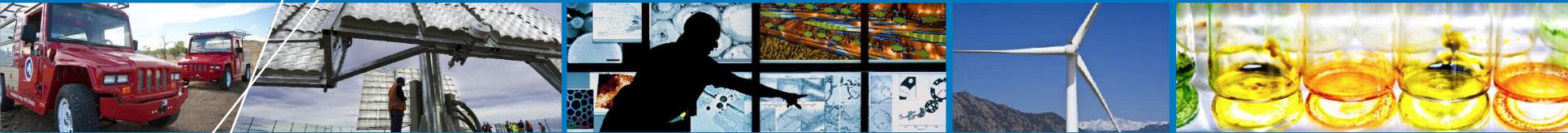


Fleet DNA Project Data Summary Report



Kevin Walkowicz

Adam Duran

Evan Burton

8/1/2014

PR 5400 57992

The Fleet DNA Project:

The Fleet DNA Project aims to accelerate the development of advanced vehicle technologies while supporting the strategic deployment of market-ready technologies that reduce costs, fuel consumption, and emissions.

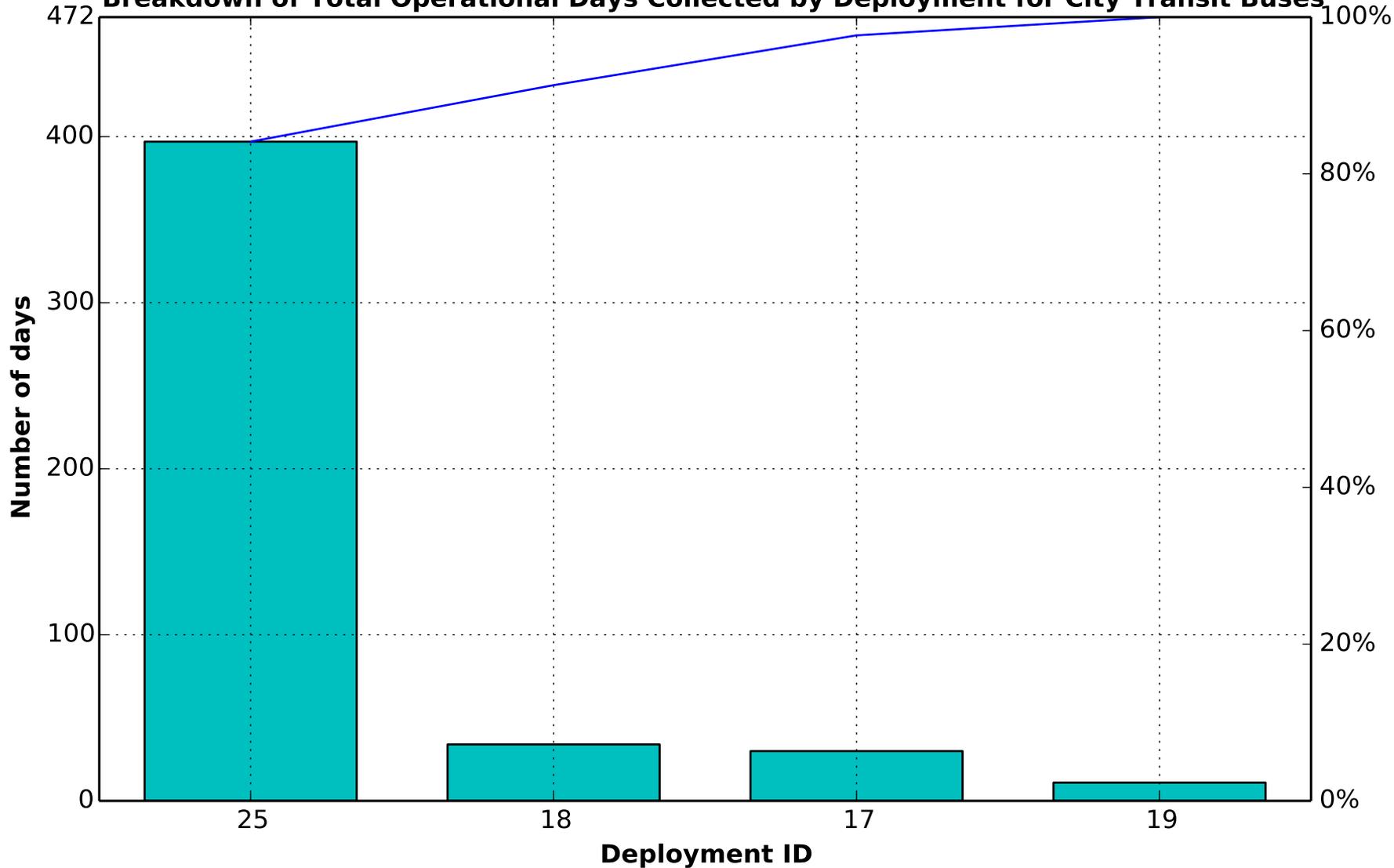
Designed by the U.S. Department of Energy's National Renewable Energy Laboratory in partnership with Oak Ridge National Laboratory, the data summaries contained within this report are designed to illustrate the broad operation range of many of today's vehicle vocations and to provide insight into key observable statistical trends.

Within This Report:

Contained within this report are graphical data summaries based on real-world “genetics” of medium- and heavy-duty commercial fleet vehicles operating within a chosen vocation.

These graphical data summaries have been selected to highlight key statistical trends observed in past U.S. DOE fleet studies, and to provide insight into potential areas of interest for the continued development of technology to reduce costs, fuel consumption, and emissions.

Breakdown of Total Operational Days Collected by Deployment for City Transit Buses

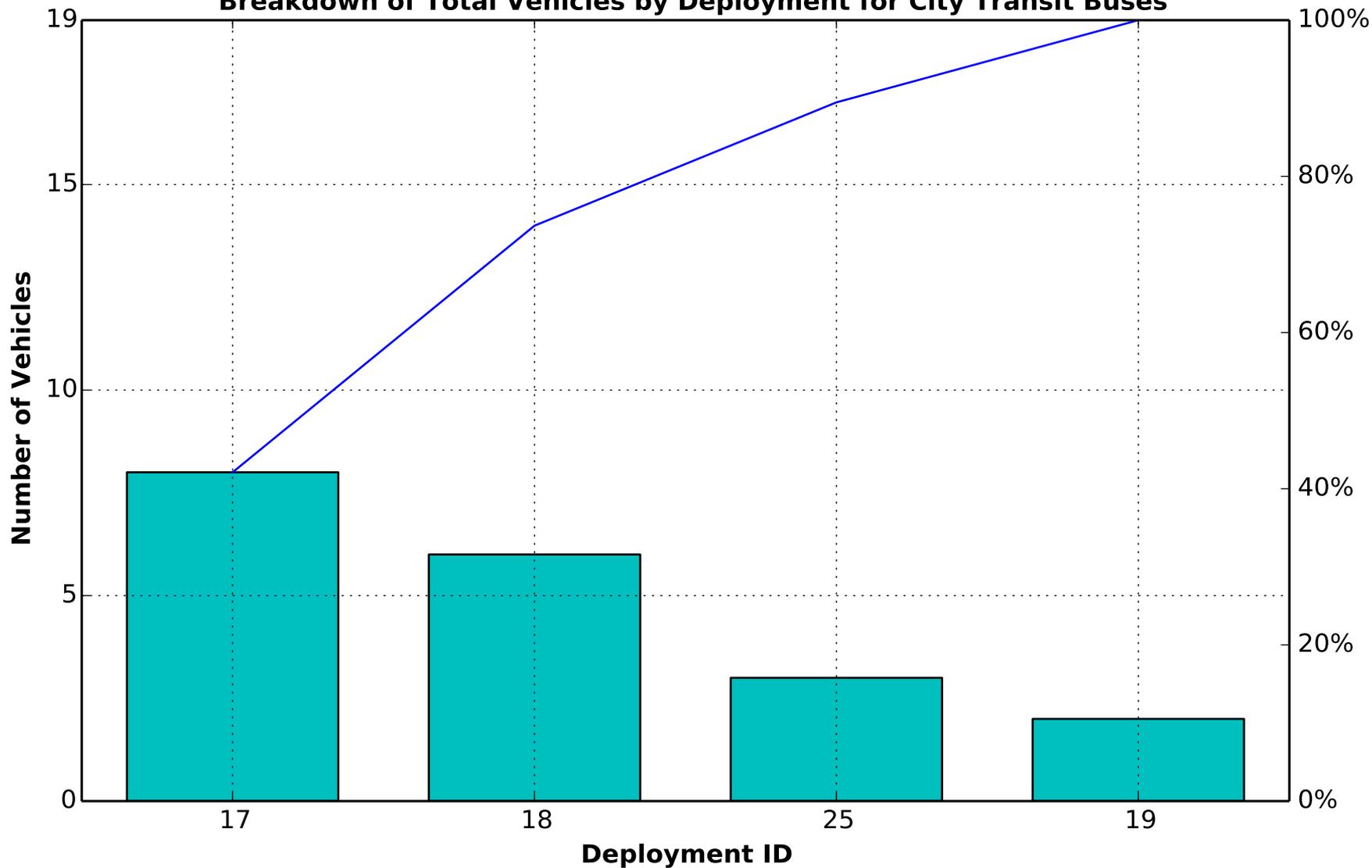


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Breakdown of Total Vehicles by Deployment for City Transit Buses

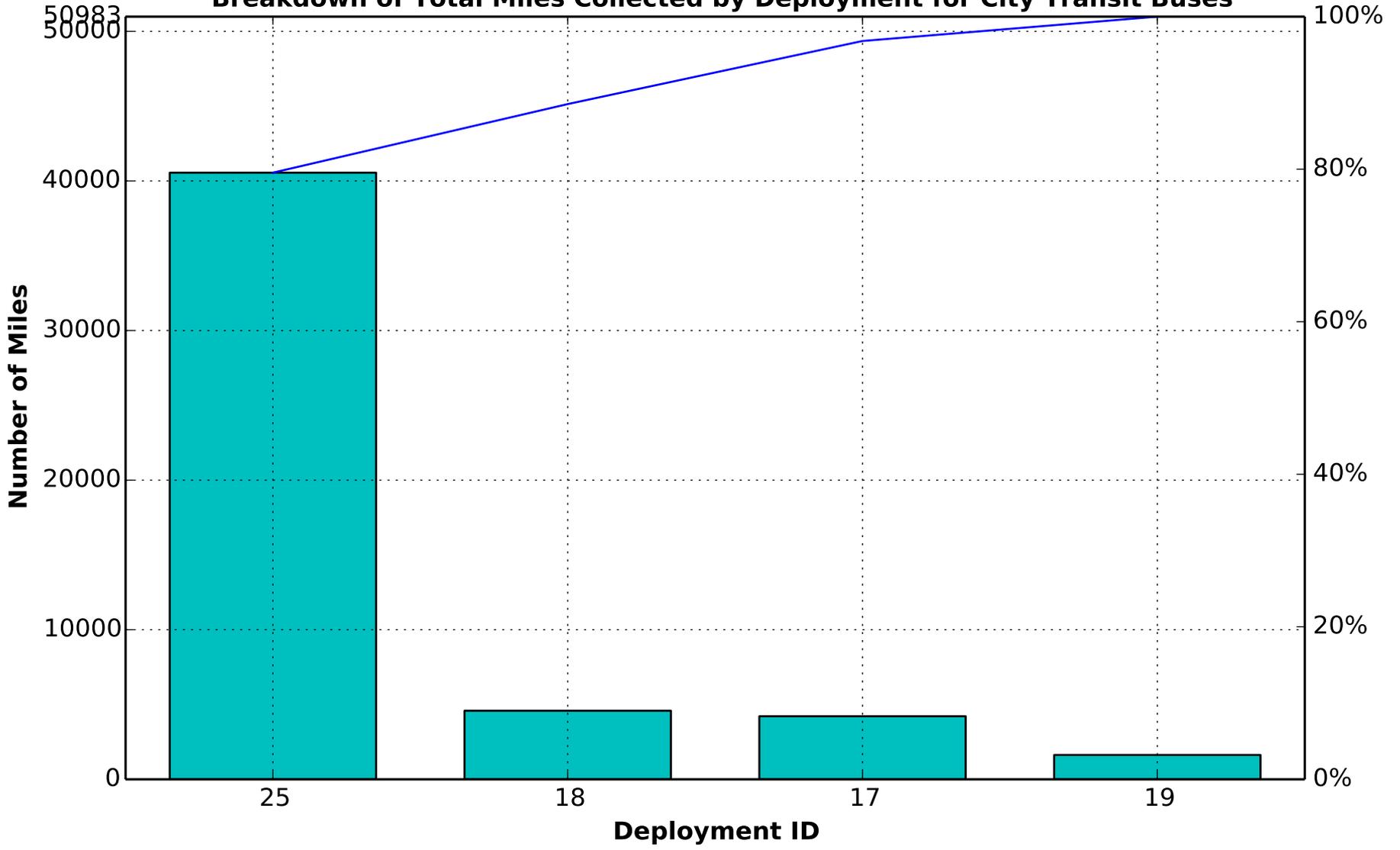


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Breakdown of Total Miles Collected by Deployment for City Transit Buses

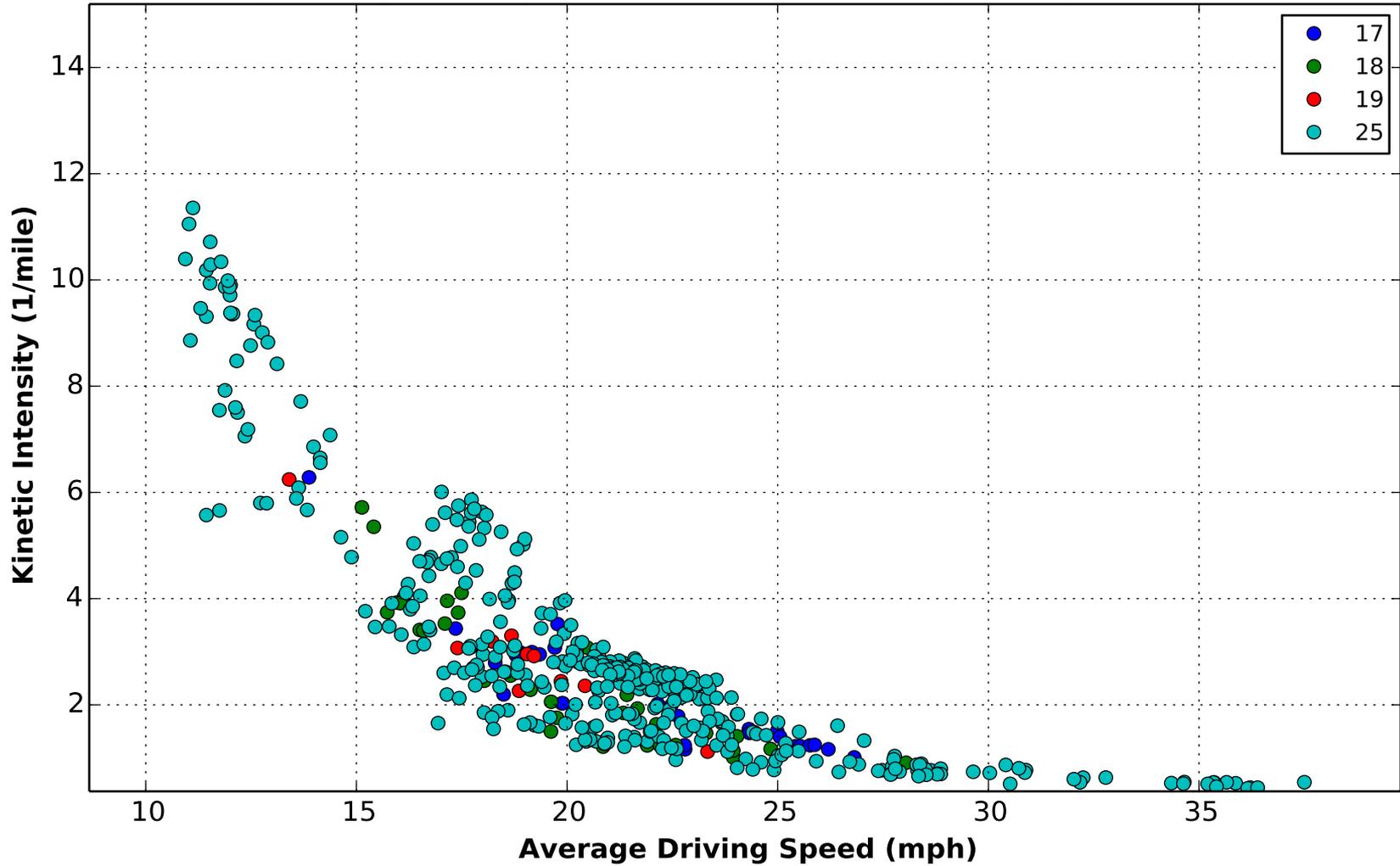


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

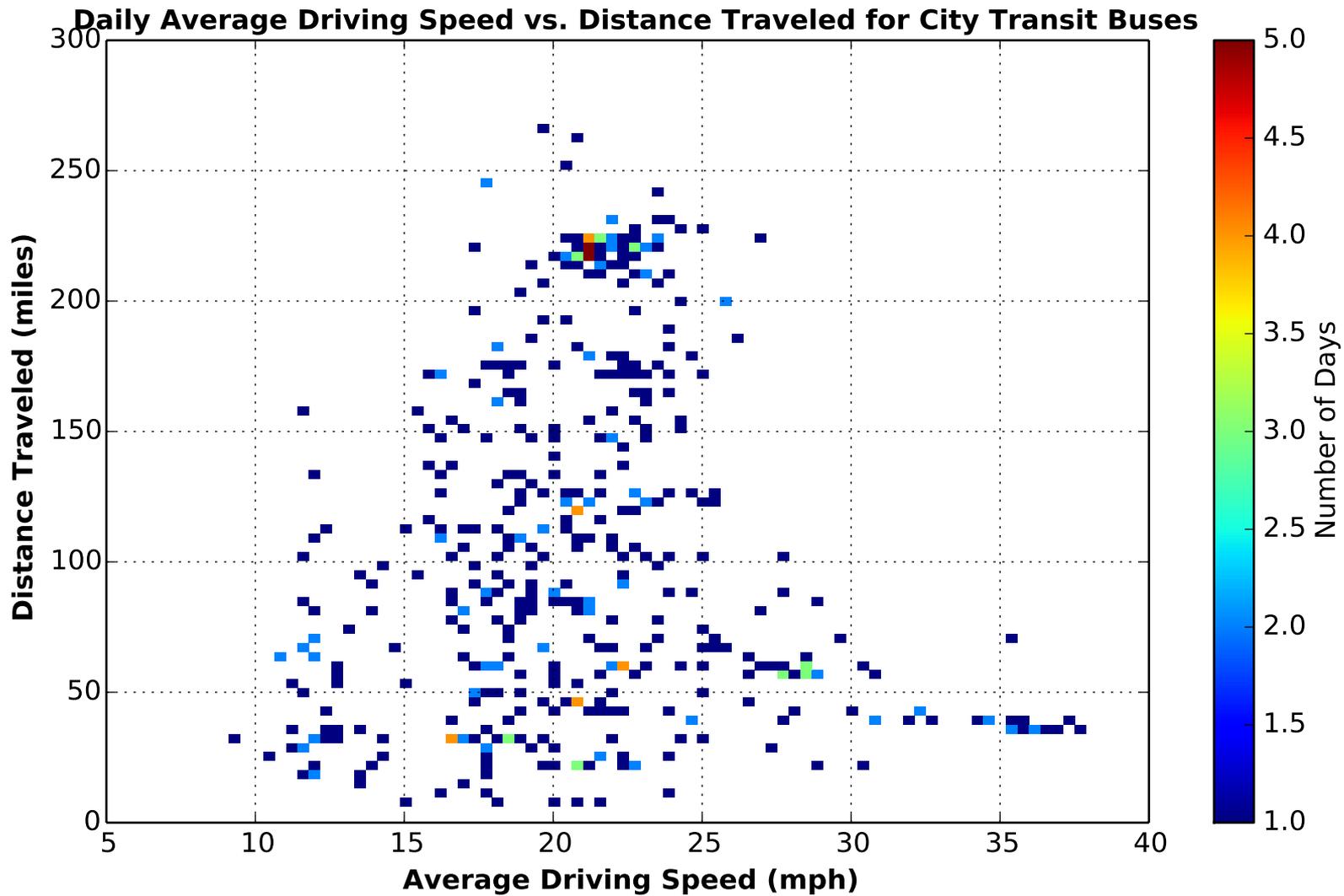
Daily Average Driving Speed vs. Kinetic Intensity for City Transit Buses



