

# 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 August: Blacksburg Fixed Route*

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

Total recorded departures from Timechecks: 26,059

Outliers (<-5 or >15): 327

Total departures used in calculations: 25,732

On-time Departures (-1 to 3): 21,767; 84.59%

Late departures (3 to 15): 3,751; 14.58%

Early departures (-5 to -1): 214; 0.83%

### *FY19 August: Christiansburg Fixed Route*

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

Total recorded departures from Timechecks: 807

Outliers (<-5 or >15): 34

Total departures used in calculations: 773

On-time Departures (-1 to 3): 503; 65.07%

Late departures (3 to 15): 118; 15.27%

Early departures (-5 to -1): 152; 19.66%

## Appendix

### On Time Performance By Route, Fiscal Year 2019 August: Blacksburg

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
Campus Shuttle	839	4	280	555	66.15%
Carpenter Blvd	651	0	94	557	85.56%
Corporate Research Center	1,461	12	195	1,254	85.83%
Harding Ave	1,883	5	235	1,643	87.25%
Hethwood	280	0	28	252	90.00%
Hethwood A	1,692	0	557	1,135	67.08%
Hethwood B	2,040	1	416	1,623	79.56%
Hokie Express	2,095	2	144	1,949	93.03%
Main Street - North	2,008	94	278	1,637	81.52%
Main Street - South	2,004	17	250	1,737	86.68%
Patrick Henry	1,929	4	164	1,761	91.29%
Progress B	608	53	64	491	80.76%
Progress Street	1,727	2	44	1,681	97.34%
Toms Creek	2,808	16	389	2,403	85.58%
Two Town Trolley	641	0	79	562	87.68%
University City Blvd	2,127	5	390	1,732	81.43%
University Mall Shuttle	938	0	158	780	83.16%

\*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	27	4	8	15	55.56%
Explorer Blue					
Explorer Gold					
The Explorer	746	148	112	486	65.15%

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