

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 September: Blacksburg Fixed Route

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

Total recorded departures from Timechecks: 36,535

Outliers (<-5 or >15): 297

Total departures used in calculations: 36,238

On-time Departures (-1 to 3): 31,930; 88.11%

Late departures (3 to 15): 4,075; 11.25%

Early departures (-5 to -1): 233; 0.64%

FY19 September: Christiansburg Fixed Route

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

Total recorded departures from Timechecks: 693

Outliers (<-5 or >15): 35

Total departures used in calculations: 658

On-time Departures (-1 to 3): 426; 65.74%

Late departures (3 to 15): 96; 14.59%

Early departures (-5 to -1): 136; 20.67%

Appendix

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

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
Campus Shuttle	1,311	10	126	1,175	89.63%
Carpenter Blvd	891	1	89	801	89.90%
Corporate Research Center	2,063	11	231	1,821	88.27%
Harding Ave	2,338	4	292	2,042	87.34%
Hethwood	505	2	46	457	90.50%
Hethwood A	2,772	3	679	2,090	75.40%
Hethwood B	2,787	0	431	2,356	84.54%
Hokie Express	3,555	2	145	3,408	95.86%
Main Street - North	2,303	117	342	1,845	80.11%
Main Street - South	2,372	13	324	2,035	85.79%
Patrick Henry	2,561	7	159	2,395	93.52%
Progress B	912	48	108	757	83.00%
Progress Street	2,791	3	65	2,723	97.56%
Toms Creek	3,538	12	440	3,086	87.22%
Two Town Trolley	689	1	54	634	92.02%
University City Blvd	3,281	1	335	2,945	89.76%
University Mall Shuttle	1,567	3	234	1,330	84.88%

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

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

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
BT Commuter	18	2	5	11	61.11%
Explorer Blue	0	0	0	0	0
Explorer Gold	0	0	0	0	0
The Explorer	639	134	92	414	64.79%

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