**Boston Region MPO Vehicle-Miles Traveled and Emissions Data Browser**

**Introduction**

You may use this application to browse Central Transportation Planning Staff’s (CTPS) database of modeled vehicle-miles traveled (VMT), vehicle-hours traveled (VHT), and emissions data for the 97 cities and towns in the Boston Region Metropolitan Planning Organization (MPO). The data are for the 2016 base year and 2040 future year. CTPS modeled these data for the publication, *Destination 2040*, which is the current Long-Range Transportation Plan (LRTP) for the Boston region. The future-year scenarios include proposed key regional transportation projects identified in the plan (see https://www.ctps.org/data/pdf/plans/LRTP/destination/Destination-2040-LRTP-DRAFT-072519.pdf, pages 4-11 to 4-12).

The MPO adopts a new LRTP every four years. For a variety of reasons there can be differences in the regional emissions from one LRTP to another. A significant source of potential change is from changes in travel patterns over time. The base year in the previous plan was 2012, the base year for *Destination 2040* is 2016.Travel in 2016 is different from travel in 2012because the land use inputs fed into the model are different. Another source of change in regional emissions estimates could be from changes in the model structure itself. For example, the regional model in 2012 only included eastern Massachusetts whereas the model used for the 2016 LRTP included all of Massachusetts, Rhode Island and some of New Hampshire.

You may download the data in a comma-separated values (CSV) format, which popular spreadsheet programs, such as Microsoft Excel and Apache Open Office Calc, can read.

**Using the Application**

This application allows you to query and display data in five ways:

1. You may get VMT, VHT, and emissions data for a particular town or city by selecting a municipality in the “Select a Municipality” combo box. The selected municipality is outlined in red on the map, and the data for it is displayed in the tabbed panel on the right side of the application window.
2. You also may obtain VMT, VHT, and emissions data for a particular town or city by clicking on a municipality within the map. The selected municipality is outlined in red on the map, and the data for it is displayed in the tabbed panel on the right side of the application window.
3. You may display the map’s theme by selecting a theme (such as vehicle-miles traveled) from the “Select Map Theme” combo box.
4. You also may display the map’s theme by changing the tabbed panel on the right side of the application window. Switching tabs displays the panel’s selected theme (such as vehicle-miles traveled).
5. You may change the year of modeled data displayed by selecting a year from the “Display Year” combo box. The available years are the 2016 base year, and 2040 future year, with the 2016 base year as the default.

**Data Sources**

The data displayed by this application come from:

1. Central Transportation Planning Staff of the Boston Region Metropolitan Planning Organization
2. Massachusetts Office of Geographic Information (MassGIS)

**Description of Database Fields**

The data presented in here is for an average weekday ,for all vehicle types combined (auto and trucks).The air quality results shown are combined total of Interzonal (between different TAZs) and Intrazonal (within same TAZ) activities.

When the data is downloaded as a CSV file, it contains 7 columns (fields). The meaning of the data in these fields is displayed below:

|  |  |
| --- | --- |
| **Data Name** | **Description** |
| TOWN | Name of town or city |
| VMT\_TOTAL | Total modeled VMT (miles) per Day |
| VHT\_TOTAL | Total modeled VHT (hours) per Day |
| VOC\_TOTAL | Total Modeled Kilograms of VOC Emitted per Day |
| NOX\_TOTAL | Total Modeled Kilograms of NOx Emitted per Day |
| CO\_TOTAL | Total Modeled Kilograms of CO Emitted per Day |
| CO2\_TOTAL | Total Modeled Kilograms of CO2 Emitted per Day |

CO2 = Carbon dioxide. CO = Carbon monoxide. NOX = Nitrous oxide. VMT = Vehicle-miles traveled. VHT = Vehicle-hours traveled. VOC = Volatile organic compounds.