Compendium of Transportation Facts of the Week posted on the Vehicle Technologies Office website in calendar year 2009

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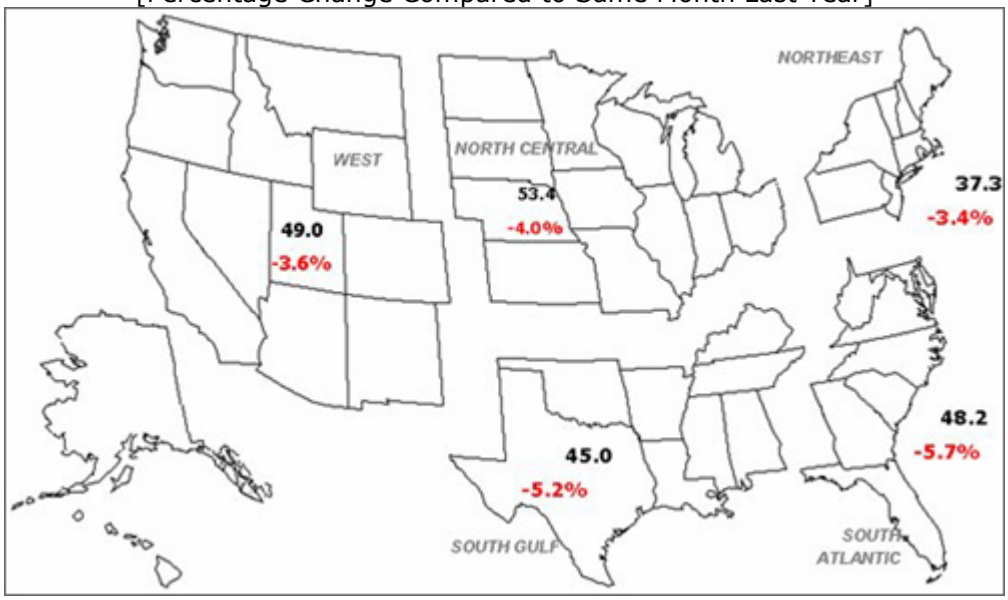
Fact of the Week

Fact #552: January 5, 2009
Vehicle Miles of Travel by Region

Total vehicle miles of travel (VMT) in the U.S. have declined from 2007 to 2008. The latest data available, September 2008, shows a 4.4% decline in travel that varies by region. Comparing September 2007 to September 2008, the South Atlantic and South Gulf regions experienced VMT declines of more than 5%. Total U.S. cumulative VMT for 2008 (January-September) is 3.5% less than the same time period one year ago.

VMT by Region (in billons), September 2008
[Percentage Change Compared to Same Month Last Year]



Supporting Information

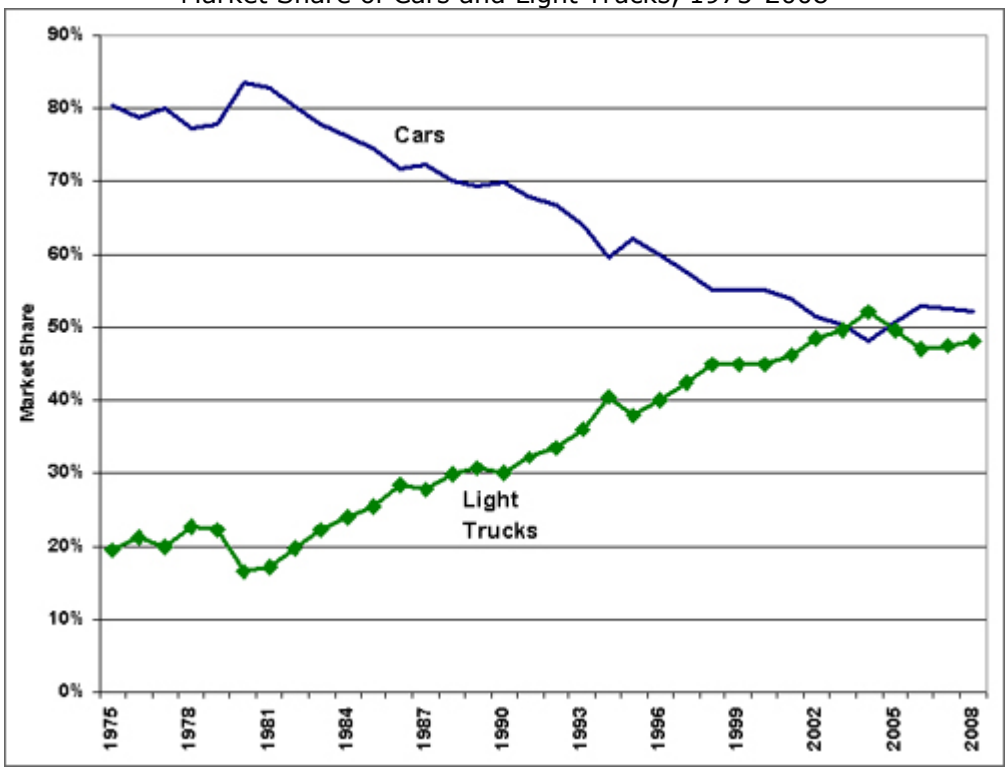
VMT by Region, September 2008		
Region	**Total Travel (billions)**	**Percentage Change, Sept. 2007 to Sept. 2008**
South-Atlanta	48.2	-5.7%
South-Gulf	45.0	-5.2%
North-East	37.3	-3.4%
North-Central	53.4	-4.0%
West	49.0	-3.6%
Total	232.8	-4.4%
Source: U.S. Department of Transportation, Federal Highway Administration, *Traffic Volume Trends September 2008* (PDF 154 KB). Download Acrobat Reader.		

Fact of the Week

Fact #553: January 12, 2009
Market Share of New Cars vs. Light Trucks

The market share of new light trucks climbed steadily through the 1980's and most of the 1990's, much of it due to the rising popularity of the minivan and the sport utility vehicle. In 2004, light trucks outsold cars. In recent years, however, consumers have shifted purchasing preferences back toward cars.

Market Share of Cars and Light Trucks, 1975-2008



Supporting Information

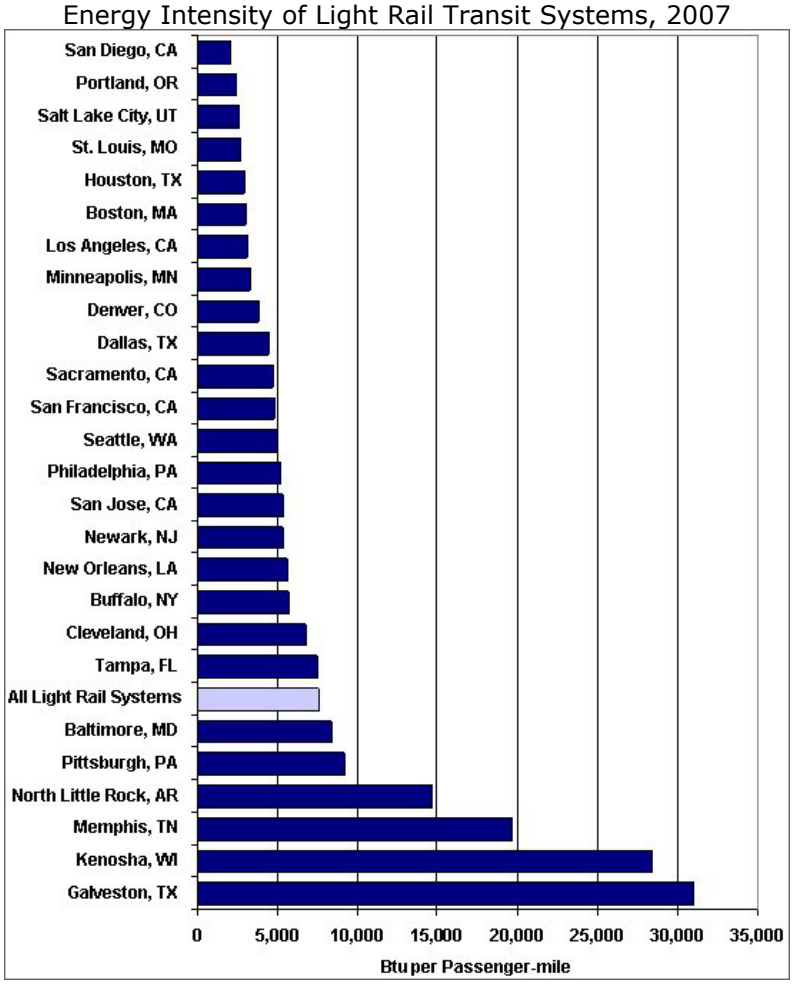
Market Share of Cars and Light Trucks, 1975-2008		
Model Year	**Cars**	**Light Trucks**
1975	80.6%	19.4%
1976	78.8%	21.2%
1977	80.0%	20.0%
1978	77.3%	22.7%
1979	77.8%	22.2%
1980	83.5%	16.5%
1981	82.7%	17.3%
1982	80.3%	19.7%
1983	77.7%	22.3%
1984	76.1%	23.9%
1985	74.6%	25.4%
1986	71.7%	28.3%
1987	72.2%	27.8%
1988	70.2%	29.8%
1989	69.3%	30.7%
1990	69.8%	30.2%
1991	67.8%	32.2%
1992	66.6%	33.4%
1993	64.0%	36.0%
1994	59.6%	40.4%
1995	62.0%	38.0%
1996	60.0%	40.0%
1997	57.6%	42.4%
1998	55.1%	44.9%
1999	55.1%	44.9%
2000	55.1%	44.9%
2001	53.9%	46.1%
2002	51.5%	48.5%
2003	50.4%	49.6%
2004	48.0%	52.0%
2005	50.5%	49.5%
2006	52.9%	47.1%
2007	52.5%	47.5%
2008	52.0%	48.0%
U.S. Environmental Protection Agency, *Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2008*, September, 2008.		

Fact of the Week

Fact #554: January 19, 2009
Energy Intensity of Light Rail Transit Systems

According to the 2007 National Transit Databases, the energy intensity of light transit rail systems in the U.S. ranges from about 2,000 Btu per passenger-mile to about 31,000 Btu per passenger-mile. There are only four light rail systems with energy intensity over 10,000 Btu per passenger-mile. These systems may have improved energy intensity in 2008 due to an increase in ridership (opens a window to American Public Transportation Association).

Energy Intensity of Light Rail Transit Systems, 2007



Supporting Information

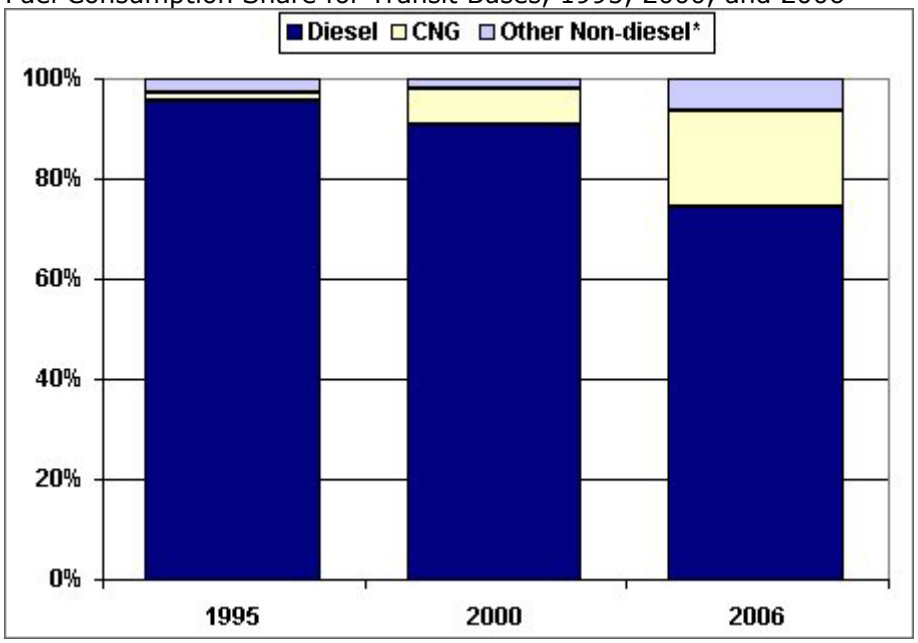
Energy Intensity of Light Rail Transit Systems, 2007	
Place	**Btu per Passenger Mile**
San Diego, CA	2,065
Portland, OR	2,387
Salt Lake City, UT	2,614
St. Louis, MO	2,684
Houston, TX	2,896
Boston, MA	3,023
Los Angeles, CA	3,158
Minneapolis, MN	3,258
Denver, CO	3,829
Dallas, TX	4,433
Sacramento, CA	4,677
San Francisco, CA	4,843
Seattle, WA	4,981
Philadelphia, PA	5,193
San Jose, CA	5,316
Newark, NJ	5,378
New Orleans, LA	5,612
Buffalo, NY	5,733
Cleveland, OH	6,753
Tampa, FL	7,470
Average of All Light Rail Systems	7,605
Baltimore, MD	8,379
Pittsburgh, PA	9,163
North Little Rock, AR	14,734
Memphis, TN	19,726
Kenosha, WI	28,422
Galveston, TX	31,013
Source: Calculated by Oak Ridge National Laboratory from the U.S. Department of Transportation, Federal Transit Administration, Annual 2007 National Transit Databases.	

Fact of the Week

Fact #555: January 26, 2009
Transit Buses are Relying Less on Diesel Fuel

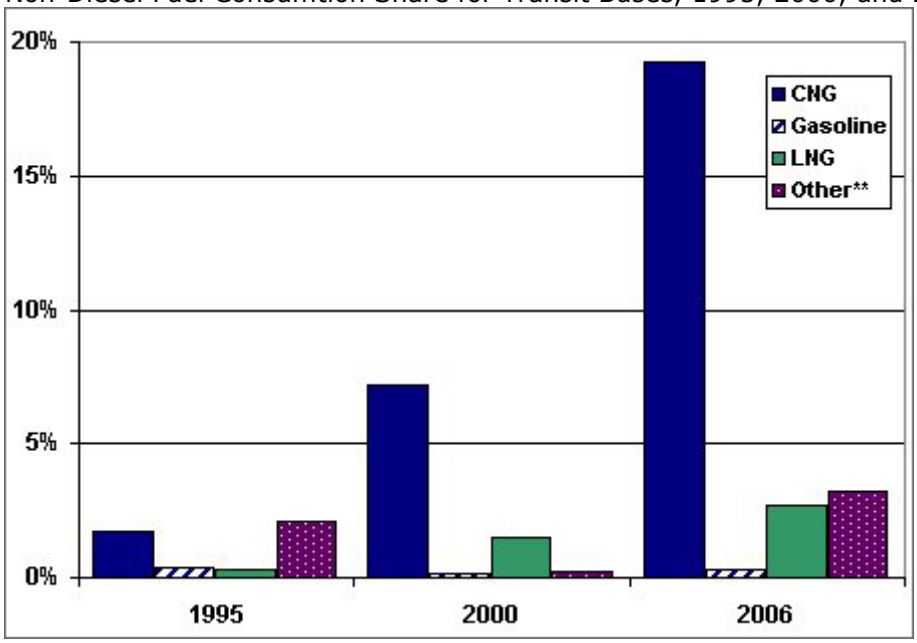
In 1995, over 95% of the fuel used in transit buses was diesel. In 2006, diesel fuel constituted just under 75% of the fuel used by transit buses while other fuel types such as compressed natural gas (CNG) and liquefied natural gas (LNG) have become much more prevalent. The use of CNG in buses has grown from less than 2% in 1995 to almost 20% in 2006.

Fuel Consumption Share for Transit Buses, 1995, 2000, and 2006



* Other non-diesel includes gasoline, LNG, propane, bio/soy fuel, biodiesel, hydrogen, methanol, ethanol, and various blends.

Non-Diesel Fuel Consumtion Share for Transit Buses, 1995, 2000, and 2006



** Other includes propane, bio/soy fuel, biodiesel, hydrogen, methanol, etanol, and various blends.

Supporting Information

Fuel Consumption Share for Transit Buses, 1995, 2000, and 2006

Year	Diesel	CNG	Other Non-diesel*
1995	95.5%	1.7%	2.8%
2000	90.9%	7.2%	1.9%
2006	74.5%	19.3%	6.2%

* Other non-diesel includes gasoline, LNG, propane, bio/soy fuel, biodiesel, hydrogen, methanol, ethanol, and various blends.
Source: American Public Transit Association, *2008 Public Transportation Fact Book*, Table 31.

Non-Diesel Fuel Consumption Share for Transit Buses, 1995, 2000, and 2006

Year	CNG	Gasoline	LNG	Other*
1995	1.69%	0.39%	0.29%	2.08%
2000	7.21%	0.19%	1.50%	0.21%
2006	19.26%	0.32%	2.72%	3.19%

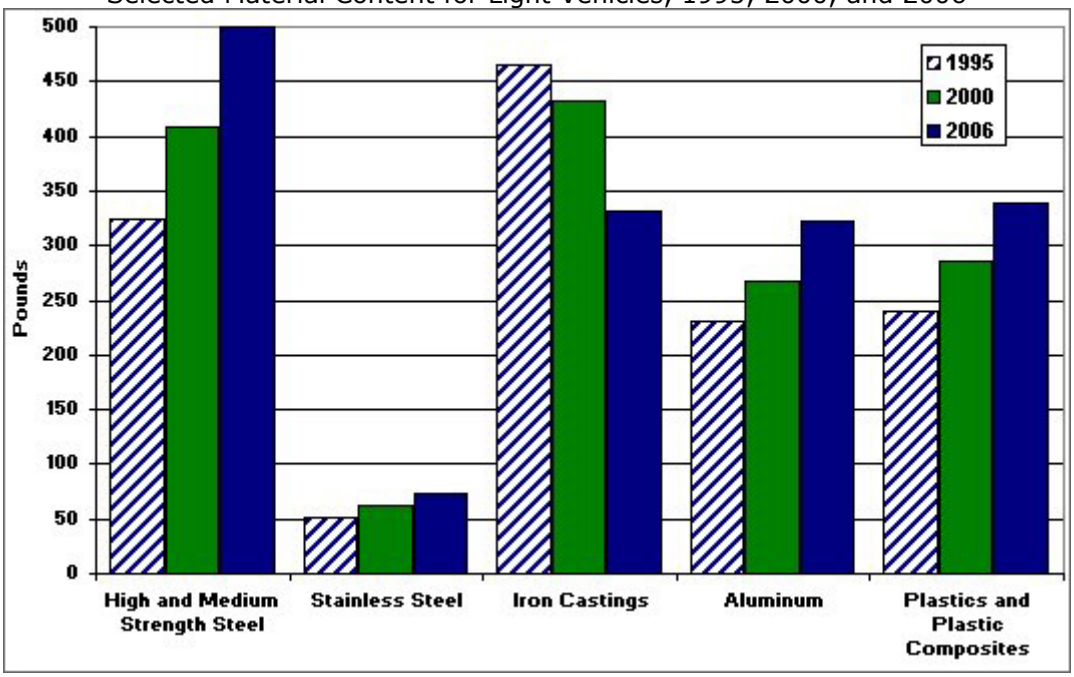
* Other includes propane, bio/soy fuel, biodiesel, hydrogen, methanol, etanol, and various blends.
Source: American Public Transit Association, *2008 Public Transportation Fact Book*, Table 31.

