Office of Superintendent of Public Instruction

Student Transportation

# Transportation Efficiency Review of 2015-16 School Year Transportation Operations

for Battle Ground School District

11/1/2017

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## Executive Summary

Battle Ground School District had a full time equivalent enrollment for the 2015–16 school year of 12,636.56 students. Of those enrolled, Battle Ground provided home-to-school transportation service for an average of 10,713 basic program riders and 631 special program riders per day (combined AM and PM student counts). The district operated 125 school buses to provide this service, at a cost of $6,793,761.30.

The efficiency system target for Battle Ground School District would be to operate 102 school buses at a cost of $5,846,530.79. The district's relative efficiency rating based on data from the 2015–16 school year is 86.06%.

A review by the Regional Transportation Coordinator (RTC) is required for school districts with a relative efficiency rating less than 90%. RTCs also conduct follow-up reviews for districts moving above 90%. The RTC review was conducted by Rodney McKnight from Educational Service District 112.

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

- Increase in student transportation operational costs
- Increase in number of route buses
- Decrease in reported basic riders
- Significantly higher number of route destinations among Battle Ground School District's cohort group

**Overall Summary:**

When comparing a district's "efficiency cohorts" it is important to note that significant one-time costs, disproportionate reoccurring costs, unique geography, sparsity of students, lack of road connectivity, socioeconomic factors, rural vs. urban, land area, length of bus routes, competitive negotiated agreements, or other unique or inequitable operational factors can impact a district's efficiency score. Unique site characteristics, like or similar to those cited above, can limit a district's ability to optimally configure routing schemes or contain costs. Consequently, when competing and inequitable factors affect the outcome, some districts may repeatedly fall below the 90% efficiency target.

## Report Process and Review Methodology

A detailed description of the STARS efficiency rating process is available upon request. The detailed rating process description provides detailed guidance 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, which is available upon request.

The approach used for the 2017 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 school transportation operations, including identifying constraints and changes from prior years (if any); and
4. Comments on the material provided by the regional transportation 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 Battle Ground School District, the March 2017 relative efficiency score (based on data from the 2015–16 school year) was 86.06%. Battle Ground School District's relative efficiency rating and comparative district cohort data is detailed below in table format**.**

> In the 2015–16 school year, Battle Ground School District reported operating 125 buses to transport a ridership count (combined AM plus PM) of 11,344 students with expenditures of $6,793,761.30. The efficiency rating calculation identified target expenditures of $5,846,530.79 while operating 102 buses.

Battle Ground's March 2015 relative efficiency rating (based on data from the 2013–14 school year) was 100% and the March 2016 relative efficiency rating (based on data from the 2014–15 school year) was 100%.

**Regional Transportation Coordinator Analysis:**

Transportation operations and a school district's efficiency score is often influenced by operational changes made by other efficiency cohort school districts.

Battle Ground efficiency cohort school districts and their weighted influence for report periods March 2016 and March 2017 are detailed below. Between the 2015-16 and 2016-17 reporting periods, many of the school districts in the Battle Ground cohort group improved efficiencies in several of the weighted efficiency measurements.

It is important to note that the number of a district's student delivery destinations may carry an inequitable weight and may have a tendency to negatively impact school districts that have

limited student attendance options, compared to cohort school districts that have a greater number of attendance options (refer to table).

In the case of Battle Ground School District, the greatest impact on its efficiency score appears to have been an increase in student transportation operational costs and an increase in number of route buses, even though basic ridership counts decreased. Most notable within the Battle Ground School District cohort group is the higher number of student drop off destinations, which may be contributing an inequitable weight (see above paragraph) to Battle Ground School District's relative efficiency rate (refer to table).

| District & 2015-16 Efficiency Cohorts | District & 2016-17 Efficiency Cohorts | FY16/FY17 District Scores & Cohort Weights | FY16 Expenses | FY17 Expenses | FY16/FY17 Buses | FY16 Riders Basic/Sp. Prgm. | FY17 Riders Basic/Sp. Prgm. | FY16/FY17 Avg. Distance | FY16/FY17 Destinations | FY16/FY17 Stds per Rd-Mi |
|---|---|---|---|---|---|---|---|---|---|---|
| Battle Ground | Battle Ground | 100%/86.06% | $6,657,415 | $6,793,761 | 120/125 | 10,825/590 | 10,713/***631*** | 4.36/4.26 | 15/***20*** | 11.73/11.66 |
| | Bethel | NA/23.2% | $10,236,057 | $10,836,123 | 161/161 | 17,687/1,477 | ***18,466***/1,350 | 3.37/***3.44*** | 37/37 | 21.29/***22.02*** |
| | Issaquah | NA/4.8% | $6,887,704 | $7,006,353 | 113/114 | 15,855/313 | ***16,053/331*** | 3.66/3.55 | 26/25 | 23.17/***23.48*** |
| | Kennewick | NA/2.0% | $5,203,026 | $5,482,399 | 92/96 | 9,183/1,136 | ***9,454/1,016*** | 3.50/3.31 | 31/30 | 15.54/***15.77*** |
| | Kent | NA/9.4% | $7,892,519 | $8,329,187 | 119/120 | 18,419/1,412 | 17,584/***1,470*** | 3.22/***3.67*** | 53/45 | 26.51/25.48 |
| | Woodland | NA/60.6% | $3,405,749 | $3,468,703 | 43/76 | 5,889/218 | ***6,293/235*** | 5.43/4.93 | 21/***22*** | 4.18/***4.47*** |
| | | | | | | | | | | |

***bold type indicates efficiency improvement between reporting year 2016 and reporting year 2017***

## Section Two: Key Performance Indicators

Key Performance Indicators (KPIs) are useful in comparing and evaluating specific operational outcomes. 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 comparative measurements embody a quantitative process where the outcome is readily visible and easily understood. The comparative results provide a quick analytical assessment based on a ranking order. 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 (ten above and ten below) to Battle Ground School District based on total ridership.

