

Table 48. Light-Duty Vehicle Miles Traveled by Technology Type (Billion Miles, Unless Otherwise Noted)

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Conventional Vehicles 1/													
Gasoline ICE Vehicles	2474.5	2503.5	2509.1	2528.9	2570.1	2618.1	2664.9	2711.0	2753.3	2790.9	2828.8	2866.8	2906.2
TDI Diesel ICE	38.6	40.7	46.6	52.8	58.8	64.8	70.7	76.4	82.7	88.7	94.5	100.2	105.9
Alternative-Fuel Vehicles													
Alcohol Fuel Technology													
Methanol-Flex Fuel ICE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethanol-Flex Fuel ICE	32.8	42.2	51.1	59.8	68.0	80.5	92.8	105.0	117.9	130.3	142.5	154.3	165.9
Ethanol ICE	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Natural Gas Technology													
Compressed Natural Gas ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Compressed Natural Gas Bi-fuel	2.8	3.6	4.3	5.0	5.5	6.0	6.4	6.9	7.4	7.8	8.2	8.6	9.0
Liquefied Petroleum Gas ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liquefied Petroleum Gas Bi-fuel	7.6	10.3	13.0	15.6	17.4	19.1	20.7	22.3	23.8	25.2	26.7	28.0	29.4
Electric Technology													
Electric Vehicle	0.3	0.4	0.5	0.6	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.2	1.3
Electric-Diesel Hybrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.7	1.3	2.1	2.9
Electric-Gasoline Hybrid	0.5	1.0	1.9	4.1	6.4	11.6	16.9	23.8	30.7	39.0	47.4	56.0	64.7
Fuel Cell Technology													
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
VMT Equation Components													
Total VMT (billion miles)	2557.4	2602.0	2626.7	2666.9	2727.1	2801.0	2873.6	2946.6	3017.4	3083.8	3150.8	3217.5	3285.7
VMT/Driving Population (thousand miles)	11.4	11.5	11.5	11.5	11.6	11.8	12.0	12.2	12.4	12.5	12.7	12.8	13.0
Driving Population (million)	223.9	226.5	229.1	231.7	234.4	237.0	239.5	241.8	244.1	246.3	248.5	250.5	252.5
Price Effects													
Motor Gasoline Price (1987 \$/million Btu)	7.82	8.93	10.12	9.91	9.41	8.93	8.78	8.59	8.50	8.52	8.44	8.44	8.45
Fleet Miles per Gallon	20.08	20.08	20.08	20.03	20.02	20.06	20.10	20.14	20.18	20.23	20.29	20.35	20.41
Real Cost of Driving per Mile (1987 cents)	6.653	7.598	8.609	8.449	8.033	7.606	7.467	7.288	7.197	7.192	7.110	7.088	7.072
Point Price Elasticity	-0.046	-0.053	-0.060	-0.058	-0.055	-0.051	-0.050	-0.048	-0.046	-0.046	-0.045	-0.044	-0.043
Income Effects													
Disposable Income (billion 1987 dollars)	6573.5	6724.8	6980.0	7173.4	7409.6	7655.8	7882.3	8105.9	8341.9	8581.0	8834.9	9120.5	9432.5
Point Income Elasticity	431.872	435.135	448.313	454.791	460.533	464.301	466.744	468.673	471.370	474.628	478.323	483.409	489.353
Demographic Driving Population Effect													
Percentage Female Driving Population	0.617	0.624	0.630	0.636	0.641	0.646	0.650	0.654	0.658	0.661	0.664	0.666	0.668
Point Demographic Elasticity	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631

