Massachusetts Vehicle Census		
Vehicle History Table--Data Dictionary		
Field	**Field Name**	**Description**
record_id	Record ID	Unique ID for this record. Each record represents a unique combination of Vehicle ID, Plate ID, mileage estimate, and address (not shown).
vin_id	Vehicle ID	Randomly assigned unique integer that replaces the actual 17-character Vehicle Identification Number (VIN) for an individual vehicle.
plate_id	Plate ID	Randomly assigned unique integer that replaces the actual alphanumeric Registration ID (License Plate); because plates can be transferred from one vehicle to another, this ID may be associated with multiple Vehicle IDs.
owner_type	Owner Type	1: Noncommercial Passenger Vehicles 2: Commercial Vehicles
start_odom	Start Odometer	Odometer reading from the inspection at the beginning of the mileage estimate
start_date	Start date	Start date for this registration and estimates record
end_date	End Date	End date for this registration and estimates record
insp_match	Inspection Match	Indicates if there is a mileage estimate for this vehicle at this period. Mileage estimates are based on odometer readings taken during vehicle safety inspections, conducted annually and upon transfer of title. The odometer readings of successive inspections were compared to estimate miles driven during the intervening period.
ovrlp_days	Record Length	Number of days in this record
daysbtnins	Mileage Estimate Days	Number of days between the two inspections that constitute the beginning and end of the mileage estimate period.
ovrlp_pct	Percent Overlap	The length of this record as a percent of the mileage estimate period. Indicates how much of the mileage estimate period was spent with this owner at this location. A measure of estimate reliability.
mi_per_day	Miles per Day	Estimated daily mileage for this vehicle during this period.
muni_id	Municipal ID	Numeric ID number (DOR ID) for municipality where vehicle is garaged. A value of zero indicates the vehicle is garaged out of state or the garage location of the vehicle is supressed. Vehicle locaiton information is suppressed if there is a small number of vehicles of a certain make, model, and year in a given zip code.
veh_zip	Zip Code	Zip code where vehicle is garaged. A value of zero indicates the garage location of the vehicle is supressed. Vehicle locaiton information is suppressed if there is a small number of vehicles of a certain make, model, and year in a given zip code.
insp_year	Mileage Estimate Year	Calendar year containing the start date of the mileage estimate (first inspection.)
model_year	Vehicle Model	Vehicle Model Year as reported by a commercial vehicle information database.
make	Vehicle Make	Vehicle make as reported by a commercial vehicle information database.
model	Vehicle Model	Vehicle Model as reported by a commercial vehicle information database.
veh_type	Vehicle Type	Type of Vehicle: Car, Truck, SUV, Wagon, Van, Other
mcycle	Motorcycle	Flag for motorcycles; 1= yes
hybrid	Hybrid	Flag for hybrid electirc vehicles; 1 = yes
curbwt	Curb Weight	Total weight of vehicle with standard equipment and no passengers.
msrp	MSRP	Manufacturers Suggested Retail Price, as reported by a commercial vehicle information database.
mpg2008	Fuel Economy	Average (city/highway) fuel economy from 2008 EPA Ratings, as reported by a commercial vehicle information database and Yale University research
fuel	Fuel Type	Type of fuel consumed: Gasoline, Diesel, Flexfuel, Elect, Other.

mpg_adj	Adjusted MPG	Fuel economy rating adjusted to account for deterioration of efficiency over time and usage. Fuel economy rating is reduced according to a formula that includes vehicle age and mileage.
gal_per day	Daily Fuel Use	Estimated average daily fuel consumption, based on Miles per Day and Adjusted MPG
co2eqv_day	co2eqv_day	Greenhouse gas emissions, in kilograms of CO_2 equivalents, per day.
q1_2008	q1_2009	Indicates if this record is valid on the median day of the first calendar quarter of 2008.
q2_2008	q2_2009	Indicates if this record is valid on the median day of the second calendar quarter of 2008.
q3_2008	q3_2009	Indicates if this record is valid on the median day of the third calendar quarter of 2008.
q4_2008	q4_2009	Indicates if this record is valid on the median day of the fourth calendar quarter of 2008.
q1_2009	q1_2009	Indicates if this record is valid on the median day of the first calendar quarter of 2009.
q2_2009	q2_2009	Indicates if this record is valid on the median day of the second calendar quarter of 2009.
q3_2009	q3_2009	Indicates if this record is valid on the median day of the third calendar quarter of 2009.
q4_2009	q4_2009	Indicates if this record is valid on the median day of the fourth calendar quarter of 2009.
q1_2010	q1_2010	Indicates if this record is valid on the median day of the first calendar quarter of 2010.
q2_2010	q2_2010	Indicates if this record is valid on the median day of the second calendar quarter of 2010.
q3_2010	q3_2010	Indicates if this record is valid on the median day of the third calendar quarter of 2010.
q4_2010	q4_2010	Indicates if this record is valid on the median day of the fourth calendar quarter of 2010.
q1_2011	q1_2011	Indicates if this record is valid on the median day of the first calendar quarter of 2011.
q2_2011	q2_2011	Indicates if this record is valid on the median day of the second calendar quarter of 2011.
q3_2011	q3_2011	Indicates if this record is valid on the median day of the third calendar quarter of 2011.
q4_2011	q4_2011	Indicates if this record is valid on the median day of the fourth calendar quarter of 2011.