Fact of the Week

Fact #556: February 2, 2009
Change in Material Content of Light Vehicles

Light vehicles are made up of many different materials. The materials shown on the graph below are materials with substantial changes over the last ten years. The use of high and medium strength steel has increased from an average of 324 pounds per vehicle to 500 pounds per vehicle in 2006. The use of aluminum and plastics also increased by nearly 100 pounds during that same period while the use of stainless steel increased by only about 20 pounds. The use of iron castings has declined notably from 1995 to 2006 with the sharpest decline from 2000 to 2006.

Selected Material Content for Light Vehicles, 1995, 2000, and 2006



Supporting Information

Average Material Content of North American Light Vehicles, 1995, 2000, and 2006 (Pounds and Share of Total Vehicle Weight)

Material	1995		2000		2006	
	Pounds	Share	Pounds	Share	Pounds	Share
High and Medium Strength Steel	324	9%	408	10%	500	12%
Stainless Steel	51	1%	62	2%	73	2%
Iron Castings	466	13%	432	11%	331	8%
Aluminum	231	6%	268	7%	323	8%
Plastics and Plastic Composites	240	6%	286	7%	338	8%
Total Vehicle Weight	3,694		3,902		4,044	

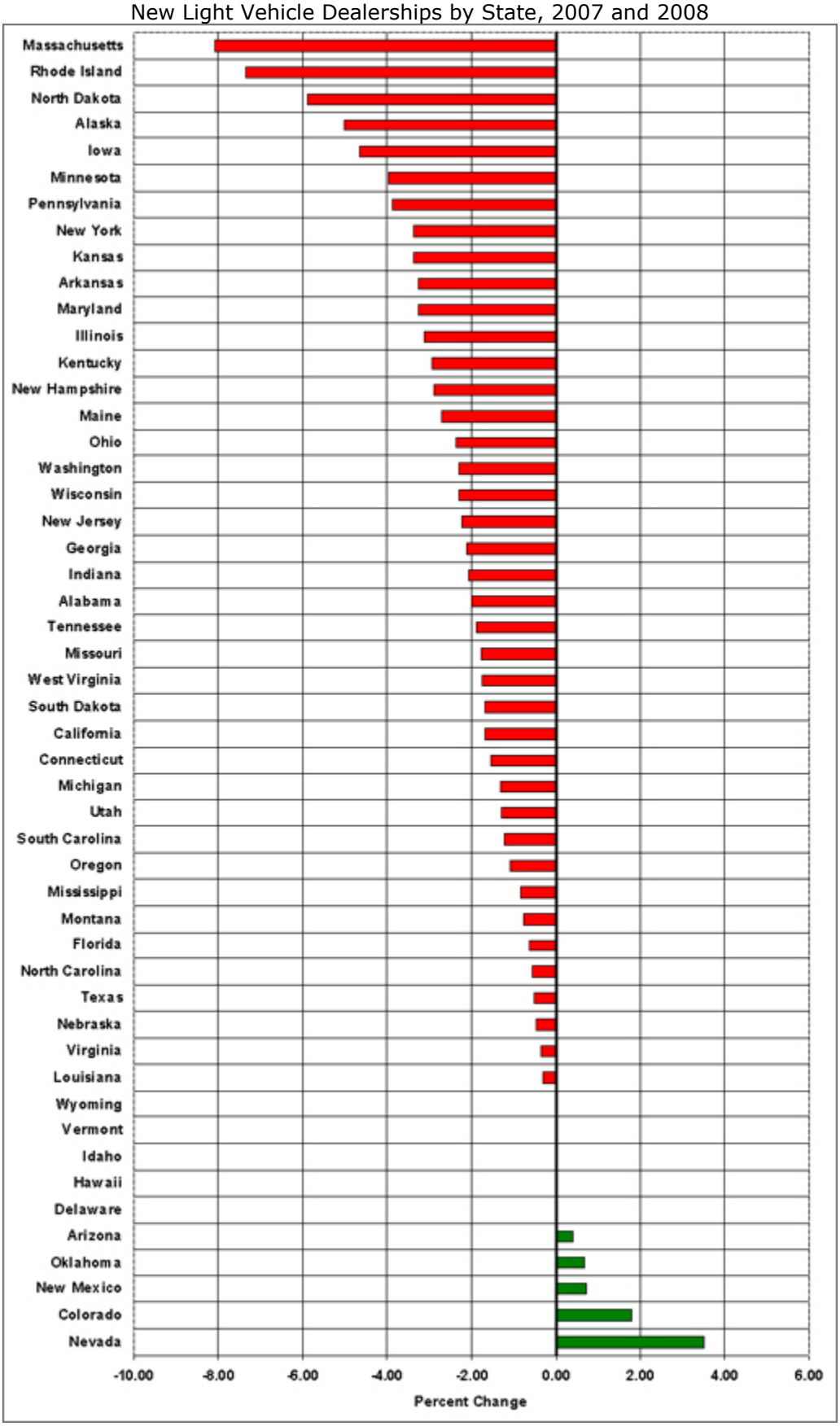
Source: American Chemistry Council.

Fact of the Week

Fact #557: February 9, 2009
Change in New Car Dealerships by State

From 2007 to 2008 the total number of new car dealerships in the U.S. declined by 430 dealerships or about 2%. During this period, most states lost dealerships while 10 states remained the same or increased their number of dealerships. Massachusetts lost 42 dealerships representing a decline of 8%. On the other side of the spectrum, Nevada gained 4 dealerships resulting in a gain of 3.5%.

New Light Vehicle Dealerships by State, 2007 and 2008



Supporting Information

New Light Vehicle Dealerships by State, 2007 and 2008				
State	2007	2008	Change	Percent Change
Alabama	352	345	-7	-2.0
Alaska	40	38	-2	-5.0
Arizona	255	256	1	0.4
Arkansas	276	267	-9	-3.3
California	1,621	1,594	-27	-1.7
Colorado	279	284	5	1.8
Connecticut	325	320	-5	-1.5
Delaware	65	65	0	0.0
D.C.	2	1	-1	-50.0
Florida	954	948	-6	-0.6
Georgia	616	603	-13	-2.1
Hawaii	66	66	0	0.0
Idaho	123	123	0	0.0
Illinois	964	934	-30	-3.1
Indiana	532	521	-11	-2.1
Iowa	387	369	-18	-4.7
Kansas	267	258	-9	-3.4
Kentucky	307	298	-9	-2.9
Louisiana	338	337	-1	-0.3
Maine	148	144	-4	-2.7
Maryland	370	358	-12	-3.2
Massachusetts	520	478	-42	-8.1
Michigan	769	759	-10	-1.3
Minnesota	456	438	-18	-3.9
Mississippi	244	242	-2	-0.8
Missouri	503	494	-9	-1.8
Montana	133	132	-1	-0.8
Nebraska	214	213	-1	-0.5
Nevada	114	118	4	3.5
New Hampshire	174	169	-5	-2.9
New Jersey	587	574	-13	-2.2
New Mexico	139	140	1	0.7
New York	1,151	1,112	-39	-3.4
North Carolina	696	692	-4	-0.6
North Dakota	102	96	-6	-5.9
Ohio	981	958	-23	-2.3
Oklahoma	297	299	2	0.7

Oregon	277	274	-3	-1.1
Pennsylvania	1,208	1,161	-47	-3.9
Rhode Island	68	63	-5	-7.4
South Carolina	330	326	-4	-1.2
South Dakota	119	117	-2	-1.7
Tennessee	428	420	-8	-1.9
Texas	1,353	1,346	-7	-0.5
Utah	155	153	-2	-1.3
Vermont	97	97	0	0.0
Virginia	553	551	-2	-0.4
Washington	392	383	-9	-2.3
West Virginia	172	169	-3	-1.7
Wisconsin	611	597	-14	-2.3
Wyoming	70	70	0	0.0
Total	**21,200**	**20,770**	**-430**	**-2.0**

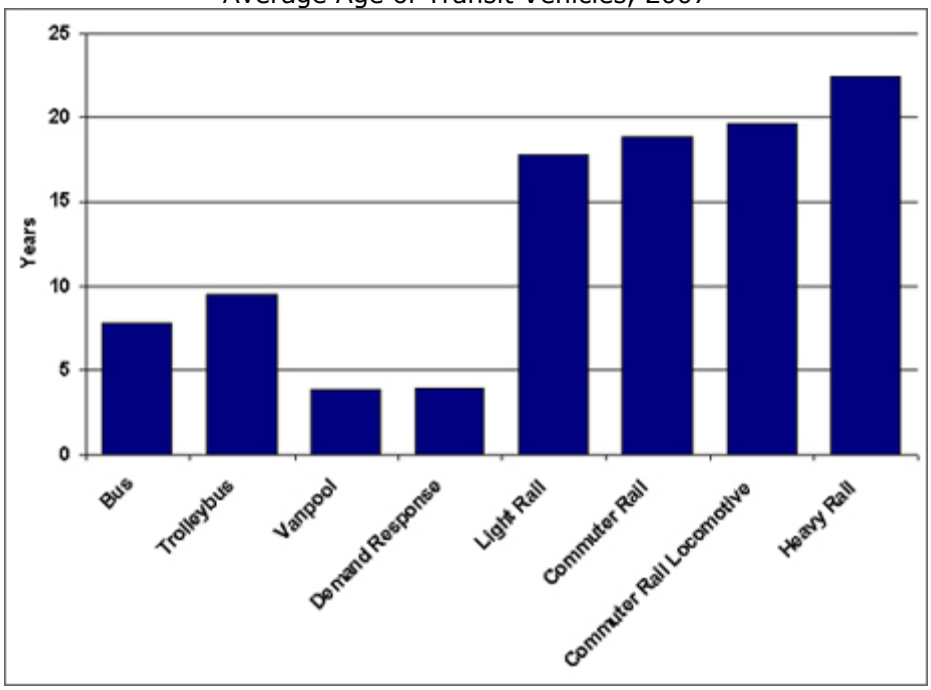
Note: The District of Columbia is not depicted on the graph.
Source: NADA Industry Analysis Division, NADA Data, New-Car Dealerships (PDF 281 KB)

Fact of the Week

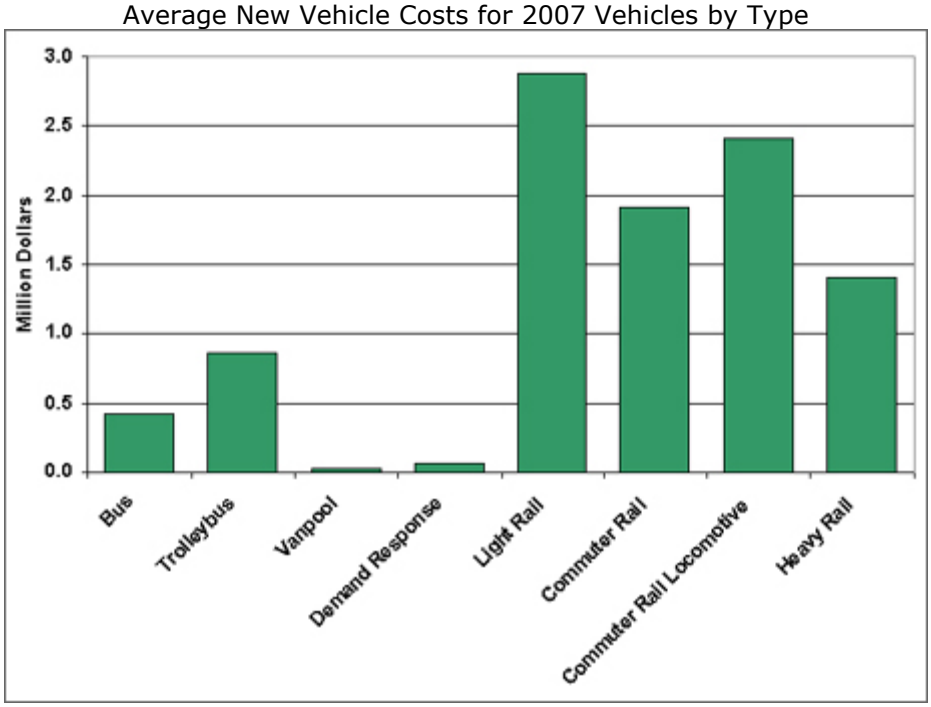
Fact #558: February 16, 2009
Transit Vehicle Age and Cost

Heavy rail cars have the greatest longevity of the transit vehicles listed below with an average vehicle age of more than 22 years. However, in terms of cost for purchasing a new rail car, heavy rail is by far the least expensive of all types of rail transit vehicles. Buses cost far less than rail transit vehicles but the average age for a transit bus is just under 8 years.

Average Age of Transit Vehicles, 2007



Average New Vehicle Costs for 2007 Vehicles by Type



Supporting Information

Average New Transit Vehicle Age and Costs by Vehicle Type, 2007*

Vehicle Type	Average Price (Dollars)	Average Age (Years)
Bus	424,880	7.8
Trolleybus	862,599	9.5
Vanpool	22,818	3.8
Demand Response	61,463	3.9
Light Rail	2,880,556	17.8
Commuter Rail	1,915,313	18.9
Commuter Rail Locomotive	2,410,171	19.7
Heavy Rail	1,406,391	22.4

* Includes some 2008 vehicles.
Source: American Public Transit Association, 2008 Public Transit Fact Book. Table 14, Average Vehicle Age by Mode, 2007 (PDF 888 KB). Table 22. Average New Vehicle Cost by Type (PDF 8 KB). Download Adobe Reader.

Fact of the Week

Fact #559: February 23, 2009
Light Vehicle Sales per Dealership

Although the number of dealerships has been steadily declining from 1997 through 2007, the total number of vehicles sold increased from 1997 through 2000 resulting in a sharp increase in the number of vehicle sales per dealership through the late 1990s. During this ten year span of time, vehicle sales per dealership reached its' highest point in 2005 with an average of 788 vehicles sold per dealership. Since 2005, overall vehicle sales as well as the average number of vehicles sold per dealership have declined slightly.

Light Duty Sales per Dealership, 1997-2007

Supporting Information

Light Vehicle Sales per Dealership, 1997-2007			
Year	**Dealership**	**Vehicle Sales**	**Sales per Dealership**
1997	22,600	15,130,200	669
1998	22,400	15,541,900	694
1999	22,250	16,895,800	759
2000	22,150	17,349,700	783
2001	21,800	17,121,900	785
2002	21,725	16,817,500	774
2003	21,650	16,634,700	768
2004	21,640	16,866,500	779
2005	21,495	16,945,000	788
2006	21,200	16,502,700	778
2007	20,700	16,089,300	777

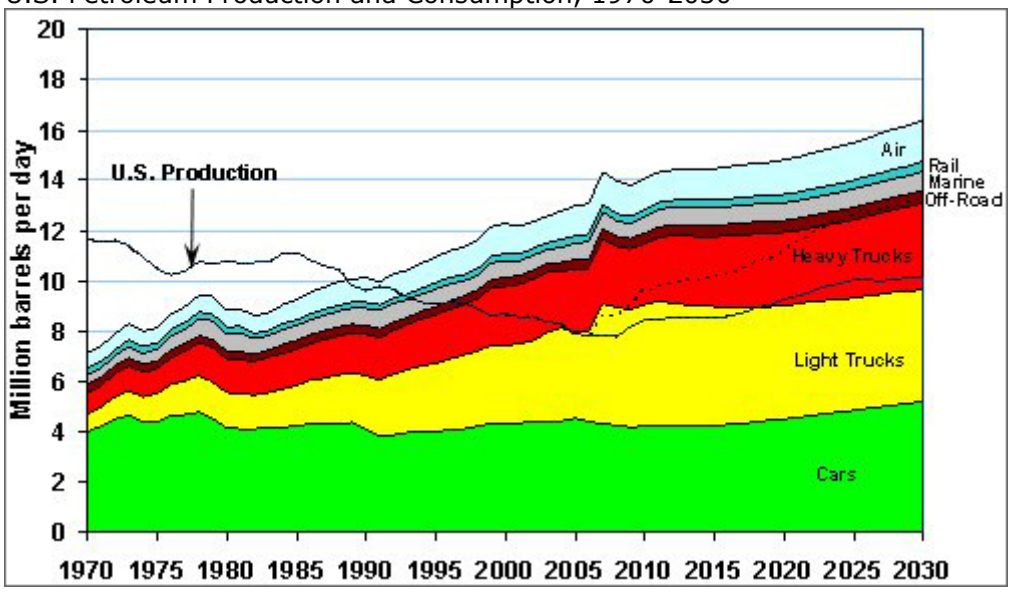
*Number of dealerships as of the end of the calendar year.
Source: NADA Industry Analysis Division, NADA Data, New-Car Dealerships (PDF 281 KB) Download Adobe Reader.

Fact of the Week

Fact #560: March 2, 2009
The Transportation Petroleum Gap

In 1989 the transportation sector petroleum consumption surpassed U.S. petroleum production for the first time, creating a gap that must be met with imports of petroleum. By the year 2030, transportation petroleum consumption is expected to grow to nearly 17 million barrels per day; at that time, the gap between U.S. production and transportation consumption will be 3.7 million barrels per day.

U.S. Petroleum Production and Consumption, 1970-2030



Note: The U.S. Production has two lines after 2005. The solid line is conventional sources of petroleum. The dashed line adds in other inputs -- ethanol, liquids from coal, and liquids from biomass. The sharp increase in values between 2006 and 2007 are caused by the data change from historical to projected values.