Table 48. Light-Duty Vehicle Miles Traveled by Technology Type (Billion Miles, Unless Otherwise Noted)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2003-2025
Conventional Vehicles 1/												
Gasoline ICE Vehicles	2945.6	2984.5	3022.6	3060.5	3098.2	3136.3	3178.1	3222.7	3269.8	3323.2	3378.6	1.4%
TDI Diesel ICE	111.7	117.4	123.1	128.7	134.2	139.8	145.6	151.5	157.8	164.2	170.6	6.7%
Alternative-Fuel Vehicles												
Alcohol Fuel Technology												
Methanol-Flex Fuel ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-9.6%
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Ethanol-Flex Fuel ICE	177.0	187.8	198.2	208.1	217.6	226.6	235.6	244.4	253.2	262.2	271.1	8.8%
Ethanol ICE	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	7.5%
Natural Gas Technology												
Compressed Natural Gas ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1%
Compressed Natural Gas Bi-fuel	9.4	9.7	10.1	10.4	10.7	11.0	11.3	11.6	11.9	12.2	12.5	5.9%
Liquefied Petroleum Gas ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.7%
Liquefied Petroleum Gas Bi-fuel	30.6	31.9	33.1	34.2	35.3	36.4	37.4	38.4	39.4	40.5	41.5	6.5%
Electric Technology												
Electric Vehicle	1.3	1.4	1.5	1.7	1.8	1.9	2.0	2.2	2.3	2.4	2.5	8.2%
Electric-Diesel Hybrid	4.2	5.5	7.0	8.5	9.9	12.0	14.0	16.0	18.1	20.1	22.2	N/A
Electric-Gasoline Hybrid	73.5	82.3	90.8	99.2	107.3	115.0	122.5	130.0	137.4	144.8	152.1	25.7%
Fuel Cell Technology												
Fuel Cell Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Methanol	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Fuel Cell Hydrogen	0.2	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	N/A
VMT Equation Components												
Total VMT (billion miles)	3353.7	3420.9	3486.8	3551.8	3615.7	3679.7	3747.3	3817.7	3890.9	3970.8	4052.5	2.0%
VMT/Driving Population (thousand miles)	13.2	13.3	13.5	13.6	13.7	13.9	14.0	14.2	14.3	14.5	14.7	1.1%
Driving Population (million)	254.5	256.6	258.8	260.9	263.1	265.3	267.4	269.7	271.9	274.2	276.5	0.9%
Price Effects												
Motor Gasoline Price (1987 \$/million Btu)	8.46	8.51	8.55	8.57	8.60	8.65	8.67	8.71	8.78	8.78	8.85	0.0%
Fleet Miles per Gallon	20.47	20.54	20.60	20.67	20.74	20.81	20.88	20.95	21.02	21.08	21.15	0.2%
Real Cost of Driving per Mile (1987 cents)	7.066	7.076	7.092	7.083	7.083	7.098	7.095	7.105	7.140	7.115	7.148	-0.3%
Point Price Elasticity	-0.043	-0.042	-0.042	-0.041	-0.041	-0.041	-0.040	-0.040	-0.040	-0.039	-0.039	-1.4%
Income Effects												
Disposable Income (billion 1987 dollars)	9731.7	10021.5	10289.5	10558.7	10825.9	11115.1	11448.6	11798.0	12182.5	12605.8	13034.4	3.1%
Point Income Elasticity	494.425	499.036	502.800	506.603	510.333	514.970	520.989	527.155	534.290	541.968	549.347	1.1%
Demographic Driving Population Effect												
Percentage Female Driving Population	0.670	0.672	0.674	0.675	0.676	0.677	0.677	0.677	0.677	0.677	0.677	0.4%
Point Demographic Elasticity	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	0.631	N/A

Table 48. Light-Duty Vehicle Miles Traveled by Technology Type (Billion Miles, Unless Otherwise Noted)

1/ Includes personal and fleet vehicles. Includes both cars and light trucks.

VMT = Vehicle miles traveled.

ICE = Internal combustion engine.

MmBtu = Million British thermal units.

N/A = Not applicable.

Sources: 2003 derived using: Federal Highway Administration, Highway Statistics 2002 (Washington, DC, November 2003); Oak Ridge National Laboratory, Transportation Energy Data Book: 23 and Annual (Oak Ridge, TN, September 2003); United States Department of Commerce, Bureau of the Census, "Vehicle Inventory and Use Survey," EC97TV (Washington, DC, October 1999); and Energy Information Administration (EIA), AEO2005 National Energy Modeling System run aeo2005.d102004a. Projections: EIA, AEO2005 National Energy Modeling System run aeo2005.d102004a.