of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 468

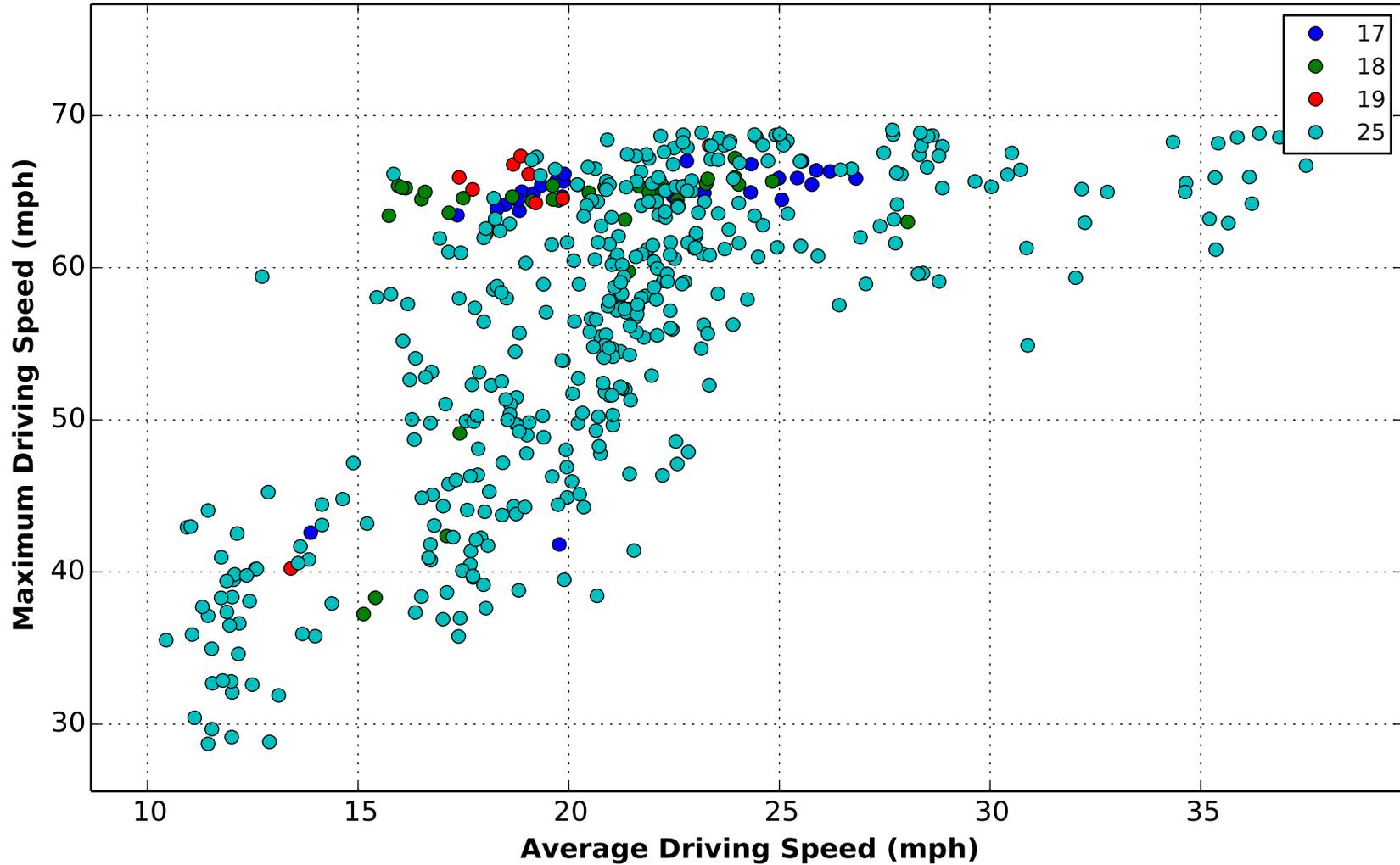


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Average vs. Maximum Driving Speed for City Transit Buses

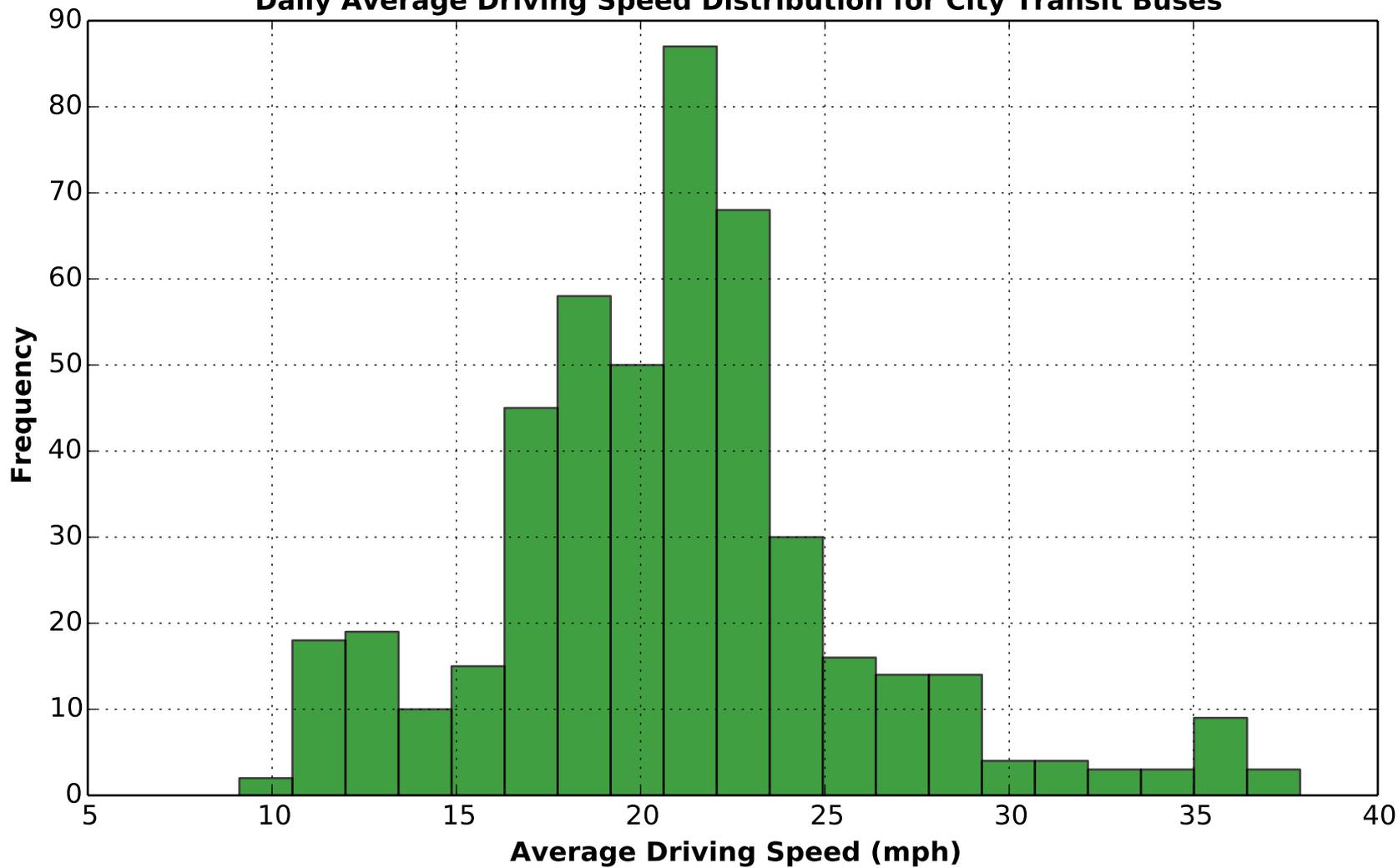


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 468

Daily Average Driving Speed Distribution for City Transit Buses

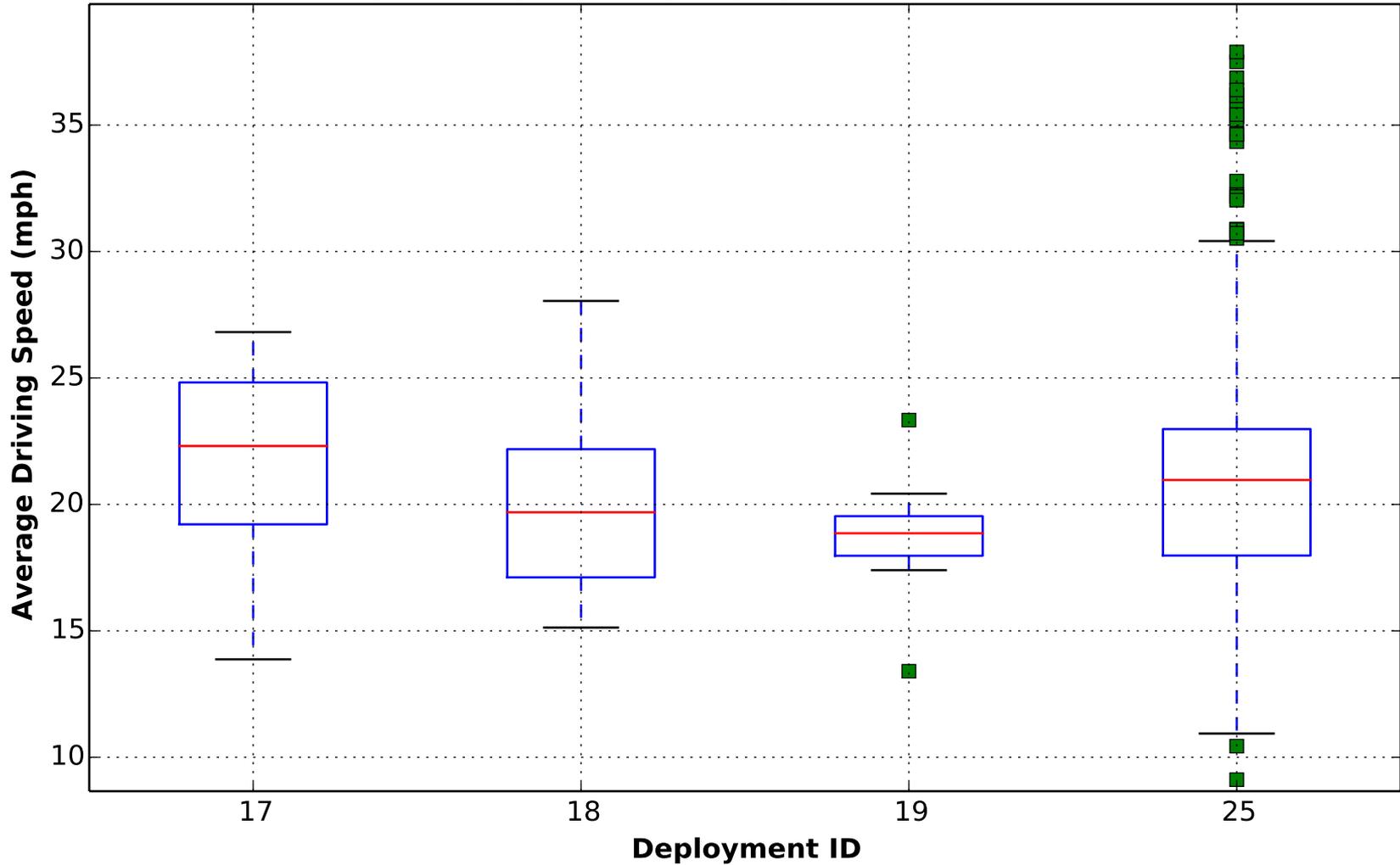


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: : 472

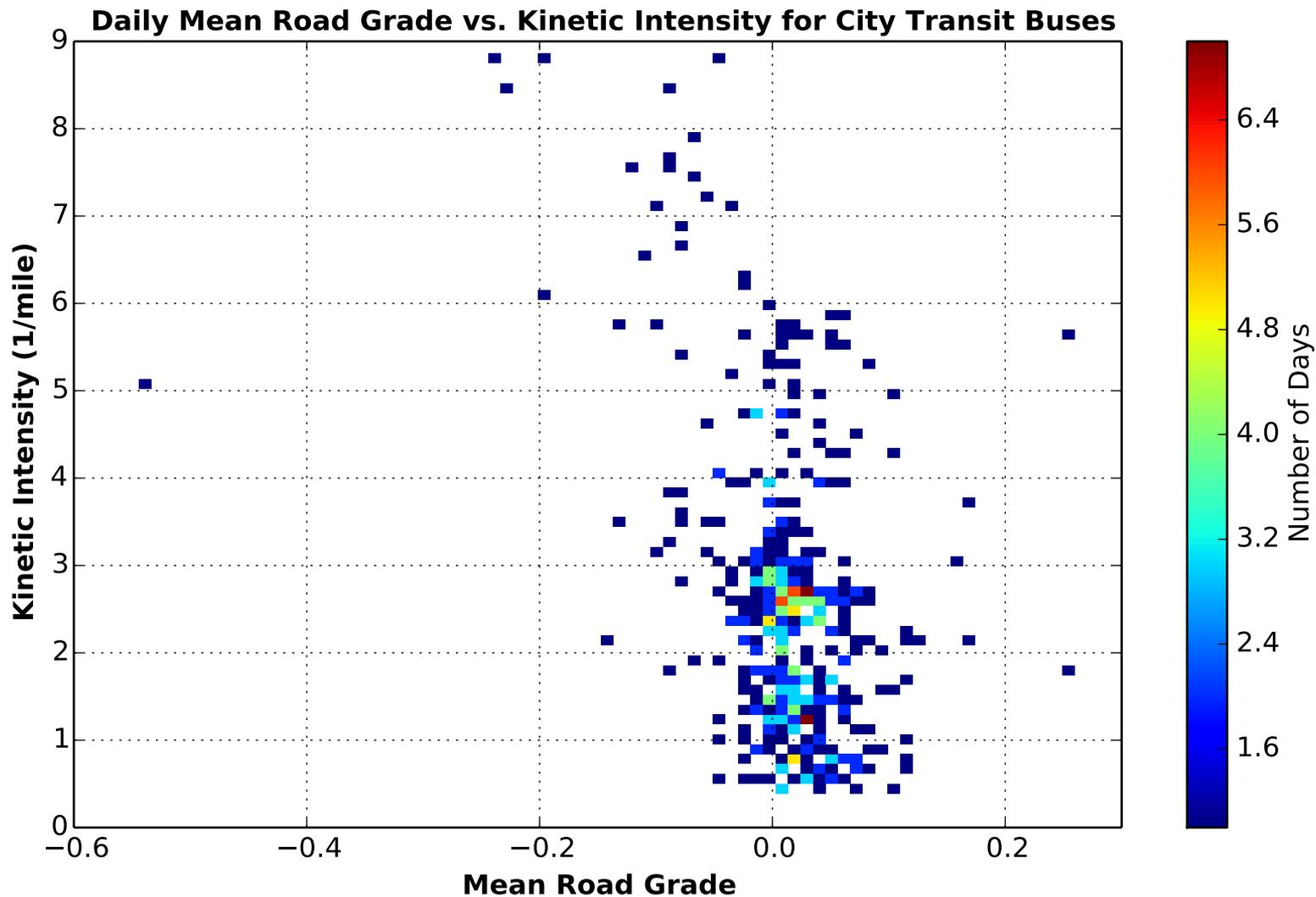
Average Driving Speed by Deployment for City Transit Buses



of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

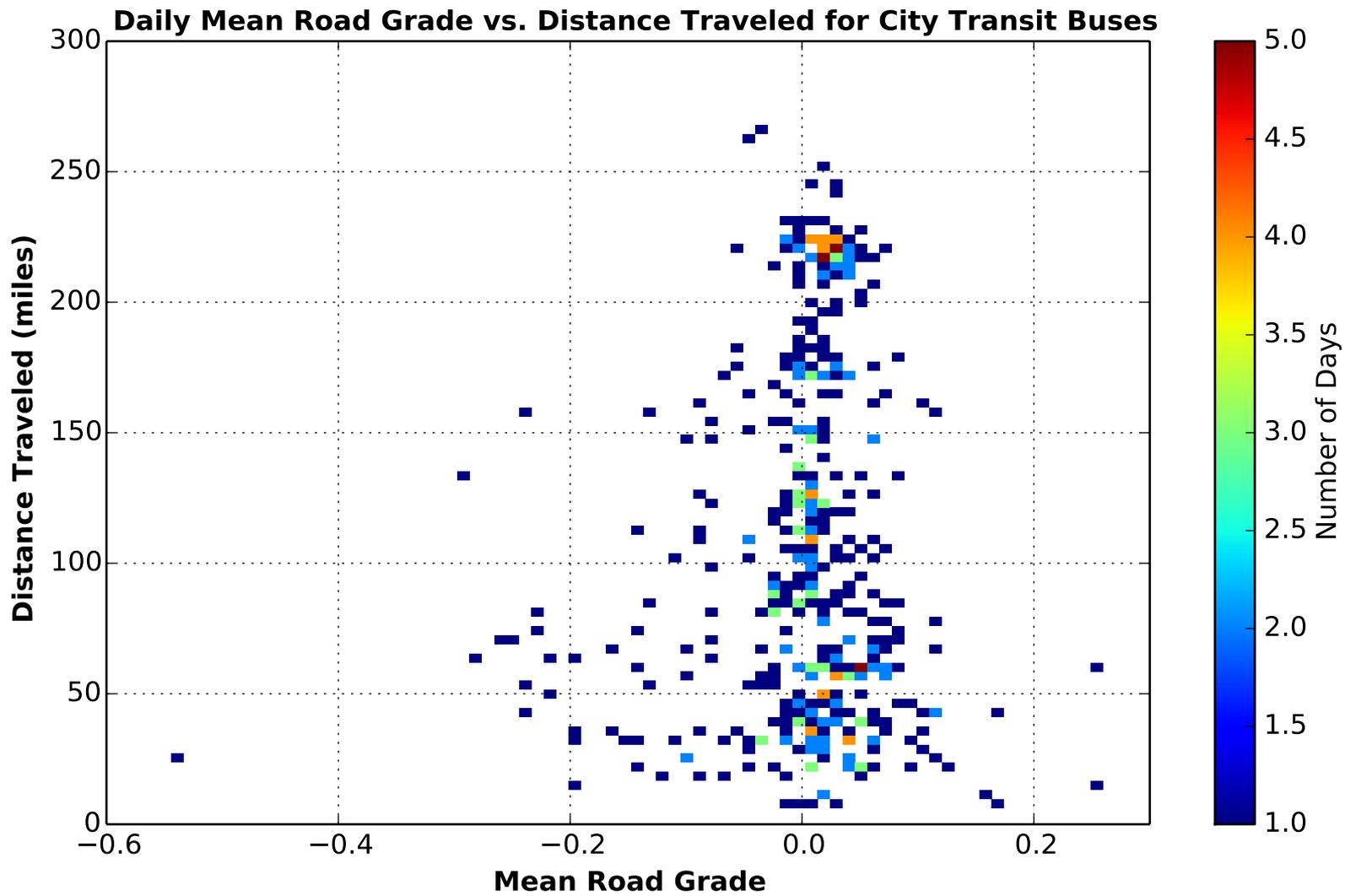
of Days Included: : 472



of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 449

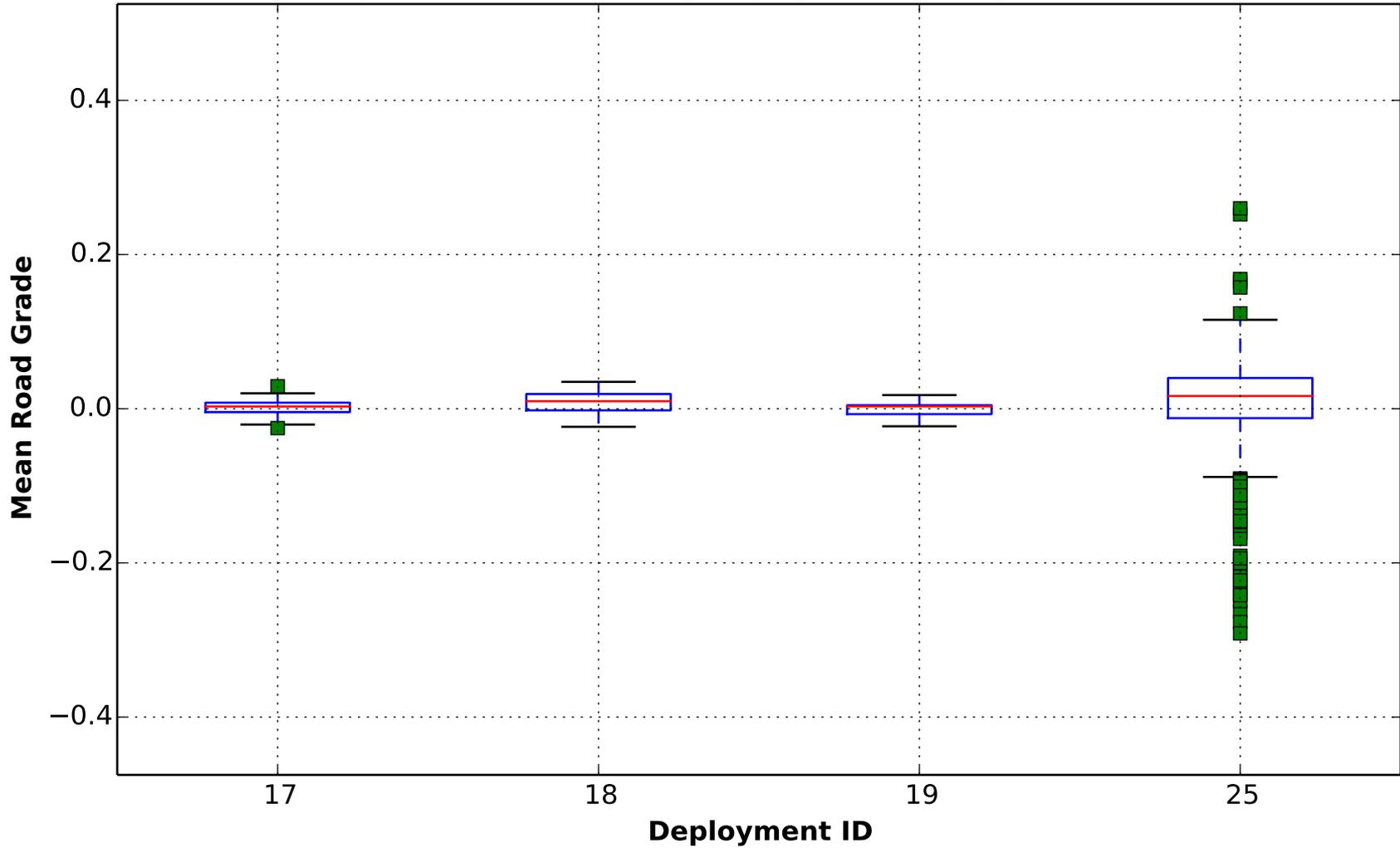


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Mean Road Grade by Deployment for City Transit Buses

