, they had to relocate these operations to Anne Arundel County. -There is a general distrust towards HCPSS among contractors. 2. Recruitment Conflicts with Zum: -Zum has been actively trying to recruit drivers and workers, often showing up at bus lots. -They offer \$100k contracts and buses to entice drivers, including attempts to recruit [Redacted]. -[Redacted] made the*

transportation office aware of these recruitment attempts. -Zum incentivizes their own drivers with an additional \$1,000 per day for each driver they recruit. -This recruitment effort has been ongoing from the last school year into this fall. -An instance of this recruitment was when [Redacted] covered routes that Zum could not complete. When they sent their buses and drivers to the Zum schools, Zum sent their managers to the same schools to recruit their drivers. 3. Operational Issues and Assistance: -Zum recently won a contract in Pennsylvania, talks about them abandoning Howard contracts in the fall. -Zum drivers, seeking other contractor jobs in Howard County, face rejection from other contractors due to perceived inadequate training. - Howard County requires a four-day classroom certification for bus drivers. -Zum drivers reportedly underwent an express certification process, mainly online (online videos were mentioned as the primary training). 4. Concerns with HCPSS Administration: -It was suggested that the board should meet with local contractors to hear their concerns. -Live Board meetings revealed misinformation being fed to board members. -Attempts to reach out to the board were thwarted by the transportation office and former superintendent and director. -Contractors requested a contract increase to \$85,000, but the district awarded Zum over \$100,000, and was left with a big mess and fewer buses and displaced contractors. -Contractors' phones were blowing up with calls about not having a job in HCPSS the next year following board discussions about canceling all local contracts. 5. Board and Administration Dynamics: - Former board chairperson [Redacted], is said to have been in the pact along with the former superintendent and chief of operations. -During the fallout, [Redacted] deflected blame despite their involvement and them being a part of the problem. -There were closed-door meetings and discussions about canceling contracts. -It was emphasized that the situation would have been worse without local contractors' bailing out Zum. -Although [Redacted] has long-term contracts with HCPSS, the future remains uncertain.

- ◆ Again, equity was lost by contractors by assigning 1 to 2 schools per route when in the past, routes assigned were 3-4 schools. Better, more efficient, and equitable routing would be a big plus.
- ◆ Better efficient and equitable routing.
- ◆ Existing challenges: -guaranteed cost of living increase -input on routing (concentrating the company's fleet in a particular group of schools) to be able to have flexibility to provide coverage when situations arise -future bids/RFPs- what the transportation service model will look like going forward
- ◆ I do believe that they are trying harder to work with us now.
- ◆ I was running 25 routes in the past, providing A-1 service for 20 years as of now. When HoCo wanted to be done with contractors my size. My only choice was to grow my business to 65 routes and that was out of the question. That forced the contractors to get legal help, not until then were our concerns addressed. It was the week before school when HoCo agreed on the dead mileage issue as well as other issues. Now all my routes start close to my lot, after 20 years. It was always said, 'put it in your bid' which was impossible to do. Drivers has always been an issue for the whole county and that should have been dealt with since the beginning of time, even when I was a driver. People should want to drive a bus in HoCo. It's a good job and drivers need to be treated the best and that will solve all the county's busing issues.
- ◆ It would be great to have better routing, specifically on SPED routes. Additionally, receiving routes early in the process will be crucial to everyone's success.

- ◆ *The challenges we faced happened because HCPSS thought they could cancel our contracts, causing our businesses to fail, which would have led to ample drivers for Zum to hire. The RPF process was unfair from its inception. It was a bad decision to give ~200 routes to a company from out of the state without any evidence of their ability to perform. It was amateur leadership. Thank you*
- ◆ *The county should have a fleet of county owned buses with drivers to support contractors covering unusual circumstances.*
- ◆ *We would like to keep our routes the same for next year. Our drivers know the routes and the students and that keeps issues to a minimum.*
- ◆ *With the recent changes in Transportation leadership communications have improved. The time changes and tight schedules between each tier have taken away the flexibility we had in the past to double back if drivers are out or if there are delays due to accidents/traffic/breakdown. Also, they have created more traffic and congestion at the schools by taking away transportation service from many families. Hence, more parents are dropping off and picking up students at schools. I have seen so many more near accidents at the schools.*