Office of Superintendent of Public Instruction

Student Transportation

Transportation Efficiency Review of 2015-16 School Year Transportation Operations

for Grandview School District

10/31/2017

Table of Contents

Executive Summary 3
Report Process and Review Methodology 4
Section One: STARS Relative Efficiency Rating – Review and Comments 4
Section Two: Key Performance Indicators, Analysis and Comments 5

A. Basic Rider KPI 5

B. Special Education Rider KPI 5

C. Cost per Rider KPI 6

Section Three: Review of District Transportation Operations 7

A. Policies and Procedures 7

B. Transportation Operations 7

C. Geographic and Other Constraints 8

Appendix I STARS Efficiency Detail Report

Appendix II Key Performance Indicator T. A. P.

Executive Summary

Grandview School District had a full time equivalent enrollment for the 2015-16 school year of 3,572.33 students. Of those enrolled, Grandview provided home-to-school transportation service for an average of 1,839.5 basic program riders and 103.6 special program riders per day (combined AM and PM student counts). The district operated 17 school buses to provide this service, at a cost of $858,844.57.

The efficiency system target for Grandview School District would be to operate 14 school buses at a cost of $750,028.42. The district's relative efficiency rating based on data from the 2015-16 school year is 87.33%.

For school districts with a relative efficiency rating less than 90%, a review by the Regional Transportation Coordinator (RTC) is required. RTCs also conduct follow-up reviews for districts moving above 90%. The RTC review was conducted by Dan Payne from ESD105.

The regional transportation coordinator found that the most significant factors constraining the district's transportation operating costs and efficiency were:

- The district serves a large population of transient migrant students making efficient routing challenging.

Overall Summary:

Despite the comparative efficiency rating, all of the Key Performance Indicators continue to show that in comparison to KPI cohort districts, and compared against the state average, Grandview is operating efficiently.

Report Process and Review Methodology

A detailed description of the STARS efficiency rating process is available online at: http://www.k12.wa.us/transportation/STARS/default.aspx under Efficiency Ratings. That webpage also provides descriptions of the rating calculation.

Key Performance Indicators (KPI) material is included in this document, but for an explanation of each indicator and the methodology, please see the Key Performance Indicators Technical Assistance Paper available online at the website referenced above, and also in Appendix II.

The approach used for the 2017 review of a school district's transportation program involves four sections:

1. Review and analysis of the district's STARS relative efficiency rating, and any comments;
2. Review and analysis of the district's Key Performance Indicators (KPI), and any comments;
3. Review and analysis of the school district's operational details, including identifying constraints and changes from prior years (if any), and any comments.

Using this process, the district's transportation program is evaluated for the efficient use of state fiscal resources. The goal of this process is to attempt to identify best practices that districts can apply to minimize the costs of operating their transportation service.

Section One: STARS Relative Efficiency Rating – Review and Comments

For Grandview School District, the March 2017 relative efficiency score (based on data from the 2015-16 school year) was 87.33%. The Efficiency Detail Report including the cohort districts and predicted resource requirements is provided in Appendix I.

> In the 2015-16 school year, Grandview School District reported operating 17 buses to transport an average ridership count of 920 students with expenditures of $858,844.57. The efficiency rating calculation identified target expenditures of $750,028.42 while operating 14 buses.
> Grandview's March 2016 relative efficiency rating (based on data from the 2014-15 school year) was 82.44% and the March 2015 relative efficiency rating (based on data from the 2013-14 school year) was 79.2%.

RTC Analysis and Comments:

Despite the relative efficiency rating, Key Performance Indicators (later in this report) show that Grandview continues to operate efficiently when compared against KPI cohort districts, and against the quartile statewide average.

School District Comments:

Section Two: Key Performance Indicators, Analysis and Comments

This section of the efficiency review process uses three Key Performance Indicators (KPI): the average number of basic program riders per basic program bus; the average number of special education riders per special education bus; and the average cost per rider. These three KPI are helpful in translating efficiency into "ground level" concepts. In addition to each district's KPI, a KPI cohort is developed. The KPI cohort is comprised of the 20 most similar districts based on total ridership.

A. Basic Rider KPI

Basic Program Riders per Basic Program Bus KPI by School Year

2012-13	2013-14	2014-15	2015-16	Change 2014-15 to 2015-16
91.14	91.72	94.75	80.85	-14.67%

This KPI attempts to measure the efficiency of the district's basic program transportation by calculating the average number of students carried on basic program school buses.

