Office of Superintendent of Public Instruction

Student Transportation

Transportation Efficiency Review of 2016-17 School Year Transportation Operations

for GRANDVIEW School District

09/11/2018

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Executive Summary

Grandview School District had a full time equivalent enrollment for the 2016-17 school year of 3,622.26 students. Of those enrolled, Grandview provided home-to-school transportation service for an average of 1,760 basic program riders and 140.875 special program riders per day (combined AM and PM student counts). The district operated 16 school buses to provide this service, at a cost of $908,184.31.

The efficiency system target for Grandview would be to operate 15 school buses at a cost of $878,813.88. The district's relative efficiency rating based on data from the 2016-17 school year is 96.77%.

For school districts with a relative efficiency rating less than 90%, or districts with a relative efficiency rating moving from below to above 90%, a review by the Regional Transportation Coordinator (RTC) is required. The RTC review was conducted by Dan Payne.

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:

- All three 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. The comparative efficiency rating will vary from year-to-year due to cohort selection. The KPI's are the more effective indicator of operational efficiency.

Report Process and Review Methodology

A detailed description of the STARS efficiency rating process is available online at Student Transportation Allocation Reporting System web page 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.

The approach used for the 2018 review of a school district's transportation program involves four sections:

1. Review of the district's STARS relative efficiency rating;
2. Review of the district's Key Performance Indicators (KPI);
3. Review of the school district's operational details, including identifying constraints and changes from prior years (if any); and
4. Comments on the material provided by the regional coordinator and school district staff.

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

For Grandview, the March 2018 relative efficiency score (based on data from the 2016-17 school year) was 96.77%. The Efficiency Detail Report including the cohort districts and predicted resource requirements is provided in Appendix I.

> In the 2016-17 school year, Grandview reported operating 16 buses to transport a ridership count of 950 students with expenditures of $908,184.31. The efficiency rating calculation identified target expenditures of $878,813.88 while operating 15 buses.

Grandview's March 2017 relative efficiency rating (based on data from the 2015-16 school year) was 87.33%, and the March 2016 relative efficiency rating (based on data from the 2014-15 school year) was 82.44%.

Regional Transportation Coordinator Analysis:

All three 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. The comparative efficiency rating will vary from year-to-year due to cohort selection. The KPI's are the more effective indicator of operational efficiency.

Section Two: Key Performance Indicators

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.

Basic Rider KPI

Basic Program Riders per Basic Program Bus KPI by School Year			
2014-15	2015-16	2016-17	Change 2015-16 to 2016-17
94.75	80.85	78.36	- 3.07%

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.

Regional Transportation Coordinator Analysis:

In the 2015-16 school year, GRANDVIEW transported an average of 80.85 basic program students per basic program bus. In the 2016-17 school year, this changed to an average of 78.36 basic program students per bus. This was a decrease of -3.07%.

The district ranks 5th in the Basic Riders KPI within their 21 district KPI cohort. The average basic riders per basic bus among all 3rd quartile districts statewide is 60.77.

Special Education Rider KPI

Special Education Riders per Special Education Bus KPI by School Year			
2014-15	2015-16	2016-17	Change 2015-16 to 2016-17
9.11	8.91	14.31	60.66%

Regional Transportation Coordinator Analysis:

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 2015-16 school year, Grandview transported an average of 8.91 special education students per special education bus. In the 2016-17 school year, the district transported an average of 14.31 special education students per bus. This was an increase of 60.66% .

The district ranks 1st in the Special Education Riders KPI within their 21 district cohort. The average special students per special bus among all 3rd quartile districts statewide is 7.58.

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.

Cost per Rider KPI

Cost per Student KPI by School Year			
2014-15	2015-16	2016-17	Change 2015-16 to 2016-17
$ 856.24	$ 883.98	$ 955.54	8.1 %

Regional Transportation Coordinator Analysis:

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 2015-16 school year, Grandview's average cost per rider was $ 883.98. In the 2016-17 school year, the district's average cost per rider was $ 955.54. This was an increase of 8.1 %.

The district ranks 5th in the Cost per Rider within their 21 district KPI cohort. The average cost per rider among all 3rd quartile districts statewide is $1,185.78.

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.

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.

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.

Regional Transportation Coordinator Observations:

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.

Regional Transportation Coordinator Observations:

Transportation Expenditures (STARS Prior Year Expenditures) by School Year		
2014-15	2015-16	2016-17
$851,259.57	$858,844.57	$908,184.31

Transportation expenditures increased slightly from 2015-16 to 2016-17 (~5.7%). Even with this increase, the district continues to perform well when compared against other districts in the KPI cohort.

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.

Regional Transportation Coordinator Observations:

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 challenge.