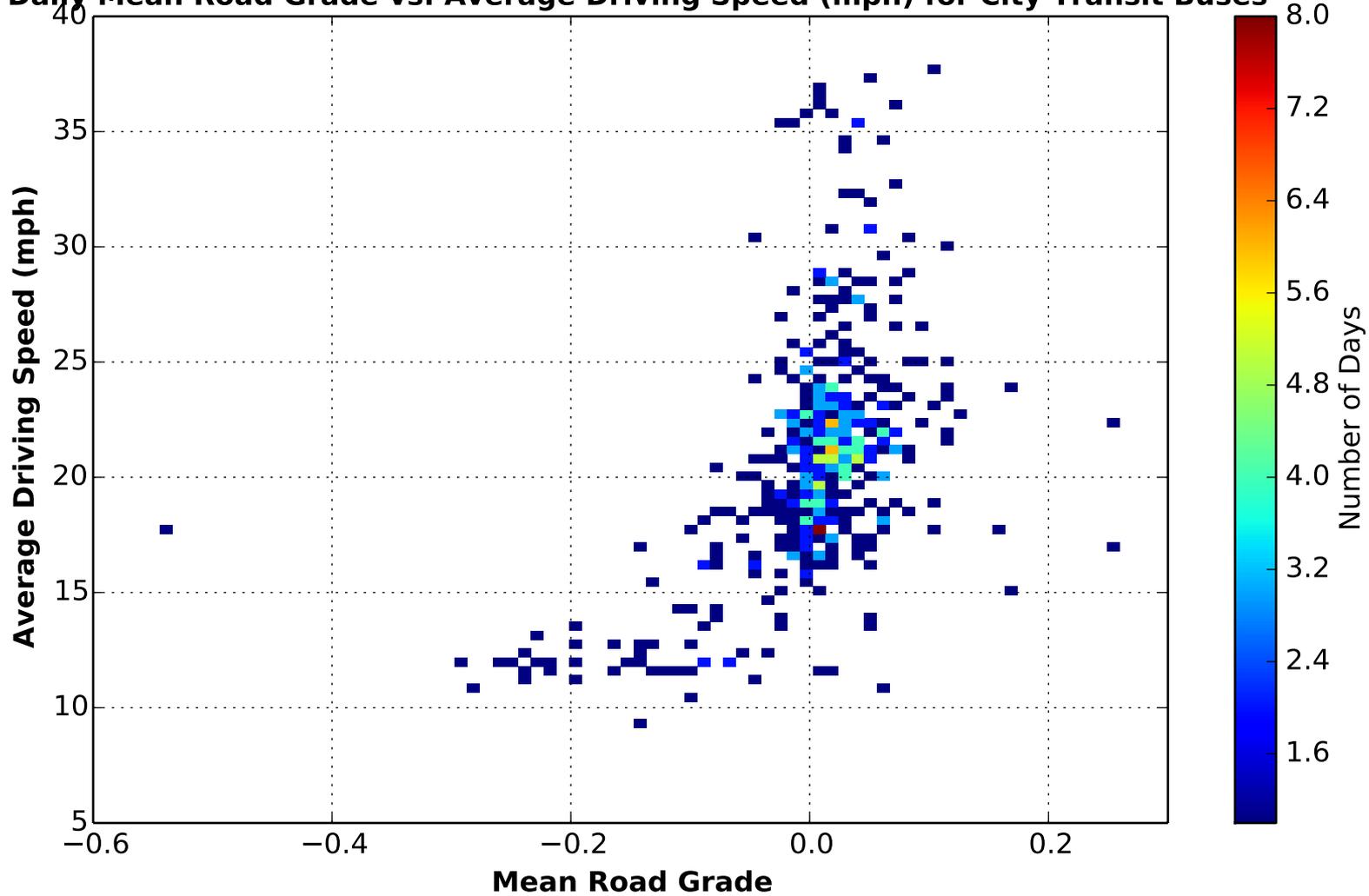


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 471

Daily Mean Road Grade vs. Average Driving Speed (mph) for City Transit Buses

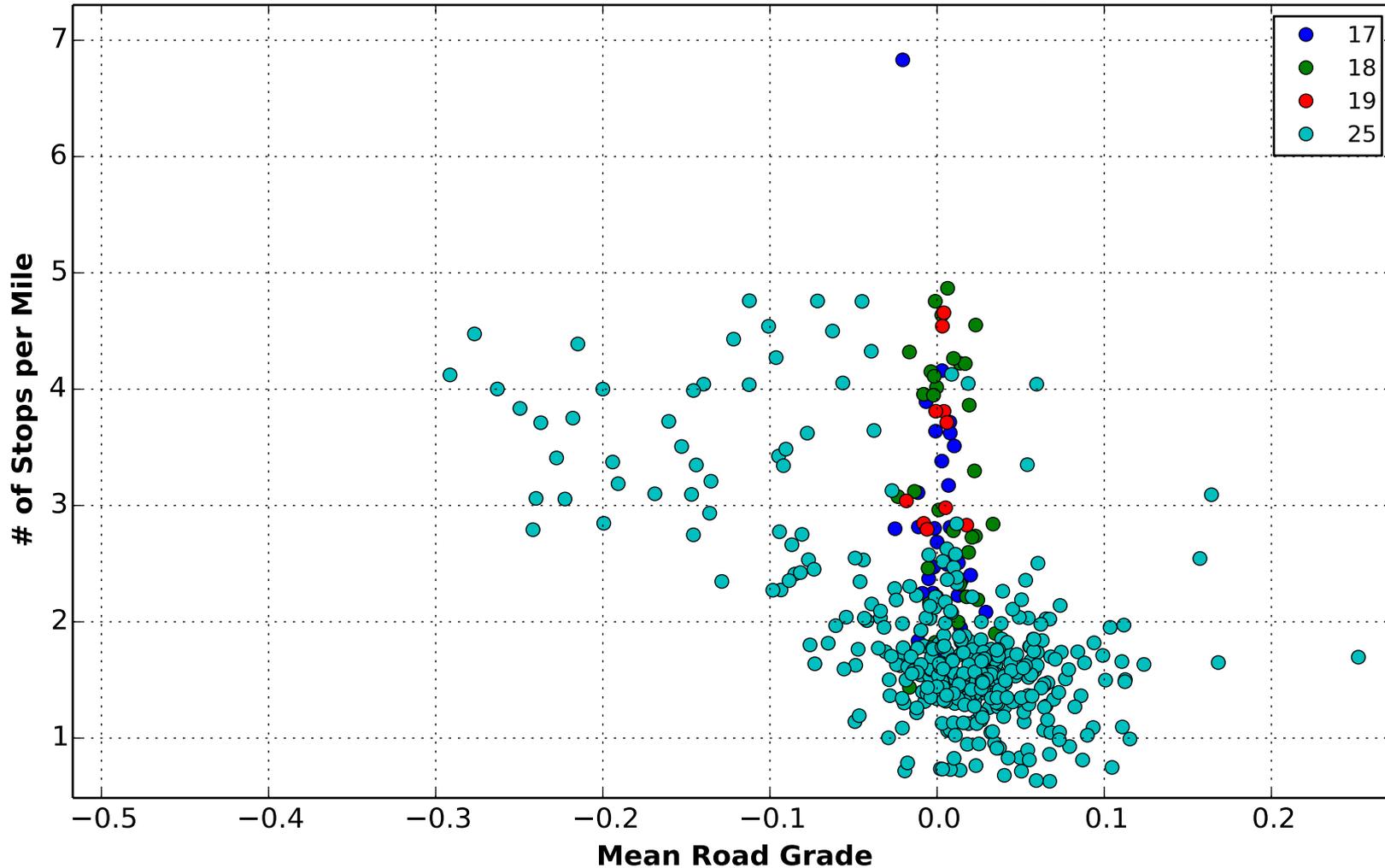


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Mean Road Grade vs. # of Stops per Mile for City Transit Buses

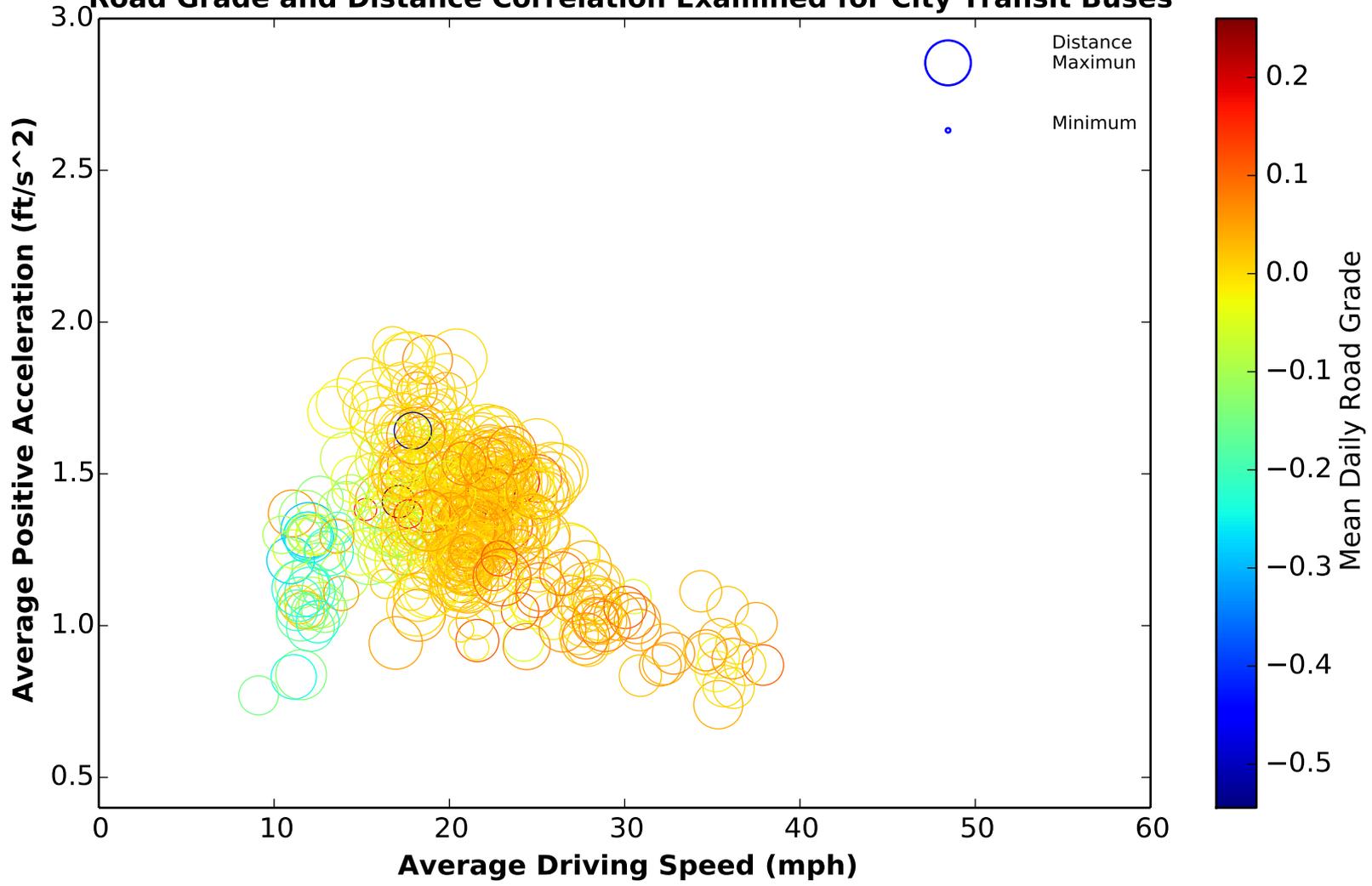


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 468

Road Grade and Distance Correlation Examined for City Transit Buses

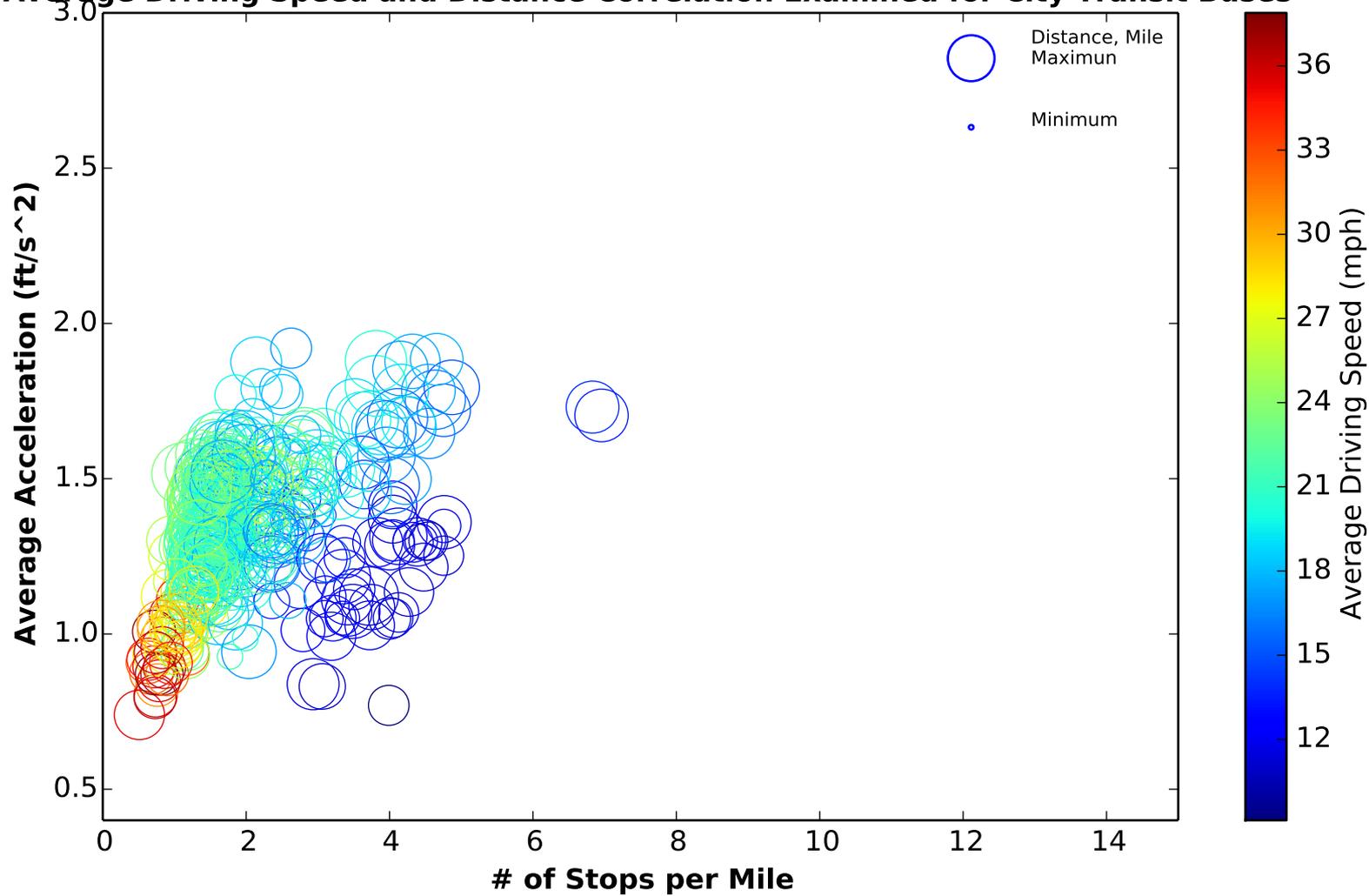


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Average Driving Speed and Distance Correlation Examined for City Transit Buses

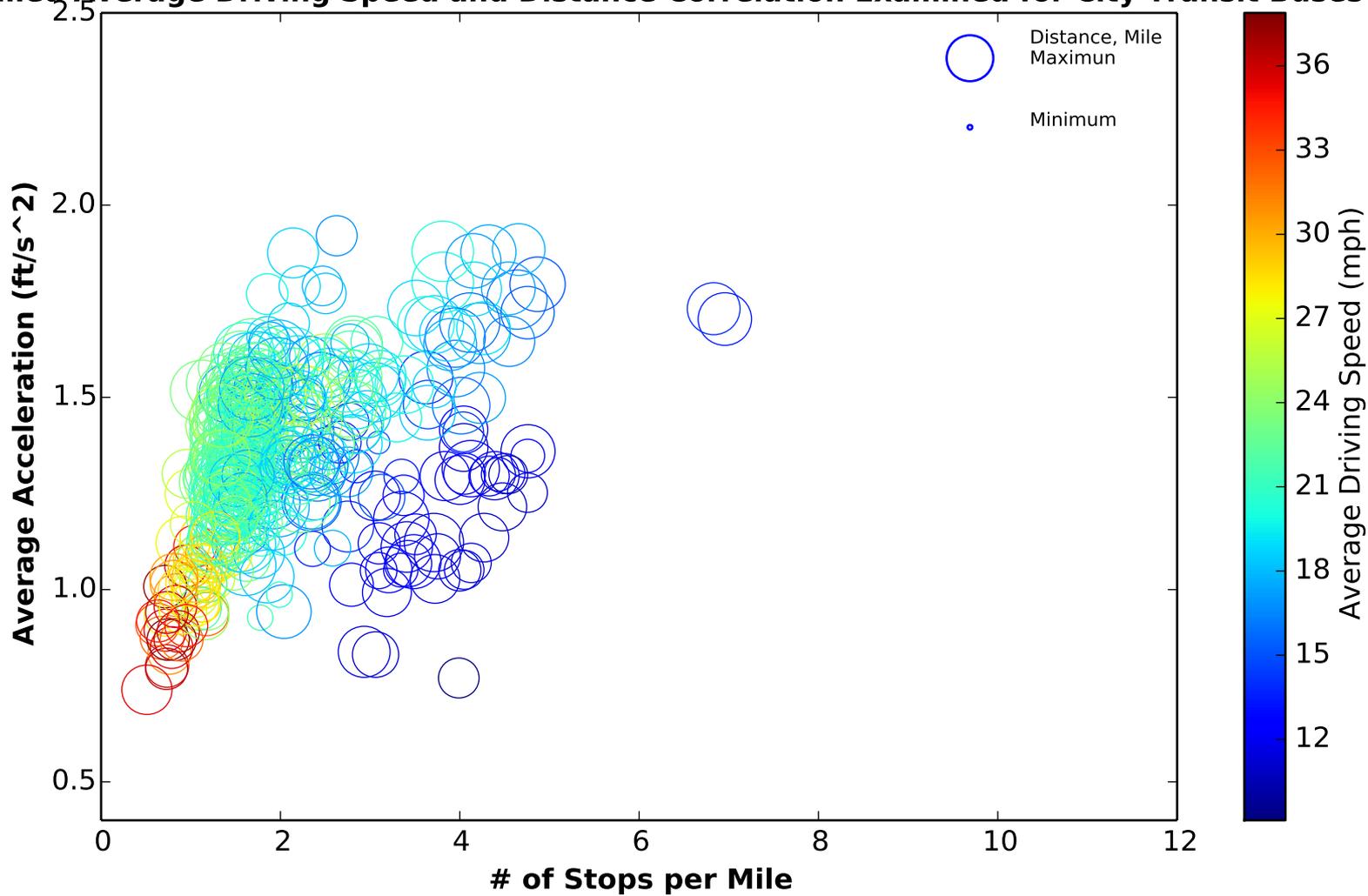


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Detailed Average Driving Speed and Distance Correlation Examined for City Transit Buses