General comment: independent of other factors, an increase in the number of basic riders per basic school bus from year to year reflects an increase in efficiency.

RTC Analysis and Comments:

In the 2014-15 school year, Grandview transported an average of 94.75 basic program students per basic program bus. In the 2015-16 school year, this changed to an average of 80.85 basic program students per bus. This was a change of -14.67%.

The district ranks 3rd in the Basic Riders KPI within their 21 district KPI cohort. The average basic students per basic bus among all 3rd quartile districts statewide is 59.59.

School District Comments:

B. Special Education Rider KPI

Special Education Riders per Special Education Bus KPI by School Year

2012-13	2013-14	2014-15	2015-16	Change 2014-15 to 2015-16
11.56	10.15	9.11	8.91	-2.22 %

RTC Analysis and Comments:

This KPI attempts to measure the efficiency of the district's special education transportation by calculating the average number of students carried on special education school buses. It is important to note that special education students may require specialized transportation that limits a district's ability to maximize bus utilization. In special education transportation, student needs preempt efficiency concerns.

General comment: independent of other factors, an increase in the number of special education riders per basic school bus from year to year reflects an increase in efficiency.

In the 2014-15 school year, Grandview transported an average of 9.11 special education students per special education bus. In the 2015-16 school year, the district transported an average of 8.91 special education students per bus. This was a change of -2.22%

The district ranks 7th in the Special Education Riders KPI within their 21 district cohort. The average Special Riders per Special Bus among all 3rd quartile districts statewide is 8.32.

***For school districts with few or no students requiring special education transportation services, this KPI is of minimal value except for confirming year to year service requirements.**

School District Comments:

C. Cost per Rider KPI

Cost per Student KPI by School Year

2012-13	2013-14	2014-15	2015-16	Change 2013-14 to 2014-15
$ 879.85	$ 965.93	$ 856.24	$ 883.98	3.24%

RTC Analysis and Comments:

This KPI attempts to measure the overall efficiency of the district's transportation operation by calculating the average cost of transporting a student.
General comment: independent of other factors, a decrease in the average cost of transporting a student from year to year reflects an increase in efficiency.
In the 2014-15 school year, Grandview's average cost per rider was $856.24. In the 2015-16 school year, the district's average cost per rider was $883.98. This was an increase of 3.24%.

The district ranks 3rd in the Cost per Rider within their 21 district KPI cohort. The average cost per rider among all 3rd quartile districts statewide is $1,124.80.

For districts able to break out the average cost per student between the basic program and the special education program, the year to year change in these values can assist the district in evaluating their transportation operations. However, the workload to break out these costs by program can be substantial.

School District Comments:

Section Three: Review of District Transportation Operations

The review of district transportation operations is grouped in three areas:

- Policies and Procedures
- Transportation Operations
- Geographic and Other Constraints

The goal of the district review process is to identify changes that the district has made that impact the cost of providing transportation service. The identification of constraints the district faces can help in identifying solutions so that these solutions can be shared with other districts.

A. Policies and Procedures

Policies are the desired high level outcomes as articulated by the school district board of directors. The school district administration and transportation staff develop procedures to accomplish the policy objectives. Examples may include providing transportation for out-of-district 'choice' students or establishing a 2-mile walk area for high school students.

RTC Observations and Comments:

B. Transportation Operations

Transportation operations include all the organizational processes used to manage and run the transportation program on a daily basis from routing to payroll. The age of the fleet impacts maintenance costs, as does a good preventative maintenance program. Any district changes in operations that could significantly impact the efficiency or cost of operations should be noted. Examples include combining routes to reduce the number of buses or increasing buses to reduce student ride times.

RTC Observations and Comments:

Transportation Expenditures (STARS Prior Year Expenditures) by School Year

2012-13	2013-14	2014-15	2015-16
$727,916.52	$825,029.08	$851,259.57	$858,844.57

Transportation expenditures saw only a small increase (<1%) from the 2014-15 to the 2015-16 school year.
Review of the KPI and expenditure data for Grandview shows that the district rates 3rd in two of the three KPI categories when compared with the 20 districts in the KPI cohort group.
Grandview also rates better than the average among all 3rd quartile districts statewide in all

three categories. The district should continue to focus on year-to-year comparison of the KPI as an indicator of operational efficiency, while secondarily monitoring the relative efficiency rating.

