


Office of Superintendent of Public Instruction

Student Transportation

# Transportation Efficiency Review of 2016-17 School Year Transportation Operations

for CRESTON School District

11/19/2018

# Table of Contents

Executive Summary ..... 3

Report Process and Review Methodology ..... 4

Section One: Review of the STARS Relative Efficiency Rating ..... 4

Section Two: Review of the Key Performance Indicators ..... 6

Basic Rider KPI ..... 6

Special Education Rider KPI ..... 7

Cost per Rider KPI ..... 8

Section Three: Review of District Transportation Operations ..... 9

Policies and Procedures ..... 9

Transportation Operations ..... 9

Geographic and Other Constraints ..... 10

Section Four: Comments ..... 10

Comments Regarding the STARS Efficiency Rating ..... 10

Comments Regarding the KPI ..... 10

Comments Regarding the District Transportation Operations Review ..... 10

District Comments Regarding the RTC Efficiency Review Process ...

## Appendices

Appendix I Efficiency Detail Report
Appendix II Key Performance Indicators

# Executive Summary

CRESTON School District had a full time equivalent enrollment for the 2016-17 school year of 91 students. Of those enrolled, CRESTON provided home-to-school transportation service for an average of 88 basic program riders and 0 special program riders per day (combined AM and PM student counts). The district operated 3 school buses to provide this service, at a cost of $142,994.83.

The efficiency system target for CRESTON School District would be to operate 3 school buses at a cost of $142,994.83. The district's relative efficiency rating based on data from the 2016-17 school year is 100%.

For school districts with a relative efficiency rating less than 90%, a review by the Regional Transportation Coordinator (RTC) is required. The RTC review was conducted by Chris Jose. RTCs also conduct reviews for districts moving above 90%.

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

- Decrease in expenditures
- Probability that Creston became a statistical outlier

**Overall Summary:**

- Given that expenditures decreased (normally leading to an increased efficiency rating), yet ridership decreased (which would normally decrease the efficiency rating), it is likely that Creston's efficiency rating moved from 83% from the previous report year to 100% this reporting period as a result of becoming a statistical outlier within the target model formula.
- In the next reporting year, Creston will be reporting as a co-op with the Wilbur school district. Expectedly, we would expect some impact on the district's efficiency rating.

## 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 CRESTON School District, the March 2018 relative efficiency score (based on data from the 2016-17 school year) was 100%. The Efficiency Detail Report including the cohort districts and predicted resource requirements is provided in Appendix I.

> In the 2016-17 school year, CRESTON School District reported operating 3 buses to transport a ridership count (combined AM plus PM) of 44 students with expenditures of $142,994.83. The efficiency rating calculation identified target expenditures of $142,994.83 while operating 3 buses.

CRESTON's March 2016 relative efficiency rating (based on data from the 2014-15 school year) was 83.47% and the March 2017 relative efficiency rating (based on data from the 2015-16 school year) was 65.93%.

**Regional Transportation Coordinator Analysis:**

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

Template efficiency cohort school districts and their weighted influence for report periods March 2016 and March 2017 are detailed in Appendix I. Between the 2015-16 and 2016-17 reporting periods, many of the school districts in the Template 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

# 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 |
| 16.69 | 13.81 | 14.66 | 6.2 % |

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, CRESTON transported an average of 13.81 basic program students per basic program bus. In the 2016-17 school year, this changed to an average of 14.66 basic program students per bus. This was an increase of 6.2 %.

The district ranks 16th in the Basic Riders KPI within their 21 district KPI cohort.

## 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 |
| .0 | .0 | .0 | .0 % |

**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 and 2016-17 school years, CRESTON did not transport special education students.

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 |
| $ 3,029.99 | $ 3,683.19 | $ 3,249.88 | - 11.76% |

**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, CRESTON's average cost per rider was $ 3,683.19. In the 2016-17 school year, the district's average cost per rider was $ 3,249.88. This was a decrease of - 11.76%.

The district ranks 18th in the Cost per Rider within their 21 district KPI cohort.

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 |
| $151,689. | $152,622.23 | $142,994.83 |

## 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 observations from previous years.

# Section Four: Comments

## Comments Regarding the STARS Efficiency Rating

**Regional Transportation Coordinator Comments:**

No additional comments.

**School District Comments**

No additional comments.

## Comments Regarding the KPI

**Regional Transportation Coordinator Comments:**

No additional comments.

**School District Comments**

No additional comments.

## Comments Regarding the District Transportation Operations Review

**Regional Transportation Coordinator Comments:**

No additional comments.