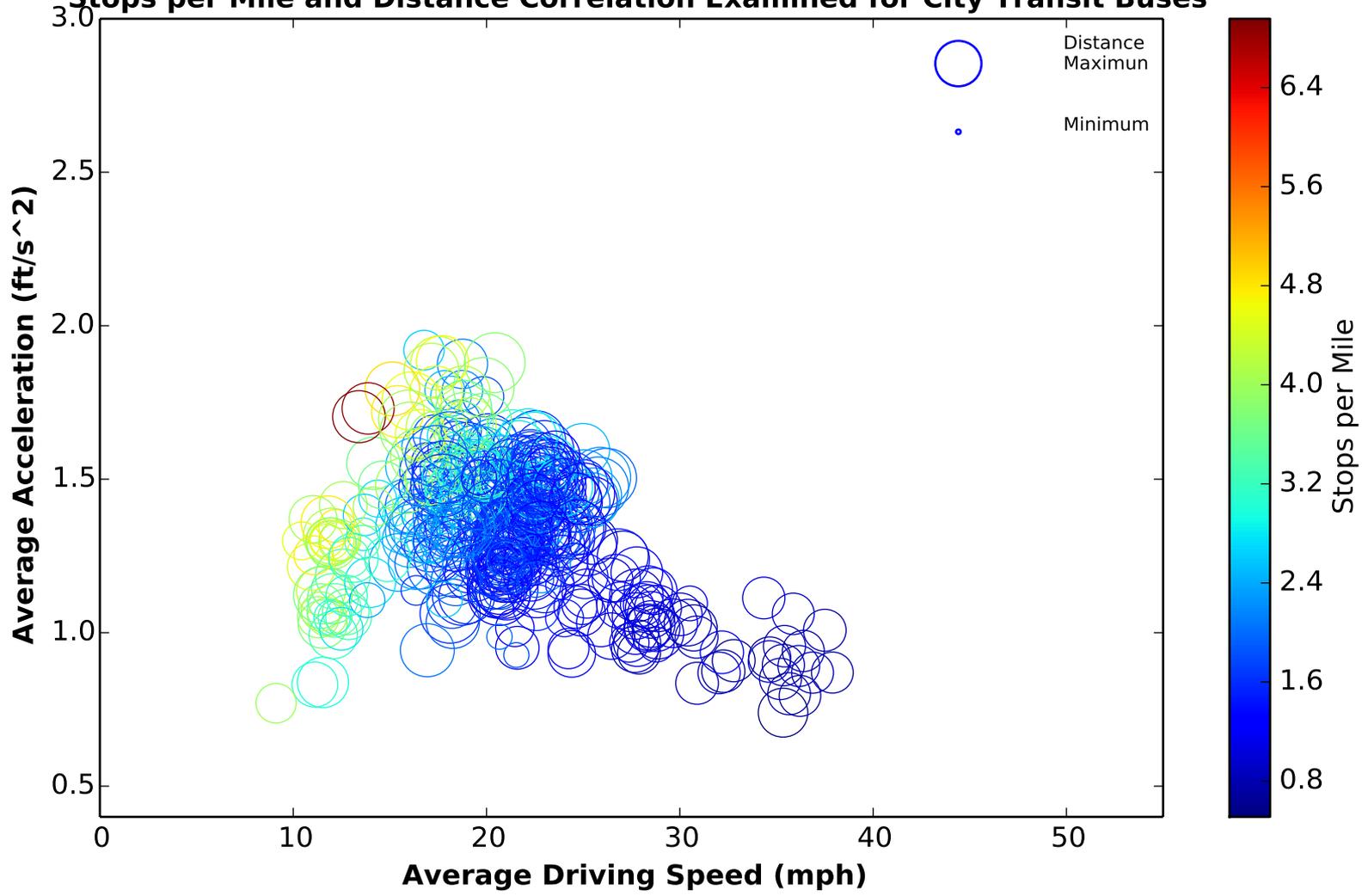


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Stops per Mile and Distance Correlation Examined for City Transit Buses

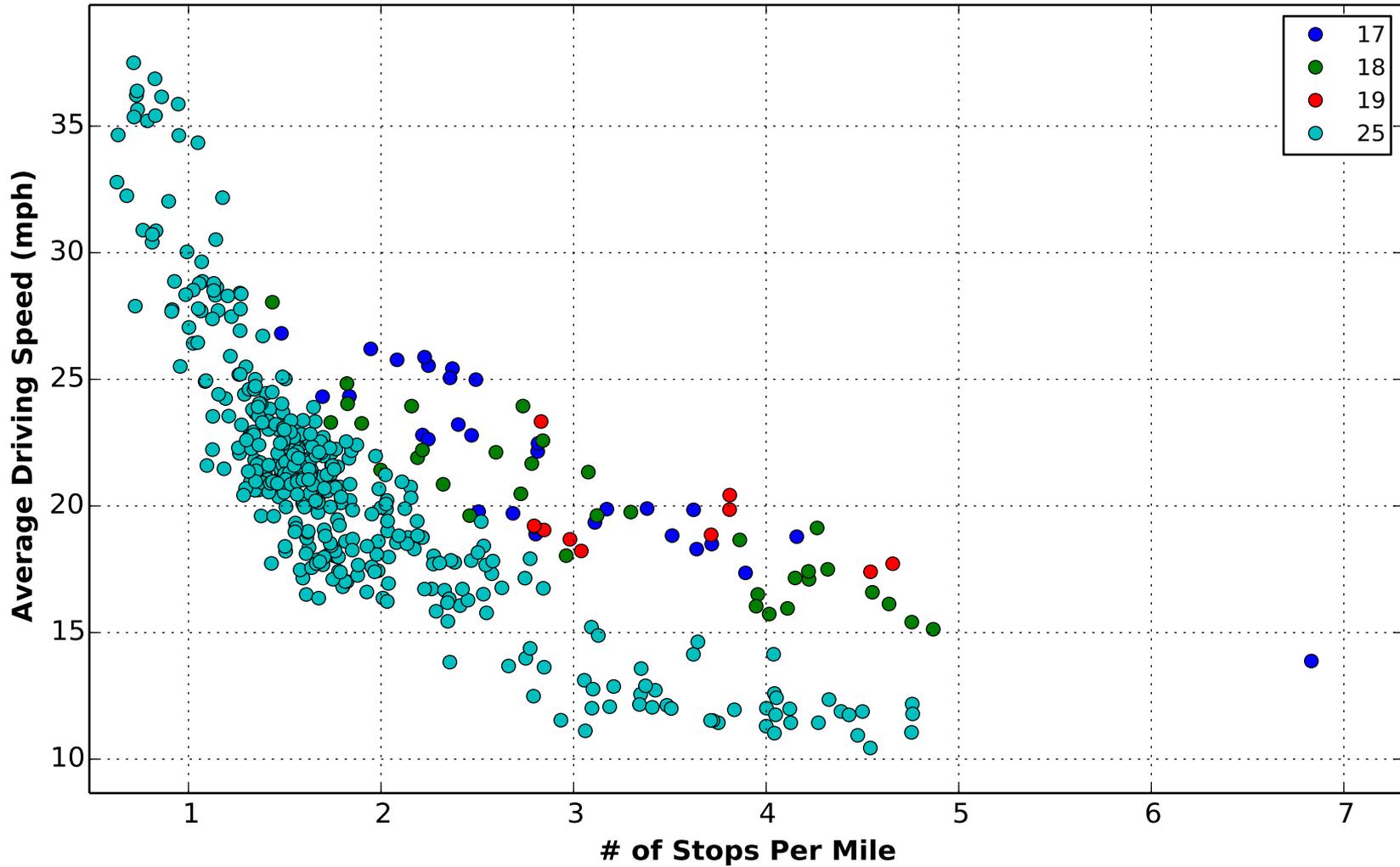


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Stops per Mile vs. Average Driving Speed for City Transit Buses

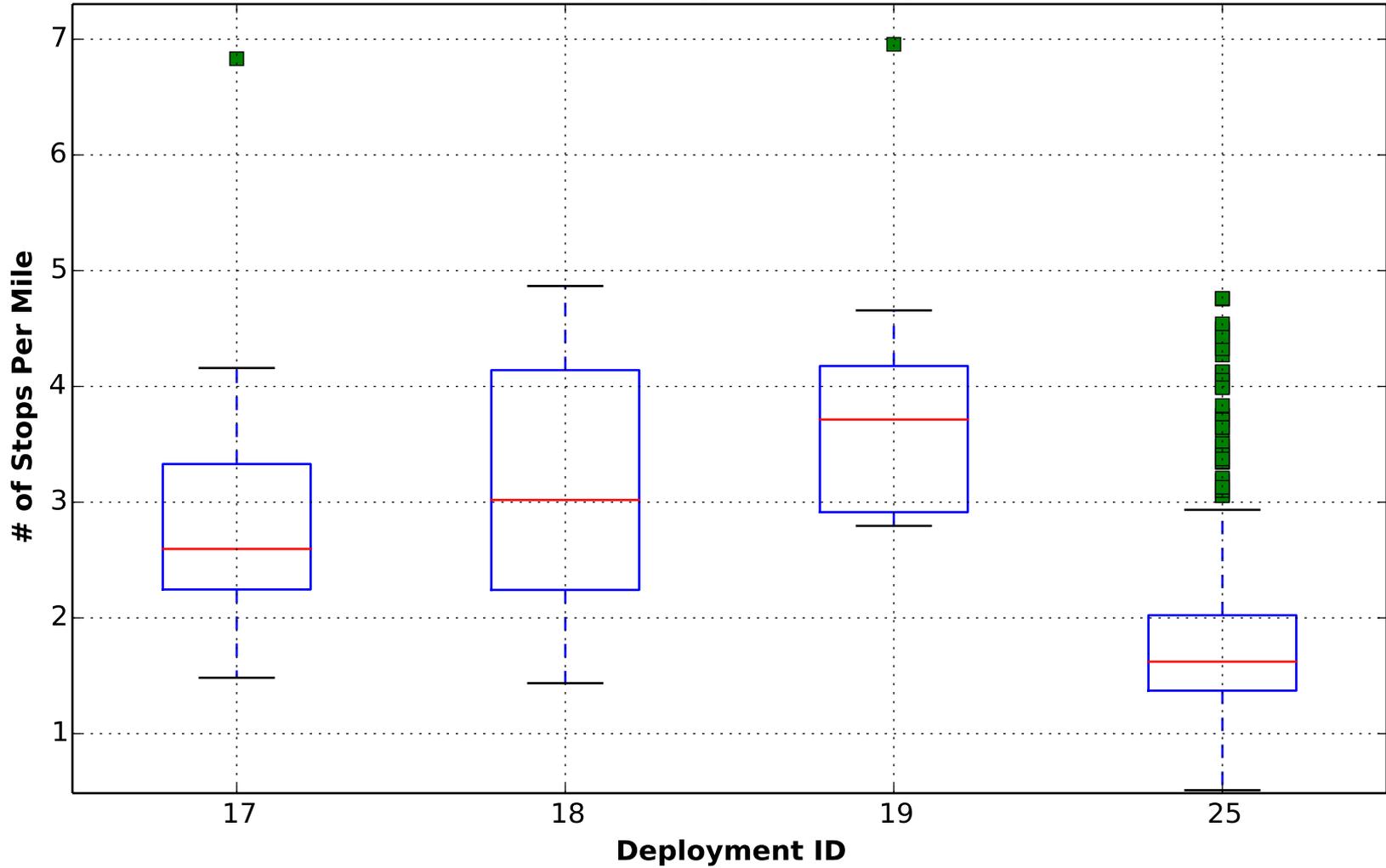


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 468

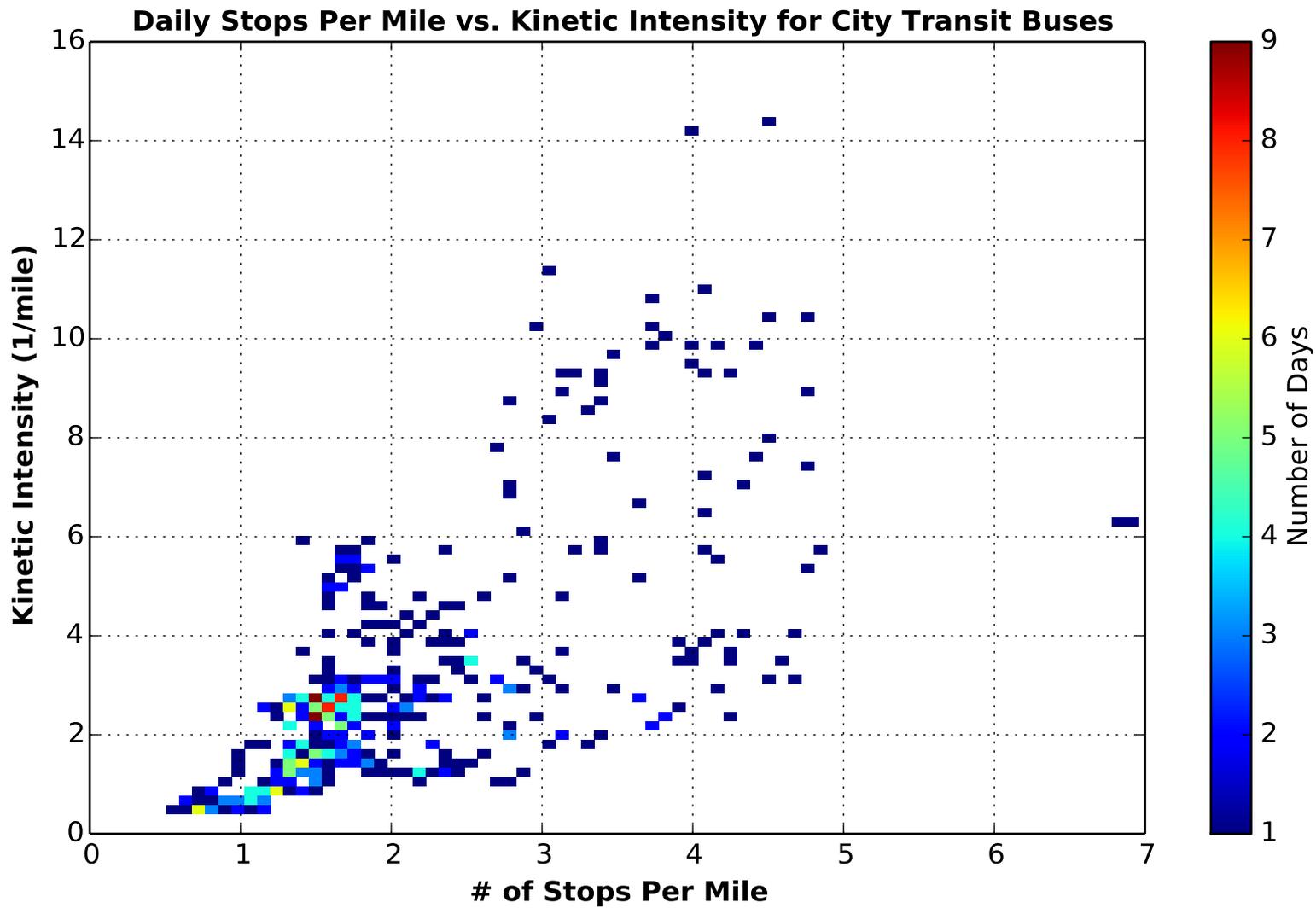
Stops Per Mile by Deployment for City Transit Buses



of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

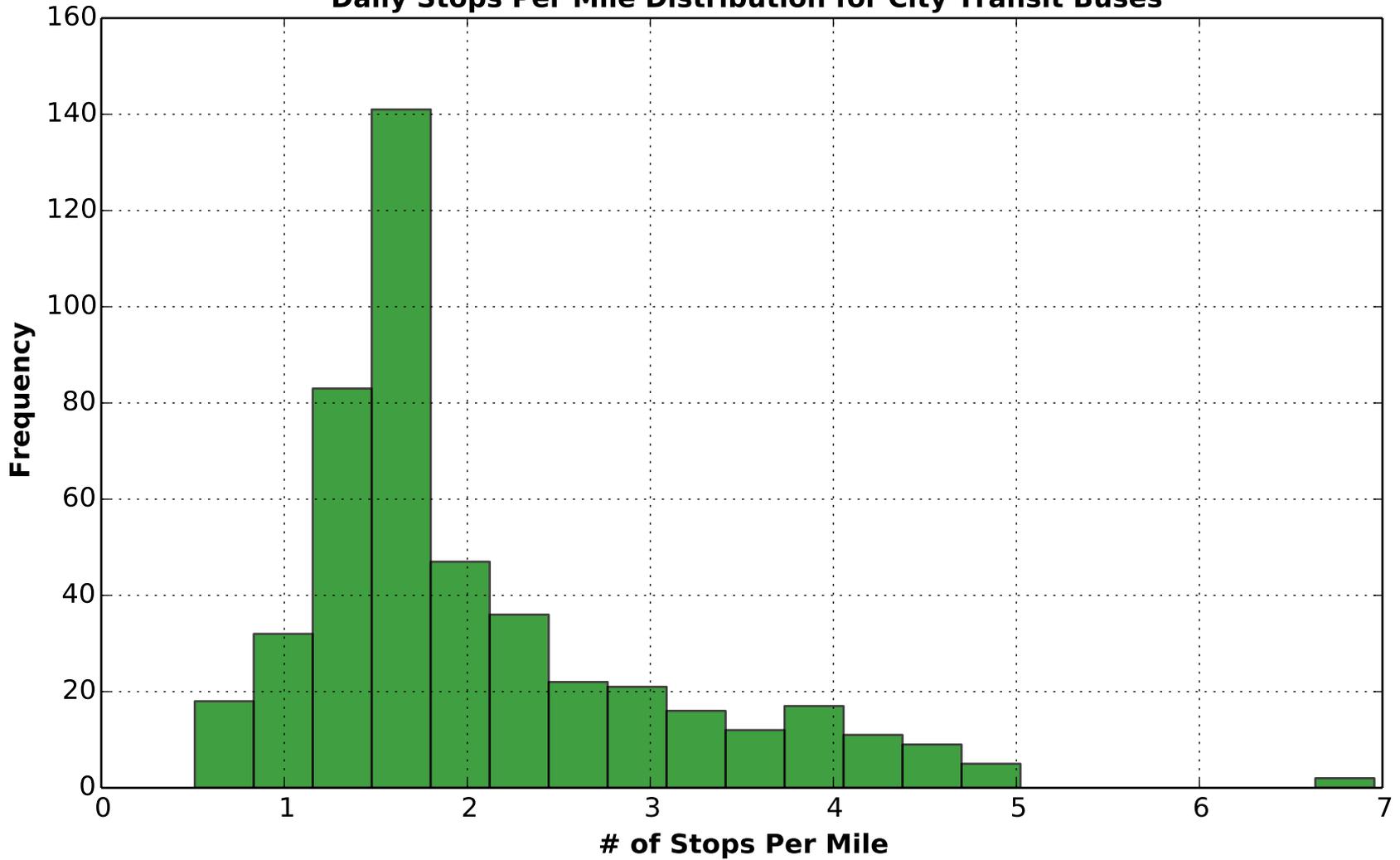


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Stops Per Mile Distribution for City Transit Buses