Supporting Information

Historical and Future U.S. Petroleum Production and Transportation Petroleum Use (Million barrels per day)												
Year	Autos	Light Trucks	Medium & Heavy Trucks	Total Highway	Air	Water	Off-Highway	Rail	Pipeline	Total Transportation	U.S. Petroleum Production with Other Inputs 2007-on (dotted line)	U.S. Petroleum Production without Other Inputs 2007-on
1970	4.008	0.727	0.794	5.530	0.617	0.397	0.347	0.262	0.468	7.621	11.656	11.656
1971	4.220	0.796	0.825	5.841	0.616	0.369	0.339	0.263	0.478	7.906	11.537	11.537
1972	4.495	0.894	0.899	6.288	0.621	0.376	0.331	0.274	0.490	8.380	11.605	11.605
1973	4.635	0.993	0.986	6.614	0.650	0.425	0.338	0.284	0.471	8.783	11.399	11.399
1974	4.401	0.983	0.987	6.371	0.592	0.417	0.314	0.286	0.441	8.422	10.942	10.942
1975	4.399	1.126	1.005	6.529	0.602	0.440	0.316	0.258	0.397	8.541	10.467	10.467
1976	4.648	1.229	1.062	6.939	0.630	0.513	0.327	0.268	0.379	9.057	10.241	10.241
1977	4.697	1.321	1.172	7.190	0.638	0.558	0.323	0.273	0.371	9.352	10.387	10.387
1978	4.795	1.426	1.298	7.520	0.672	0.655	0.310	0.271	0.370	9.798	10.771	10.771
1979	4.559	1.443	1.342	7.344	0.703	0.757	0.316	0.279	0.406	9.804	10.662	10.662
1980	4.169	1.405	1.336	6.910	0.677	0.659	0.317	0.271	0.423	9.258	10.797	10.797
1981	4.119	1.400	1.355	6.874	0.686	0.760	0.305	0.259	0.427	9.310	10.688	10.688
1982	4.109	1.340	1.350	6.799	0.683	0.634	0.283	0.222	0.404	9.023	10.729	10.729
1983	4.168	1.412	1.380	6.960	0.680	0.586	0.278	0.220	0.350	9.073	10.734	10.734
1984	4.185	1.510	1.426	7.121	0.760	0.602	0.337	0.245	0.369	9.434	11.092	11.092
1985	4.230	1.612	1.435	7.277	0.792	0.601	0.350	0.229	0.357	9.606	11.138	11.138
1986	4.327	1.714	1.473	7.514	0.861	0.598	0.352	0.224	0.347	9.897	10.847	10.847
1987	4.337	1.804	1.523	7.664	0.897	0.609	0.356	0.229	0.365	10.120	10.583	10.583
1988	4.338	1.926	1.553	7.816	0.934	0.616	0.357	0.235	0.413	10.371	10.448	10.448
1989	4.373	1.963	1.591	7.927	0.936	0.632	0.342	0.236	0.420	10.494	9.820	9.820
1990	4.115	2.102	1.654	7.871	0.981	0.683	0.357	0.232	0.436	10.560	9.597	9.597
1991	3.803	2.255	1.691	7.749	0.916	0.721	0.365	0.219	0.406	10.375	9.791	9.791
1992	3.870	2.417	1.725	8.012	0.931	0.757	0.345	0.224	0.400	10.667	9.667	9.667
1993	3.964	2.530	1.776	8.270	0.938	0.680	0.300	0.231	0.418	10.838	9.349	9.349
1994	4.013	2.605	1.871	8.489	0.978	0.659	0.309	0.255	0.449	11.140	9.156	9.156
1995	4.022	2.690	1.947	8.658	1.011	0.694	0.316	0.264	0.457	11.400	9.096	9.096
1996	4.090	2.795	1.999	8.883	1.042	0.667	0.323	0.270	0.462	11.647	9.157	9.157
1997	4.126	2.913	2.021	9.060	1.086	0.591	0.337	0.271	0.483	11.828	9.118	9.118
1998	4.233	2.977	2.085	9.295	1.120	0.582	0.337	0.273	0.424	12.031	8.897	8.897
1999	4.327	3.118	2.286	9.731	1.167	0.647	0.320	0.283	0.429	12.577	8.617	8.617
2000	4.311	3.121	2.375	9.806	1.204	0.687	0.326	0.283	0.427	12.733	8.704	8.704
2001	4.339	3.154	2.366	9.859	1.139	0.561	0.348	0.284	0.419	12.610	8.573	8.573
2002	4.447	3.156	2.469	10.072	1.045	0.590	0.355	0.286	0.440	12.788	8.582	8.582
2003	4.383	3.567	2.401	10.351	1.047	0.508	0.364	0.291	0.401	12.963	8.374	8.374
2004	4.419	3.713	2.233	10.366	1.109	0.614	0.372	0.307	0.388	13.157	8.302	8.302
2005	4.536	3.446	2.496	10.478	1.170	0.647	0.376	0.310	0.398	13.379	7.885	7.885
2006	4.396	3.551	2.543	10.490	1.179	0.687	0.376	0.316	0.398	13.447	7.835	7.835
2007	4.335	4.736	2.591	11.662	1.312	0.677	0.392	0.300	0.436	14.780	8.589	7.846
2008	4.247	4.705	2.418	11.370	1.311	0.608	0.403	0.303	0.446	14.442	8.676	7.776
2009	4.180	4.710	2.375	11.265	1.259	0.590	0.415	0.291	0.448	14.268	9.081	8.172
2010	4.227	4.821	2.437	11.485	1.252	0.634	0.421	0.287	0.435	14.515	9.665	8.448
2011	4.271	4.902	2.554	11.727	1.191	0.682	0.425	0.293	0.440	14.759	9.773	8.458
2012	4.255	4.874	2.659	11.788	1.180	0.688	0.435	0.304	0.447	14.842	9.939	8.573
2013	4.247	4.817	2.726	11.790	1.205	0.691	0.445	0.311	0.445	14.886	10.036	8.568
2014	4.233	4.784	2.758	11.775	1.227	0.692	0.454	0.316	0.441	14.905	10.110	8.535
2015	4.240	4.737	2.787	11.764	1.245	0.693	0.454	0.319	0.441	14.916	10.173	8.522

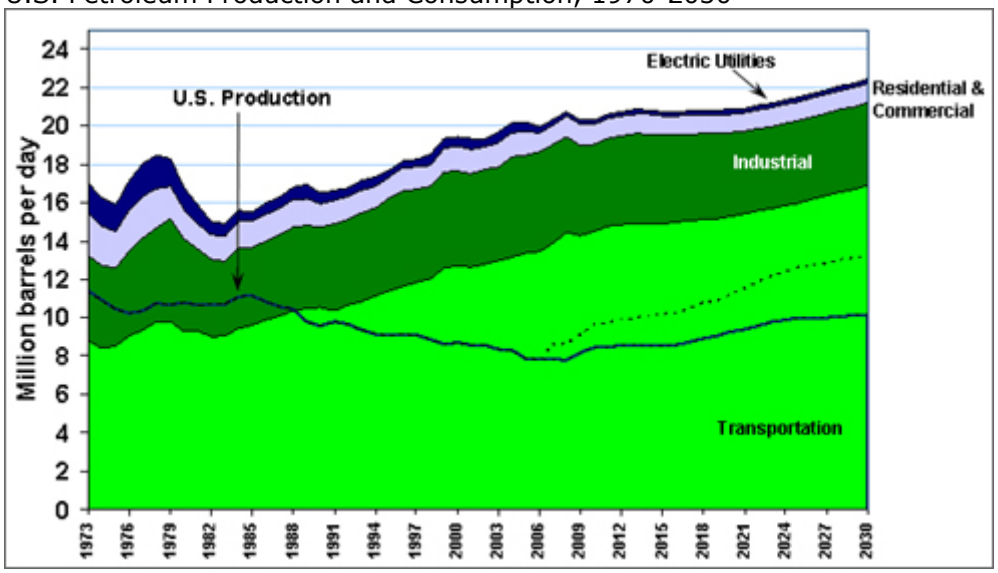
2016	4.288	4.691	2.826	11.805	1.266	0.696	0.454	0.323	0.444	14.987	10.282	8.577
2017	4.340	4.634	2.859	11.833	1.282	0.699	0.462	0.327	0.447	15.049	10.476	8.733
2018	4.390	4.595	2.892	11.878	1.301	0.703	0.469	0.330	0.449	15.130	10.782	8.948
2019	4.459	4.511	2.906	11.875	1.337	0.705	0.478	0.334	0.446	15.175	10.896	9.064
2020	4.522	4.504	2.902	11.929	1.363	0.708	0.477	0.336	0.468	15.280	11.222	9.265
2021	4.588	4.499	2.921	12.008	1.388	0.711	0.475	0.336	0.490	15.409	11.546	9.407
2022	4.652	4.523	2.954	12.129	1.413	0.715	0.483	0.338	0.494	15.571	11.907	9.580
2023	4.723	4.486	2.995	12.204	1.440	0.719	0.491	0.341	0.490	15.685	12.203	9.789
2024	4.796	4.466	3.045	12.307	1.471	0.723	0.500	0.344	0.496	15.840	12.428	9.902
2025	4.870	4.462	3.094	12.426	1.504	0.726	0.499	0.347	0.497	16.000	12.674	10.034
2026	4.944	4.465	3.152	12.561	1.539	0.729	0.504	0.351	0.498	16.181	12.771	10.036
2027	5.016	4.469	3.217	12.702	1.574	0.731	0.509	0.355	0.497	16.368	12.862	10.010
2028	5.088	4.474	3.286	12.847	1.608	0.735	0.513	0.360	0.490	16.553	13.036	10.082
2029	5.130	4.459	3.360	12.949	1.643	0.738	0.518	0.365	0.489	16.703	13.162	10.136
2030	5.202	4.470	3.441	13.113	1.678	0.741	0.523	0.371	0.488	16.914	13.258	10.170
Sources: Transportation Energy Data Book: Edition 27, and EIA Annual Energy Outlook 2009, December 2008.												

Fact of the Week

Fact #561: March 9, 2009
All Sectors' Petroleum Gap

Before 1989 the U.S. produced enough petroleum to meet the needs of the transportation sector, but was still short of meeting the petroleum needs of all the sectors, including industrial, residential and commercial, and electric utilities. In 1973 the gap between what the U.S. produced and what was consumed was 5.6 million barrels per day. By 2030, the gap is expected to be at least 9.2 million barrels per day if all sources of petroleum are included or 12.3 million barrels per day if only conventional petroleum sources are used.

U.S. Petroleum Production and Consumption, 1970-2030



Note: The U.S. Production has two lines after 2005. The solid line is conventional sources of petroleum. The dashed line adds in other inputs -- ethanol, liquids from coal, and liquids from biomass. The sharp increase in values between 2007 and 2008 are caused by the data change from historical to projected values.

Supporting Information

Historical and Future U.S. Petroleum Production and Petroleum Use (Million barrels per day)							
Year	Transportation	Industrial	Residential and Commercial	Electric Utilities	Total	U.S. Petroleum Production with Other Inputs 2007-on (dotted line)	U.S. Petroleum Production without Other Inputs 2007-on
1973	8.78	4.48	2.23	1.54	17.04	11.40	11.40
1974	8.42	4.30	2.04	1.48	16.24	10.94	10.94
1975	8.54	4.04	1.95	1.39	15.91	10.47	10.47
1976	9.06	4.46	2.13	1.52	17.17	10.24	10.24
1977	9.35	4.82	2.14	1.71	18.02	10.39	10.39
1978	9.80	4.87	2.07	1.75	18.48	10.77	10.77
1980	9.26	4.86	1.52	1.15	16.79	10.80	10.80
1981	9.31	4.27	1.33	0.96	15.88	10.69	10.69
1982	9.02	4.06	1.24	0.69	15.01	10.73	10.73
1983	9.07	3.85	1.29	0.68	14.90	10.73	10.73
1984	9.43	4.21	1.38	0.56	15.59	11.09	11.09
1985	9.61	4.07	1.34	0.48	15.49	11.14	11.14
1986	9.90	4.09	1.37	0.64	15.99	10.85	10.85
1987	10.12	4.21	1.40	0.55	16.28	10.58	10.58
1988	10.37	4.36	1.41	0.69	16.83	10.45	10.45
1989	10.49	4.33	1.39	0.75	16.96	9.82	9.82
1990	10.56	4.15	1.23	0.57	16.51	9.60	9.60
1991	10.38	4.53	1.21	0.53	16.64	9.79	9.79
1992	10.67	4.45	1.20	0.44	16.75	9.67	9.67
1994	11.14	4.57	1.17	0.47	17.34	9.16	9.16
1995	11.40	4.83	1.13	0.33	17.69	9.10	9.10
1996	11.65	4.96	1.21	0.36	18.18	9.16	9.16
1997	11.83	4.86	1.16	0.41	18.26	9.12	9.12
1998	12.03	4.84	1.08	0.58	18.53	8.90	8.90
1999	12.58	5.03	1.18	0.53	19.33	8.62	8.62
2000	12.73	4.92	1.28	0.51	19.44	8.70	8.70
2001	12.61	4.89	1.25	0.56	19.32	8.57	8.57
2002	12.79	4.93	1.19	0.43	19.34	8.58	8.58
2004	13.16	5.23	1.26	0.54	20.18	8.30	8.30
2005	13.38	5.10	1.20	0.55	20.22	7.88	7.88
2006	13.45	5.18	1.03	0.29	19.95	7.83	7.83
2007	13.90	5.12	1.03	0.29	20.34	8.59	7.85
2008	14.44	4.977	1.10	0.216	20.73	8.68	7.78
2009	14.27	4.709	1.11	0.218	20.30	9.08	8.17
2010	14.51	4.522	1.05	0.218	20.31	9.66	8.45
2011	14.76	4.569	1.05	0.220	20.60	9.77	8.46
2012	14.84	4.642	1.04	0.222	20.75	9.94	8.57
2013	14.89	4.705	1.03	0.222	20.84	10.04	8.57
2014	14.90	4.668	1.01	0.223	20.81	10.11	8.54
2015	14.92	4.591	1.01	0.224	20.74	10.17	8.52
2016	14.99	4.540	1.00	0.224	20.75	10.28	8.58
2017	15.05	4.503	1.00	0.225	20.77	10.48	8.73

2018	15.13	4.450	1.00	0.226	20.80	10.78	8.95
2019	15.17	4.406	0.99	0.226	20.80	10.90	9.06
2020	15.28	4.345	1.00	0.226	20.85	11.22	9.26
2021	15.41	4.300	0.99	0.227	20.93	11.55	9.41
2022	15.57	4.280	0.99	0.227	21.07	11.91	9.58
2023	15.69	4.275	0.99	0.227	21.18	12.20	9.79
2024	15.84	4.282	0.99	0.228	21.34	12.43	9.90
2025	16.00	4.288	0.98	0.229	21.50	12.67	10.03
2026	16.18	4.287	0.98	0.229	21.68	12.77	10.04
2027	16.37	4.286	0.98	0.230	21.87	12.86	10.01
2028	16.55	4.295	0.98	0.232	22.06	13.04	10.08
2029	16.70	4.298	0.98	0.232	22.21	13.16	10.14
2030	16.91	4.308	0.98	0.234	22.43	13.26	10.17

Sources:
1973-2007 from Davis, S. C. and Diegel, S. W., 2008, "Transportation Energy Data Book: Edition 27," Oak Ridge National Laboratory Report, Oak Ridge, TN,
2008-2030 from EIA, 2008, "Annual Energy Outlook 2009 with Projections to 2030," Energy Information Administration, DOE/EIA-0383(2009), U.S. Department of Energy, Washington, DC.

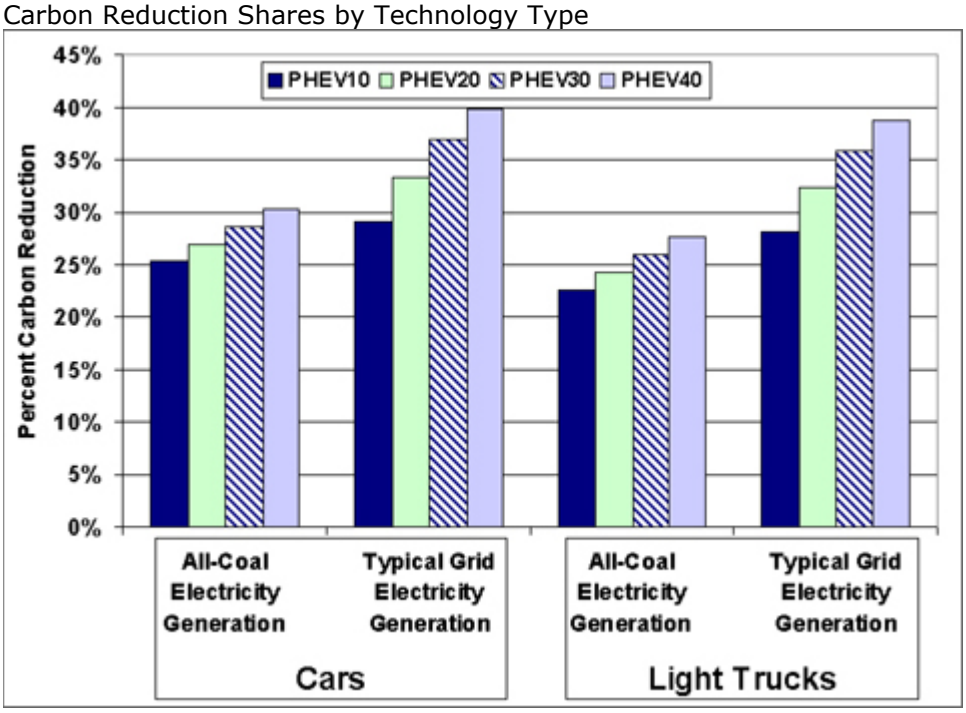
Fact of the Week

Fact #562: March 16, 2009
Carbon Reduction of Plug-in Hybrid Electric Vehicles

Estimates from the GREET model (see Argonne National Laboratory's information on GREET) show that passenger car PHEV10s produce about 29% fewer carbon emissions than a conventional vehicle, when plugged into an outlet connected to the typical U.S. grid. Even when PHEV10s are charged using power generated completely from coal, carbon emissions are about 25% less than those of a conventional vehicle. The use of light truck PHEV10s reduces emissions by 28% when charged on a typical grid and 23% when charged on power generated from coal. The carbon reductions are greater as the length the vehicle can travel on electricity increases.

PHEV10	plug-in hybrid electric vehicle which can travel up to 10 miles on electricity alone
PHEV20	plug-in hybrid electric vehicle which can travel up to 20 miles on electricity alone
PHEV30	plug-in hybrid electric vehicle which can travel up to 30 miles on electricity alone
PHEV40	plug-in hybrid electric vehicle which can travel up to 40 miles on electricity alone
Typical Grid	electricity sources are 50.9% coal; 20.1% nuclear; 16.7% natural gas; 11.0% renewable energy; and 1.3% petroleum.