### A. Basic KPI Riders

**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 |
|---|---|---|---|---|
| 62.13 | 61.25 | 60.80 | 60.20 | -0.99% |

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 2014–15 school year, Battle Ground transported an average of 60.80 basic program students per basic program bus. In the 2015–16 school year, this changed to an average of 60.20 basic program students per bus. This was a decrease of 0.99%.

The district ranks 19th in the Basic Riders KPI within their 21 district KPI cohort. The average basic students per basic bus among all 4th quartile districts statewide is 82.79.

## 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 |
|---|---|---|---|---|
| 5.12 | 7.14 | 5.90 | 5.50 | -6.78% |

**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 special program school bus from year to year reflects an **increase** in efficiency.

In the 2014–15 school year, Battle Ground transported an average of 5.90 special education students per special education bus. In the 2015–16 school year, the district transported an average of 5.50 special education students per bus. This was a decrease of 6.78%.

The district ranks 21st in the Special Education Riders KPI within their 21 district cohort. The average Special Riders per Special Bus among all 4th quartile districts statewide is 8.29.

***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.**

### C. Cost per Rider KPI

**Cost per Student KPI by School Year**

| 2012-13 | 2013-14 | 2014-15 | 2015-16 | Change 2014-15 to 2015-16 |
|---|---|---|---|---|
| $ 1,088.38 | $ 1,145.36 | $ 1,166.29 | $ 1,197.69 | 2.69% |

**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 2014–15 school year, Battle Ground's average cost per rider was $1,166.29. In the 2015–16 school year, the district's average cost per rider was $1,197.69. This was an increase of 2.69%.

The district ranks 14th in the Cost per Rider within their 21 district KPI cohort. The average cost per rider among all 4th quartile districts statewide is $1,106.70.

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.

## 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.

**Regional Transportation Coordinator Observations:**

No additional comment.

## 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.

**Regional Transportation Coordinator Observations:**

**Transportation Expenditures (STARS Prior Year Expenditures) by School Year**

| 2012-13 | 2013-14 | 2014-15 | 2015-16 |
|---|---|---|---|
| $ 6,190,696.52 | $ 6,529,991.26 | $ 6,657,415.30 | $ 6,793,761.30 |

Battle Ground School District's transportation expenditures increased 5.48% between 2012-13 and 2013-14, increased 1.95% between 2013-14 and 2014-15, and increased 2.05% between 2014-15 and 2015-16.

## 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.

**Regional Transportation Coordinator Observations:**

No additional comment.

# Section Four: Comments

## A. Comments Regarding the STARS Efficiency Rating

**Regional Transportation Coordinator Comments:**

Providing school districts an easy to understand validation of the STARS efficiency rating system is problematic because of the complexity of the mathematical process and the multitude of unique district student transportation operational factors not included in the STARS calculation. Consequently, this can skew the district's relative efficiency score.

Student transportation dynamics unique to school districts that STARS cannot or does not equitably consider minimizes the accuracy of this complicated efficiency rating system. A school district may be extremely limited in its ability to control unique site characteristics that may be contributing to an unfair cohort selection and peer comparison. Unique geography, negotiated salaries and benefits, a one-time expense targeting improved student safety, maintaining an operational standard, geo-economic differences, or something as simple as a lower than average fleet age are examples of differing variables between school districts that the efficiency rating system cannot equitably compare.

Using both the STARS Efficiency Review process and the KPI process can present the district with an opportunity to evaluate two measuring methodologies in concert, which can provide a more accurate approach for appraising overall efficiency and operational performance.

There is a significant offset between the time of an efficiency review and the time when changes to transportation operations can be implemented. Many changes in transportation operations can only be made at the beginning of a school year. Because changing bell times or other operational changes have a significant impact on parents, students and district staff, changes must be undertaken in a manner that provides an opportunity for involvement of all stakeholders. In some cases, changes are also subject to bargaining agreement constraints.

Battle Ground School District personnel met with their Regional Transportation Coordinator and expressed concern. They are aware of their efficiency rating and will continue to monitor.

**School District Comments:**

## B. Comments Regarding the KPI

**Regional Transportation Coordinator Comments:**

Using both the STARS Efficiency Review process and the KPI process can present the district with an opportunity to evaluate two measuring methodologies in concert, which can be a more accurate approach for appraising overall efficiency and operational performance.

Battle Ground School District does not compare favorably with its KPI cohort school districts.

**School District Comments:**

## C. Comments Regarding the District Transportation Operations Review

**Regional Transportation Coordinator Comments:**

No additional comment.

**School District Comments:**

## D. District Comments Regarding the RTC Efficiency Review Process