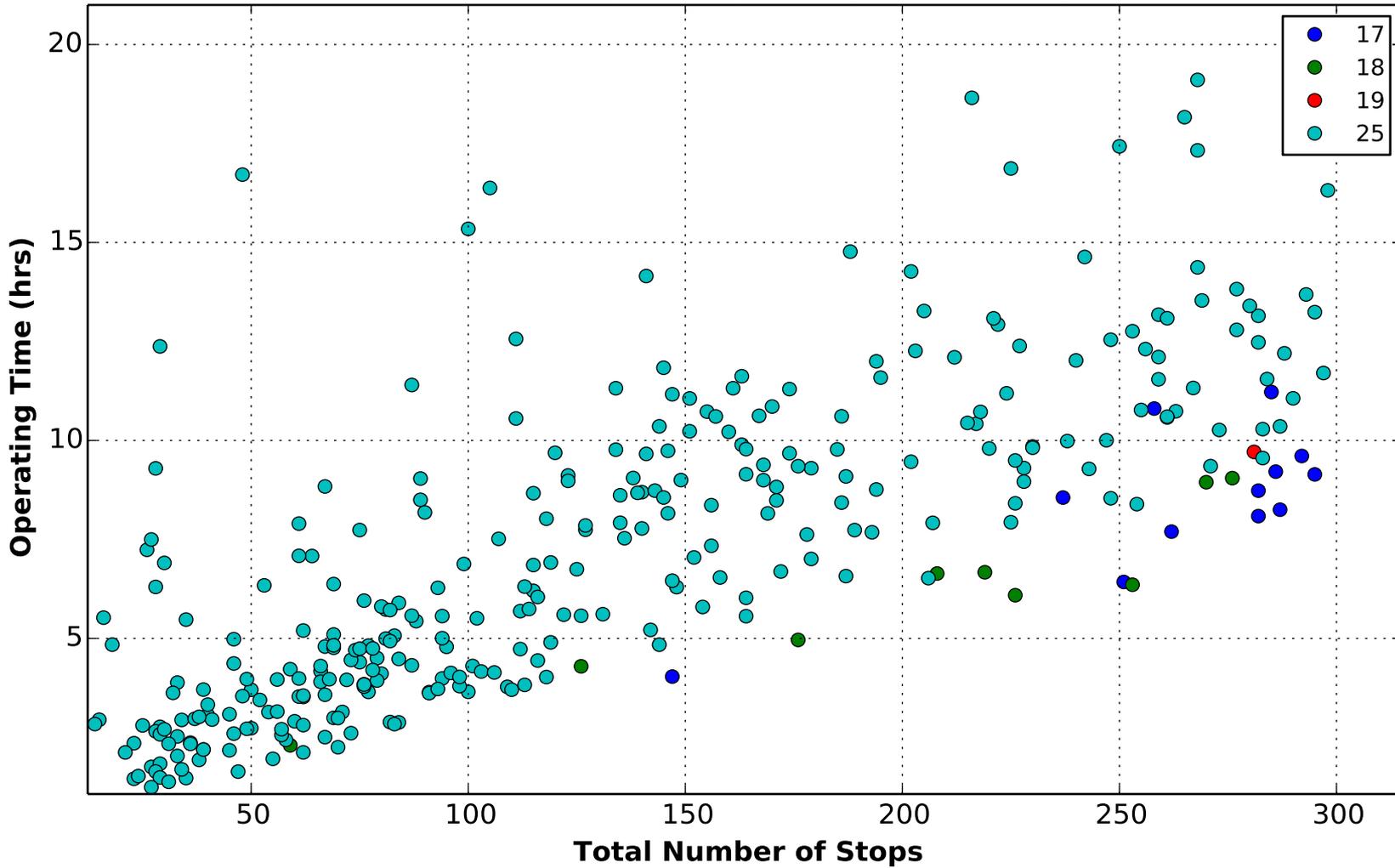


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Total Number of Stops vs. Operating Time for City Transit Buses

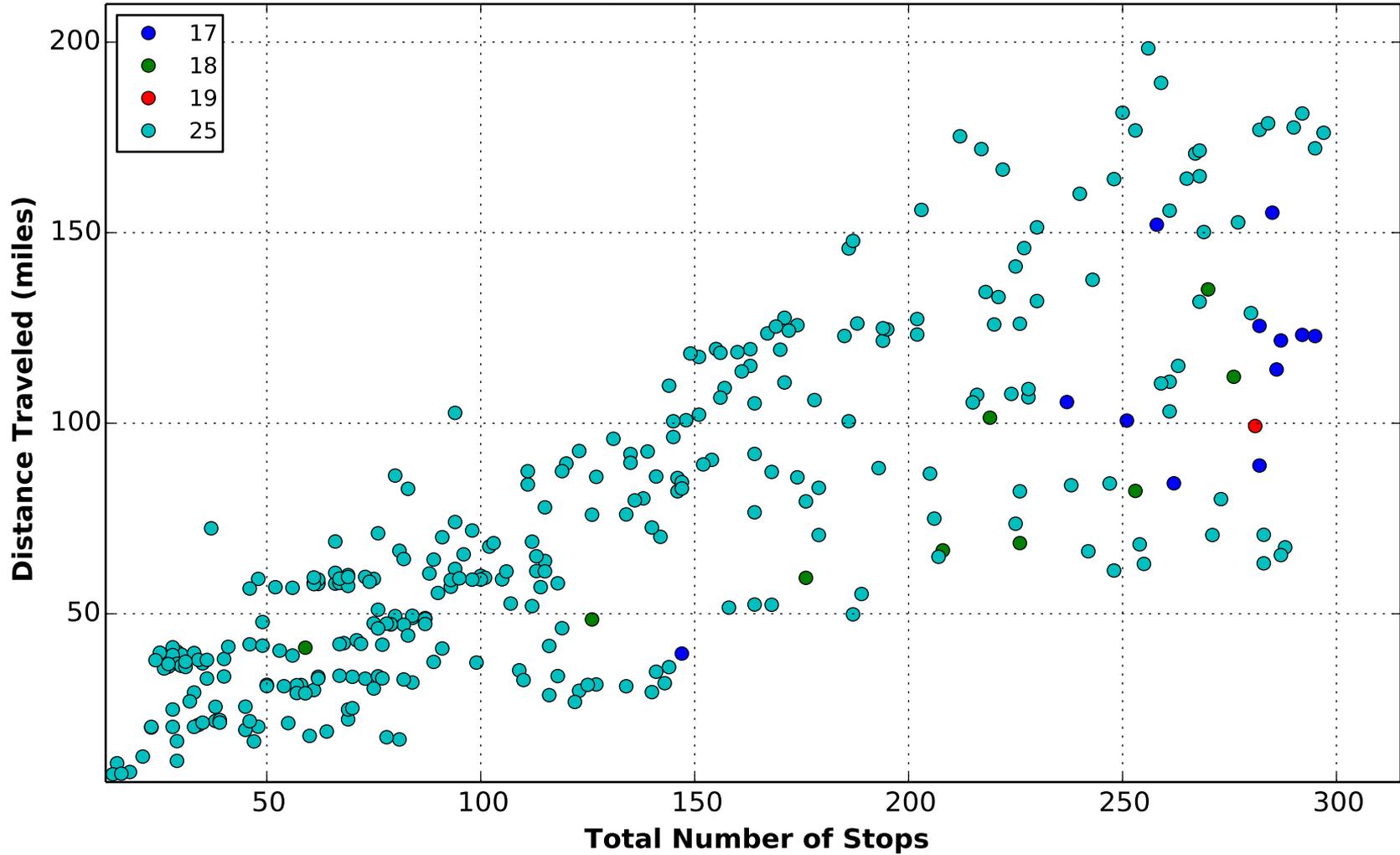


of Vehicles Reporting: 13

Generated: Thu Aug 07, 2014

of Days Included: 330

Daily Total Number of Stops vs. Distance Traveled for City Transit Buses

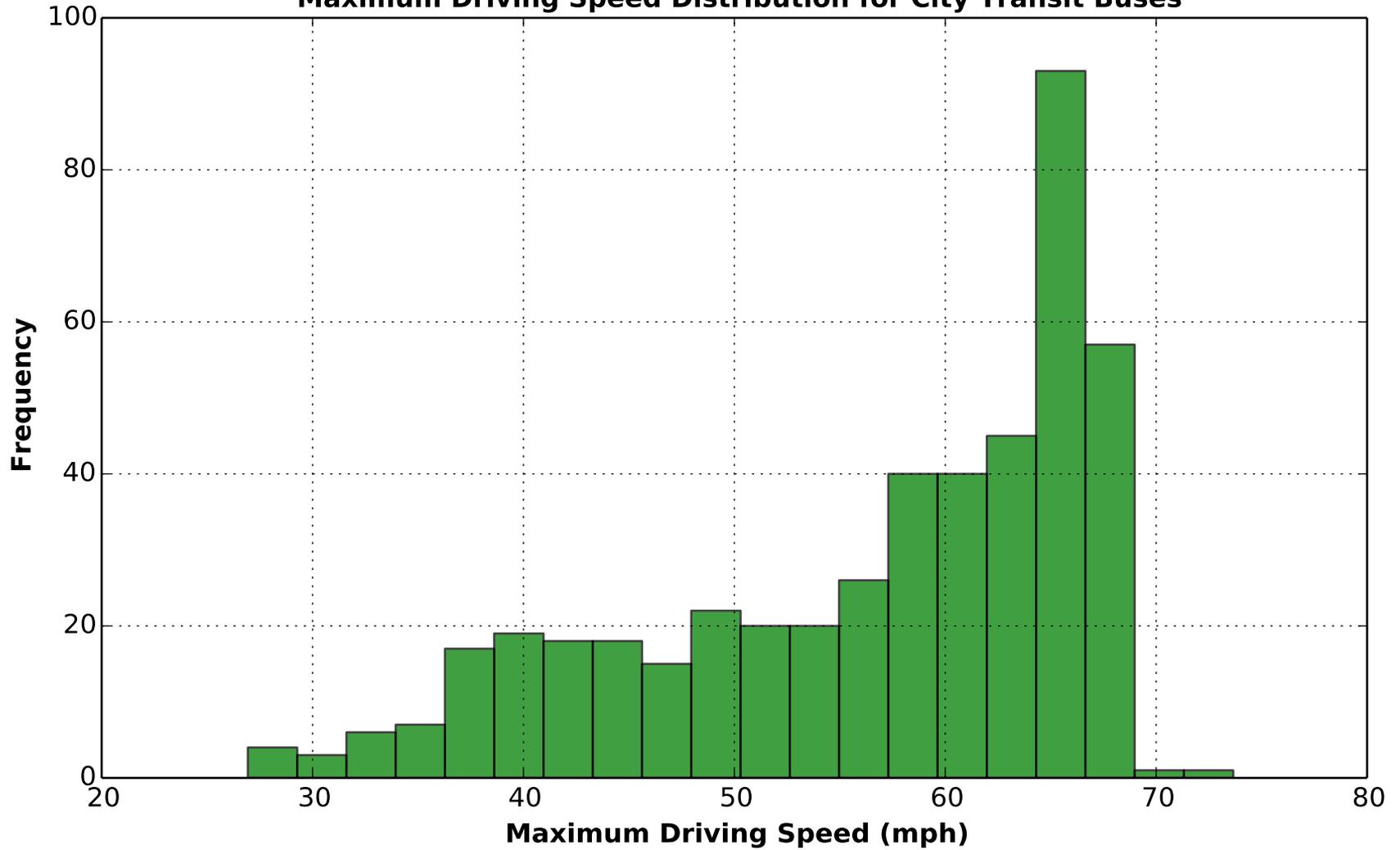


of Vehicles Reporting: 13

Generated: Thu Aug 07, 2014

of Days Included: 326

Maximum Driving Speed Distribution for City Transit Buses

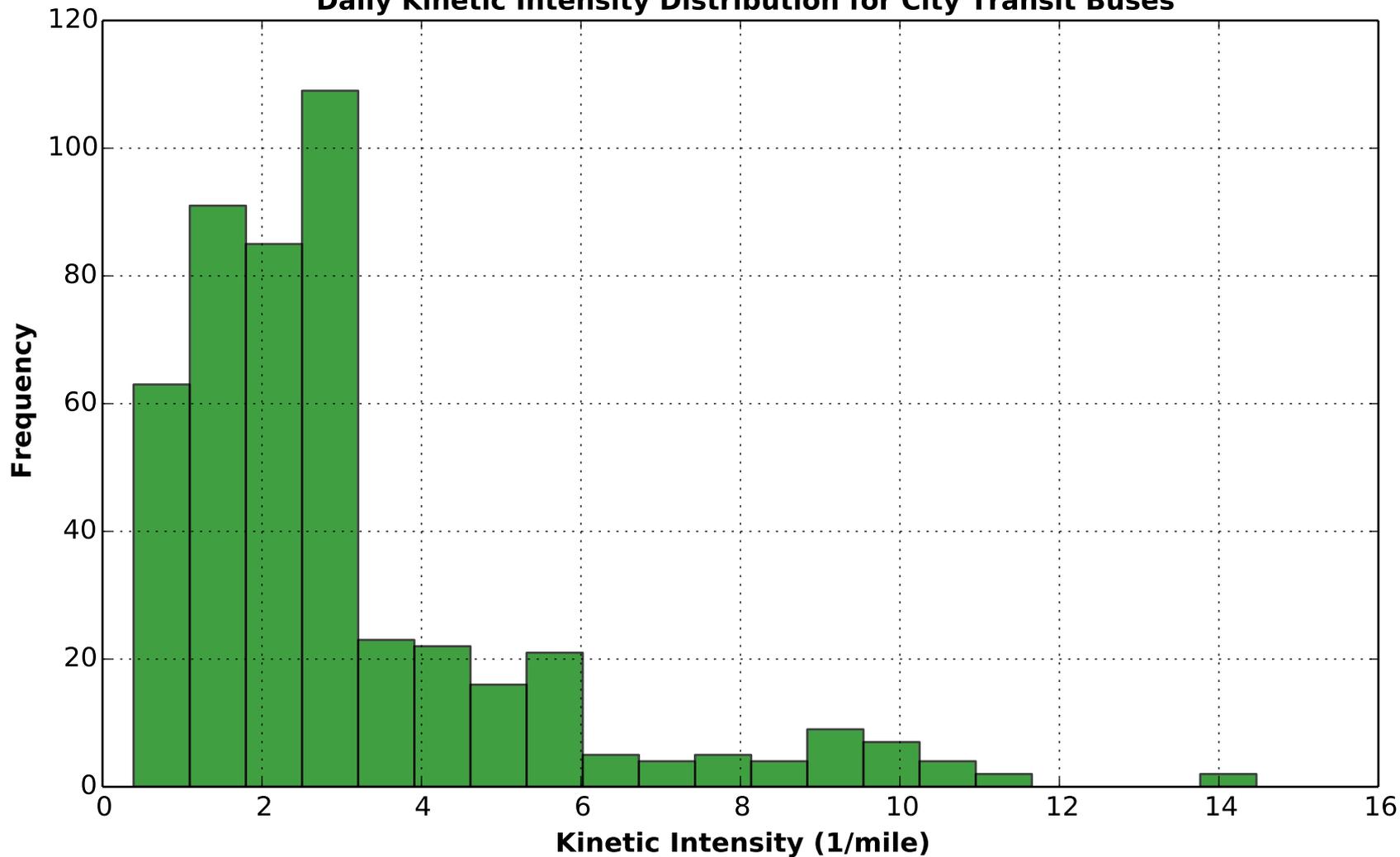


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Kinetic Intensity Distribution for City Transit Buses

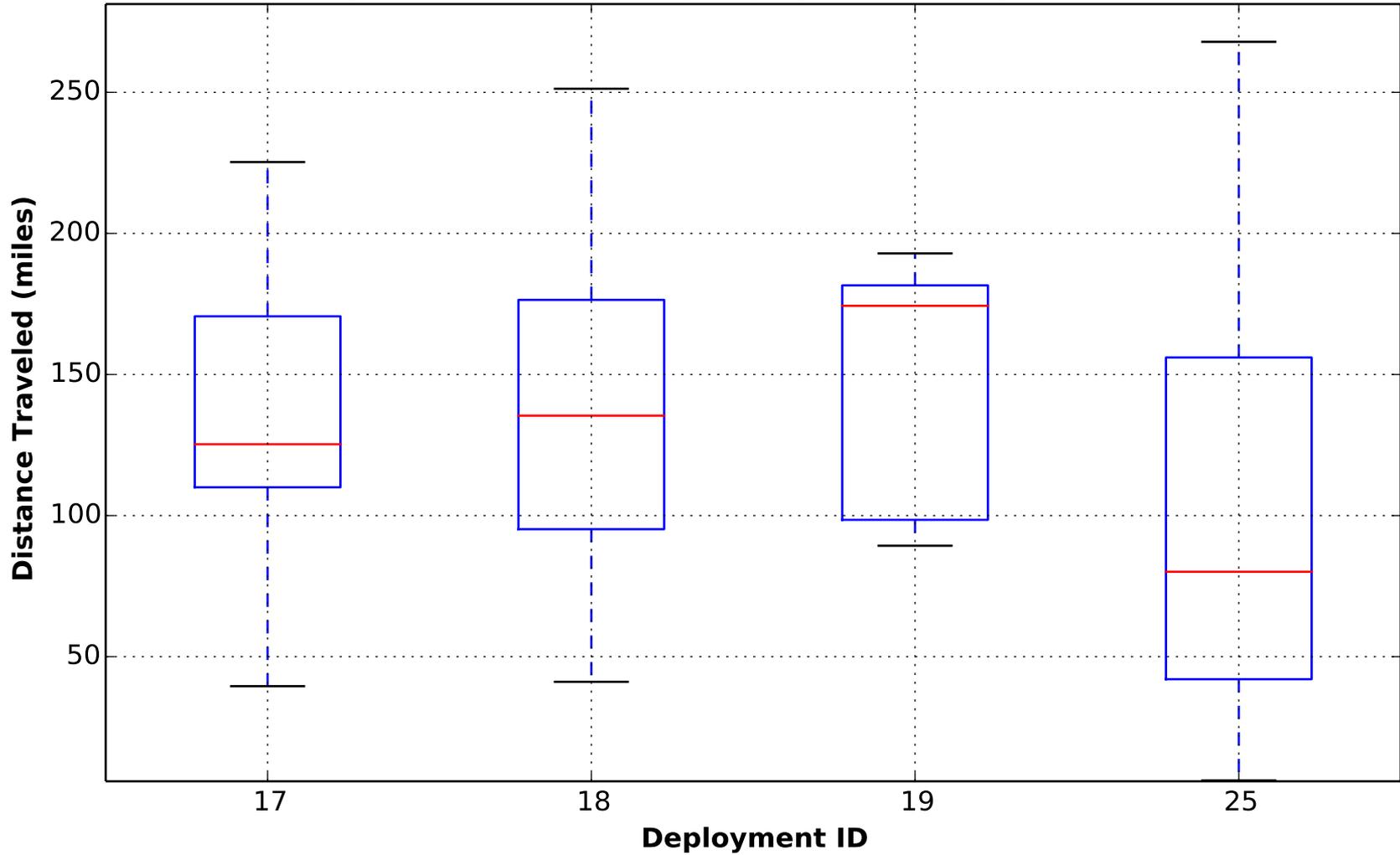


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Distance Traveled by Deployment for City Transit Buses

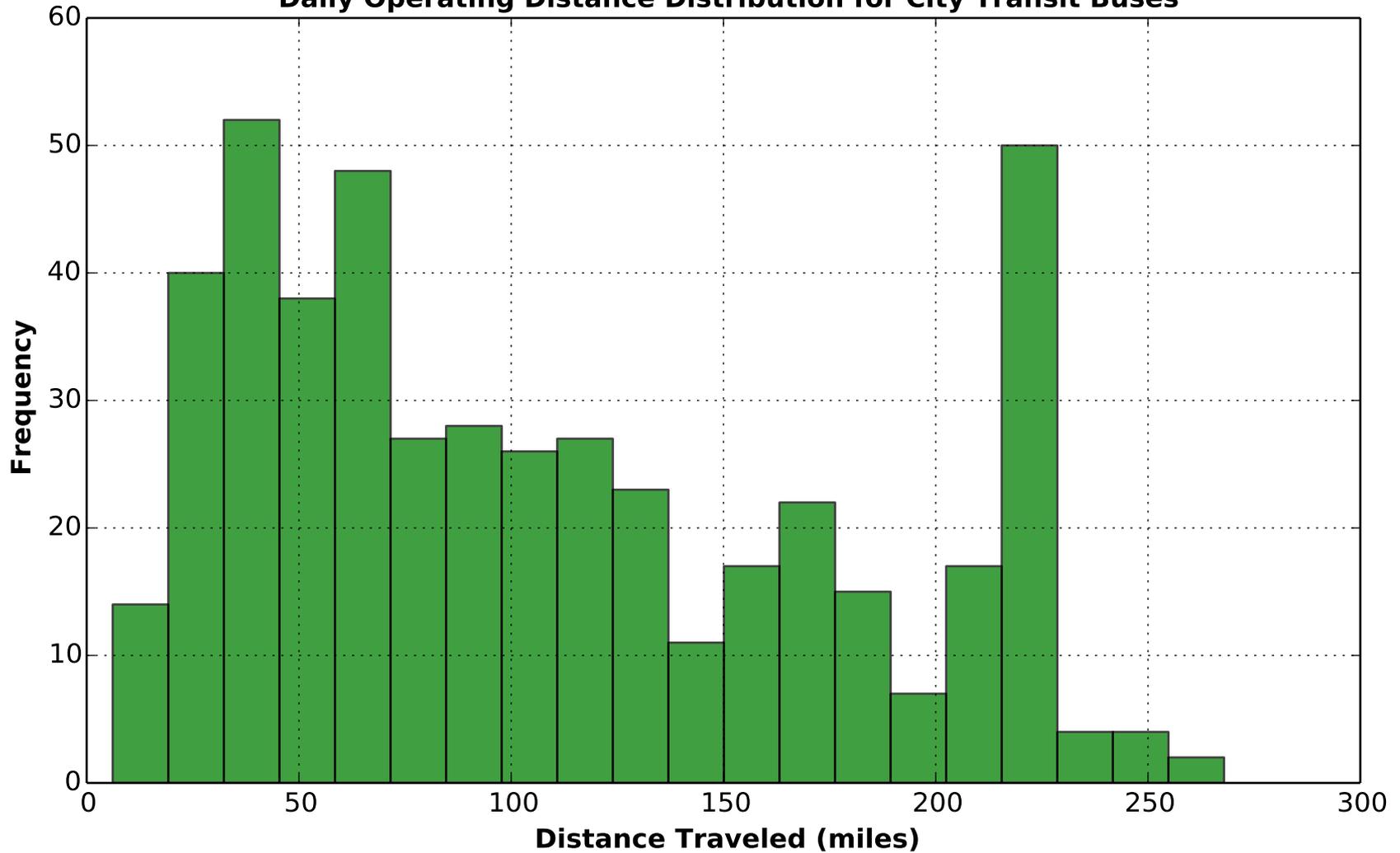


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Operating Distance Distribution for City Transit Buses