Carbon Reduction Shares by Technology Type



Supporting Information

Carbon Reduction Shares by Technology Type (Percent carbon reduction from internal combustion engines)

Technology Type	Cars		Light Trucks	
	All-Coal Elecricity Generation	Typical Grid Electricity Generation	All-Coal Electricity Generation	Typical Grid Electricity Generation
PHEV10	25.4%	29.2%	22.7%	28.2%
PHEV20	27.0%	33.4%	24.3%	32.4%
PHEV30	28.6%	36.9%	26.0%	35.9%
PHEV40	30.3%	39.8%	27.7%	38.8%

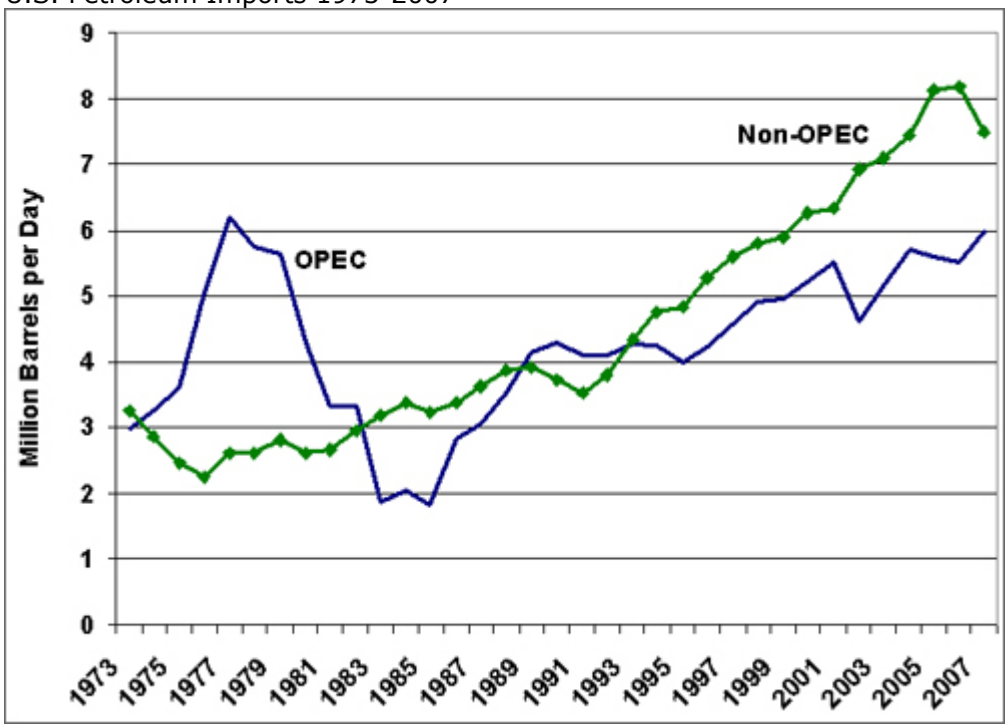
Source: Argonne National Laboratory, GREET model results.

Fact of the Week

Fact #563: March 23, 2009
OPEC Petroleum Imports

In the 1970's, the U.S. imported more petroleum from OPEC than from non-OPEC countries. The oil embargo in the early 1980's changed that. Though the amount of petroleum imports from OPEC has grown, the U.S. has imported more oil from non-OPEC countries each year since 1993. In fact, the amount of petroleum imported from OPEC in 2007 is slightly less than what was imported from OPEC thirty years ago (1977).

U.S. Petroleum Imports 1973-2007



Supporting Information

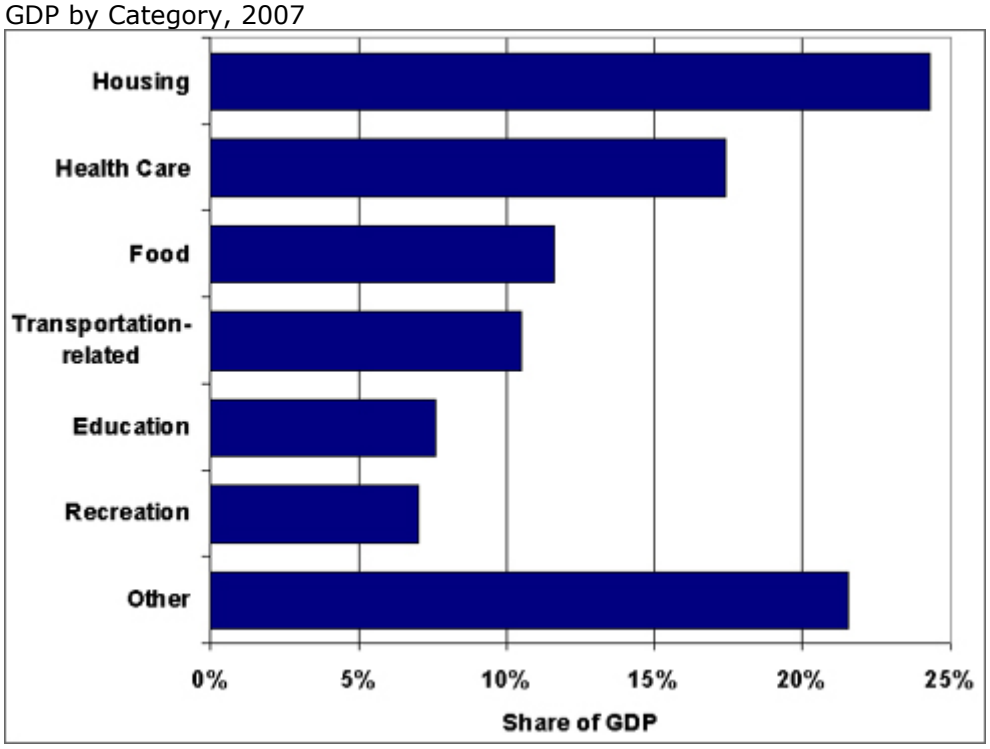
U.S. Petroleum Imports, 1973-2007 (Million Barrels per Day)		
Year	**Imports from OPEC Countries**	**Imports from Non-OPEC Countries**
1973	2.99	3.26
1974	3.26	2.86
1975	3.60	2.45
1976	5.07	2.25
1977	6.19	2.61
1978	5.75	2.61
1979	5.64	2.82
1980	4.30	2.61
1981	3.32	2.67
1982	3.32	2.97
1983	1.86	3.19
1984	2.05	3.39
1985	1.83	3.24
1986	2.84	3.39
1987	3.06	3.62
1988	3.52	3.88
1989	4.14	3.92
1990	4.30	3.72
1991	4.09	3.53
1992	4.09	3.80
1993	4.27	4.35
1994	4.25	4.75
1995	4.00	4.83
1996	4.21	5.27
1997	4.57	5.59
1998	4.91	5.80
1999	4.95	5.90
2000	5.20	6.26
2001	5.53	6.34
2002	4.61	6.93
2003	5.16	7.10
2004	5.70	7.44
2005	5.59	8.13
2006	5.52	8.19
2007	5.98	7.49
Source: Energy Information Administration, *January 2009 Monthly Energy Review*, Table 3.3c & d.		

Fact of the Week

Fact #564: March 30, 2009
Transportation and the Gross Domestic Product, 2007

Transportation plays a major role in the U.S. economy. About 10% of the U.S. Gross Domestic Product (GDP) in 2007 is related to transportation. Housing, health care, and food are the only categories with greater shares of the GDP.

GDP by Category, 2007



Supporting Information

Gross Domestic Product, 2007	
Housing	24.3%
Health Care	17.4%
Food	11.6%
Transportation-related*	10.5%
Education	7.6%
Recreation	7.0%
Other**	21.5%
Total GDP	$13.81 trillion dollars

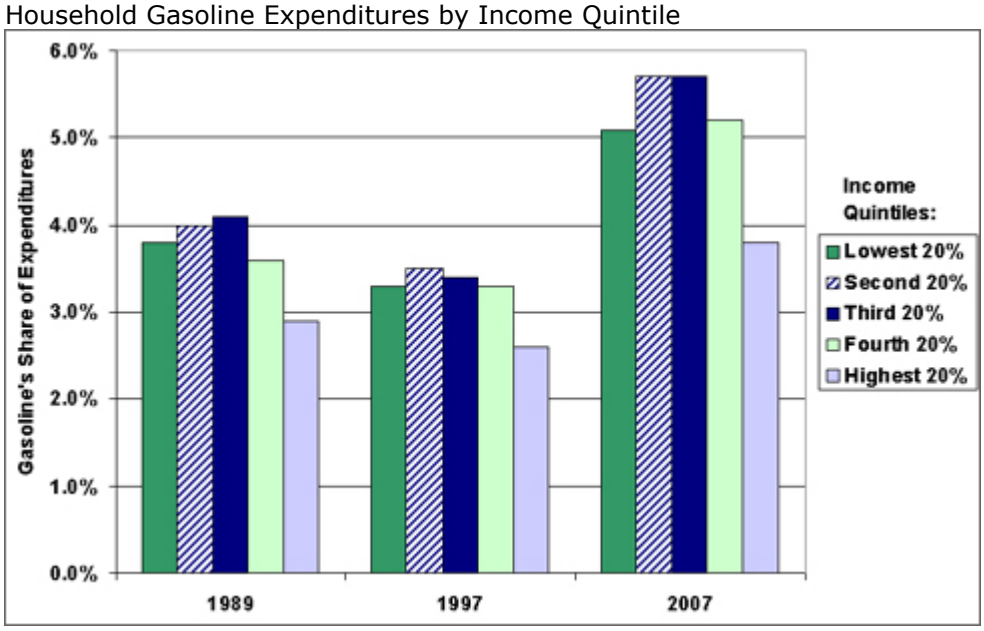
* Includes all consumer and government purchases of goods (e.g. vehicle and fuel) and services (e.g. auto insurance) and exports related to transportation.
** Includes all other categories (e.g., entertainment, personal care products and services, and payments to pension plans).
Source: Calculated by U.S. Department of Transportation, Bureau of Transportation Statistics based on data from U.S. Department of Commerce, Bureau of Economic Analysis.

Fact of the Week

Fact #565: April 6, 2009
Household Gasoline Expenditures by Income

In the annual Consumer Expenditure Survey, household incomes are grouped into five equal parts called quintiles (each quintile is 20%). Households in the second and third quintiles consistently have a higher share of spending on gasoline each year than households in the other quintiles.

Household Gasoline Expenditures by Income Quintile



Supporting Information

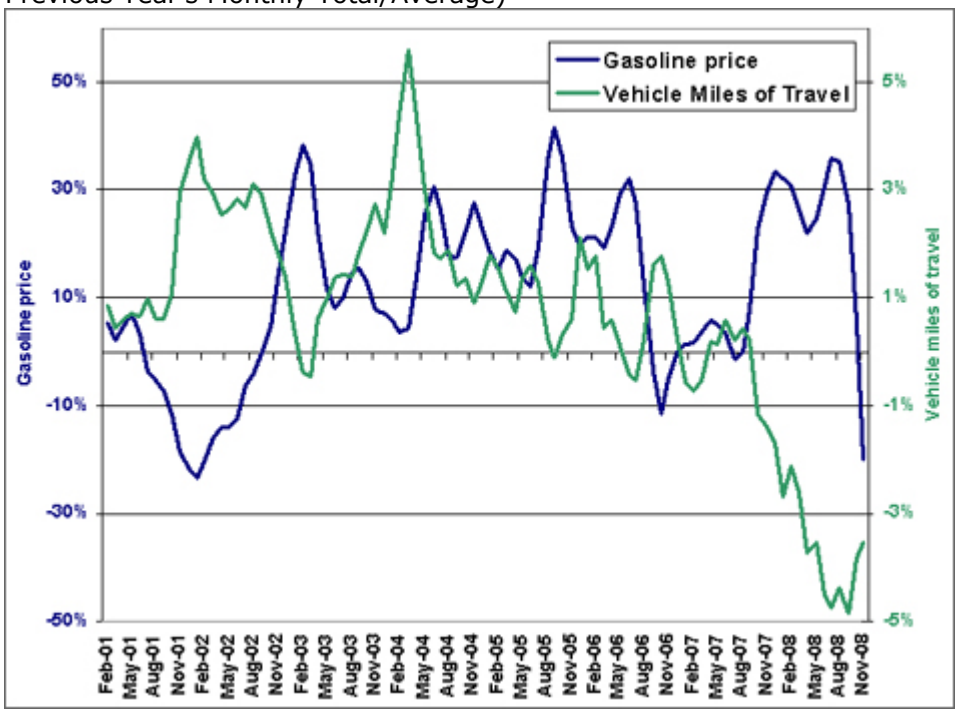
Shares of Average Annual Expenditures for Gasoline, 1989, 1997, and 2007			
	1989	1997	2007
Income Quintile	Share of Expenditures		
Lowest 20%	3.8%	3.3%	5.1%
Second 20%	4.0%	3.5%	5.7%
Third 20%	4.1%	3.4%	5.7%
Fourth 20%	3.6%	3.3%	5.2%
Highest 20%	2.9%	2.6%	3.8%
All	3.5%	3.1%	4.8%
Source: Bureau of Labor Statistics, Consumer Expenditure Survey			

Fact of the Week

Fact #566: April 13, 2009
Vehicle Travel and the Price of Gasoline

The price of gasoline is one factor that can have an effect on the number of highway vehicle miles traveled (VMT). The graph below shows a three-month moving average of the percentage change of monthly data from one year to the next (i.e., February 2001 data were compared with February 2000 data). In 2008, when gasoline prices were 20-30% higher, VMT declined nearly 5% from the previous year. When gasoline prices fell dramatically in late 2008, VMT increased slightly.

Vehicle Travel and Gasoline Price (Three-month Moving Average of the Percent Change from Previous Year's Monthly Total/Average)



Supporting Information

Vehicle Travel and Gasoline Price (Three-month Moving Average of the Percent Change from Previous Year's Monthly Total/Average)		
Month	**Gasoline price**	**Vehicle Miles of Travel**
Feb-01	5.1%	0.9%
Mar-01	2.1%	0.4%
Apr-01	4.4%	0.6%
May-01	6.9%	0.7%
Jun-01	3.3%	0.7%
Jul-01	-3.7%	1.0%
Aug-01	-5.2%	0.6%
Sep-01	-7.1%	0.6%
Oct-01	-11.5%	1.1%
Nov-01	-18.5%	3.0%
Dec-01	-21.8%	3.5%
Jan-02	-23.5%	4.0%
Feb-02	-20.2%	3.2%
Mar-02	-16.0%	2.9%
Apr-02	-14.0%	2.5%
May-02	-14.1%	2.6%
Jun-02	-12.3%	2.8%
Jul-02	-6.5%	2.7%
Aug-02	-4.0%	3.1%
Sep-02	-0.3%	2.9%
Oct-02	4.6%	2.2%
Nov-02	14.8%	1.8%
Dec-02	22.4%	1.4%
Jan-03	32.6%	0.3%
Feb-03	38.5%	-0.4%
Mar-03	34.7%	-0.5%
Apr-03	22.4%	0.6%
May-03	11.4%	1.0%
Jun-03	8.1%	1.4%
Jul-03	10.1%	1.4%
Aug-03	14.6%	1.4%
Sep-03	15.5%	1.8%
Oct-03	12.7%	2.2%
Nov-03	7.9%	2.7%

Dec-03	7.1%	2.2%
Jan-04	5.7%	3.3%
Feb-04	3.7%	4.4%
Mar-04	4.5%	5.6%
Apr-04	13.9%	4.4%
May-04	25.2%	3.0%
Jun-04	30.8%	1.8%
Jul-04	26.2%	1.7%
Aug-04	17.7%	1.9%
Sep-04	17.5%	1.2%
Oct-04	22.3%	1.4%
Nov-04	27.8%	0.9%
Dec-04	23.8%	1.2%
Jan-05	18.4%	1.8%
Feb-05	15.4%	1.6%
Mar-05	18.7%	1.1%
Apr-05	17.3%	0.7%
May-05	13.8%	1.3%
Jun-05	12.1%	1.6%
Jul-05	19.4%	1.3%
Aug-05	35.4%	0.3%
Sep-05	41.4%	-0.1%
Oct-05	36.2%	0.3%
Nov-05	23.3%	0.6%
Dec-05	19.9%	2.1%
Jan-06	21.2%	1.5%
Feb-06	21.2%	1.8%
Mar-06	19.2%	0.4%
Apr-06	23.3%	0.6%
May-06	29.3%	0.1%
Jun-06	32.2%	-0.4%
Jul-06	27.6%	-0.5%
Aug-06	12.4%	0.2%
Sep-06	-3.6%	1.6%
Oct-06	-11.4%	1.8%
Nov-06	-5.3%	1.3%
Dec-06	0.2%	0.2%
Jan-07	1.3%	-0.6%
Feb-07	1.7%	-0.7%
Mar-07	3.5%	-0.5%
Apr-07	6.0%	0.2%
May-07	4.9%	0.1%

Jun-07	3.2%	0.6%
Jul-07	-1.1%	0.2%
Aug-07	-0.1%	0.4%
Sep-07	8.0%	0.2%
Oct-07	22.5%	-1.1%
Nov-07	29.8%	-1.4%
Dec-07	33.4%	-1.7%
Jan-08	32.0%	-2.7%
Feb-08	30.8%	-2.1%
Mar-08	26.2%	-2.6%
Apr-08	22.1%	-3.8%
May-08	24.6%	-3.5%
Jun-08	30.5%	-4.5%
Jul-08	35.8%	-4.7%
Aug-08	35.6%	-4.4%
Sep-08	27.4%	-4.8%
Oct-08	5.4%	-3.8%
Nov-08	-20.1%	-3.6%

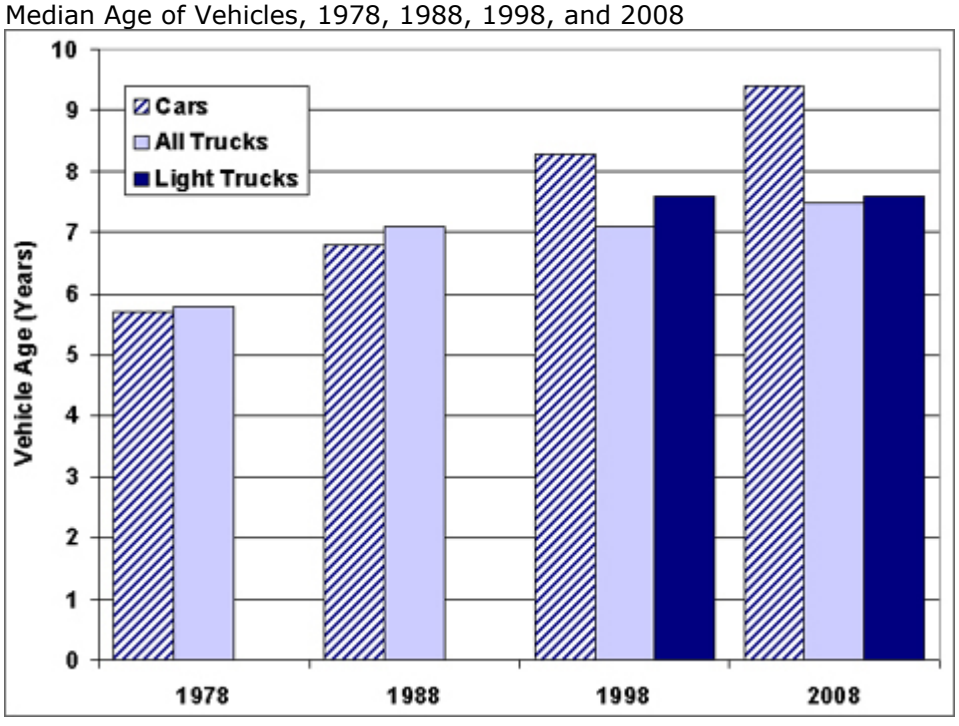
U.S. Department of Transportation, Office of Highway Policy Information, *Traffic Volume Trends*, Table 1. Energy Information Administration, *Monthly Energy Review*, Table 9.2.