Section Four: Comments

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

State of Washington

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Superintendent of Public Instruction

School Year 2017-2018 - SD Desc

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		$908,184.31	16	1,760	140	2.63	7	39.7	0	4.63	10.33
Cohort	Aberdeen	7.4%	$976,860.28	15	1,445	165	2.83	8	128.9	0	3.38	3.69
Cohort	College Place	10.6%	$320,403.46	9	868	42	2.24	5	29.0	0	3.96	7.92
Cohort	Quillayute Valley	24.7%	$424,675.64	8	897	81	5.51	3	411.6	0	2.13	1.12
Cohort	Toppenish	42.4%	$1,079,401.31	17	2,460	123	3.02	9	268.6	0	1.41	6.80
Cohort	Walla Walla	15.0%	$1,407,718.18	28	1,985	346	2.15	11	264.7	0	2.03	4.33
Target	Grandview Target	100%	$878,813.90	15								

Relative Efficiency Rating 96.77%

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

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

Table 1

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 2016-17
PORT ANGELES	1,231.3
PROSSER	1,195.8
ORTING	1,167.3
WALLA WALLA	1,165.9
QUINCY	1,105.9
MOUNT BAKER	1,065.6
NORTH FRANKLIN	1,022.6
DIERINGER	990.0
DEER PARK	976.4
NOOKSACK	975.7
GRANDVIEW	950.4
ELLENSBURG	924.5
EPHRATA	923.6
CHEHALIS	908.3
BLAINE	896.3
WAHLUKE	864.9
ROYAL	855.1
SEQUIM	854.9
VASHON ISLAND	825.6
HOCKINSON	816.6
SULTAN	813.1

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 2016-17	Basic Riders Per Basic Bus 2016-17
+10	ORTING	1,167.3	94.5
+9	NOOKSACK	975.7	91.6
+8	ROYAL	855.1	82.0
+7	DIERINGER	990.0	81.4
+6	GRANDVIEW	950.4	78.4
+5	VASHON ISLAND	825.6	73.2
+4	PORT ANGELES	1,231.3	72.8
+3	QUINCY	1,105.9	71.2
+2	WAHLUKE	864.9	64.7
+1	MOUNT BAKER	1,065.6	63.2
	SULTAN	813.1	61.4
-1	HOCKINSON	816.6	59.7
-2	CHEHALIS	908.3	58.4
-3	BLAINE	896.3	50.9
-4	WALLA WALLA	1,165.9	49.8
-5	PROSSER	1,195.8	48.5
-6	NORTH FRANKLIN	1,022.6	45.6
-7	SEQUIM	854.9	43.7
-8	ELLENSBURG	924.5	43.5
-9	DEER PARK	976.4	42.8
-10	EPHRATA	923.6	39.9

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 2016-17	SpEd Riders Per SpEd Bus 2016-17
+10	GRANDVIEW	950.4	14.3
+9	WALLA WALLA	1,165.9	13.9
+8	QUINCY	1,105.9	11.9
+7	ROYAL	855.1	10.4
+6	ELLENSBURG	924.5	8.9
+5	NORTH FRANKLIN	1,022.6	8.6
+4	ORTING	1,167.3	8.3
+3	PROSSER	1,195.8	8.3
+2	CHEHALIS	908.3	8.0
+1	WAHLUKE	864.9	8.0
	BLAINE	896.3	7.8
-1	EPHRATA	923.6	7.7
-2	DEER PARK	976.4	7.2
-3	SEQUIM	854.9	7.0
-4	PORT ANGELES	1,231.3	6.6
-5	DIERINGER	990.0	6.3
-6	HOCKINSON	816.6	6.1
-7	SULTAN	813.1	5.4
-8	NOOKSACK	975.7	4.6
-9	VASHON ISLAND	825.6	4.5
-10	MOUNT BAKER	1,065.6	4.2

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 2016-17	Cost Per Rider 2016-17
+10	VASHON ISLAND	825.6	$ 803.41
+9	DIERINGER	990.0	$ 891.38
+8	HOCKINSON	816.6	$ 931.25
+7	NOOKSACK	975.7	$ 950.18
+6	GRANDVIEW	950.4	$ 955.54
+5	ROYAL	855.1	$ 1,016.53
+4	PROSSER	1,195.8	$ 1,017.61
+3	WAHLUKE	864.9	$ 1,077.70
+2	CHEHALIS	908.3	$ 1,081.27
+1	ORTING	1,167.3	$ 1,135.41
	DEER PARK	976.4	$ 1,170.84
-1	NORTH FRANKLIN	1,022.6	$ 1,198.28
-2	WALLA WALLA	1,165.9	$ 1,207.43
-3	QUINCY	1,105.9	$ 1,210.66
-4	PORT ANGELES	1,231.3	$ 1,233.57
-5	SEQUIM	854.9	$ 1,252.32
-6	EPHRATA	923.6	$ 1,264.90
-7	BLAINE	896.3	$ 1,274.78
-8	MOUNT BAKER	1,065.6	$ 1,351.30
-9	SULTAN	813.1	$ 1,491.56
-10	ELLENSBURG	924.5	$ 1,652.10