C. Geographic and Other Constraints

Geographic constraints can impact the ability of a school district to maximize efficiency. Identifying methods to minimize the impacts of constraints can assist other districts facing similar challenges. Examples of constraints include geographic constraints such as large bodies of water, minimal student density or urban traffic congestion.

RTC Observations and Comments:

The most significant constraint consistently present in the district is the high percentage of migrant / transient students. Transportation routing is required to plan for all student riders eligible for transportation when routes are established in the fall. This highly mobile population makes it difficult to plan efficient routes and requires frequent modifications to address student locations. The district frequently runs extra “overflow” routes in the afternoon to supplement regularly planned routes to address this problem

School District Comments Regarding Policies and Procedures, Operations, and Constraints:

Appendix I

State of Washington

Superintendent of Public Instruction

School Year 2016-2017 - Grandview School District

Efficiency Detail Report

GRANDVIEW

					Workload		Site Characteristics (>)				Site Characteristics (<)	
Cohort	**District**	**Weight**	**Prior Year Expenditures**	**Buses**	**Basic Riders**	**Special Riders**	**Avg Distance**	**Number of Dest.**	**Land Area**	**K Rte**	**Road Miles per Sq Mile**	**Students Per Road Mile**
	Grandview		$858,844.57	17	1,839	103	2.53	7	39.7	0	4.63	10.56
Cohort	College Place	31.3%	$296,013.51	8	912	49	2.29	6	29.0	0	3.96	8.37
Cohort	Nooksack	13.1%	$831,022.81	16	1,738	158	3.03	5	72.3	0	2.29	11.43
Cohort	Othello	2.6%	$1,258,006.47	27	2,720	195	5.08	10	291.3	0	1.34	7.48
Cohort	Toppenish	53.0%	$972,831.93	18	2,367	117	3.09	9	268.6	0	1.41	6.54
Target	Grandview Target	100%	$750,028.42	14								

Relative Efficiency Rating 87.33%

Site Characteristics (>) are those characteristics where a larger number is more challenging

Site Characteristics (<) are those characteristics where a smaller number is more challenging

Office of Superintendent of Public Instruction
Student Transportation

Key Performance Indicators
Technical Assistance Paper
Customized for Grandview School District

April 2017

Overview

The use of Key Performance Indicators (KPI) provides a straightforward method of analyzing school district transportation operational efficiency.

The Office of Superintendent of Public Instruction (OSPI) and the Regional Transportation Coordinators (RTCs) have standardized the use of three widely recognized KPI:

1. Basic program riders per basic program bus;
2. Special education riders per special education bus; and
3. Average cost per rider.

The value of KPI cannot be analyzed independent of a school district's characteristics. For instance, a rural district may be unable to fill a school bus given the student density. In a similar way, a school district's special education rider KPI is constrained by the number of special education students, where they live and their transportation requirements.

The three KPI are evaluated using the information gathered through the STARS system. The analysis is done across multiple school years to determine trends in student ridership and the cost of transportation service.

The KPI can also be used in comparison to other districts. Since larger districts have more ability to take advantage of economies of scale, the comparison to other districts is done using 20 districts that are close in total student ridership.

Districts wishing additional information or analysis on this report should contact their regional transportation coordinator. Contact information is available at: http://www.k12.wa.us/Transportation/coordinators.aspx.

Discussion of the Key Performance Indicators

Key Performance Indicators are sometimes referred to as "benchmarks". The current view within the industry is that the term benchmark has connotations of being a one- size-fits-all standard that provides a hard quantitative line between efficient and inefficient transportation operations.

However, actual student transportation operational efficiency is subject to many conditions totally outside school district control. For instance, the geographic distribution of students may place severe constraints on the district's operational efficiency. As an example, in a rural district there may be one student living a great distance up a canyon or isolated highway. Similarly, a special education student may require expensive individualized transportation service. Two districts with otherwise similar conditions may vary in their relative efficiency rating or KPI numbers due to situations such as these. KPI by themselves do not reveal the existence of these extenuating factors (nor does the STARS Efficiency Rating).

The primary strength of KPI is when they are used over time to provide an ongoing method of evaluating one district's transportation operations. Year to year review of the basic statistics revealed by the KPI should be an essential part of each district's self- evaluation of their transportation department's performance.

Some additional description of these individual KPI and how the data collected through STARS is used to calculate each KPI may help to clarify their relevance and their impact on a district's STARS efficiency rating.

