

On-Time Performance

Introduction

We have recently standardized the way we calculate our on-time performance in order to provide more consistent and accurate results. This page explains how we gather and analyze our data. The following pages show On-Time data results for the past month. The appendix includes on-time performance data analyzed by route.

Procedures

1. SQL Queries

- Our Streets Database contains data collected through Automatic Vehicle Location (AVL)
- Compares the AVL data to the scheduled times for each route
- Query generates a table which includes Route Name, Pattern Name, Stop Name, Scheduled Departure Times, and Actual Departure Times

2. Removing Outliers

- Outliers can distort the accuracy of data with erroneous data brought on by AVL or user error
- Any data with a "Minutes Late" value outside of -5 and 15 will be considered an outlier

3. Range Analysis

- The total usable data count is the count of the data that does not contain any outliers; this is the number used in percentage calculations
- The established On-Time range of "Minutes Late" values is between -1 and 3
- The established Late range of "Minutes Late" values is between 3 and 15
- The established Early range of "Minutes Late" values is between -5 and -1

On-Time Performance Results

FY19 November: Blacksburg Fixed Route

Date Range: November 1, 2018 – November 30, 2018

Total recorded departures from Timechecks: 32,435

Outliers (<-5 or >15): 303

Total departures used in calculations: 32,132

On-time Departures (-1 to 3): 29,425; 91.58%

Late departures (3 to 15): 2,428; 7.56%

Early departures (-5 to -1): 279; 0.87%

FY19 November: Christiansburg Fixed Route

Date Range: November 1, 2018 – November 30, 2018

Total recorded departures from Timechecks: 737

Outliers (<-5 or >15): 46

Total departures used in calculations: 691

On-time Departures (-1 to 3): 459; 66.43%

Late departures (3 to 15): 97; 14.04%

Early departures (-5 to -1): 135; 19.54%

Appendix

On Time Performance By Route, Fiscal Year 2019 November: Blacksburg

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
Campus Shuttle	1,169	25	54	1,090	93.24%
Carpenter Blvd	771	0	54	717	93.00%
Corporate Research Center	1,861	30	139	1,692	90.92%
Harding Ave	2,266	7	158	2,101	92.72%
Hethwood	389	1	52	336	86.38%
Hethwood A	2,623	5	434	2,184	83.26%
Hethwood B	2,500	5	225	2,270	90.80%
Hokie Express	2,746	3	56	2,687	97.85%
Main Street - North	2,163	82	194	1,887	87.24%
Main Street - South	2,200	8	202	1,990	90.45%
Patrick Henry	2,293	3	112	2,178	94.98%
Progress B	759	29	51	679	89.46%
Progress Street	2,537	1	57	2,479	97.71%
Toms Creek	3,011	77	301	2,633	87.45%
Two Town Trolley	651	0	49	602	92.47%
University City Blvd	2,741	2	183	2,556	93.25%
University Mall Shuttle	1,452	1	129	1,322	91.05%

*Total departures excludes extreme outliers with values above 15 or below -5.

On Time Performance By Route, Fiscal Year 2019 July: Christiansburg

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
BT Commuter	29	8	7	14	48.28%
Explorer Blue					
Explorer Gold					
The Explorer	662	128	91	443	66.92%

*Total departures excludes extreme outliers with values above 15 or below -5.