

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 October: Blacksburg Fixed Route

Date Range: October 1, 2018 – October 31, 2018

Total recorded departures from Timechecks: 41,322

Outliers (<-5 or >15): 360

Total departures used in calculations: 40,962

On-time Departures (-1 to 3): 36,752; 89.72%

Late departures (3 to 15): 3,982; 9.72%

Early departures (-5 to -1): 228; 0.56%

FY19 October: Christiansburg Fixed Route

Date Range: October 1, 2018 – October 31, 2018

Total recorded departures from Timechecks: 820

Outliers (<-5 or >15): 51

Total departures used in calculations: 769

On-time Departures (-1 to 3): 511; 66.45%

Late departures (3 to 15): 98; 12.74%

Early departures (-5 to -1): 160; 20.81%

Appendix

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

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
Campus Shuttle	1,521	17	97	1,407	92.50%
Carpenter Blvd	1,064	0	116	948	89.10%
Corporate Research Center	2,318	9	205	2,104	90.77%
Harding Ave	2,701	4	255	2,442	90.41%
Hethwood	428	2	47	379	88.55%
Hethwood A	3,221	1	759	2,461	76.40%
Hethwood B	3,274	10	364	2,900	88.58%
Hokie Express	3,816	6	138	3,672	96.23%
Main Street - North	2,539	95	334	2,111	83.14%
Main Street - South	2,631	14	323	2,294	87.19%
Patrick Henry	2,913	0	150	2,763	94.85%
Progress B	1,019	42	90	887	87.05%
Progress Street	3,247	4	84	3,159	97.29%
Toms Creek	3,938	16	394	3,528	89.59%
Two Town Trolley	740	2	74	664	89.73%
University City Blvd	3,680	5	312	3,363	91.39%
University Mall Shuttle	1,911	2	271	1,638	85.71%

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

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

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
BT Commuter	34	6	10	18	52.94%
Explorer Blue					
Explorer Gold					
The Explorer	735	154	88	493	67.07%

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