Fact of the Week

Fact #567: April 20, 2009
Cars are Growing Older

The median age of cars continues to grow in 2008 while the median age of light trucks has remained fairly constant over the last ten years. The average age for all trucks, which includes heavy trucks, has not changed much over the last 20 years. In 1988 and 1978, the median age of trucks was higher than cars.

Median Age of Vehicles, 1978, 1988, 1998, and 2008



Supporting Information

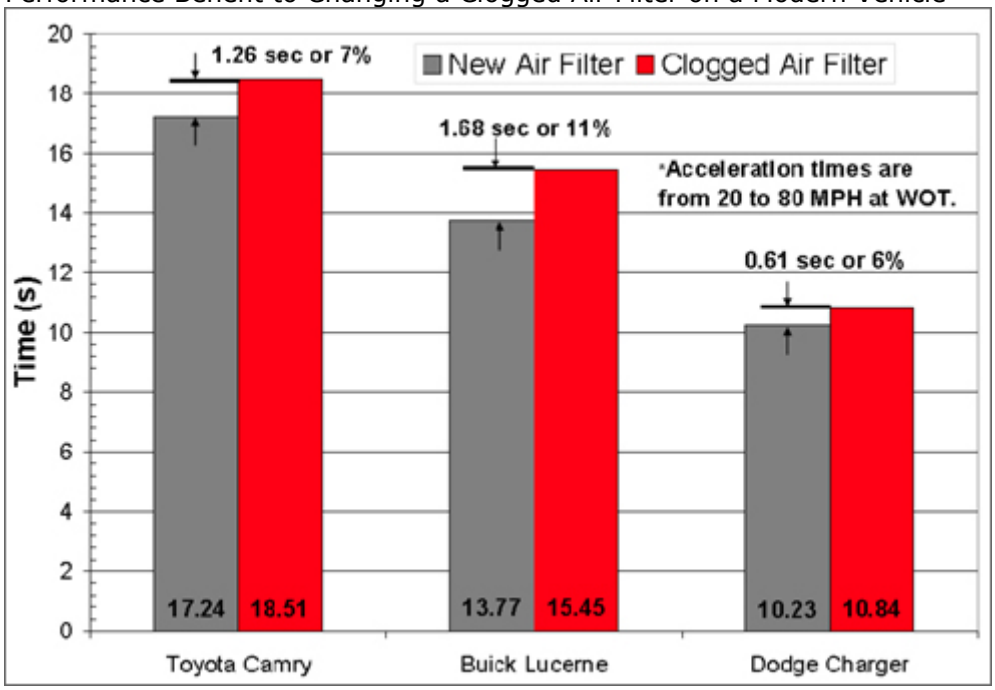
Median Age of Vehicles, 1978, 1988, 1998, and 2008 (Years)			
Year	**Cars**	**All Trucks**	**Light Trucks**
1978	5.7	5.8	Not Available
1988	6.8	7.1	Not Available
1998	8.3	7.1	7.6
2008	9.4	7.5	7.6
R.L Polk news release.			

Fact of the Week

Fact #568: April 27, 2009
For Modern Cars, Replacing an Air Filter Will Improve Performance but Not Fuel Economy

A February 2009 study conducted by Oak Ridge National Laboratory found that for modern computer-controlled, fuel-injected engines, changing a clogged air filter has no measurable effect on fuel economy but does affect ultimate performance. Average acceleration times for the vehicles in the study improved by 6 to 11 percent when running on a clean filter. The fuel economy of carbureted engines, which went out of production in the early 1980s, was impacted by a dirty air filter. The study found that typical fuel economy gains for replacing the air filter on the carbureted vehicle were in the range of 2 to 6 percent.

Performance Benefit to Changing a Clogged Air Filter on a Modern Vehicle



Notes:
WOT – Wide-open throttle
MPH – Miles per hour
A clogged filter was defined by a level of airflow restriction that was sufficient to activate a common indicator light inside the vehicle showing the air filter needs changed. On all vehicles, the level of restriction was on the order of 6.0 to 7.0 kilopascals (kPa – pressure unit).

Supporting Information

Acceleration times 20 to 80 MPH at WOT* (Seconds)				
			Difference	
Test Vehicle	New Air Filter	Clogged Air Filter	Seconds	Percent
2003 Toyota Camry	17.24	18.51	1.26	7%
2007 Buick Lucerne	13.77	15.45	1.68	11%
2006 Dodge Charger	10.23	10.84	0.61	6%

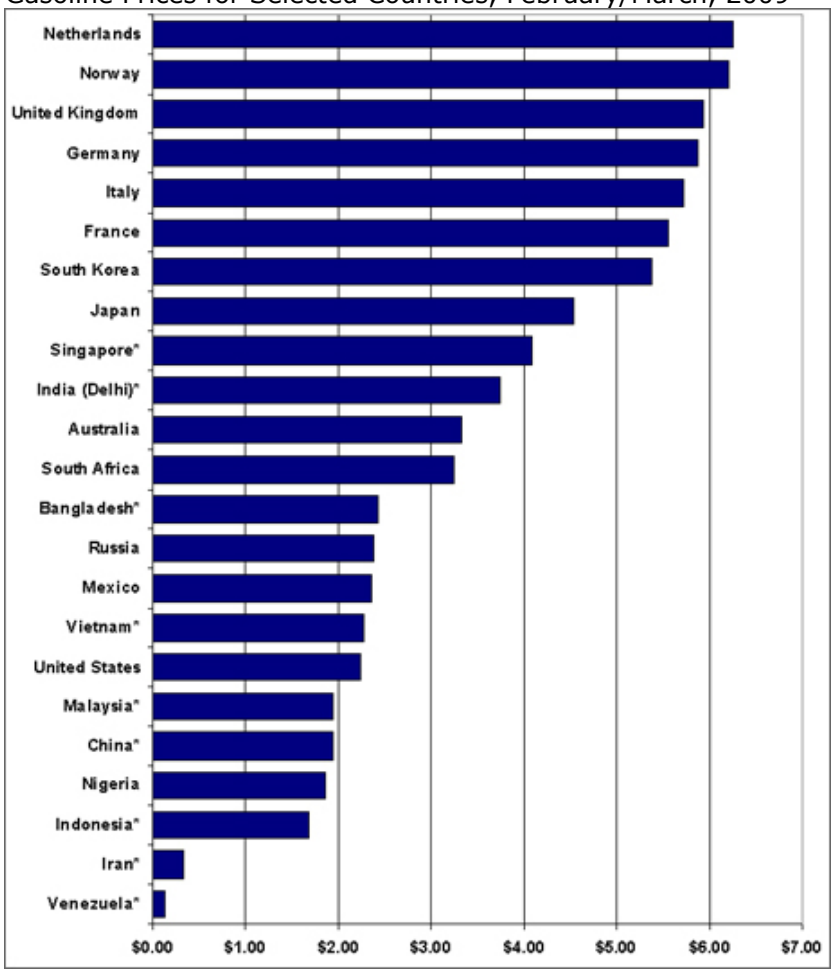
* Wide-open throttle.
Source: Kevin Norman, Shean Huff and Brian West. *Effect of Intake Air Filter Condition on Vehicle Fuel Economy*, Oak Ridge National Laboratory. Report: ORNL/TM-2009/021. February 2009 (PDF 1.0 MB). Download Adobe Reader.

Fact of the Week

Fact #569: May 4, 2009
Gasoline Prices Around the World

A survey of worldwide gasoline prices for February and March, 2009, shows that European countries had the highest prices for gasoline with the Netherlands topping the list at $6.25 per gallon. The price for gasoline in the United States was about one third as much as northern European nations. Petroleum producing nations with government-controlled pricing such as Venezuela and Iran had by far the lowest prices.

Gasoline Prices for Selected Countries, February/March, 2009



Note: Prices are for February 24, 2009 unless marked with an asterisk (*). Those with an asterisk are prices as of March 24, 2009.

Supporting Information

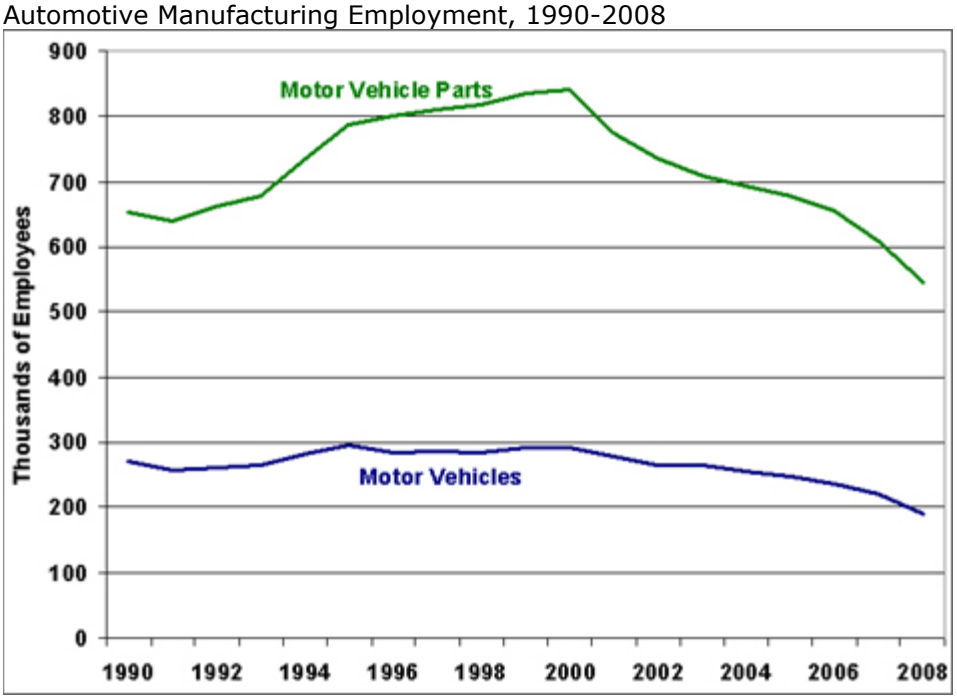
Gasoline Prices for Selected Countries, February/March, 2009	
Country	**Pump Prices**
Netherlands	$6.25
Norway	$6.21
United Kingdom	$5.94
Germany	$5.87
Italy	$5.72
France	$5.56
South Korea	$5.38
Japan	$4.54
Singapore*	$4.09
India (Delhi)*	$3.75
Australia	$3.32
South Africa	$3.24
Bangladesh*	$2.42
Russia	$2.38
Mexico	$2.36
Vietnam*	$2.27
United States	$2.23
China*	$1.93
Malaysia*	$1.93
Nigeria	$1.85
Indonesia*	$1.67
Iran*	$0.33
Venezuela*	$0.12
Note: Prices are for February 24, 2009 unless marked with an asterisk (*). Those with an asterisk are prices as of March 24, 2009. Source: Reuters.	

Fact of the Week

Fact #570: May 11, 2009
Automotive Manufacturing Employment Declining

The number of people employed by automotive manufacturing has been decreasing since 2000. Although nearly three times as many people are employed by motor vehicle parts manufacturing as motor vehicle manufacturing, parts manufacturing has experienced a sharper decline in employment since 2000.

Automotive Manufacturing Employment, 1990-2008



Supporting Information

Automotive Manufacturing Employment, 1990-2008 (Thousands of Employees)		
Year	**Motor Vehicles**	**Motor Vehicle Parts**
1990	271.4	653.0
1991	258.4	638.9
1992	259.9	661.2
1993	263.7	677.8
1994	281.5	735.6
1995	294.7	786.9
1996	285.3	799.9
1997	286.8	808.9
1998	283.6	818.2
1999	291.3	837.1
2000	291.4	839.5
2001	278.7	774.7
2002	265.4	733.6
2003	264.6	707.8
2004	255.9	692.1
2005	247.6	678.1
2006	236.5	654.7
2007	220.0	607.9
2008	190.7	544.4
Source: Bureau of Labor Statistics, Current Employment Statistics database.		

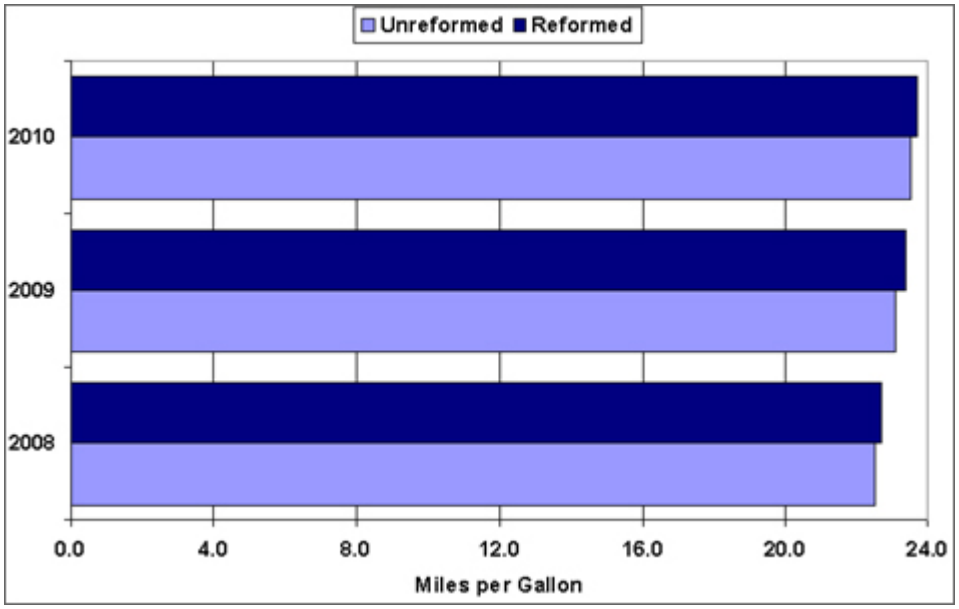
Fact of the Week

Fact #571: May 18, 2009
Light Truck CAFE Standards – 2006 Reformation

In 2006 the National Highway Traffic Safety Administration (NHTSA) established new requirements for the light truck Corporate Average Fuel Economy (CAFE) standards. In the new rule, there are Unreformed CAFE standards for model years (MY) 2008 through 2010 using the same CAFE calculations as in the past, and there are Reformed CAFE standards for those years as well, using a new methodology for the calculation of CAFE. For MY 2008 through 2010, the manufacturers can choose either standard. Another change with the Reformed CAFE standards is that larger passenger vans and sport utility vehicles (8,500-10,000 lbs gross vehicle weight) are included, whereas they are not included in the Unreformed CAFE calculations.

New standards for MY 2011 cars and light trucks have recently been published, and NHTSA is researching proposed standards for future model years.

Reformed and Unreformed Light Truck Corporate Average Fuel Economy Standards, MY 2008-2010



Supporting Information

Reformed and Unreformed Light Truck Corporate Average Fuel Economy Standards, MY 2008-2010

Model Year	CAFE Standard (miles per gallon)	
	Unreformed	Reformed
2008	22.5	22.7
2009	23.1	23.4
2010	23.5	23.7

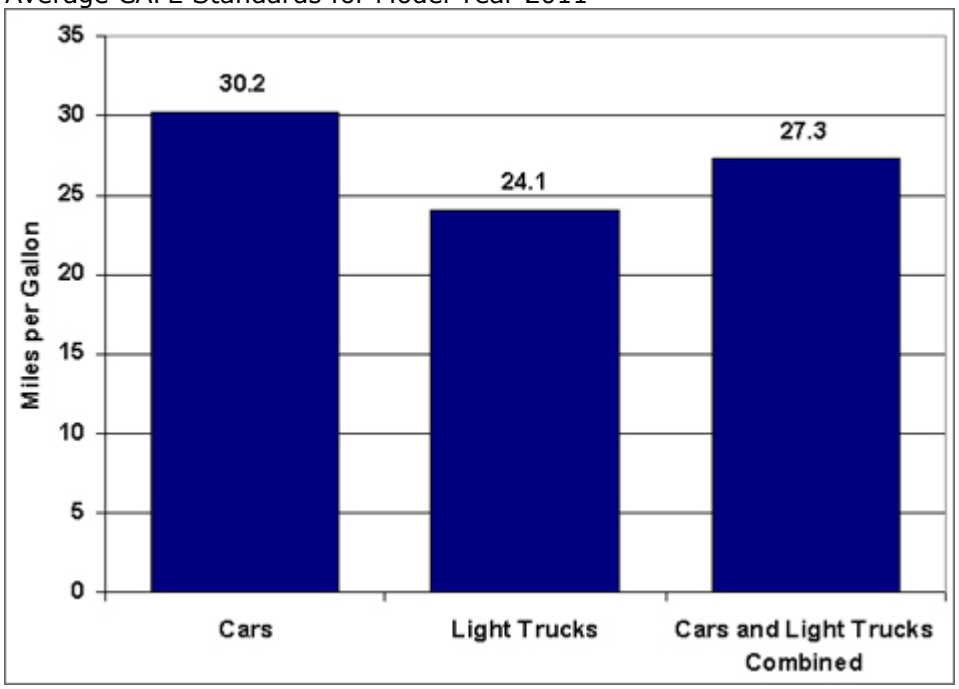
Source: Federal Register, Vol. 71, No. 66, April 6, 2006 and Vol. 71, No. 72, April 14, 2006.

Fact of the Week

Fact #572: May 25, 2009
CAFE Standards for Model Year 2011

On March 30, 2009, the National Highway Traffic Safety Administration (NHTSA) published the final rule for model year (MY) 2011 car and light truck Corporate Average Fuel Economy (CAFE) standards. In this rule, the fuel economy targets are set by taking into account the size of the vehicle as measured by the vehicle footprint [the distance between the wheels (width) multiplied by the distance between the axles (length)]. NHTSA estimates that the new standards will save 887 million gallons of fuel over the lifetime of the MY 2011 cars and light trucks, and reduce CO2 emissions by 8.3 million metric tons during that period. The average standards are shown below. Each manufacturer will have a slightly different standard to meet based on how its average footprint varies from the total average footprint.

