

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

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Conventional Vehicles 1/ Gasoline ICE Vehicles	2428.9	2433.8	2465.9	2528.7	2573.9	2617.5	2654.6	2691.8	2728.4	2767.0	2805.6	2849.1	2896.4
TDI Diesel ICE	25.5	27.1	29.6	35.3	41.0	46.7	52.3	58.2	64.2	71.4	78.5	85.7	93.1
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	22.8	32.0	41.1	50.6	59.9	68.5	80.9	93.2	105.2	118.0	130.6	143.3	155.9
Ethanol ICE	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Natural Gas Technology													
CNG 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
CNG Bi-fuel	2.1	2.8	3.5	4.3	5.0	5.5	6.0	6.5	7.0	7.4	7.9	8.3	8.7
LPG 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
LPG Bi-fuel	4.8	7.6	10.2	13.0	15.7	17.6	19.3	21.0	22.5	24.1	25.6	27.0	28.5
Electric Technology													
Electric Vehicle	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.1	1.2
Electric-Diesel Hybrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.7	1.4	2.1
Electric-Gasoline Hybrid	0.3	0.5	1.0	5.7	12.5	19.6	26.9	34.5	43.1	51.8	61.4	71.1	81.1
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	0.0	0.1	0.1
VMT Equation Components													
Total VMT (billion miles)	2484.8	2504.3	2552.0	2638.3	2708.8	2776.2	2841.0	2906.2	2971.6	3041.3	3111.6	3187.3	3267.4
VMT/Driving Population (thousand miles)	11.2	11.4	11.5	11.7	11.9	12.0	12.2	12.3	12.4	12.5	12.7	12.9	13.0
Driving Population (million)	221.5	224.3	226.9	229.4	231.9	234.5	237.0	239.5	241.8	244.1	246.2	248.3	250.4
Price Effects													
Motor Gasoline Price (1987 dollars/million Btu)	8.41	7.82	8.79	8.01	8.14	8.21	8.25	8.28	8.33	8.32	8.34	8.31	8.31
Fleet Miles per Gallon	19.91	19.78	19.68	19.59	19.51	19.50	19.53	19.56	19.59	19.64	19.70	19.78	19.87
Real Cost of Driving per Mile (1987 cents)	6.809	6.373	7.200	6.591	6.728	6.789	6.809	6.826	6.851	6.833	6.821	6.775	6.747
Point Price Elasticity	-0.059	-0.054	-0.061	-0.055	-0.055	-0.055	-0.055	-0.054	-0.054	-0.053	-0.052	-0.051	-0.050
Income Effects													
Disposable Income (billion 1987 dollars)	5838.9	6084.6	6268.0	6538.9	6710.5	6894.6	7064.2	7257.5	7463.2	7695.3	7916.8	8174.7	8452.3
Point Income Elasticity	539.336	545.306	553.708	561.238	563.396	567.531	570.899	575.863	581.359	587.695	592.701	599.050	605.716
Demographic Driving Population Effect													
Percentage Female Driving Population	0.610	0.617	0.624	0.630	0.636	0.641	0.646	0.650	0.654	0.658	0.661	0.664	0.666
Point Demographic Elasticity	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550

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

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2002-2025
Conventional Vehicles 1/ Gasoline ICE Vehicles	2936.4	2975.4	3014.4	3054.2	3096.7	3140.4	3186.3	3233.2	3282.1	3335.0	3392.1	3455.1	1.5%
TDI Diesel ICE	100.2	107.2	114.1	121.1	128.0	135.0	142.0	148.9	155.9	163.0	170.3	178.1	8.5%
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	0.0	-11.6%
Methanol ICE	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	N/A
Ethanol-Flex Fuel ICE	167.9	179.4	190.6	201.4	212.0	222.3	232.4	242.0	251.3	260.6	269.9	279.4	9.9%
Ethanol ICE	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	7.9%
Natural Gas Technology													
CNG 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	2.4%
CNG Bi-fuel	9.2	9.5	9.9	10.3	10.6	11.0	11.3	11.7	12.0	12.3	12.6	13.0	6.8%
LPG 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	-0.1%
LPG Bi-fuel	29.9	31.3	32.6	33.8	35.1	36.3	37.5	38.6	39.6	40.7	41.8	42.9	7.8%
Electric Technology													
Electric Vehicle	1.3	1.4	1.5	1.6	1.7	1.8	2.0	2.1	2.2	2.4	2.5	2.6	9.3%
Electric-Diesel Hybrid	2.9	4.1	5.4	6.8	8.1	9.6	11.3	13.0	14.8	16.5	18.2	19.9	N/A
Electric-Gasoline Hybrid	90.9	100.6	110.0	119.1	128.0	136.6	144.7	152.5	159.9	167.0	174.0	180.8	29.4%
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	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	0.0	N/A
Fuel Cell Hydrogen	0.1	0.2	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	N/A
VMT Equation Components													
Total VMT (billion miles)	3339.0	3409.2	3478.8	3548.7	3620.9	3693.7	3768.2	3842.8	3918.9	3998.5	4082.5	4173.0	2.2%
VMT/Driving Population (thousand miles)	13.2	13.4	13.6	13.7	13.9	14.1	14.3	14.4	14.6	14.8	15.0	15.2	1.2%
Driving Population (million)	252.5	254.5	256.5	258.4	260.4	262.3	264.3	266.2	268.2	270.2	272.2	274.3	0.9%
Price Effects													
Motor Gasoline Price (1987 dollars/million Btu)	8.31	8.32	8.34	8.34	8.33	8.34	8.34	8.36	8.38	8.40	8.44	8.45	0.3%
Fleet Miles per Gallon	19.96	20.06	20.16	20.27	20.38	20.49	20.59	20.67	20.75	20.83	20.91	20.98	0.3%
Real Cost of Driving per Mile (1987 cents)	6.713	6.685	6.669	6.635	6.593	6.563	6.532	6.516	6.511	6.497	6.505	6.496	0.1%
Point Price Elasticity	-0.050	-0.049	-0.048	-0.047	-0.046	-0.045	-0.045	-0.044	-0.043	-0.043	-0.042	-0.042	-1.1%
Income Effects													
Disposable Income (billion 1987 dollars)	8691.1	8938.0	9190.6	9441.0	9710.6	9979.1	10265.3	10550.3	10856.0	11187.8	11557.4	11963.4	3.0%
Point Income Elasticity	609.666	614.084	618.734	622.980	627.873	632.408	637.540	642.386	648.064	654.479	662.166	670.553	0.9%
Demographic Driving Population Effect													
Percentage Female Driving Population	0.668	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	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	0.550	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: 2002 derived using: Federal Highway Administration, Highway Statistics 2001 (Washington, DC, November 2002); Oak Ridge National Laboratory, Transportation Energy Data Book: 22 and Annual (Oak Ridge, TN, September 2002); United States Department of Commerce, Bureau of the Census, "Vehicle Inventory and Use Survey," EC97TV (Washington, DC, October 1999); and Energy Information Administration (EIA), AEO2004 National Energy Modeling System run aeo2004.d101703e. Projections: EIA, AEO2004 National Energy Modeling System run aeo2004.d101703e.