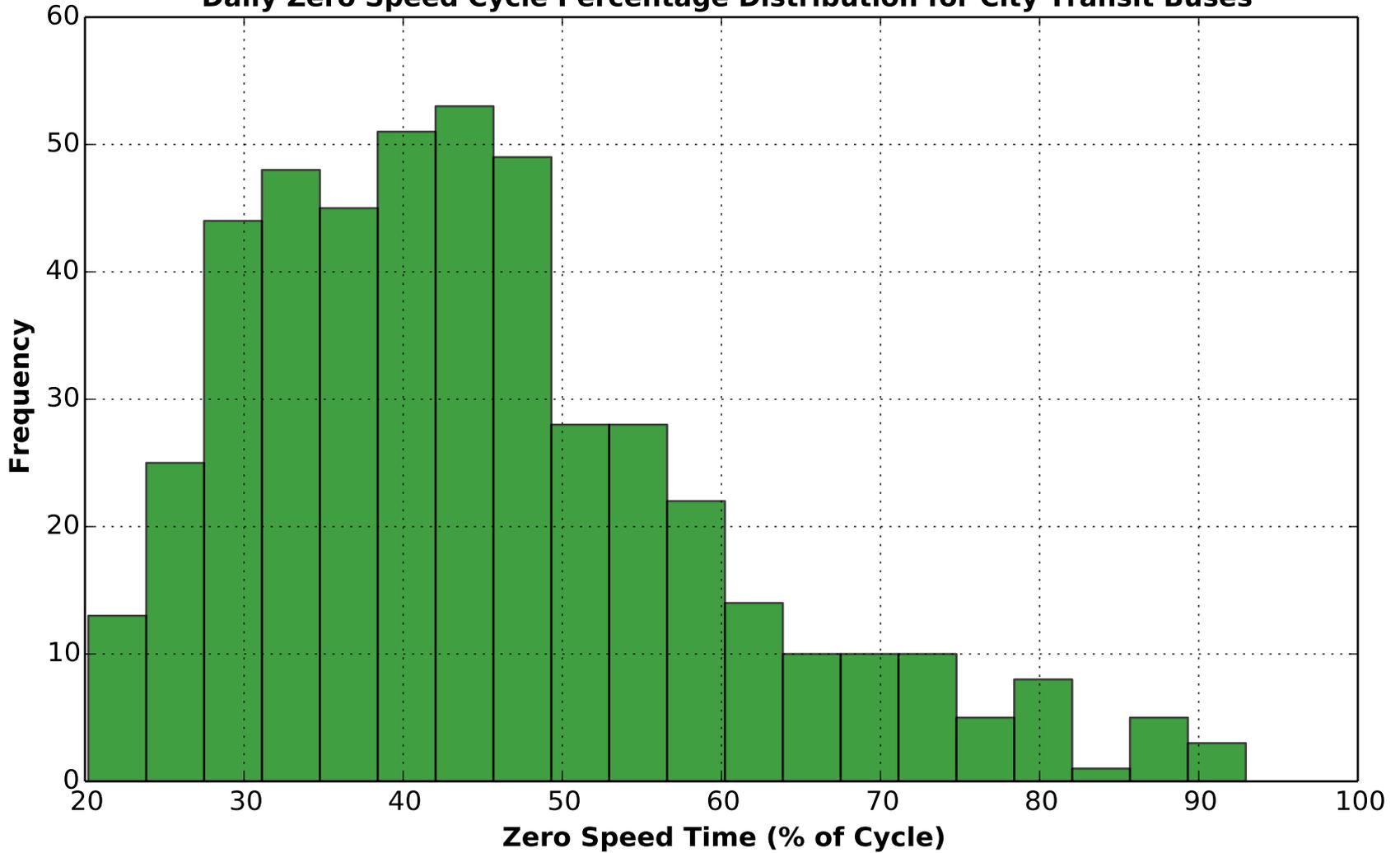


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Zero Speed Cycle Percentage Distribution for City Transit Buses

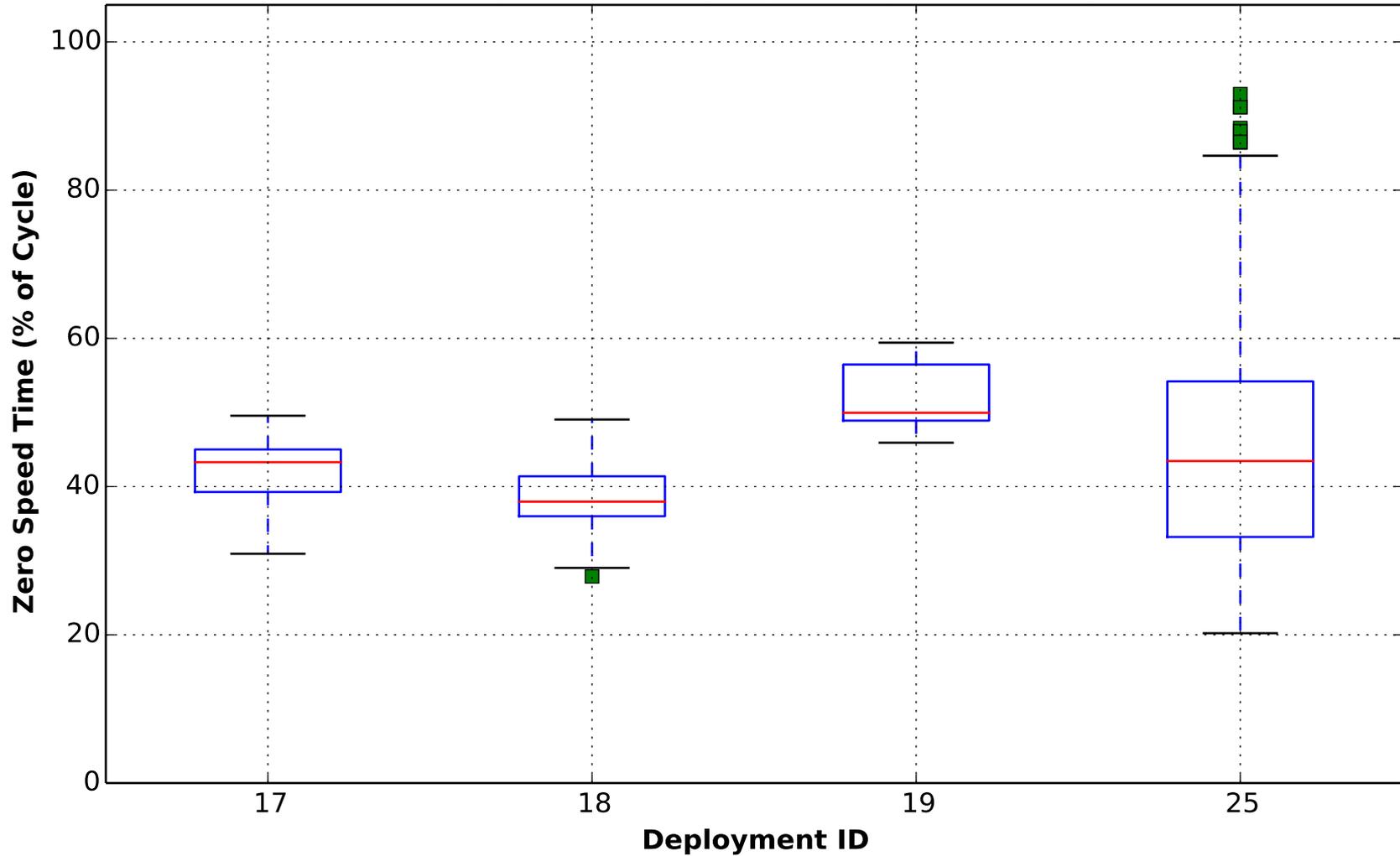


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Zero Speed Cycle Percentage by Deployment for City Transit Buses

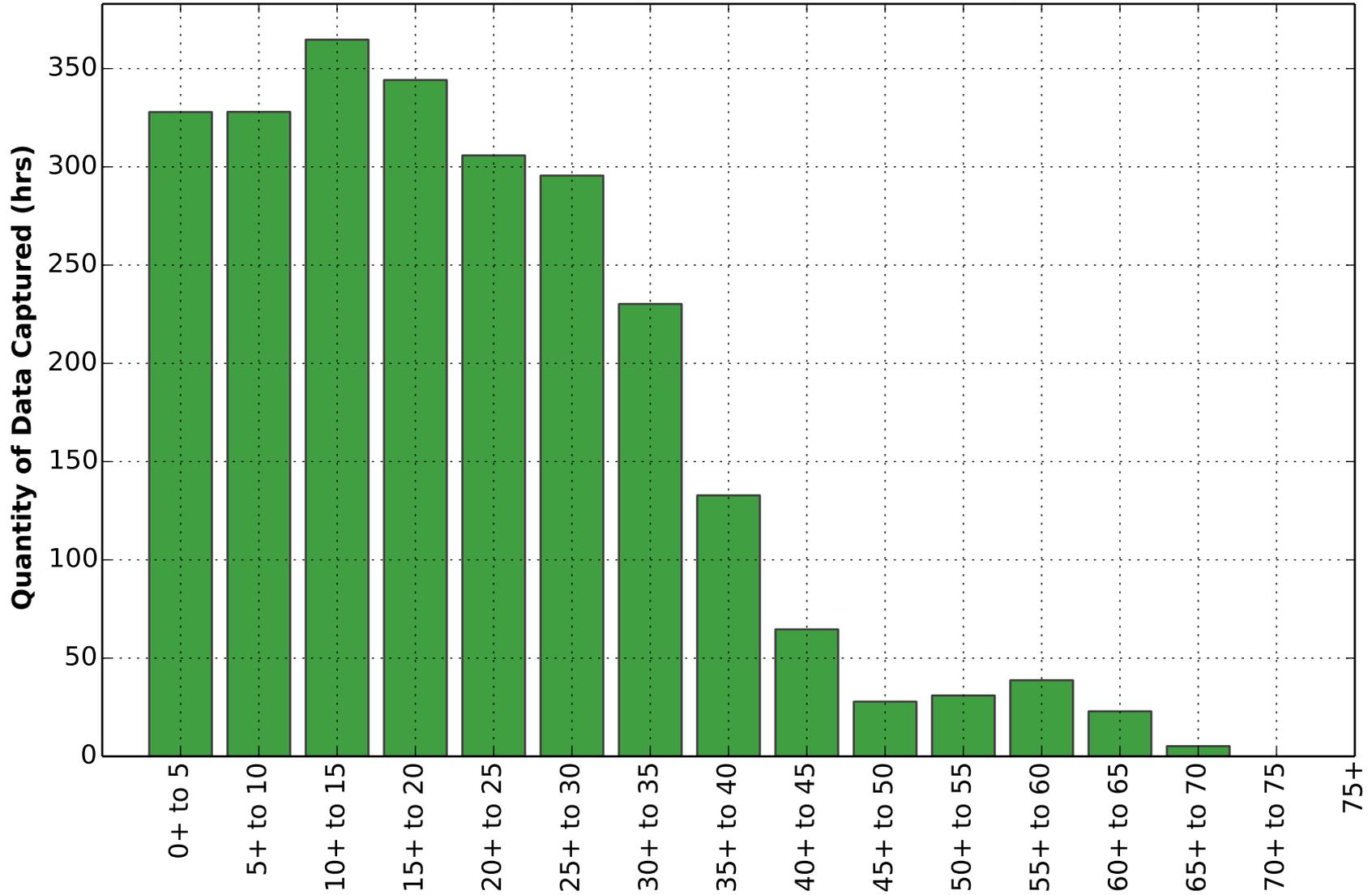


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Captured Operating Time by Speed Bin (mph) for City Transit Buses

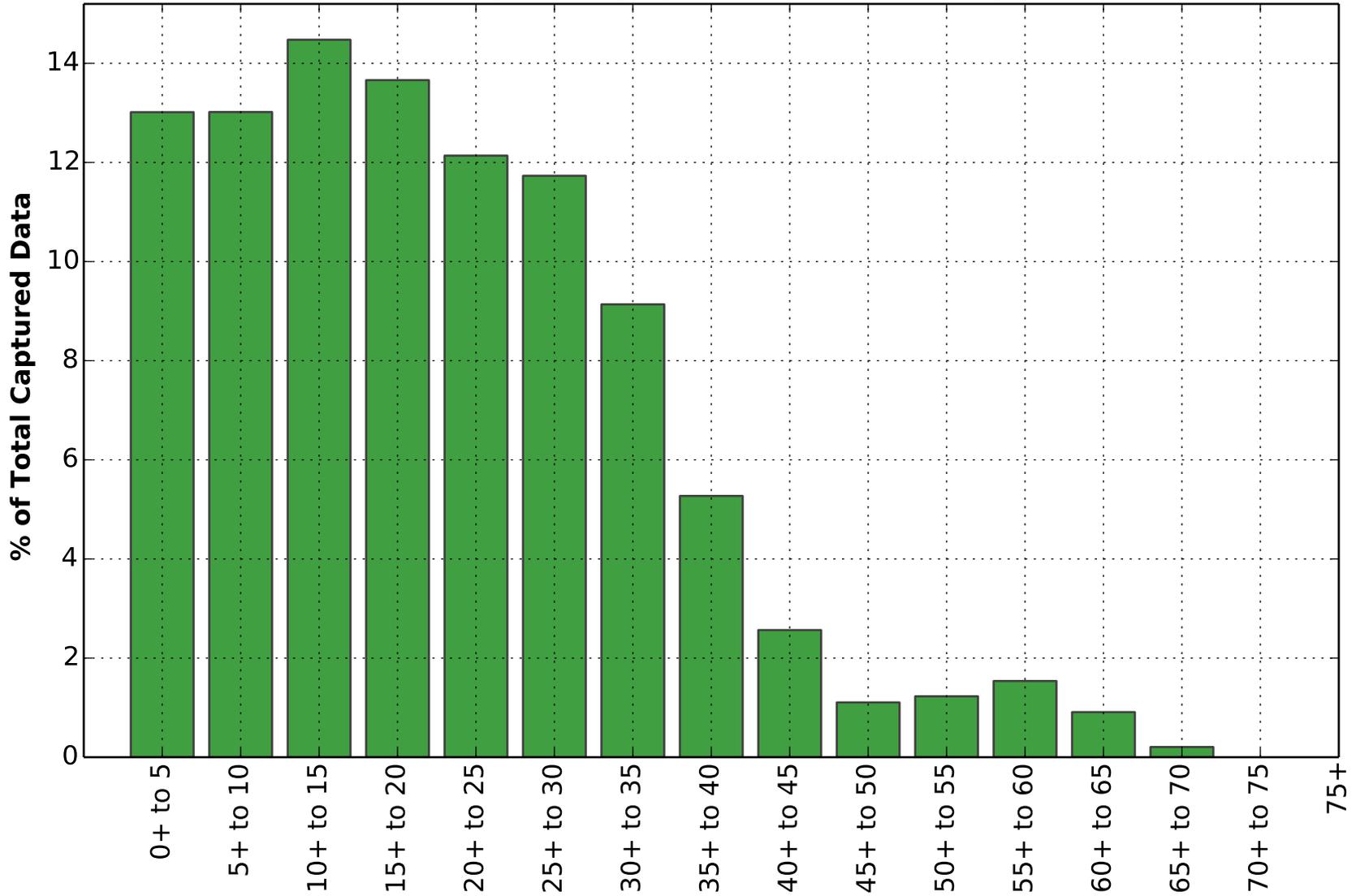


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Captured Operating Time by Speed Bin (mph) for City Transit Buses

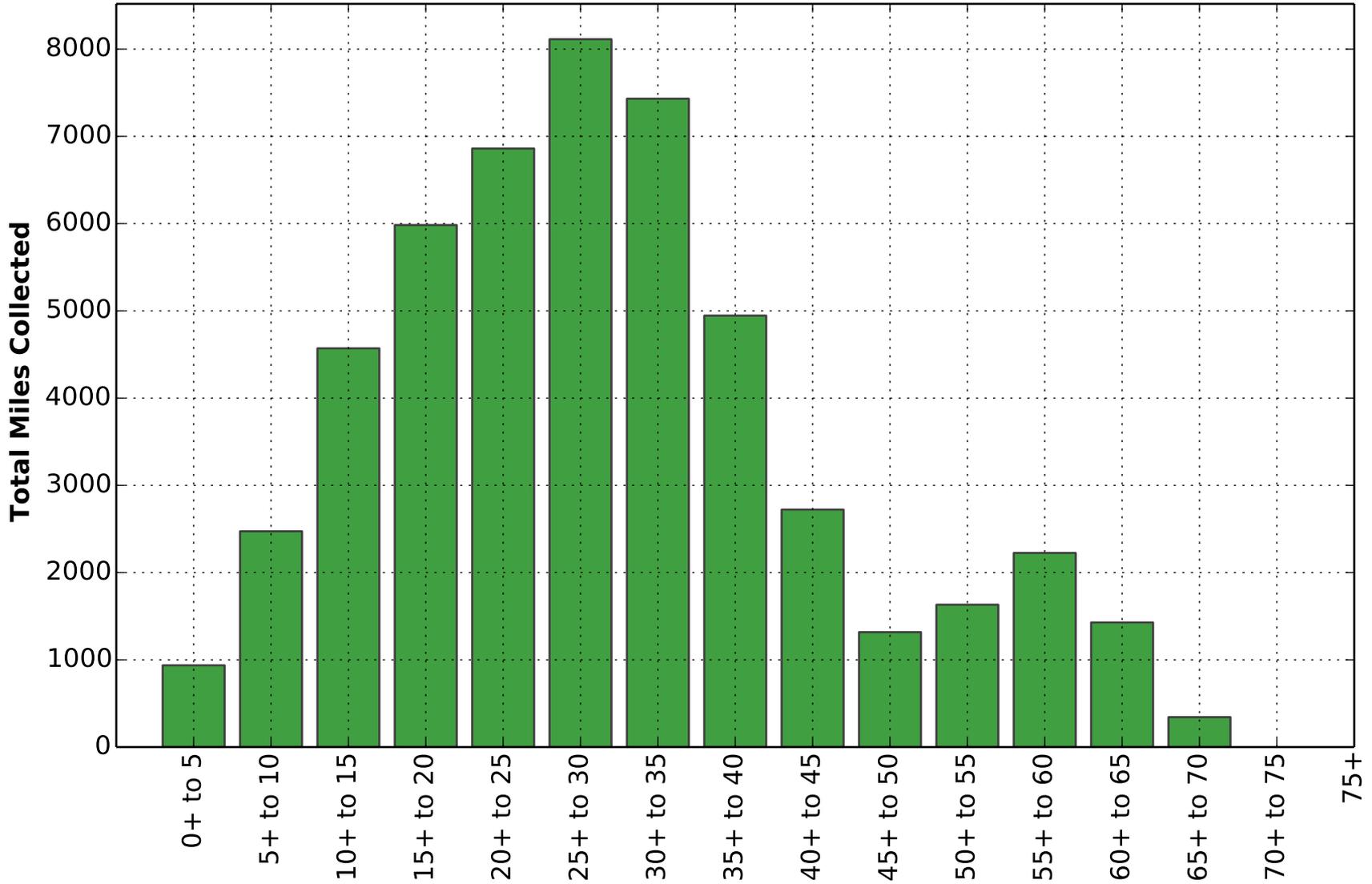


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Total Mileage Collected by Speed Bin (mph) for City Transit Buses