Vehicle Census of Massachusetts
250 Meter Grid-Data Dictionary

Field	Field Name	Description
seq_id	Sequence ID	Unique ID for this record.
g250m_id	Grid ID	Unique integer ID for 250 meter grid cell
hh10	Households, 2010	Estimated number of households in the grid cell, 2010. MAPC allocated Census 2010 block-level household counts to grid cells based on point-level household records from third-party data vendor and/or distribution of residential land uses. Sources: InforGroup (Household records), MassGIS (Land Use 2005), U.S. Census.
quarter	Sample Date	Date of record. The vehicle-level dataset is sampled on the median day of each calendar quarter (e.g., February 14 for Q1). Sample date is expressed as the calendar quarter.
veh_tot	Total Vehicles	Total Registered Vehicles (pass_veh) + (comm_veh)
pass_veh	Passenger Vehicles	Total Passenger Vehicles (pass_geo + pass_zip_assign + pass_muni_assign)
ovrlp_pct	Mileage Estimate Overlap	The composite mileage estimate overlap for all geocoded vehicles with a valid inspection record. Calcluated as the sum of Percent Overlap divided by the total number of qualifying vehicles (geocoded to this drid cell, mileage estimate of 200 miles per day or less.) A measure of mileage estimate reliability. High values indicate that a greater proportion of the estimates are based on vehicles garaged at the same location to the same owner for the entirety of the mileage estimate period.
pass_geo	Passenger Geocoded	Count of passenger vehicles assigned to this grid cell based on geocoded street address, based on NAVTEQ and TIGER address ranges.
best_geo	Passenger Best Estimates	Count of geocoded passenger vehicles that constitute a "best" mileage estimate. Best estimates are those in which the vehicle was garaged at the same location for the entirety or almost the entirety of the mileage estimate period. (The registration period overlaps more than 95% of inspection record days, so Percent Overlap >0.95.) Only includes records with estimated mileage of 200 miles per day or less.
pass_zip	Passenger Zip Assigned	Count of ungeocoded passenger vehicles within this zip code that are assigned to this grid cell based on its share of households in the zip code.
pass_muni	Passenger Muni Assigned	Count of ungeocoded passenger vehicles within this municipality that are assigned to this grid cell based on its share of households in the municipality.
veh_phh	Vehicles per Household	Registered passenger vehicle per household. Total passenger vehicles divided by Households 2010.
mipdaypass	Miles per Day Passenger Vehicles	Average daily mileage for passenger vehicles with a valid inspection record. The average is weighted by the percent overlap with the mileage estimate so the influence of unreliable estimates is minimized. Valid estimates are limited to 200 miles per day or less.

mipday_phh	Household Miles per Day	Passenger vehicle miles travelled per household. Calculated as the estimated passenger vehicles per household multiplied by the average daily mileage for passenger vehicles.
mipdaybest	Miles per Day-Best	Average daily mileage for "best" estimate vehicles. Samples are not weighted by percent overlap but estimates of greater than 200 miles per day are excluded.
veh_lo	Low Mileage Vehicles	Geocoded Passenger Vehicles with valid mileage estimates of less than 16 miles per day (less than 25th percentile of VMT for entire Massachusetts passenger vehicle fleet in 2010.)
veh_medlo	Medium-Low Mileage Vehicles	Geocoded Passenger Vehicles with valid mileage estimates of 16 to 27 miles per day (25th to 50th percentile of VMT for entire Massachusetts passenger vehicle fleet in 2010.)
veh_medhi	Medium-High Mileage Vehicles	Geocoded Passenger Vehicles with valid mileage estimates of 27 to 40 miles per day (50th to 75th percentile of VMT for entire Massachusetts passenger vehicle fleet in 2010.)
veh_hi	High Mileage Vehicles	Geocoded Passenger Vehicles with valid mileage estimates of more than 40 miles per day (above 75th percentile of VMT for entire Massachusetts passenger vehicle fleet in 2010.)
veh_vhi	Very High Mileage Vehicles	Geocoded Passenger Vehicles with valid mileage estimates of more than 56 miles per day (above 90th percentile of VMT for entire Massachusetts passenger vehicle fleet in 2010.)
comm_veh	Commercial Vehicles	Total Estimated Commercial Vehicles (comm_geo + comm_zip_assign + comm_muni_assign)
comm_geo	Commercial Geocoded	Count of Commercial Vehicles assigned to this grid cell based on geocoded street address
comm_zip	Commercial Zip Assigned	Count of ungeocoded commercial vehicles within this zip code that are assigned to this grid cell.
comm_muni	Commercial Muni Assigned	Count of ungeocoded commercial vehicles within this municipality that are assigned to this grid cell.
mipdaycomm	Miles per Day Commercial Vehicles	Average Commercial Vehicle Miles per Day
mpg_eff	Average Fuel Economy (MPG)	Average fuel economy for passenger vehicles with valid mileage estimates, weighted by average daily mileagee. Calculated as total estimated fuel consumption (gal_per_day) for vehicles with valid mileage estimates and fuel economy ratings, divided by total daily miles for same vehicles.
glpdaypass	Fuel per Day, Passenger	Average daily fuel (gasoline or diesel) consumption, a product of total passenger vehicles, passenger vehicle miles per day, and average fuel economy.
co2eqv_day	CO2 per Day, Passenger	Daily greenhouse gas emissions (CO2 equivalent), based on daily fuel consumption.