Average CAFE Standards for Model Year 2011



Supporting Information

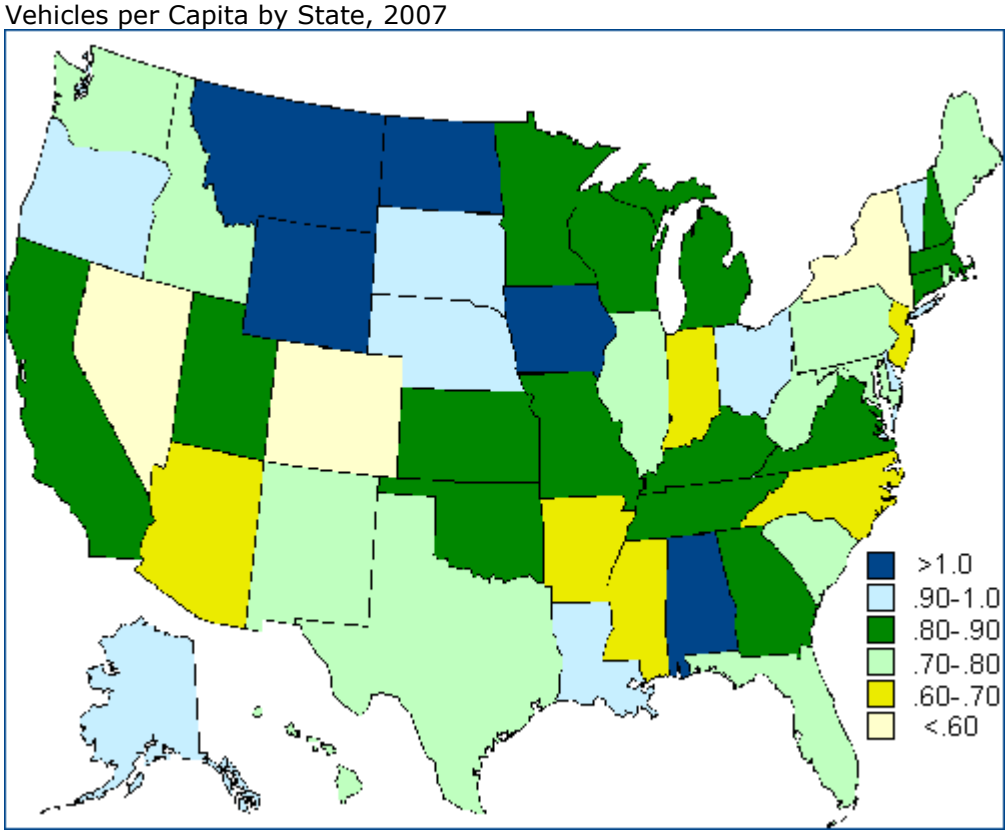
Average CAFE Standards for MY 2011 (Miles per Gallon)	
Cars	30.2
Light Trucks	24.1
Cars and Light Trucks Combined	27.3
Source: Federal Register, Vol. 74, No. 59, March 30, 2009.	

Fact of the Week

Fact #573: June 1, 2009
Vehicles per Capita by State

The number of vehicles per capita by state varies considerably, however, that variation among states does not hold to any clearly defined geographic regions or patterns. Wyoming has the highest number of vehicles per capita (1.14) while neighboring Colorado has the lowest (0.34). The number of vehicles per capita for the entire United States is 0.78 vehicles per capita.

Vehicles per Capita by State, 2007



Supporting Information

Vehicles per Capita by State, 2007	
State	**Light Vehicles per Capita**
Wyoming	1.14
Montana	1.12
North Dakota	1.08
Iowa	1.05
Alabama	1.03
Nebraska	1.00
Alaska	0.96
Delaware	0.95
South Dakota	0.95
Ohio	0.91
Vermont	0.91
Louisiana	0.91
Minnesota	0.87
Utah	0.87
Michigan	0.87
Washington	0.87
Oklahoma	0.86
Wisconsin	0.86
Connecticut	0.86
Kentucky	0.84
Tennessee	0.84
Virginia	0.84
California	0.84
Kansas	0.83
New Hampshire	0.83
Missouri	0.83
Georgia	0.82
Massachusetts	0.82
Maryland	0.79
Idaho	0.79
Maine	0.78
Oregon	0.77
South Carolina	0.77
New Mexico	0.77
Pennsylvania	0.76
Hawaii	0.76

West Virginia	0.75
Illinois	0.75
Rhode Island	0.73
Texas	0.72
Florida	0.71
Arkansas	0.70
New Jersey	0.69
Mississippi	0.68
North Carolina	0.67
Arizona	0.66
Indiana	0.61
New York	0.57
Nevada	0.50
Dist. of Columbia	0.35
Colorado	0.34
U.S. Total	0.78

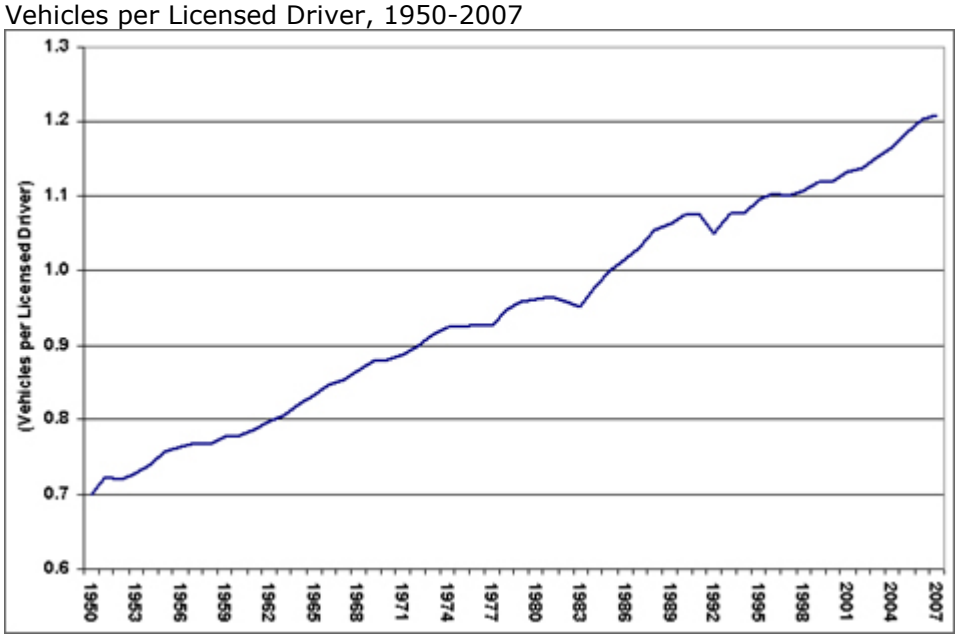
Source: Licensed drivers – U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2007*, Tables MV-1, MV-9, and PS-1.

Fact of the Week

Fact #574: June 8, 2009
Vehicles per Licensed Driver Rising

The number of vehicles in operation per licensed driver has risen steadily since 1950. In 1985, for the first time, there was one vehicle for every licensed driver. Since 1985, the number of vehicles in operation has exceeded the number of licensed drivers reaching a level of 1.21 vehicles per licensed driver in 2007.

Vehicles per Licensed Driver, 1950-2007



Supporting Information

Vehicles per Licensed Driver, 1950-2007	
Year	**Vehicles per Licensed Driver**
1950	0.70
1951	0.72
1952	0.72
1953	0.73
1954	0.74
1955	0.76
1956	0.76
1957	0.77
1958	0.77
1959	0.78
1960	0.78
1961	0.79
1962	0.80
1963	0.81
1964	0.82
1965	0.83
1966	0.85
1967	0.85
1968	0.86
1969	0.88
1970	0.88
1971	0.89
1972	0.90
1973	0.92
1974	0.92
1975	0.92
1976	0.93
1977	0.93
1978	0.95
1979	0.96
1980	0.96
1981	0.96
1982	0.96
1983	0.95
1984	0.98
1985	1.00
1986	1.02

1987	1.03
1988	1.05
1989	1.06
1990	1.07
1991	1.07
1992	1.05
1993	1.08
1994	1.08
1995	1.10
1996	1.10
1997	1.10
1998	1.11
1999	1.12
2000	1.12
2001	1.13
2002	1.14
2003	1.15
2004	1.16
2005	1.19
2006	1.20
2007	1.21

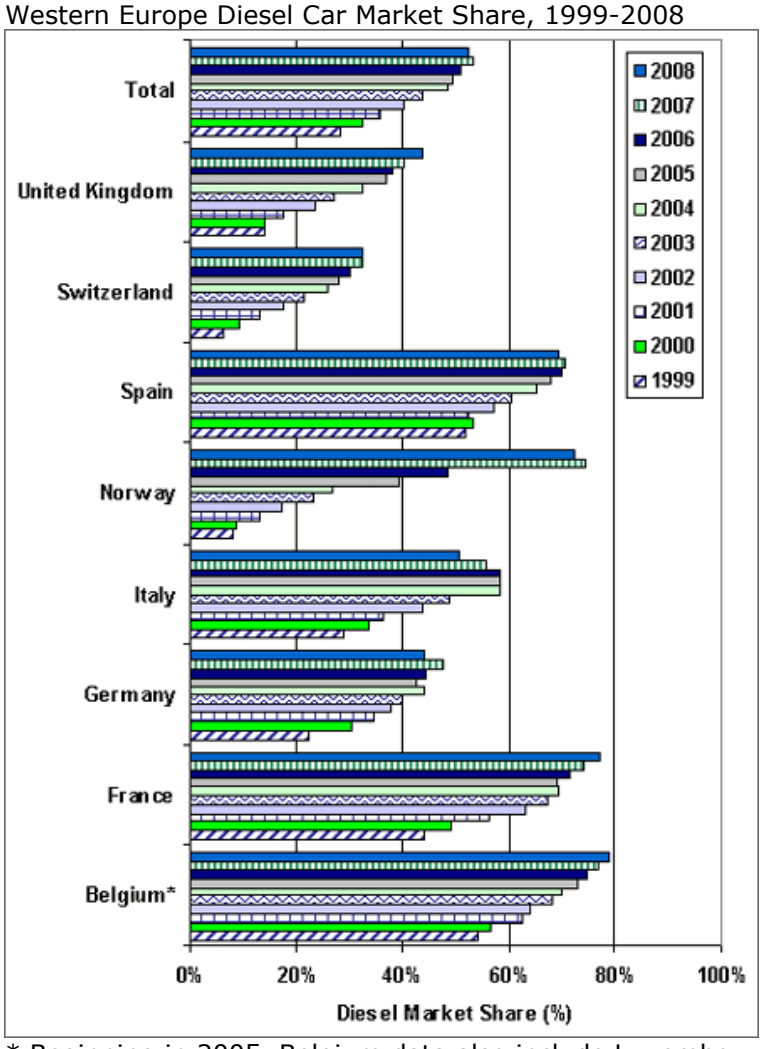
Source: Licensed drivers – U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2007*, Table DL-1C.
Number of vehicles – R.L. Polk and Company.

Fact of the Week

Fact #575: June 15, 2009
Diesel Car Sales in Europe Still Over 50% in 2008

More than half of all cars sold in Western Europe since 2006 are fueled by diesel. The overall share of diesel sales, however, declined slightly from 2007 to 2008. Belgium, France, and the United Kingdom continued the growth in diesel penetration, but many other European countries experienced a slight decline in the share of diesel cars sold in 2008.

Western Europe Diesel Car Market Share, 1999-2008



* Beginning in 2005, Belgium data also include Luxembourg.

Supporting Information

Western Europe Diesel Car Sales Shares, 1999-2008										
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**
Belgium*	54.3%	56.7%	62.6%	64.2%	68.3%	69.9%	72.9%	74.7%	76.9%	78.7%
France	44.1%	49.0%	56.2%	63.2%	67.4%	69.2%	69.1%	71.4%	73.9%	77.3%
Germany	22.4%	30.4%	34.6%	38.0%	39.8%	44.0%	42.7%	44.3%	47.7%	44.1%
Italy	29.1%	33.7%	36.6%	43.6%	48.7%	58.4%	58.5%	58.2%	55.7%	50.6%
Norway	8.2%	9.0%	13.3%	17.5%	23.2%	27.0%	39.2%	48.4%	74.4%	72.4%
Spain	51.7%	53.1%	52.5%	57.3%	60.4%	65.1%	67.8%	70.0%	70.8%	69.3%
Switzerland	6.6%	9.2%	13.3%	17.8%	21.5%	25.9%	28.1%	30.0%	32.5%	32.4%
United Kingdom	13.8%	14.1%	17.8%	23.5%	27.3%	32.5%	36.8%	38.3%	40.2%	43.6%
Total	28.4%	32.3%	36.0%	40.4%	43.6%	48.3%	49.5%	51.0%	53.3%	52.6%

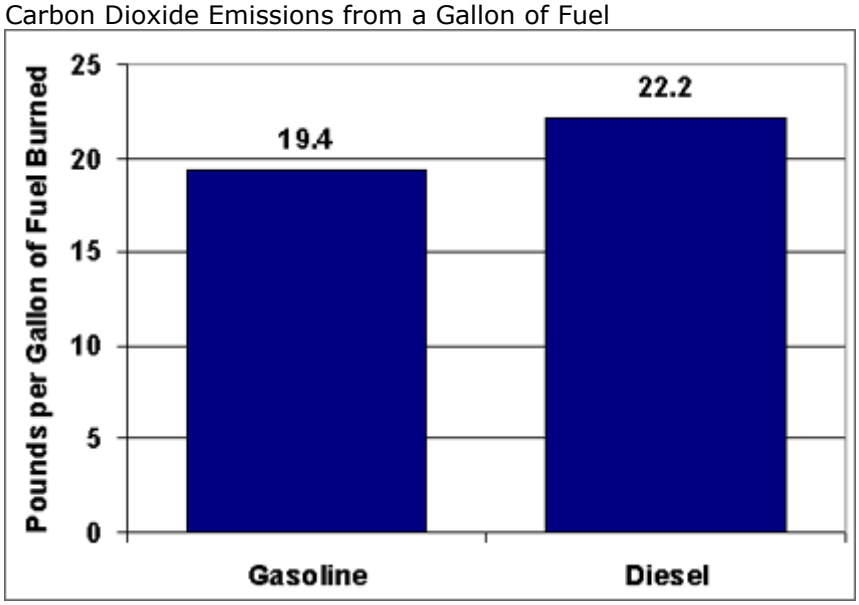
* Beginning in 2005, Belgium data also include Luxembourg.
Note: Total includes Austria, Belgium, Denmark, Eire, Finland, France, Germany, Greece, Iceland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.
Source: Automotive Industry Data Newsletter, Nos. 0102, 0302, 0501, 0602, 0702, 0714 and 0904.

Fact of the Week

Fact #576: June 22, 2009
Carbon Dioxide from Gasoline and Diesel Fuel

The amount of carbon dioxide released into the atmosphere by a vehicle is primarily determined by the carbon content of the fuel. However, there is a small portion of the fuel that is not oxidized into carbon dioxide when the fuel is burned. The Environmental Protection Agency (EPA) has published information on carbon dioxide emissions from gasoline and diesel which takes the oxidation factor into account and is based on the carbon content used in EPA's fuel economy analyses. Vehicles burning diesel fuel release more carbon dioxide per gallon than vehicles burning gasoline, but they also travel more miles per gallon burned.

Carbon Dioxide Emissions from a Gallon of Fuel



Supporting Information

Carbon Dioxide Emissions from a Gallon of Fuel	
Fuel	**Pounds per Gallon**
Gasoline	19.4
Diesel	22.2
Source: U.S. Environmental Protection Agency, "Emission Facts: Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel," February 2009.	

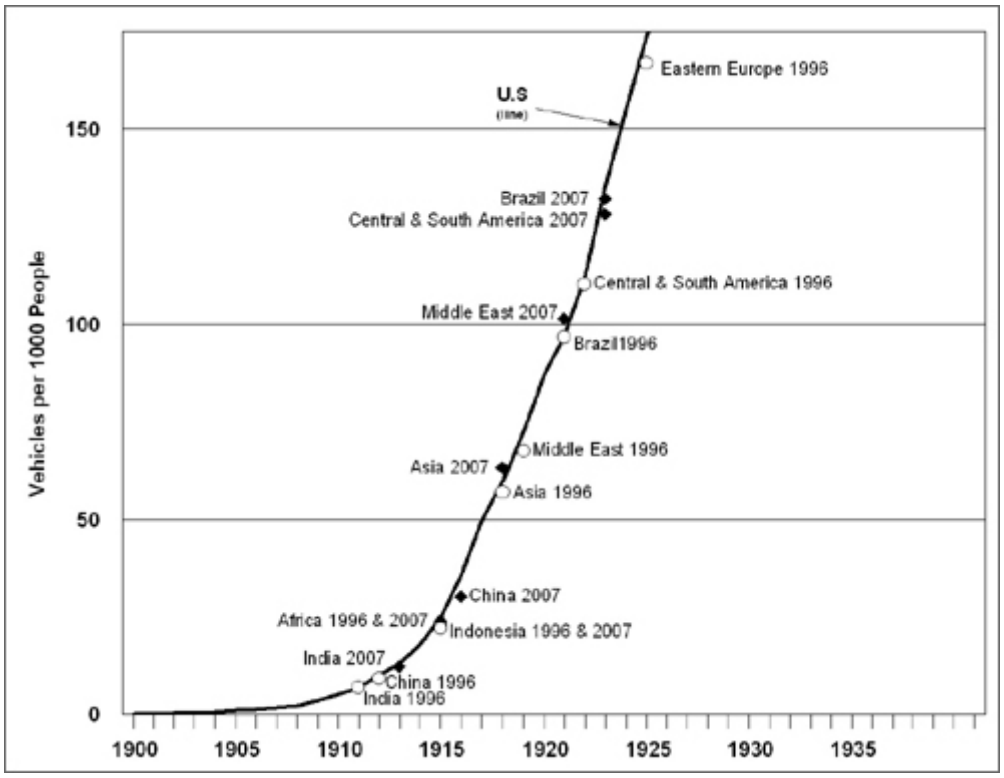
Fact of the Week

Fact #577: June 29, 2009
Changes in Vehicles per Capita around the World

The graphs below show the number of motor vehicles per thousand people for various countries. The data for the U.S. are displayed in the line which goes from 1900 to 2007. The points labeled on that line show data for the other countries/regions around the world and how their vehicles per thousand people compare to the U.S. at two different points in time, 1996 and 2007. For instance, the top graph shows that in 1996, Western Europe's vehicles per thousand people was about where the U.S. was in 1967, but by 2007 it is about where the U.S. was in 1972. The lower part of the graph (1900-1940) is shown enlarged below the first graph.

Africa's ratio stayed nearly the same over the ten year period. China's ratio more than tripled from 1996 to 2007.