State of Washington

Run: Mar 22, 2018 8:02 AM

**Superintendent of Public Instruction**

School Year 2017-2018 - SD Desc

Efficiency Detail Report

**CRESTON**

| | | | | | 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** |
| | Creston | | $142,994.83 | 3 | 88 | 0 | 11.15 | 3 | 251.2 | 0 | 1.83 | 0.19 |
| Cohort | Creston | 100.0% | $142,994.83 | 3 | 88 | 0 | 11.15 | 3 | 251.2 | 0 | 1.83 | 0.19 |
| Target | Creston Target | 100% | $142,994.83 | 3 | | | | | | | | |

**Relative Efficiency Rating** 100.00%

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 |
|---|---|
| POMEROY | 60.3 |
| MARY M KNIGHT | 57.9 |
| SUMMIT VALLEY | 55.4 |
| BRINNON | 55.3 |
| MOUNT PLEASANT | 55.3 |
| EASTON | 51.1 |
| WATERVILLE | 50.3 |
| NORTH RIVER | 47.1 |
| COLTON | 45.7 |
| GREAT NORTHERN | 45.1 |
| CRESTON | 44.0 |
| KELLER | 42.9 |
| ORIENT | 42.6 |
| PALISADES | 42.5 |
| MANSFIELD | 42.4 |
| GLENWOOD | 41.3 |
| ONION CREEK | 39.7 |
| SPRAGUE | 38.9 |
| SKYKOMISH | 37.2 |
| ORCHARD PRAIRIE | 36.7 |
| STEPTOE | 36.1 |

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 | MOUNT PLEASANT | 55.3 | 55.3 |
| +9 | GREAT NORTHERN | 45.1 | 44.1 |
| +8 | ORCHARD PRAIRIE | 36.7 | 36.7 |
| +7 | BRINNON | 55.3 | 27.6 |
| +6 | SUMMIT VALLEY | 55.4 | 27.5 |
| +5 | EASTON | 51.1 | 26.3 |
| +4 | NORTH RIVER | 47.1 | 23.5 |
| +3 | KELLER | 42.9 | 21.5 |
| +2 | PALISADES | 42.5 | 21.3 |
| +1 | GLENWOOD | 41.3 | 20.7 |
| | ONION CREEK | 39.7 | 19.7 |
| -1 | SPRAGUE | 38.9 | 19.4 |
| -2 | STEPTOE | 36.1 | 18.1 |
| -3 | SKYKOMISH | 37.2 | 16.9 |
| -4 | COLTON | 45.7 | 15.1 |
| -5 | CRESTON | 44.0 | 14.7 |
| -6 | MARY M KNIGHT | 57.9 | 14.4 |
| -7 | MANSFIELD | 42.4 | 14.0 |
| -8 | WATERVILLE | 50.3 | 11.6 |
| -9 | ORIENT | 42.6 | 10.7 |
| -10 | POMEROY | 60.3 | 10.0 |

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 | WATERVILLE | 50.3 | 3.8 |
| +9 | GREAT NORTHERN | 45.1 | 1.0 |
| +8 | MANSFIELD | 42.4 | 0.5 |
| +7 | POMEROY | 60.3 | - |
| +6 | MARY M KNIGHT | 57.9 | - |
| +5 | SUMMIT VALLEY | 55.4 | - |
| +4 | BRINNON | 55.3 | - |
| +3 | MOUNT PLEASANT | 55.3 | - |
| +2 | EASTON | 51.1 | - |
| +1 | NORTH RIVER | 47.1 | - |
| | COLTON | 45.7 | - |
| -1 | CRESTON | 44.0 | - |
| -2 | KELLER | 42.9 | - |
| -3 | ORIENT | 42.6 | - |
| -4 | PALISADES | 42.5 | - |
| -5 | GLENWOOD | 41.3 | - |
| -6 | ONION CREEK | 39.7 | - |
| -7 | SPRAGUE | 38.9 | - |
| -8 | SKYKOMISH | 37.2 | - |
| -9 | ORCHARD PRAIRIE | 36.7 | - |
| -10 | STEPTOE | 36.1 | - |

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 | ORCHARD PRAIRIE | 36.7 | $ 641.29 |
| +9 | SUMMIT VALLEY | 55.4 | $ 1,116.61 |
| +8 | BRINNON | 55.3 | $ 1,401.78 |
| +7 | MOUNT PLEASANT | 55.3 | $ 1,531.37 |
| +6 | GLENWOOD | 41.3 | $ 1,604.96 |
| +5 | EASTON | 51.1 | $ 1,726.29 |
| +4 | GREAT NORTHERN | 45.1 | $ 1,805.62 |
| +3 | STEPTOE | 36.1 | $ 1,943.26 |
| +2 | KELLER | 42.9 | $ 2,147.04 |
| +1 | PALISADES | 42.5 | $ 2,234.41 |
| | ONION CREEK | 39.7 | $ 2,244.12 |
| -1 | MANSFIELD | 42.4 | $ 2,281.01 |
| -2 | SKYKOMISH | 37.2 | $ 2,376.93 |
| -3 | NORTH RIVER | 47.1 | $ 2,558.47 |
| -4 | SPRAGUE | 38.9 | $ 2,696.86 |
| -5 | COLTON | 45.7 | $ 2,771.02 |
| -6 | WATERVILLE | 50.3 | $ 2,911.51 |
| -7 | CRESTON | 44.0 | $ 3,249.88 |
| -8 | MARY M KNIGHT | 57.9 | $ 3,625.82 |
| -9 | POMEROY | 60.3 | $ 4,390.78 |
| -10 | ORIENT | 42.6 | $ 6,034.22 |