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

FY18 April: Christiansburg Fixed Route

Date Range: April 1, 2018 – May 1, 2018

Total recorded departures from Timechecks: 750

Outliers (<-5 or >15): 40

Total departures used in calculations: 710

On-time Departures (-1 to 3): 466; 65.63%

Late departures (3 to 15): 110; 15.49%

Early departures (-5 to -1): 134; 18.87%

Appendix

On Time Performance By Route, Fiscal Year 2018 April: Christiansburg

Route Name	Total Departures*	Early Departures	Late Departures	On Time Departures	% On Time Departures
BT Commuter	36	8	12	16	44.44%
Christiansburg East West	0	0	0	0	0
The Explorer	674	127	98	449	66.62%

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