

Table 50. Light-Duty Vehicle Miles Traveled by Technology Type (billion miles, unless otherwise noted)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	
Conventional Vehicles 1/														
Gasoline ICE Vehicles	2584.4	2581.3	2546.2	2553.9	2569.2	2588.7	2606.0	2622.1	2636.6	2646.9	2656.1	2665.0	2670.9	
TDI Diesel ICE	43.2	44.5	45.9	48.6	51.9	55.7	60.7	66.6	73.0	80.1	87.7	96.5	106.5	
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	0.0	0.0
Ethanol-Flex Fuel ICE	52.7	56.6	64.4	74.5	86.5	102.2	122.0	144.7	169.8	198.2	228.5	260.0	292.1	
Ethanol 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	0.0
Natural Gas Technology														
Compressed Natural Gas ICE	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.7
Compressed Natural Gas Bi-fuel	0.8	1.0	1.1	1.2	1.2	1.3	1.3	1.4	1.4	1.4	1.5	1.5	1.5	
Liquefied Petroleum Gases ICE	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
Liquefied Petroleum Gases Bi-fuel	1.4	1.3	1.2	1.0	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.4	0.3	
Electric Technology														
Electric Vehicle	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Plug-in Gasoline Hybrid	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	0.0
Electric-Diesel Hybrid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	
Electric-Gasoline Hybrid	3.4	6.8	10.7	15.6	21.0	27.3	35.3	44.8	55.8	67.9	82.7	99.4	118.2	
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	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	0.0
Fuel Cell Hydrogen	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	
VMT Equation Components														
Total VMT (billion miles)	2687.1	2692.6	2670.6	2695.9	2731.9	2777.1	2827.1	2881.3	2938.2	2996.1	3058.1	3123.9	3190.8	
VMT/Driving Population (thousand miles)	13.4	13.2	13.0	12.9	13.0	13.1	13.2	13.3	13.5	13.6	13.8	14.0	14.2	
Driving Population (million)	232.2	235.0	237.7	240.2	242.6	244.9	247.1	249.2	251.3	253.3	255.3	257.3	259.5	
Price Effects														
Motor Gasoline Price (1987 \$/million Btu)	12.11	13.31	14.14	15.39	14.27	13.33	12.99	12.60	12.25	12.18	11.80	11.50	11.56	
Fleet Miles per Gallon	20.06	20.08	20.23	20.38	20.53	20.70	20.90	21.14	21.40	21.70	22.05	22.43	22.84	
Real Cost of Driving per Mile (1987 cents)	10.309	11.322	11.946	12.907	11.875	11.005	10.617	10.186	9.782	9.589	9.144	8.764	8.645	
Point Price Elasticity	-0.024	-0.027	-0.029	-0.032	-0.029	-0.027	-0.026	-0.024	-0.023	-0.022	-0.021	-0.020	-0.019	
Income Effects														
Disposable Income (billion 1987 dollars)	8148.0	8397.0	8656.5	8852.2	9137.5	9471.9	9818.9	10140.6	10439.9	10737.8	11054.7	11373.6	11684.1	
Point Income Elasticity	187.252	192.999	200.603	203.210	207.000	211.084	214.941	217.809	219.895	221.802	223.714	225.319	226.620	
Demographic Driving Population Effect														
Percentage Female Driving Population	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Point Demographic Elasticity	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	

Table 50. Light-Duty Vehicle Miles Traveled by Technology Type (billion miles, unless otherwise noted)

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2006-2030
Conventional Vehicles 1/														
Gasoline ICE Vehicles	2672.3	2666.7	2656.7	2650.7	2645.7	2643.8	2644.5	2646.1	2649.6	2654.4	2660.2	2667.1	2675.3	0.1%
TDI Diesel ICE	117.9	131.1	145.8	160.4	176.1	193.3	211.4	229.9	249.4	269.8	291.3	313.8	336.8	8.8%
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	0.0	--
Ethanol-Flex Fuel ICE	324.0	352.5	381.3	413.6	443.8	470.0	493.7	516.7	537.7	557.1	574.7	590.4	604.8	10.4%
Ethanol 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	--
Natural Gas Technology														
Compressed Natural Gas ICE	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5%
Compressed Natural Gas Bi-fuel	1.5	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.6	1.6	1.6	1.6	1.6	2.2%
Liquefied Petroleum Gases ICE	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-5.2%
Liquefied Petroleum Gases Bi-fuel	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	-9.8%
Electric Technology														
Electric Vehicle	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	-6.7%
Plug-in Gasoline Hybrid	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	--
Electric-Diesel Hybrid	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	--
Electric-Gasoline Hybrid	139.3	162.7	187.9	214.0	240.2	266.8	293.5	320.1	346.5	372.6	398.1	423.1	447.6	19.1%
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	0.2	0.3	0.4	0.5	0.5	0.6	0.7	0.8	0.9	0.9	1.0	1.1	1.2	45.7%
VMT Equation Components														
Total VMT (billion miles)	3256.8	3316.3	3375.1	3442.1	3509.4	3577.5	3646.9	3716.8	3787.2	3858.0	3928.6	3998.8	4069.0	1.7%
VMT/Driving Population (thousand miles)	14.3	14.5	14.6	14.8	15.0	15.1	15.3	15.4	15.6	15.8	15.9	16.1	16.2	0.9%
Driving Population (million)	261.7	263.9	266.0	268.2	270.5	272.7	275.0	277.3	279.7	282.1	284.5	286.9	289.3	0.9%
Price Effects														
Motor Gasoline Price (1987 \$/million Btu)	11.70	12.03	12.35	12.15	12.26	12.30	12.29	12.36	12.41	12.48	12.60	12.71	12.80	-0.2%
Fleet Miles per Gallon	23.29	23.77	24.30	24.82	25.33	25.83	26.32	26.80	27.24	27.66	28.05	28.40	28.72	1.5%
Real Cost of Driving per Mile (1987 cents)	8.580	8.647	8.684	8.367	8.269	8.133	7.975	7.880	7.782	7.708	7.672	7.647	7.611	-1.6%
Point Price Elasticity	-0.019	-0.019	-0.019	-0.018	-0.018	-0.017	-0.017	-0.016	-0.016	-0.016	-0.015	-0.015	-0.015	-2.5%
Income Effects														
Disposable Income (billion 1987 dollars)	12003.8	12323.0	12653.8	12986.5	13320.0	13658.3	13999.7	14349.1	14713.0	15085.4	15466.4	15852.5	16246.1	2.8%
Point Income Elasticity	228.104	229.964	232.027	233.490	234.896	236.273	237.570	238.926	240.428	241.989	243.644	245.340	247.097	1.0%
Demographic Driving Population Effect														
Percentage Female Driving Population	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	--
Point Demographic Elasticity	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	0.830	--

Table 50. 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.

-- = Not applicable.

Sources: 2005 and 2006 values derived using: Federal Highway Administration, Highway Statistics 2006 (Washington, DC, 2007); Oak Ridge National Laboratory, Transportation Energy Data Book: 26 and Annual (Oak Ridge, TN, 2007); United States Department of Commerce, Bureau of the Census, "Vehicle Inventory and Use Survey," EC97TV (Washington, DC, October 1999); and Energy Information Administration (EIA), AEO2008 National Energy Modeling System run aeo2008.d030208f. Projections: EIA, AEO2008 National Energy Modeling System run aeo2008.d030208f.