Vehicles per Thousand People: U.S. (Over Time) Compared to Other Selected Countries (in 1996 and 2007)



Supporting Information

Other Countries' Vehicles per Thousand People, 1996 and 2007		
	Vehicles per 1000 People	
Country/Region	1996	2007
Africa	23.4	24.0
Asia, Far East	57.1	63.4
Asia, Middle East	67.8	101.4
Brazil	96.7	132.0
Canada	560.0	609.4
Central & South America	110.3	128.3
China	9.3	30.3
Europe, East	167.0	270.8
Europe, West	495.6	587.5
India	7.2	12.3
Indonesia	22.1	32.8
Pacific	459.8	541.1

U.S. Vehicles per Thousand People, 1900-2007					
Year	U.S. Vehicles per 1000 People	Year	U.S. Vehicles per 1000 People	Year	U.S. Vehicles per 1000 People
1900	0.11	1940	245.63	1980	709.14
1901	0.19	1941	261.57	1981	713.66
1902	0.29	1942	244.73	1982	712.34
1903	0.41	1943	225.89	1983	722.70
1904	0.67	1944	220.23	1984	726.59
1905	0.94	1945	221.80	1985	742.80
1906	1.27	1946	243.11	1986	751.71
1907	1.65	1947	262.56	1987	756.97
1908	2.24	1948	280.20	1988	771.27
1909	3.45	1949	299.56	1989	775.35
1910	5.07	1950	322.86	1990	771.82
1911	6.81	1951	335.18	1991	758.66
1912	9.90	1952	338.06	1992	756.84
1913	12.94	1953	350.96	1993	760.95
1914	17.79	1954	358.87	1994	766.04
1915	24.77	1955	377.80	1995	770.18
1916	35.48	1956	385.71	1996	780.37
1917	49.57	1957	390.30	1997	775.27
1918	59.69	1958	390.53	1998	780.46
1919	72.50	1959	401.25	1999	789.35
1920	86.78	1960	408.80	2000	800.34
1921	96.68	1961	413.53	2001	825.97
1922	111.53	1962	424.31	2002	816.08
1923	134.90	1963	436.99	2003	816.45
1924	154.35	1964	449.81	2004	829.94
1925	173.26	1965	465.03	2005	837.06
1926	189.10	1966	486.89	2006	840.51
1927	195.77	1967	497.50	2007	844.41
1928	204.87	1968	513.12		
1929	219.31	1969	529.97		
1930	217.34	1970	542.51		
1931	210.37	1971	560.19		
1932	195.38	1972	583.89		
1933	192.38	1973	613.59		
1934	199.90	1974	630.80		
1935	208.61	1975	638.56		
1936	222.62	1976	658.04		
1937	233.33	1977	667.57		
1938	229.65	1978	688.65		
1939	236.93	1979	698.90		

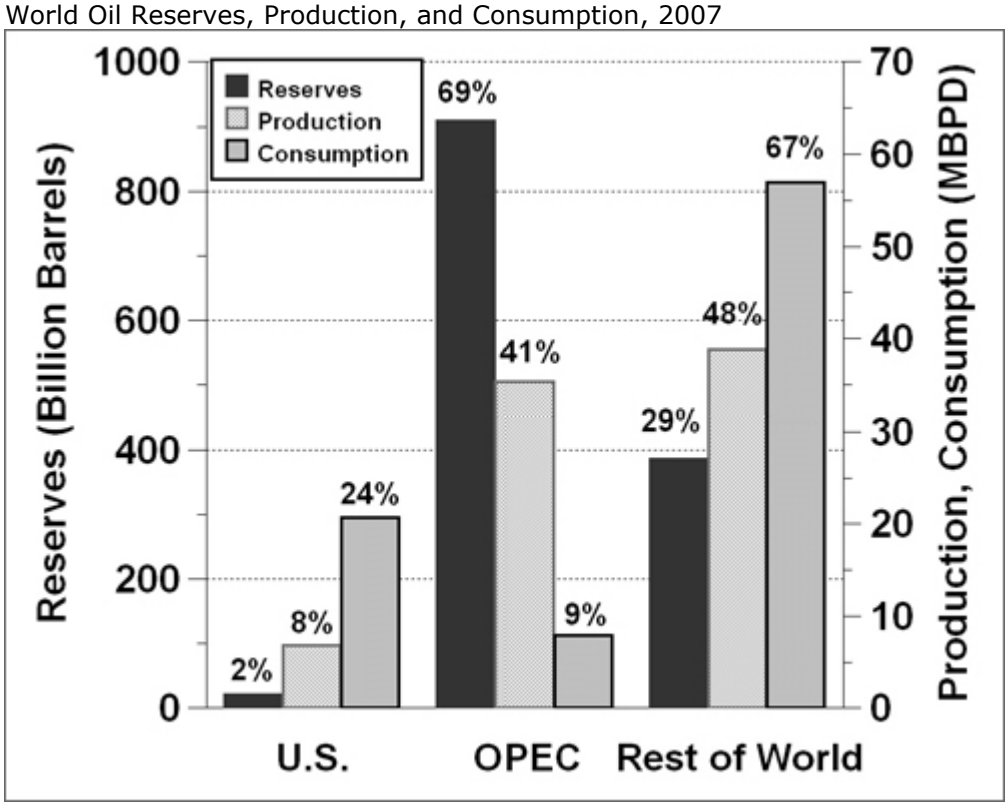
Source: Oak Ridge National Laboratory, *Transportation Energy Data Book: Edition 28*, Figure 3.1, June 2009.

Fact of the Week

Fact #578: July 6, 2009
World Oil Reserves, Production, and Consumption, 2007

The United States was responsible for 8% of the world's petroleum production, held 2% of the world's crude oil reserves, and consumed 24% of the world's petroleum consumption in 2007. The Organization for Petroleum Exporting Countries (OPEC) held 69% of the world's crude oil reserves and produced 41% of world petroleum.

World Oil Reserves, Production, and Consumption, 2007



Supporting Information

World Oil Reserves, Production, and Consumption, 2007

	Crude oil reserves (billion barrels)	Reserve share	Petroleum production (million barrels per day)	Production share	Petroleum consumption (million barrels per day)	Consumption share
United States	21.0	2%	6.8	8%	20.7	24%
OPEC	908.9	69%	35.3	41%	7.9	9%
Rest of world	386.8	29%	38.8	48%	57.0	67%

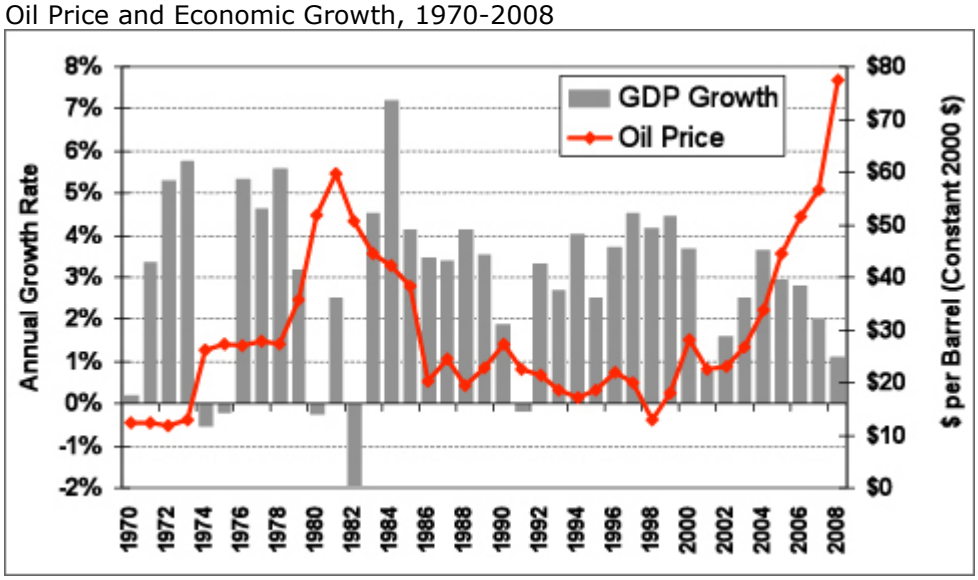
Note: Total consumption is higher than total production due to refinery gains including alcohol and liquid products produced from coal and other sources.
OPEC countries include Venezuela, Iran, Iraq, Kuwait, Qatar, Saudi Arabia, United Arab Emirates, Algeria, Libya, Nigeria, Indonesia, Gabon, and Ecuador. OPEC consumption data are for 2005.
Source: Oak Ridge National Laboratory, *Transportation Energy Data Book: Edition 28*, Figure 3.1, June 2009.

Fact of the Week

Fact #579: July 13, 2009
Oil Price and Economic Growth, 1970-2008

Major oil price shocks have disrupted world energy markets five times in the past 30 years – 1973-74, 1979-80, 1990-1991, 1999-2000 and again in 2008. Most of the oil price shocks were followed by an economic recession in the U.S.

Oil Price and Economic Growth, 1970-2008



Supporting Information

Oil Price and Economic Growth, 1970-2008		
Year	Gross Domestic Product Growth Rate	Oil Price 2008 constant dollars per barrel
1970	0.17%	$12.35
1971	3.36%	$12.45
1972	5.29%	$11.87
1973	5.76%	$13.03
1974	-0.50%	$26.12
1975	-0.19%	$27.31
1976	5.33%	$27.09
1977	4.62%	$27.98
1978	5.57%	$27.23
1979	3.16%	$35.76
1980	-0.23%	$51.94
1981	2.52%	$59.61
1982	-1.94%	$50.81
1983	4.52%	$44.46
1984	7.19%	$42.32
1985	4.13%	$38.37
1986	3.47%	$20.42
1987	3.38%	$24.45
1988	4.13%	$19.38
1989	3.54%	$22.88
1990	1.88%	$27.23
1991	-0.17%	$22.57
1992	3.33%	$21.33
1993	2.67%	$18.57
1994	4.02%	$17.27
1995	2.50%	$18.71
1996	3.70%	$22.07
1997	4.50%	$19.96
1998	4.18%	$12.98
1999	4.45%	$17.89
2000	3.66%	$28.26
2001	0.75%	$22.41
2002	1.60%	$23.13
2003	2.51%	$26.81
2004	3.64%	$33.78
2005	2.94%	$44.45
2006	2.78%	$51.63
2007	2.03%	$56.70
2008	1.11%	$77.38

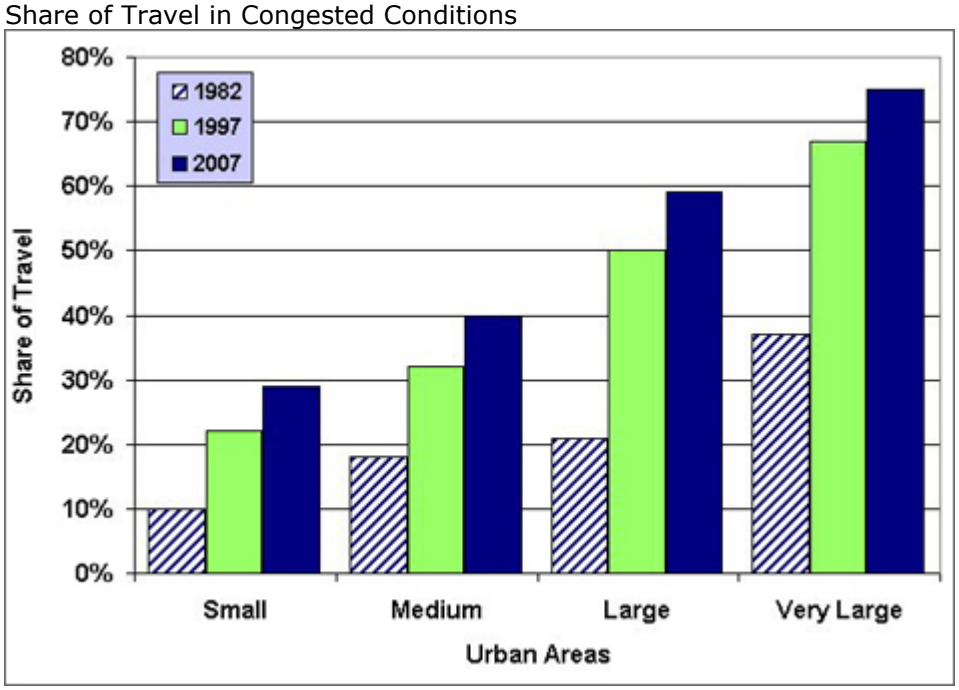
Source: Oak Ridge National Laboratory, *Transportation Energy Data Book: Edition 28*, Figure 3.1, June 2009.

Fact of the Week

Fact #580: July 20, 2009
Traffic Congestion Grows

According to the Texas Transportation Institute's latest study on traffic congestion, two of every three cars experienced congestion in their morning or evening trip in 2007. As expected, traffic congestion is worse in very large urban areas, but congestion has grown in small areas, too. The share of travel in congested conditions has more than doubled from 1982 to 2007 for each of the urban areas shown.

Share of Travel in Congested Conditions



Supporting Information

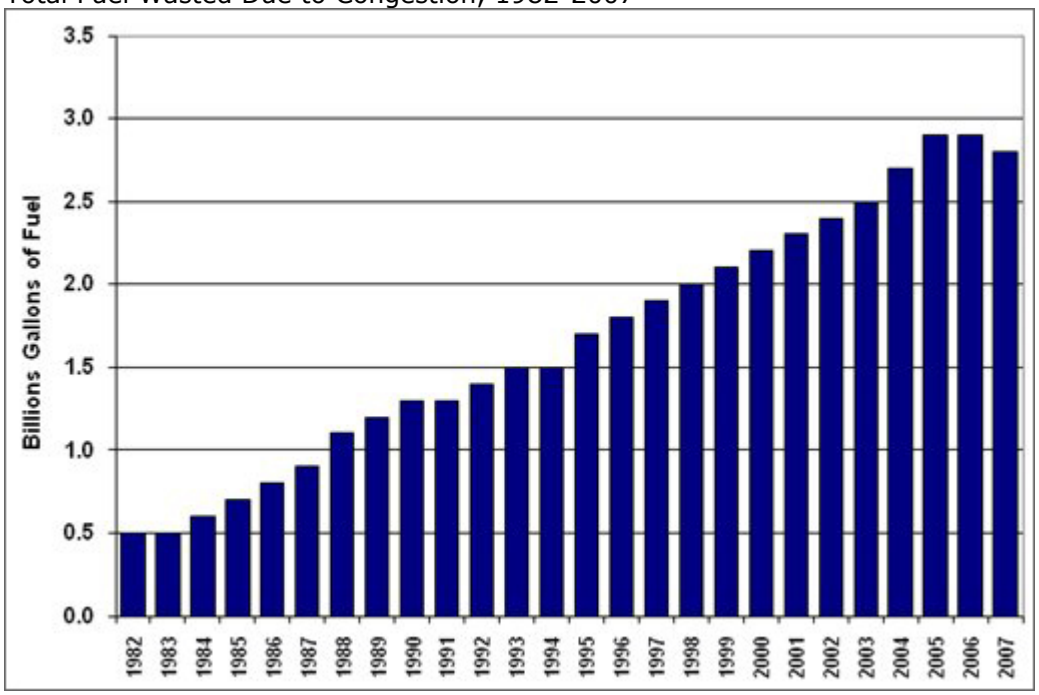
Travel in Congested Conditions, 1982, 1997, and 2007			
	Percent of Travel		
Urban Area	**1982**	**1997**	**2007**
Small	10%	22%	29%
Medium	18%	32%	40%
Large	21%	50%	59%
Very Large	37%	67%	75%
Source: Texas Transportation Institute, *2009 Urban Mobility Report*, July 2009.			

Fact of the Week

Fact #581: July 27, 2009
Fuel Wasted in Traffic Congestion

The researchers at the Texas Transportation Institute have recently published new estimates of the effects of traffic congestion. Nearly 3 billion gallons of fuel is wasted each year due to traffic congestion. In 2007, the amount of wasted fuel declined slightly due to an overall decline in vehicle miles traveled when fuel prices skyrocketed. The wasted fuel amounts to 1.6% of total highway fuel use in 2007.

Total Fuel Wasted Due to Congestion, 1982-2007



Supporting Information

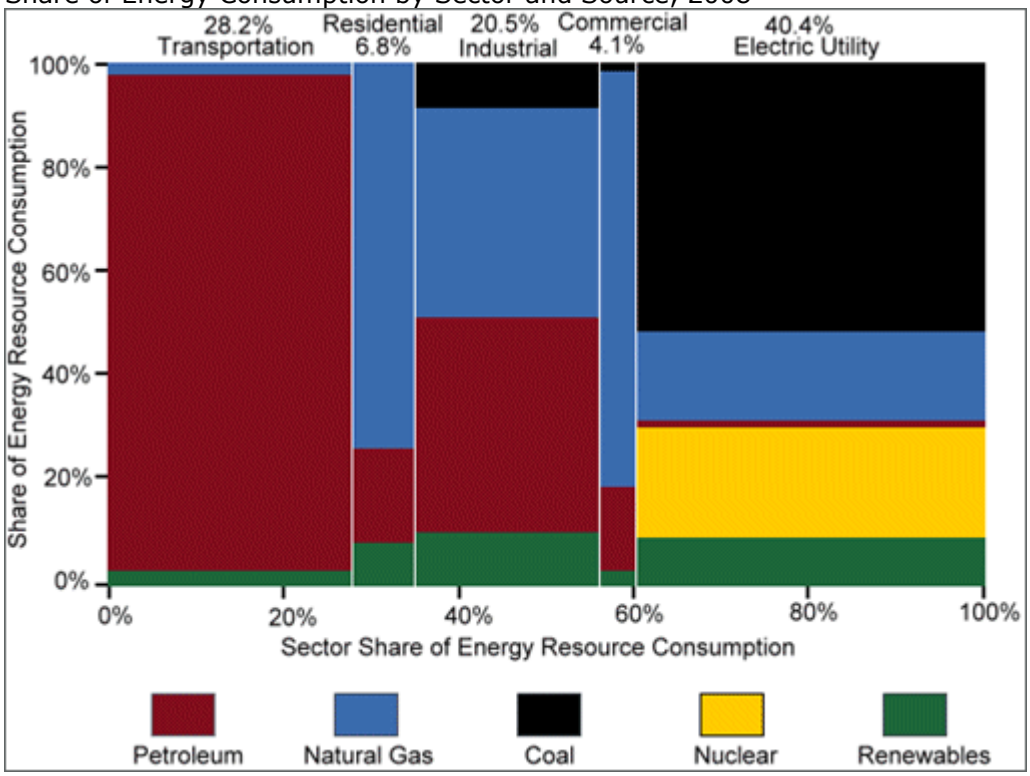
Total Fuel Wasted Due to Congestion, 1982-2007		
Year	Billion Gallons of Fuel Wasted	Wasted Share of Total Highway Fuel Use
1982	0.5	0.4%
1983	0.5	0.4%
1984	0.6	0.5%
1985	0.7	0.6%
1986	0.8	0.6%
1987	0.9	0.7%
1988	1.1	0.8%
1989	1.2	0.9%
1990	1.3	1.0%
1991	1.3	1.0%
1992	1.4	1.1%
1993	1.5	1.1%
1994	1.5	1.1%
1995	1.7	1.2%
1996	1.8	1.2%
1997	1.9	1.3%
1998	2.0	1.3%
1999	2.1	1.3%
2000	2.2	1.4%
2001	2.3	1.4%
2002	2.4	1.4%
2003	2.5	1.5%
2004	2.7	1.6%
2005	2.9	1.6%
2006	2.9	1.7%
2007	2.8	1.6%
Source: Texas Transportation Institute, *2009 Urban Mobility Report*, July 2009.		

Fact of the Week

Fact #582: August 3, 2009
Energy Shares by Sector and Source

The transportation sector consumed about 28% of U.S. energy in 2008, nearly all of it (95%) in petroleum use. The industrial sector used about 40% petroleum and 40% natural gas. The electric utility sector used little petroleum, but was dependent on coal for more than half of the energy it consumed. Renewables, such as biofuels for transportation, were being used in every sector in 2008.