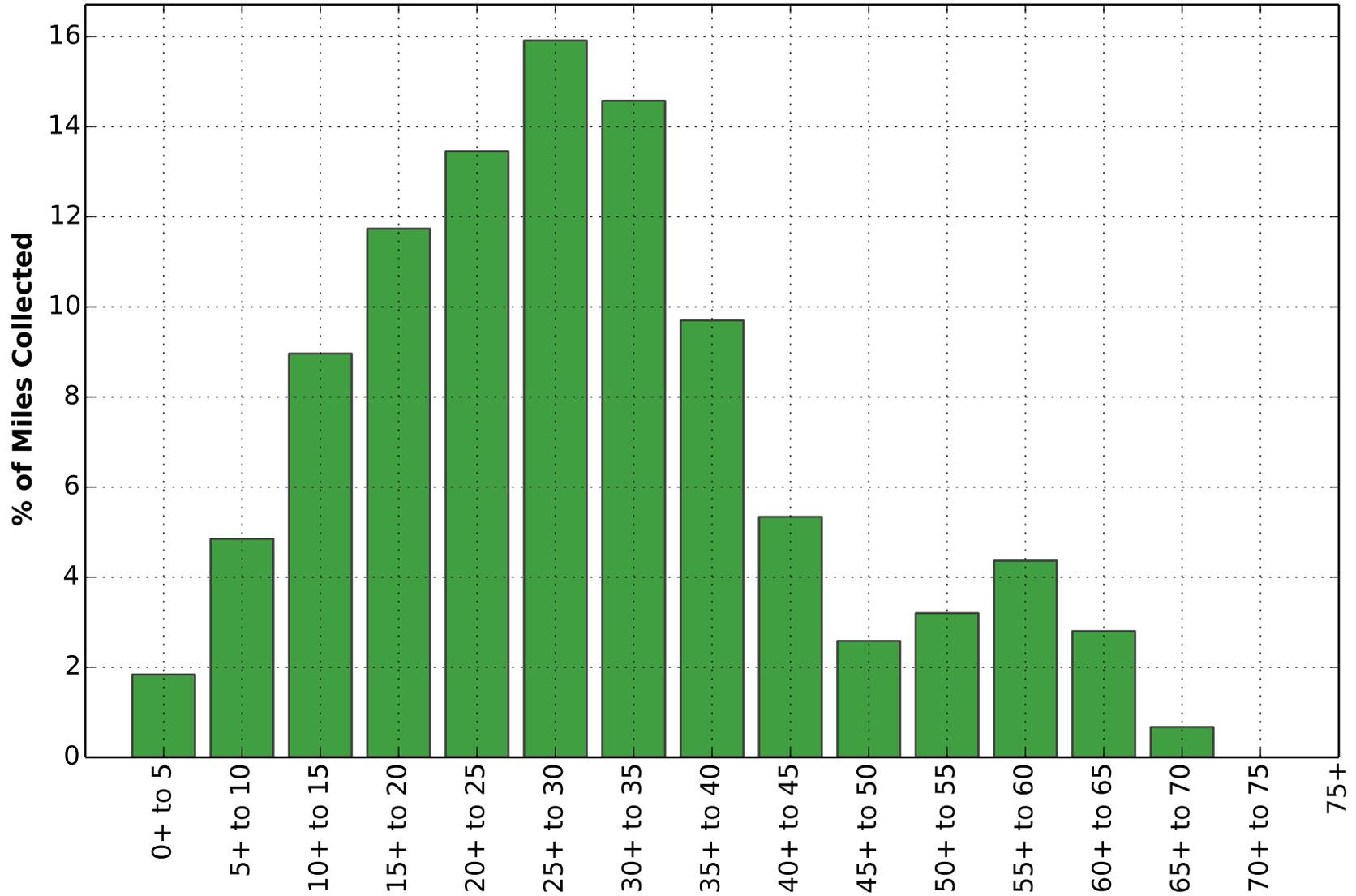


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Total Mileage Collected by Speed Bin (mph) for City Transit Buses

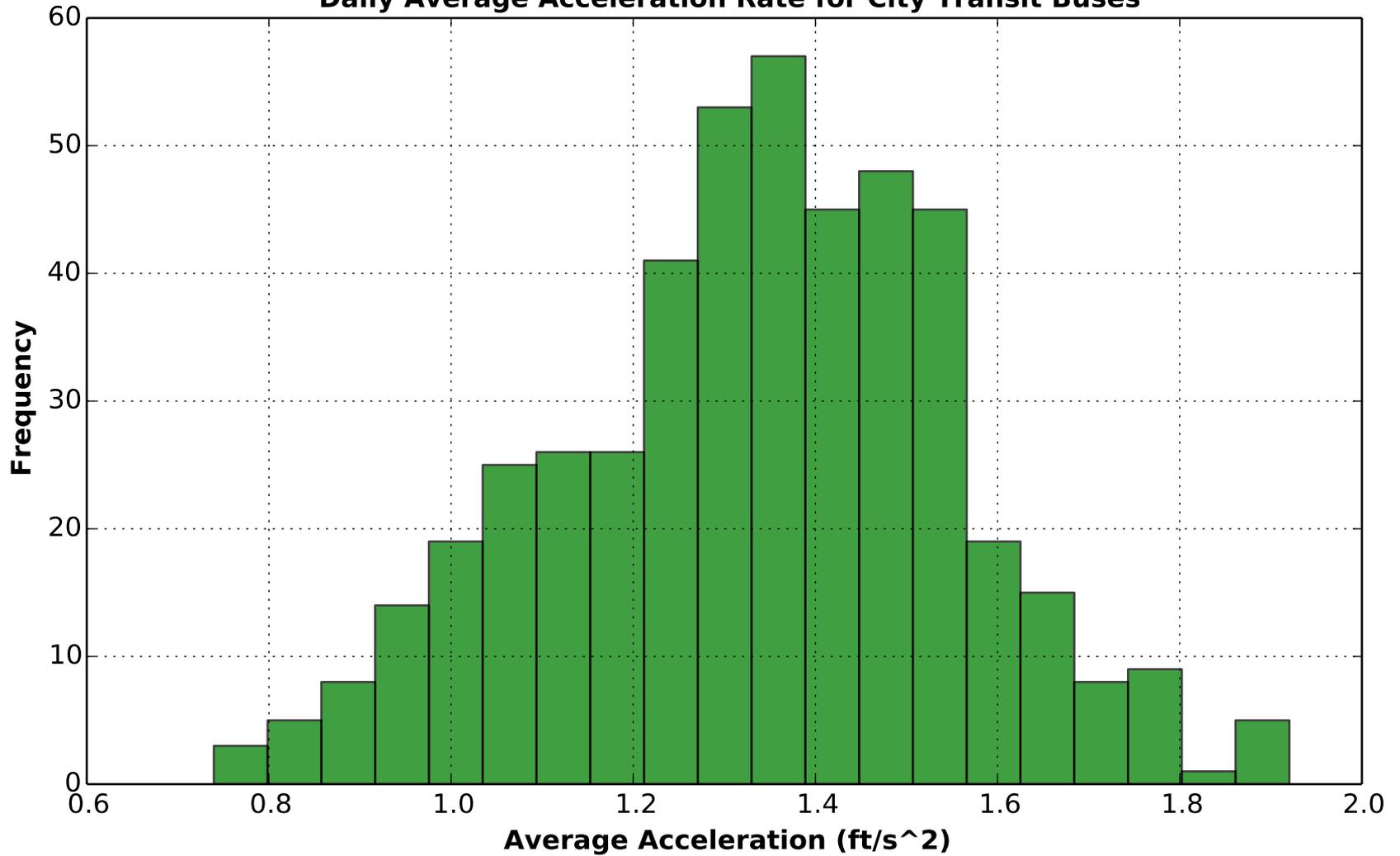


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Average Acceleration Rate for City Transit Buses

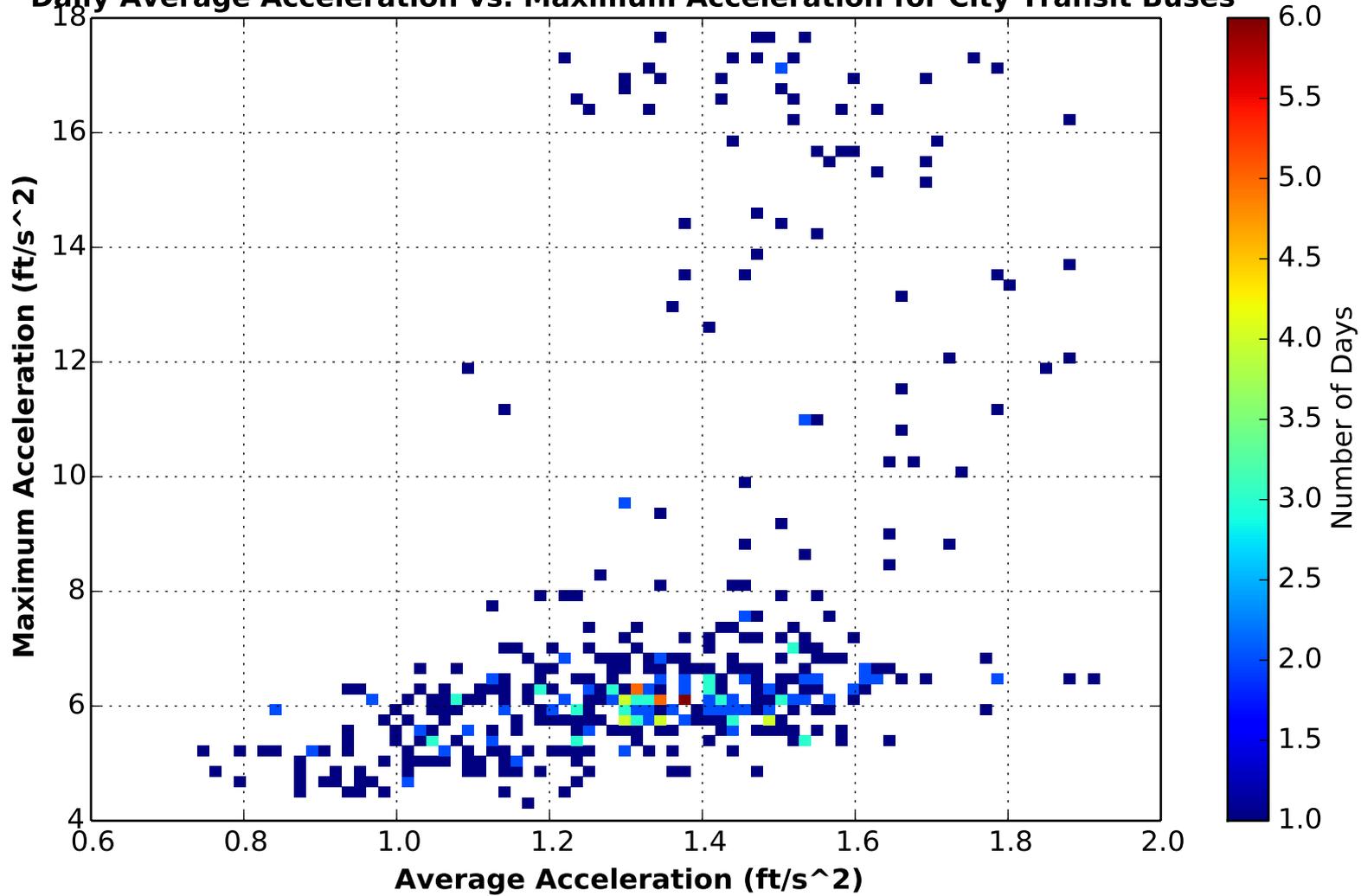


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Average Acceleration vs. Maximum Acceleration for City Transit Buses

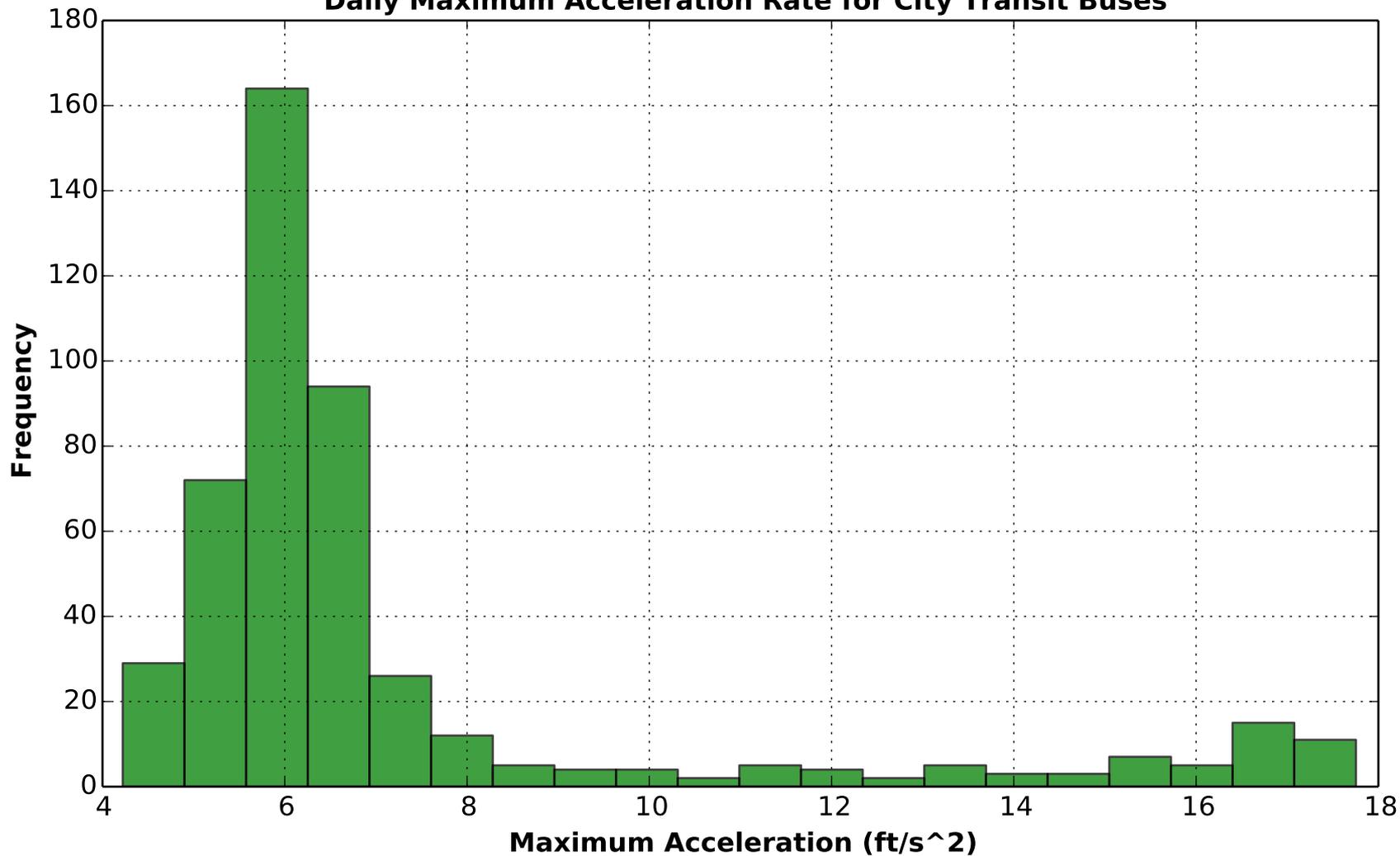


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Maximum Acceleration Rate for City Transit Buses

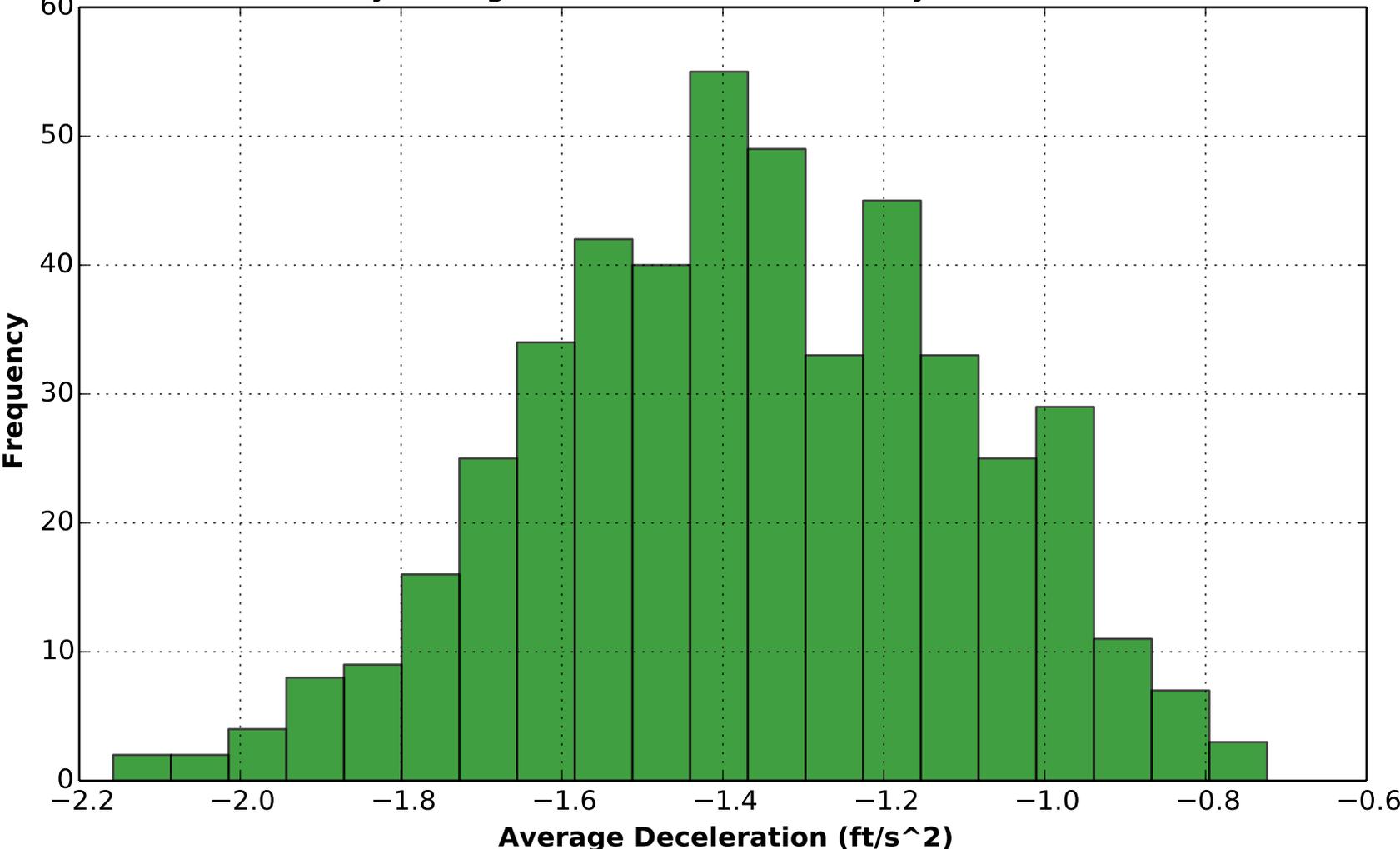


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Average Deceleration Rate for City Transit Buses

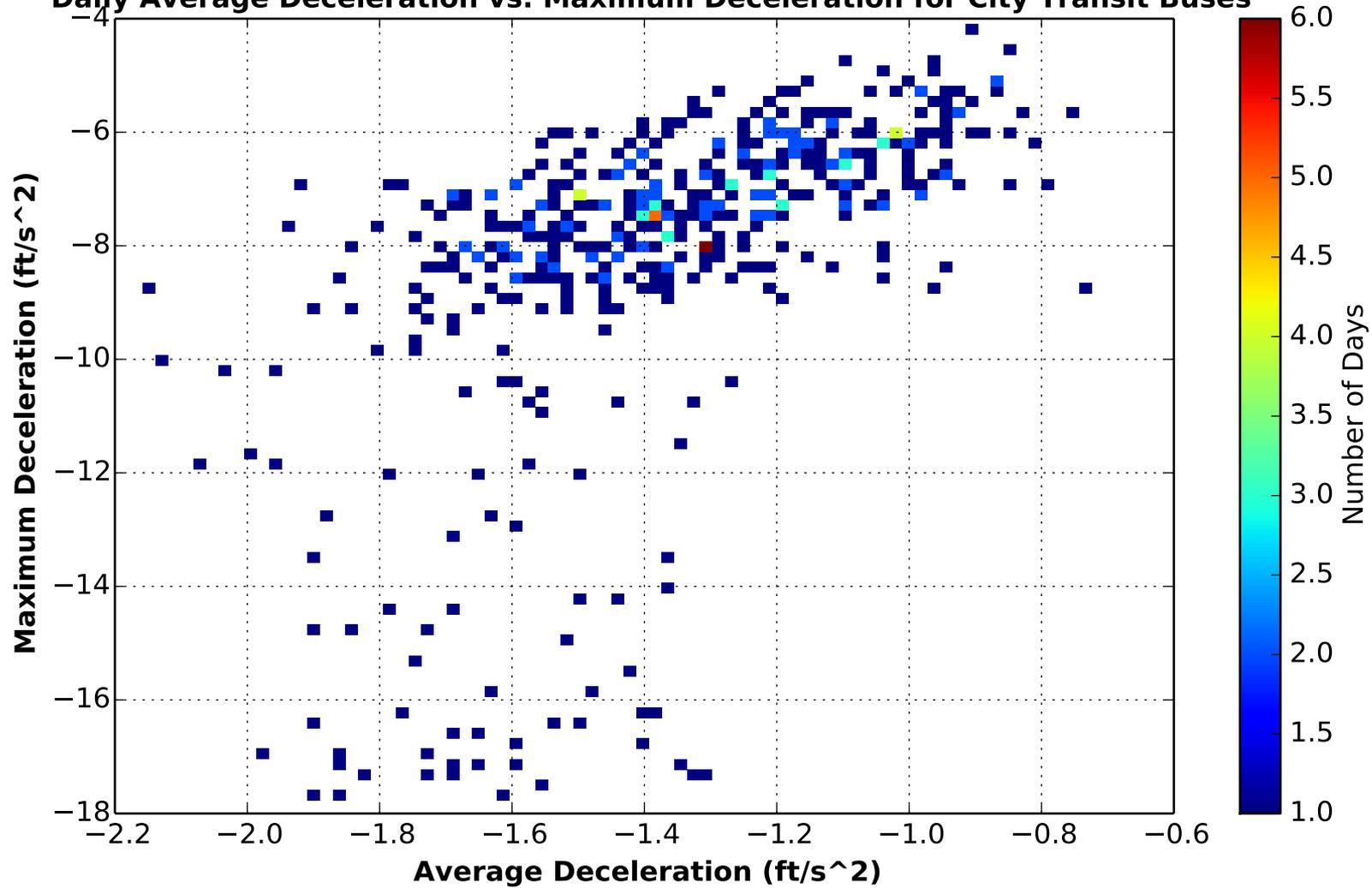


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Average Deceleration vs. Maximum Deceleration for City Transit Buses

