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 School Buses

Number of days

Deployment ID

# of Vehicles Reporting: 204  Generated: Thu Aug 07, 2014  # of Days Included: 857
Breakdown of Total Vehicles by Deployment for School Buses

Number of Vehicles Reporting: 204  # of Days Included: 857
Generated: Thu Aug 07, 2014
Breakdown of Total Miles Collected by Deployment for School Buses

Number of Miles

Deployment ID

# of Vehicles Reporting: 204  Generated: Thu Aug 07, 2014  # of Days Included: 857
Daily Average Driving Speed vs. Kinetic Intensity for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 854
Daily Average Driving Speed vs. Distance Traveled for School Buses

- Average Driving Speed (mph)
- Distance Traveled (miles)

Number of Days: 857

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014

# of Days Included: 857
Daily Average vs. Maximum Driving Speed for School Buses

Average Driving Speed (mph)

Maximum Driving Speed (mph)

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 853
Daily Average Driving Speed Distribution for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Average Driving Speed by Deployment for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Mean Road Grade vs. Kinetic Intensity for School Buses

# of Vehicles Reporting: 197

Generated: Thu Aug 07, 2014

# of Days Included: 784
Daily Mean Road Grade vs. Average Driving Speed (mph) for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Mean Road Grade vs. # of Stops per Mile for School Buses

# of Vehicles Reporting: 203
Generated: Thu Aug 07, 2014
# of Days Included: 853
Road Grade and Distance Correlation Examined for School Buses

Average Positive Acceleration (ft/s^2)

<table>
<thead>
<tr>
<th>Distance</th>
<th>Maximum</th>
<th>Minimum</th>
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<tr>
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Mean Daily Road Grade

# of Vehicles Reporting: 204

# of Days Included: 857

Generated: Thu Aug 07, 2014
Average Driving Speed and Distance Correlation Examined for School Buses

# of Stops per Mile

Average Acceleration (ft/s^2)

Distance, Mile Maximum
Minimum

Average Driving Speed (mph)

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Detailed Average Driving Speed and Distance Correlation Examined for School Buses

# of Stops per Mile

Average Acceleration (ft/s^2)

Distance, Mile Maximum

Minimum

Distance, Mile

Maximum

Minimum

Average Driving Speed (mph)

# of Vehicles Reporting: 204

Generated: Thu Aug 07, 2014

# of Days Included: 857
Stops per Mile and Distance Correlation Examined for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Stops per Mile vs. Average Driving Speed for School Buses

# of Stops Per Mile

Average Driving Speed (mph)

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 853
Stops Per Mile by Deployment for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Stops Per Mile vs. Kinetic Intensity for School Buses

# of Stops Per Mile vs. Kinetic Intensity

Kinetic Intensity (1/mile)

Number of Days

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Stops Per Mile Distribution for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Total Number of Stops vs. Operating Time for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 855
Daily Total Number of Stops vs. Distance Traveled for School Buses

# of Vehicles Reporting: 203  Generated: Thu Aug 07, 2014  # of Days Included: 855
Maximum Driving Speed Distribution for School Buses

Maximum Driving Speed (mph)

Frequency

# of Vehicles Reporting: 204  Generated: Thu Aug 07, 2014  # of Days Included: 857
Daily Distance Traveled by Deployment for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Operating Distance Distribution for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Zero Speed Cycle Percentage Distribution for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Zero Speed Cycle Percentage by Deployment for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Captured Operating Time by Speed Bin (mph) for School Buses

- Driving Speed (mph)
- Quantity of Data Captured (hrs)

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Captured Operating Time by Speed Bin (mph) for School Buses

- Driving Speed (mph) vs. % of Total Captured Data

- # of Vehicles Reporting: 204
- Generated: Thu Aug 07, 2014
- # of Days Included: 857
Total Miles Collected

Driving Speed (mph)

# of Vehicles Reporting: 204

Generated: Thu Aug 07, 2014

# of Days Included: 857
Daily Maximum Acceleration Rate for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Average Deceleration Rate for School Buses

Frequency

Average Deceleration (ft/s^2)

# of Vehicles Reporting: 204  Generated: Thu Aug 07, 2014  # of Days Included: 857
Daily Average Deceleration vs. Maximum Deceleration for School Buses

Average Deceleration (ft/s^2)

Maximum Deceleration (ft/s^2)

Number of Days

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Maximum Deceleration Rate for School Buses

Maximum Deceleration (ft/s\(^2\))

<table>
<thead>
<tr>
<th>Frequency</th>
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<td>-5</td>
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</tbody>
</table>

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Daily Operating Time vs. Distance Traveled for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
Operating Time by Deployment for School Buses

# of Vehicles Reporting: 204
Generated: Thu Aug 07, 2014
# of Days Included: 857
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:

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