Basic Program Riders per Basic Program Bus

The number of basic program riders per basic program bus is a critical measure of efficiency. For calculating the riders per bus, the total student ridership count (the combined AM plus PM count collected through the STARS reporting process) is divided by two in order to reflect students per bus. The number of buses used is collected from STARS routing data.

Special Education Riders per Special Education Bus

As in the basic riders KPI, the total special education student ridership count (combined AM plus PM) is divided by two and the bus count is collected from STARS route data. Washington Administrative Code (WAC) 392-172A-02095 says that school districts should, when possible, limit the one-way transportation times for special education students to no more than 60 minutes. A district may also have one or more students with an IEP that requires individual transportation (without other students). These two factors can restrain efficiency.

Greater inclusion of special needs students onto basic education buses is to be encouraged where possible. Greater inclusion may result in fewer overall special education routes (reducing expenditures), but may result in lower special riders per special bus ratios … since the remaining special needs students may demand a higher level of individualized service.

Overall, this KPI category is one that should be carefully evaluated to ensure that student needs are prioritized.

Average Cost per Rider

This KPI provides the district's average cost of transporting students to school. Again, the total student ridership count (combined AM plus PM) is divided by two in order to reflect an average cost per student. This KPI reflects all students provided with transportation in the special program categories and not just special education students.
Special education students typically will generate a significantly higher cost per student due to fewer students per bus, greater distances between stops and longer routes.

Districts that are able to break out costs between basic program and special program are encouraged to do so for the additional benefit it will provide.

District KPI

The Grandview School District's KPI are as follows:

1. Basic program riders per basic program bus KPI

Basic Rider KPI 2013-14	Basic Rider KPI 2014-15	Basic Rider KPI 2015-16	Change in Basic Rider KPI
91.72	94.75	80.85	- 14.67%

General comment: independent of other factors, an increase in the number of basic riders per basic school bus from year to year reflects an increase in efficiency.

2. Special education riders per special education bus KPI

Special Ed Rider KPI 2013-14	Special Ed Rider KPI 2014-15	Special Ed Rider KPI 2015-16	Change in Special Ed Rider KPI
10.15	9.11	8.91	- 2.22%

General comment: independent of other factors, an increase in the number of special education riders per school bus from year to year reflects an increase in efficiency.

If a school district does not have special education students requiring transportation, this KPI has limited meaning, except to be noted when comparing the overall cost per rider KPI with another district of similar size that does have special needs students requiring transportation.

3. Average cost per rider KPI

Average Cost per Rider KPI 2013-14	Average Cost per Rider KPI 2014-15	Average Cost per Rider KPI 2015-16	Change in Average Cost per Rider KPI
$ 965.93	$ 856.24	$ 883.98	3.24%

General comment: independent of other factors, a decrease in the average cost per rider from year to year reflects an increase in efficiency.

Cohort District KPI

To further provide comparison with similar districts, a KPI cohort is developed. This cohort is based on sorting all school districts by total students transported and selecting ten districts above and below the district in question, when possible. For districts at either end of the student load spectrum, the closest twenty are selected. The resulting group is referred to as the KPI cohort. Each district is compared within this group for each KPI. The next four pages show the four tables developed to display the KPI Cohort information. Each table has the district highlighted in yellow. The sort order of each table is determined based on having the number representing the greatest efficiency at the top of the table.

Generally, if all districts had exactly identical student ridership requirements, identical geographic constraints and were similar in the other factors impacting the efficiency of transportation of operations, the districts should remain in the same order. A rise in the district placement in a KPI table indicates more efficient operations compared to the districts lower in the table. A drop in placement reflects less efficient operations relative to the other districts.

Table 1 shows the KPI cohort group. This table shows the districts that will be used for comparison in the following tables. It may be worthwhile noting the range in student ridership within the cohort, as larger student ridership provides more opportunities for routing efficiently. These are referred to as 'efficiencies of scale' and are common in all efficiency evaluations.

District	Total Riders 2015-16
PORT ANGELES	1,238.8
PROSSER	1,213.8
LYNDEN	1,204.5
ROCHESTER	1,198.6
WALLA WALLA	1,154.8
MOUNT BAKER	1,095.7
QUINCY	1,094.7
ORTING	1,050.1
DEER PARK	977.2
NORTH FRANKLIN	971.8
GRANDVIEW	971.6
NOOKSACK	948.6
DIERINGER	935.2
EPHRATA	921.9
ELLENSBURG	897.9
CHEHALIS	874.8
WAHLUKE	869.4
BLAINE	842.3
SEQUIM	841.4
SULTAN	831.1
MERIDIAN	816.1

Table 2
This table shows the districts sorted in descending order by the value of their Basic Rider per bus KPI.