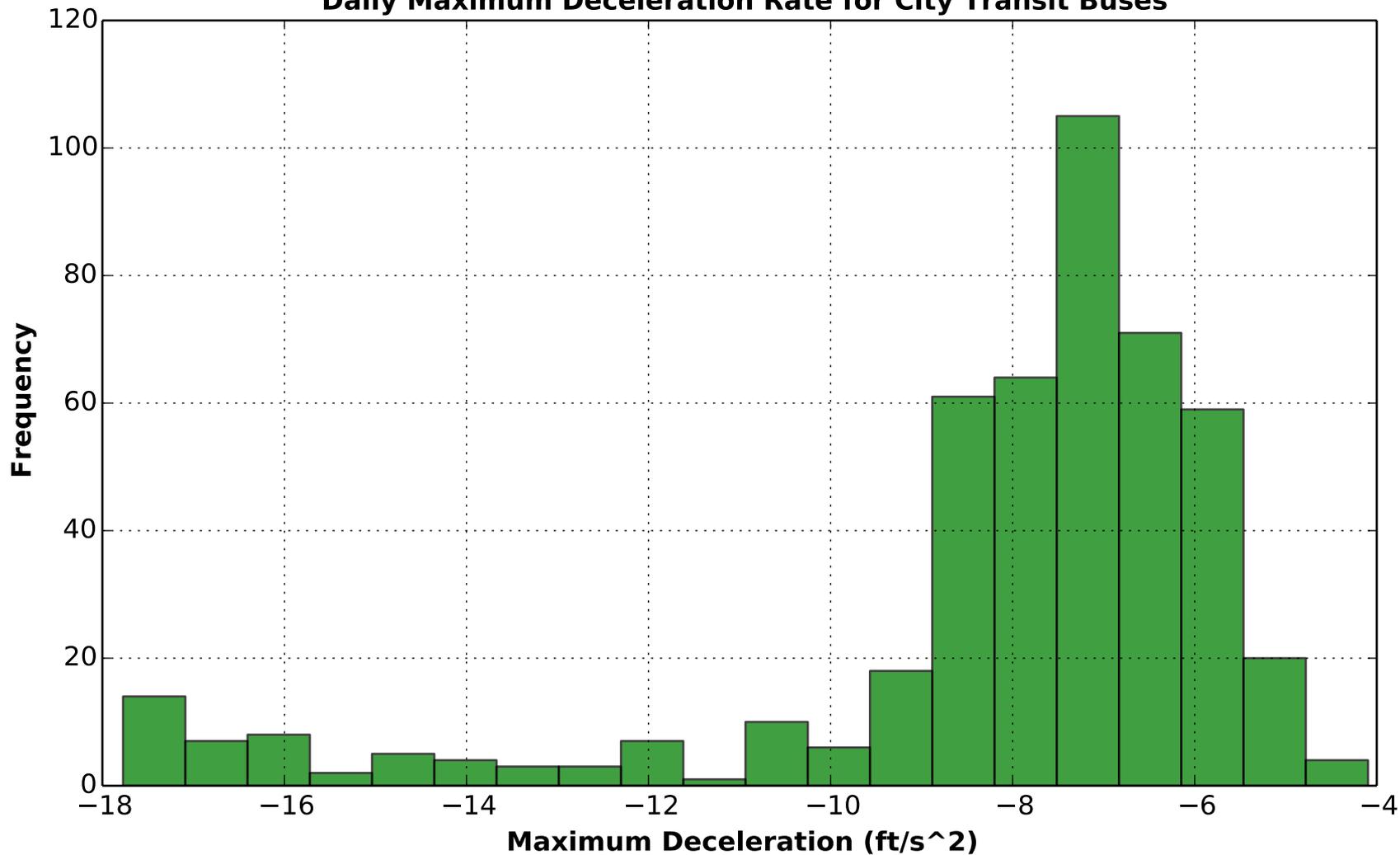


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

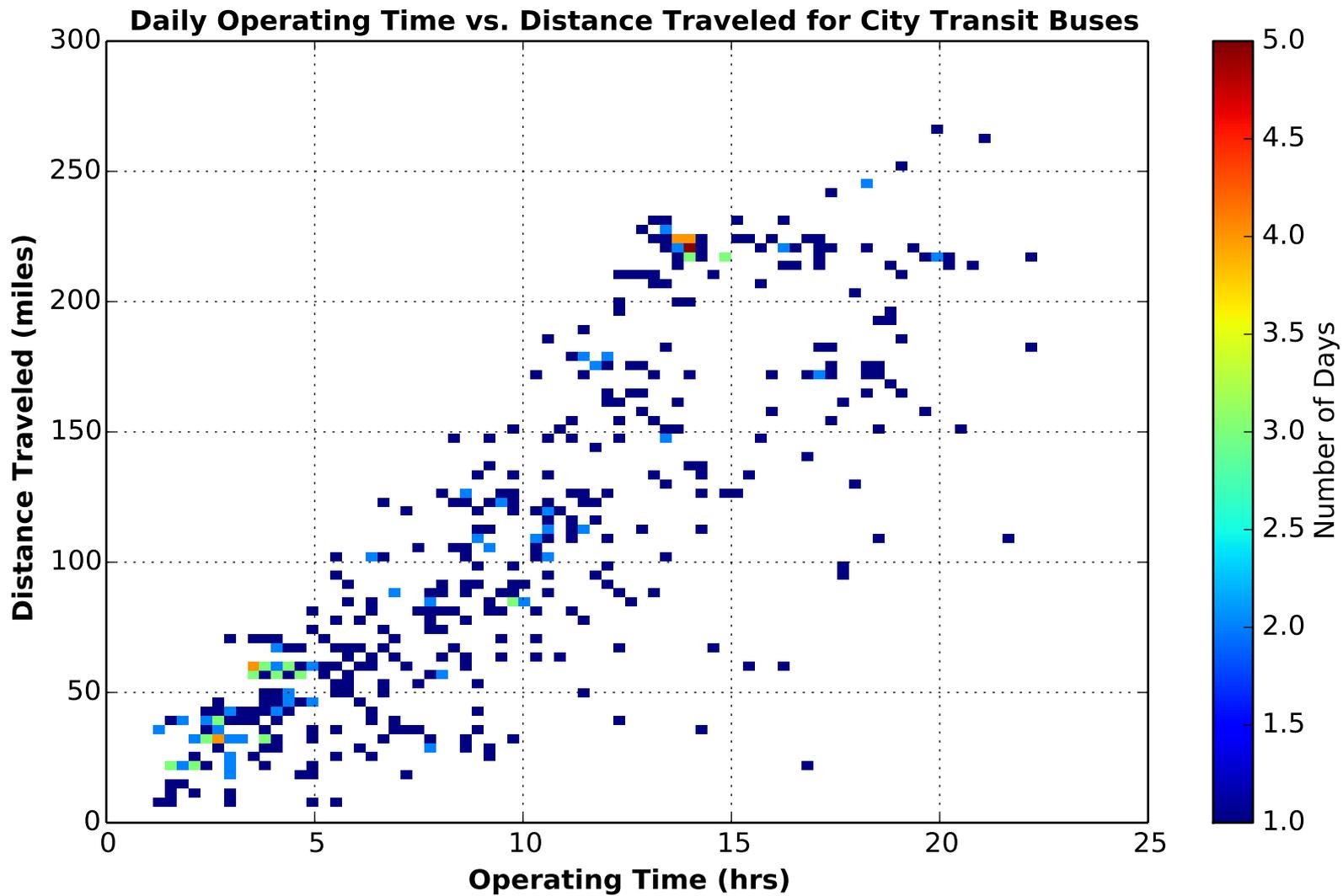
Daily Maximum Deceleration Rate for City Transit Buses



of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

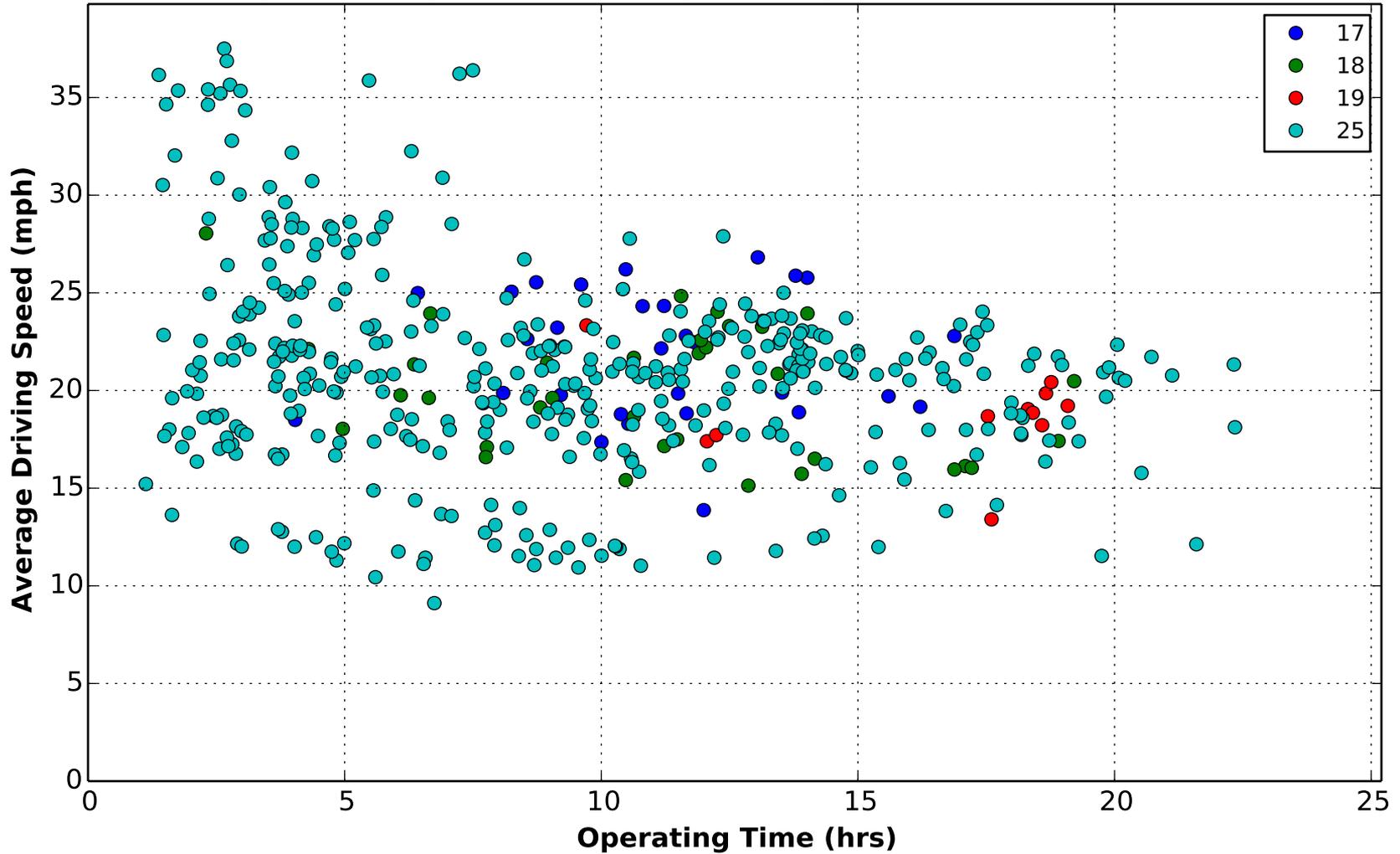


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Daily Operating Time vs. Average Driving Speed for City Transit Buses

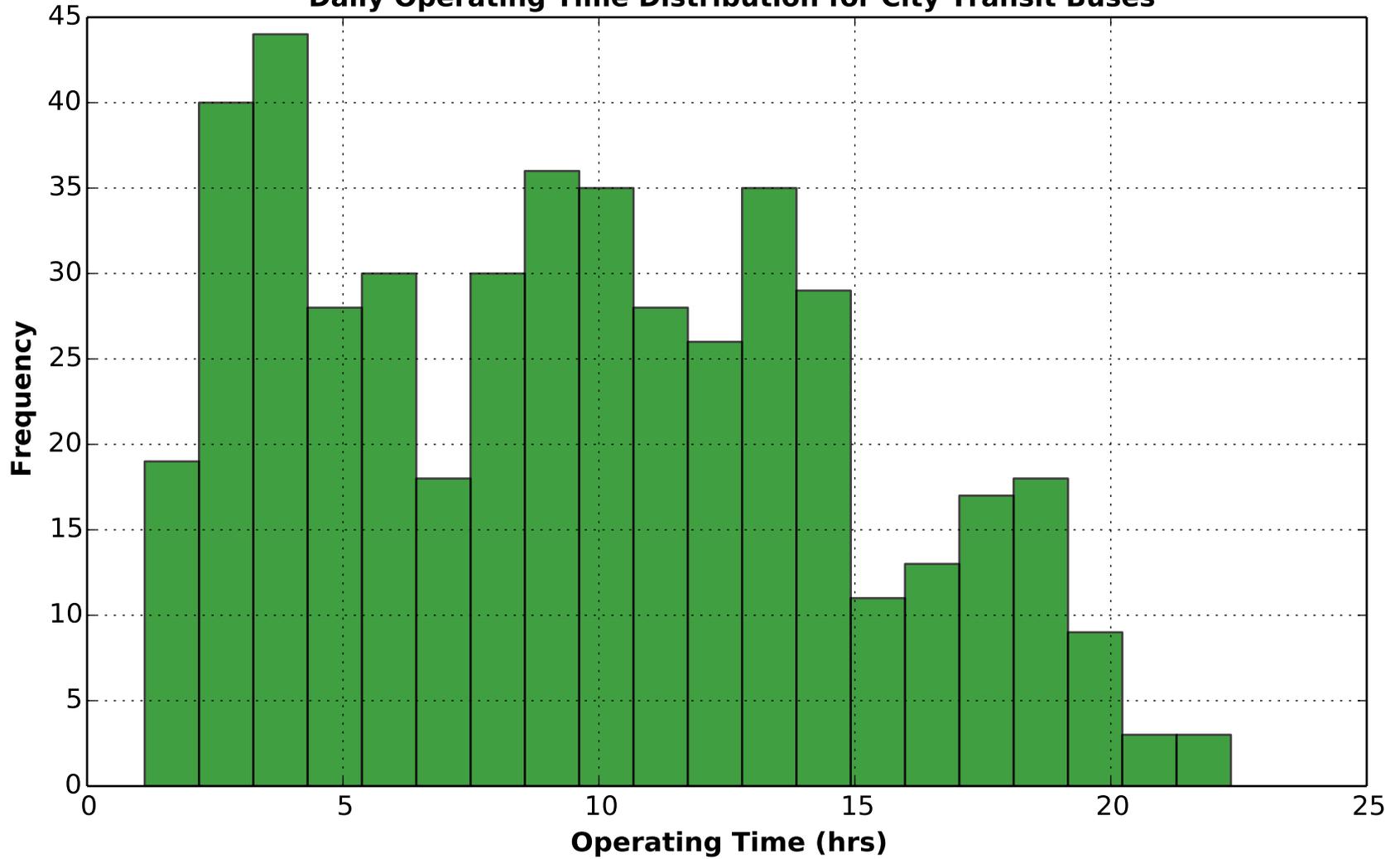


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 471

Daily Operating Time Distribution for City Transit Buses

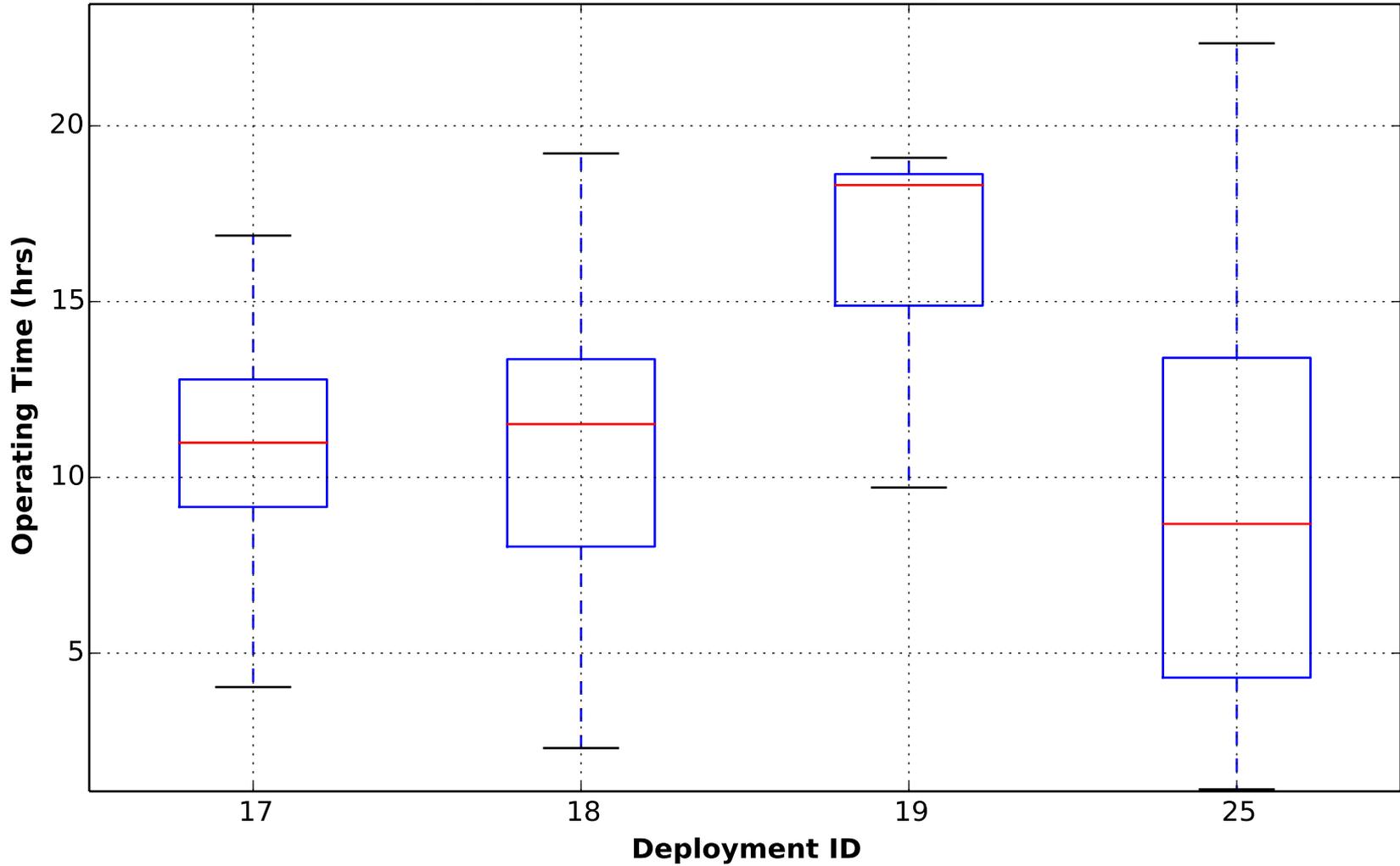


of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Operating Time by Deployment for City Transit Buses



of Vehicles Reporting: 19

Generated: Thu Aug 07, 2014

of Days Included: 472

Interested in Participating?

The statistical summaries presented in this report were generated with the support of a variety of organizations. It is through the continued support of these partner organizations that Fleet DNA continues to grow.

For more information about the project or to discuss partnership opportunities including contribution of data to the database, please contact:

Adam Duran

303.275.4586

Adam.Duran@nrel.gov

www.nrel.gov/fleetdna