Change in rank	District	Total Riders 2015-16	Basic Riders Per Basic Bus 2015-16
+10	NOOKSACK	948.6	88.0
+9	ORTING	1,050.1	84.9
+8	GRANDVIEW	971.6	80.8
+7	LYNDEN	1,204.5	80.6
+6	MERIDIAN	816.1	78.9
+5	DIERINGER	935.2	76.8
+4	PORT ANGELES	1,238.8	75.4
+3	QUINCY	1,094.7	70.0
+2	SULTAN	831.1	60.8
+1	WAHLUKE	869.4	60.3
	MOUNT BAKER	1,095.7	57.7
-1	CHEHALIS	874.8	57.2
-2	ROCHESTER	1,198.6	53.9
-3	BLAINE	842.3	50.6
-4	PROSSER	1,213.8	49.3
-5	WALLA WALLA	1,154.8	47.5
-6	ELLENSBURG	897.9	47.4
-7	SEQUIM	841.4	45.3
-8	NORTH FRANKLIN	971.8	43.4
-9	DEER PARK	977.2	42.5
-10	EPHRATA	921.9	41.6

Table 3
This table shows the districts sorted in descending order by the value of their Special Education riders per Special Education bus KPI.

Change in rank	District	Total Riders 2015-16	SpEd Riders Per SpEd Bus 2015-16
+10	WAHLUKE	869.4	12.9
+9	WALLA WALLA	1,154.8	12.7
+8	CHEHALIS	874.8	10.2
+7	PROSSER	1,213.8	9.5
+6	ELLENSBURG	897.9	9.1
+5	QUINCY	1,094.7	8.9
+4	GRANDVIEW	971.6	8.9
+3	PORT ANGELES	1,238.8	8.9
+2	ORTING	1,050.1	8.4
+1	NORTH FRANKLIN	971.8	8.4
	EPHRATA	921.9	7.7
-1	DEER PARK	977.2	7.5
-2	BLAINE	842.3	7.2
-3	SULTAN	831.1	7.1
-4	LYNDEN	1,204.5	6.9
-5	SEQUIM	841.4	6.1
-6	MERIDIAN	816.1	6.0
-7	ROCHESTER	1,198.6	5.6
-8	MOUNT BAKER	1,095.7	5.1
-9	DIERINGER	935.2	4.9
-10	NOOKSACK	948.6	4.6

For districts without Special Education students requiring specialized transportation, the table is only useful while reviewing potential reasons for differences in the next table, Average Cost per Rider.

Table 4
This table shows the districts sorted in ascending order by the value of their Cost per Rider KPI. This sorts reflects that efficiency in this KPI is reflected by a lower cost per student, rather than higher numbers of riders per bus.

Change in rank	District	Total Riders 2015-16	Cost Per Rider 2015-16
+10	DIERINGER	935.2	$ 802.37
+9	NOOKSACK	948.6	$ 876.03
+8	GRANDVIEW	971.6	$ 883.98
+7	LYNDEN	1,204.5	$ 915.77
+6	MERIDIAN	816.1	$ 941.76
+5	PROSSER	1,213.8	$ 969.50
+4	WAHLUKE	869.4	$ 974.86
+3	CHEHALIS	874.8	$ 1,021.82
+2	QUINCY	1,094.7	$ 1,047.02
+1	ROCHESTER	1,198.6	$ 1,066.58
	DEER PARK	977.2	$ 1,083.33
-1	WALLA WALLA	1,154.8	$ 1,096.63
-2	EPHRATA	921.9	$ 1,141.65
-3	SEQUIM	841.4	$ 1,143.98
-4	ORTING	1,050.1	$ 1,169.41
-5	NORTH FRANKLIN	971.8	$ 1,248.35
-6	PORT ANGELES	1,238.8	$ 1,272.36
-7	MOUNT BAKER	1,095.7	$ 1,279.09
-8	BLAINE	842.3	$ 1,299.04
-9	SULTAN	831.1	$ 1,316.63
-10	ELLENSBURG	897.9	$ 1,475.88