Share of Energy Consumption by Sector and Source, 2008



Supporting Information

Share of Energy Consumption by Sector and Source, 2008					
	Transportation	**Residential**	**Commercial**	**Industrial**	**Electric Utility**
	Total Energy Share				
Total	28.2%	6.8%	4.1%	20.5%	40.5%
	Energy Share by Source				
Coal	0.0%	0.1%	1.8%	8.8%	51.5%
Natural Gas	2.4%	73.6%	79.4%	40.0%	17.0%
Petroleum	94.6%	18.2%	16.0%	40.9%	1.2%
Renewables	3.0%	8.2%	2.8%	10.3%	9.2%
Nuclear	0.0%	0.0%	0.0%	0.0%	21.1%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

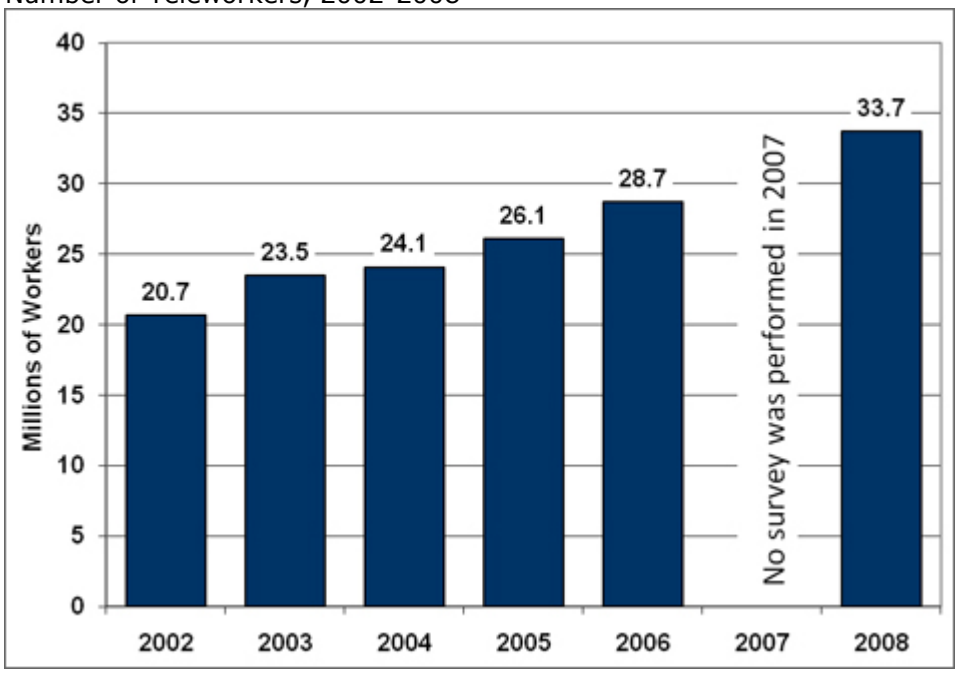
Source: U.S. Department of Energy, *2008 Vehicle Technologies Market Report* (PDF 1.8 MB), July Report. Download Adobe Reader.

Fact of the Week

Fact #583: August 10, 2009
Teleworking Trends

The number of teleworkers – people who work at least one day per month from home – increased to nearly 34 million workers in 2008. The year the survey began (2002) there were only 20 million teleworkers.

Number of Teleworkers, 2002-2008



Supporting Information

Number of Teleworkers, 2002-2008	
Year	**Millions of Workers**
2002	20.7
2003	23.5
2004	24.1
2005	26.1
2006	28.7
2007	Not available
2008	33.7

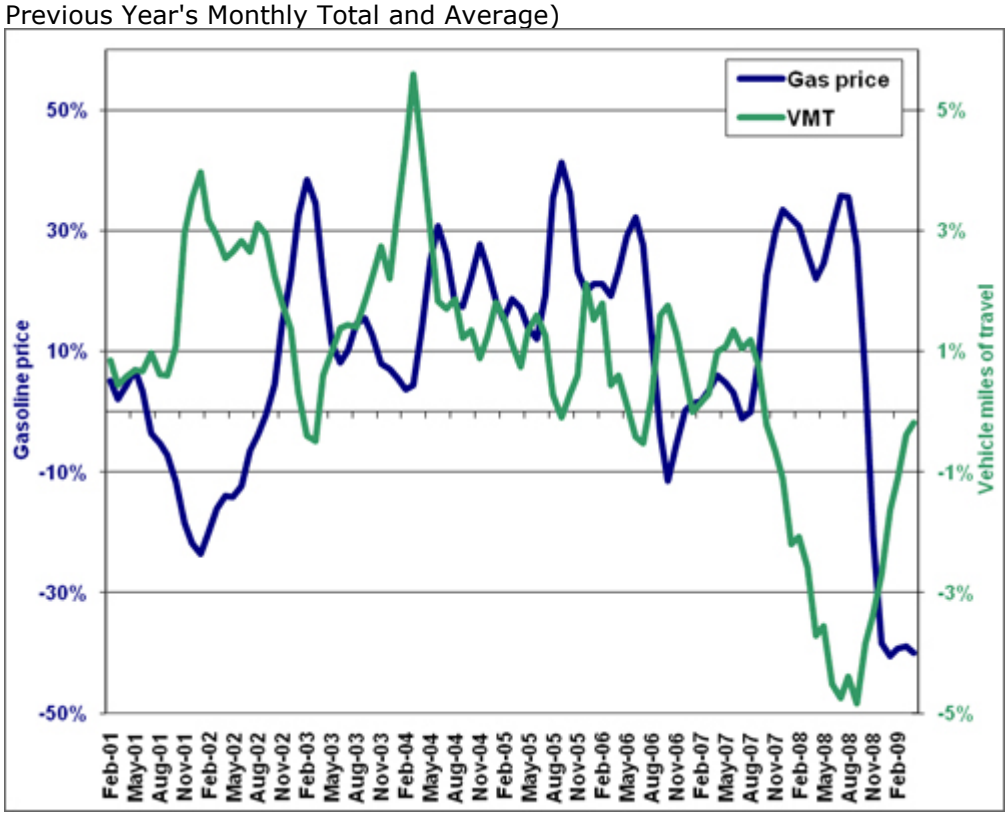
Note: No survey was performed in 2007.
Source: WorldatWork, *Telework Trendlines 2009 Survey Brief*, February 2009.

Fact of the Week

Fact #584: August 17, 2009
The Price of Gasoline and Vehicle Travel: How Do They Relate?

The price of gasoline is one factor that can have an effect on the number of highway vehicle miles traveled (VMT). The graph below shows a three-month moving average of the percentage change of monthly data from one year to the next (i.e., February 2001 data were compared with February 2000 data).

Vehicle Travel and Gasoline Price (Three-month Moving Average of the Percent Change from Previous Year's Monthly Total and Average)



Supporting Information

Percent Change from Previous Year's Monthly Total and Average		
	3-month moving average	
Month-Year	Gas Price	Vehicle Travel
Feb-01	5.1%	0.9%
Mar-01	2.1%	0.4%
Apr-01	4.4%	0.6%
May-01	6.9%	0.7%
Jun-01	3.3%	0.7%
Jul-01	-3.7%	1.0%
Aug-01	-5.2%	0.6%
Sep-01	-7.1%	0.6%
Oct-01	-11.5%	1.1%
Nov-01	-18.5%	3.0%
Dec-01	-21.8%	3.5%
Jan-02	-23.5%	4.0%
Feb-02	-20.2%	3.2%
Mar-02	-16.0%	2.9%
Apr-02	-14.0%	2.5%
May-02	-14.1%	2.6%
Jun-02	-12.3%	2.8%
Jul-02	-6.5%	2.7%
Aug-02	-4.0%	3.1%
Sep-02	-0.3%	2.9%
Oct-02	4.6%	2.2%
Nov-02	14.8%	1.8%
Dec-02	22.4%	1.4%
Jan-03	32.6%	0.3%
Feb-03	38.5%	-0.4%
Mar-03	34.7%	-0.5%
Apr-03	22.4%	0.6%
May-03	11.4%	1.0%
Jun-03	8.1%	1.4%
Jul-03	10.1%	1.4%
Oct-05	36.2%	0.3%
Nov-05	23.3%	0.6%
Dec-05	19.9%	2.1%
Jan-06	21.2%	1.5%
Feb-06	21.2%	1.8%

Mar-06	19.2%	0.4%
Apr-06	23.3%	0.6%
May-06	29.3%	0.1%
Jun-06	32.2%	-0.4%
Jul-06	27.6%	-0.5%
Aug-06	12.4%	0.2%
Sep-06	-3.6%	1.6%
Oct-06	-11.4%	1.8%
Nov-06	-5.3%	1.3%
Dec-06	0.2%	0.6%
Jan-07	1.3%	0.0%
Feb-07	1.7%	0.1%
Mar-07	3.5%	0.3%
Apr-07	6.0%	1.0%
May-07	4.9%	1.1%
Jun-07	3.2%	1.4%
Jul-07	-1.1%	1.0%
Aug-07	-0.1%	1.2%
Sep-07	8.0%	0.8%
Oct-07	22.5%	-0.2%
Nov-07	29.8%	-0.6%
Dec-07	33.4%	-1.1%
Jan-08	32.0%	-2.2%
Feb-08	30.8%	-2.1%
Mar-08	26.2%	-2.6%
Apr-08	22.1%	-3.7%
May-08	24.6%	-3.6%
Jun-08	30.5%	-4.5%
Jul-08	35.8%	-4.7%
Aug-08	35.6%	-4.4%
Sep-08	27.4%	-4.8%
Oct-08	5.4%	-3.8%
Nov-08	-20.1%	-3.4%
Dec-08	-38.4%	-2.7%
Jan-09	-40.6%	-1.6%
Feb-09	-39.3%	-1.1%
Mar-09	-39.0%	-0.4%
Apr-09	-40.1%	-0.2%

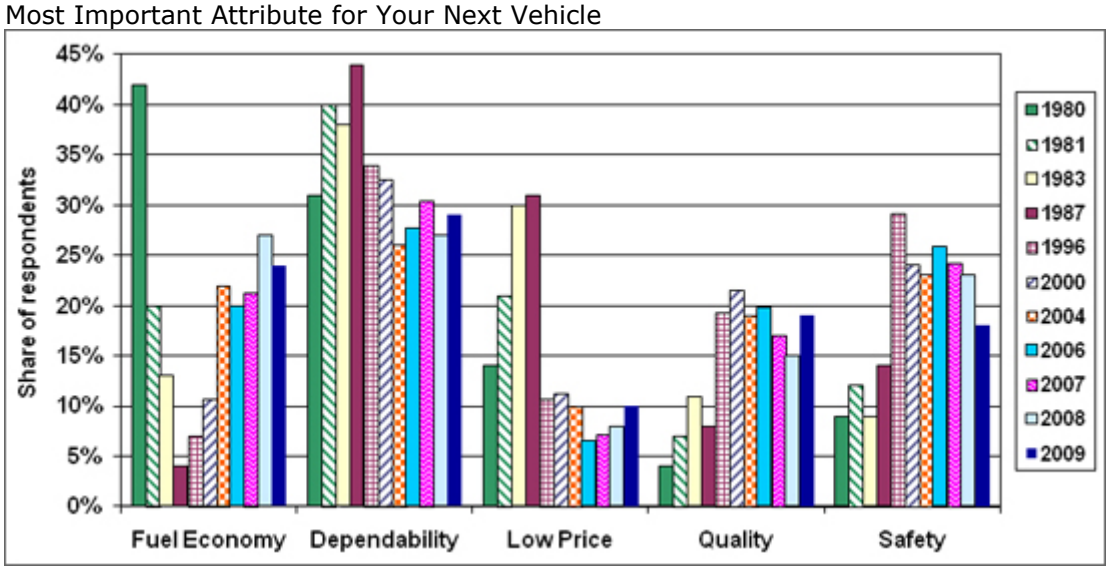
Source: VMT: U.S. Department of Transportation, Office of Highway Policy Information, *Traffic Volume Trends*, Table 1.
Gasoline Price: Energy Information Administration, *Monthly Energy Review*, Table 9.2.

Fact of the Week

Fact #585: August 24, 2009
Trends in Vehicle Attribute Preference

"Which one of the following attributes would be MOST important to you in your choice of your next vehicle?" was the question asked in an August 2009 survey. The choices were dependability, safety, fuel economy, quality, and low price. This same question was asked in previous surveys and the results are compared in the graph below. Dependability was chosen most often in nearly every survey. In 2009, 24% of the survey respondents indicated that fuel economy would be the most important vehicle attribute, while 29% of respondents chose dependability. Quality was chosen by 15% in 2008, but that rose to 19% in 2009.

Most Important Attribute for Your Next Vehicle



Supporting Information

Q: Which one of the following attributes would be most important in your choice of your next vehicle?					
Year	**Fuel Economy**	**Dependability**	**Low Price**	**Quality**	**Safety**
1980	42%	31%	14%	4%	9%
1981	20%	40%	21%	7%	12%
1983	13%	38%	30%	11%	9%
1985	8%	41%	29%	12%	10%
1987	4%	44%	31%	8%	14%
1996	7%	34%	11%	19%	29%
2000	11%	33%	11%	22%	24%
2001	11%	30%	8%	22%	30%
2004	22%	26%	10%	19%	23%
2005	12%	33%	7%	21%	28%
2006	20%	28%	7%	20%	26%
2007	21%	30%	7%	17%	24%
2008	27%	27%	8%	15%	23%
2009	24%	29%	10%	19%	18%

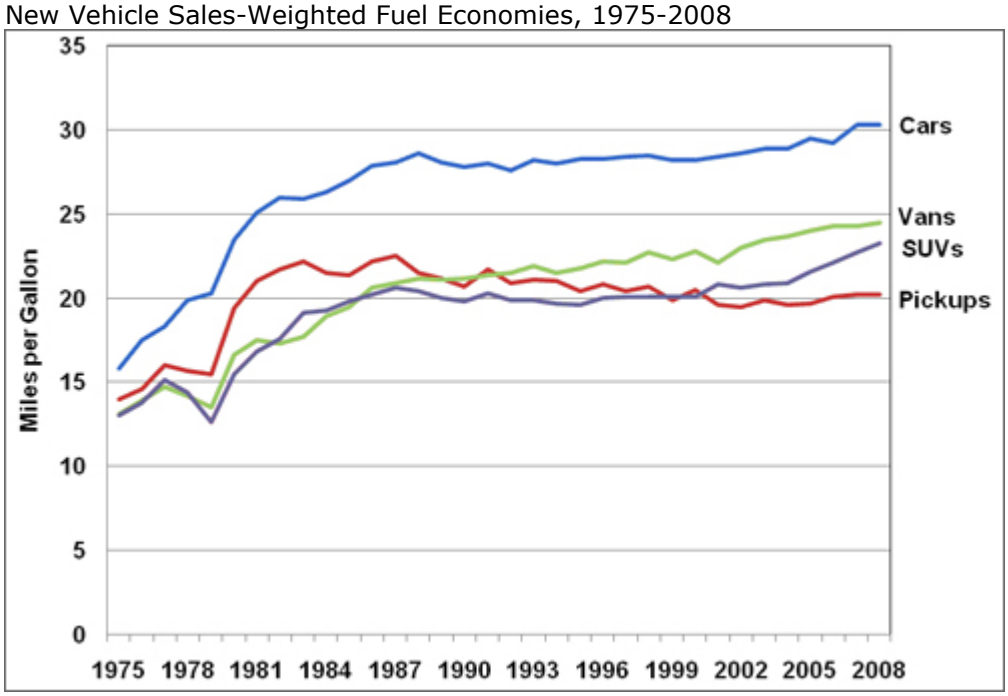
Source:
For 1980-87: J. D. Power (data based on new car buyers).
For 1996: Opinion Research Corporation International for NREL, Study # 70550, December 12, 1996.
For 2000: Opinion Research Corporation International for NREL, Study # 709318, August 3 – 6, 2000, N = 1,013.
For 2001: Opinion Research Corporation International for NREL, Study # 710288, July 12, 2001, N = 1,004.
For 2004: Opinion Research Corporation International for NREL, Study # 713228, May 27, 2004, N=949.
For 2005: Opinion Research Corporation International for NREL, Study # 714209, May 20, 2005, N=1012.
For 2006: Opinion Research Corporation International for NREL, Study # 715238, June 8, 2006, N=1,007.
For 2007: Opinion Research Corporation International for NREL, Study # 716328, August 9, 2007, N=1010.
For 2008: Opinion Research Corporation International for NREL, Study # 717318, August 3, 2008, N=1,005.
For 2009: Opinion Research Corporation International for NREL, Study # 718339, August 14-17, 2009, N=1003.

Fact of the Week

Fact #586: August 31, 2009
New Vehicle Fuel Economies by Vehicle Type

The average fuel economy for new cars climbed to over 30 miles per gallon (mpg) in 2008 while the average for new pickup trucks stayed around 20 mpg. For new vans and sport utility vehicles (SUVs) the average fuel economy has noticeably increased in the last few years. These data are weighted by the number of vehicles sold.

New Vehicle Sales-Weighted Fuel Economies, 1975-2008



Note: Data are EPA Laboratory test values (unadjusted).

Supporting Information

Sales-Weighted Fuel Economies of New Light Vehicles, 1975-2008				
Model Year	**Cars**	**Pickup trucks**	**Vans**	**Sport Utility Vehicles**
1975	15.8	14.0	13.1	13.0
1976	17.5	14.6	13.9	13.8
1977	18.3	16.0	14.7	15.1
1978	19.9	15.7	14.2	14.4
1979	20.3	15.5	13.5	12.6
1980	23.5	19.4	16.6	15.5
1981	25.1	21.0	17.5	16.8
1982	26.0	21.7	17.3	17.6
1983	25.9	22.2	17.7	19.1
1984	26.3	21.5	18.9	19.3
1985	27.0	21.4	19.5	19.8
1986	27.9	22.2	20.6	20.2
1987	28.1	22.5	20.9	20.6
1988	28.6	21.5	21.2	20.4
1989	28.1	21.2	21.1	20.0
1990	27.8	20.7	21.2	19.8
1991	28.0	21.7	21.4	20.3
1992	27.6	20.9	21.5	19.9
1993	28.2	21.1	21.9	19.9
1994	28.0	21.0	21.5	19.7
1995	28.3	20.4	21.8	19.6
1996	28.3	20.8	22.2	20.0
1997	28.4	20.4	22.1	20.1
1998	28.5	20.7	22.7	20.1
1999	28.2	19.9	22.3	20.1
2000	28.2	20.5	22.8	20.1
2001	28.4	19.6	22.1	20.8
2002	28.6	19.5	23.0	20.6
2003	28.9	19.9	23.5	20.8
2004	28.9	19.6	23.7	20.9
2005	29.5	19.7	24.0	21.6
2006	29.2	20.1	24.3	22.1
2007	30.3	20.2	24.3	22.7
2008	30.3	20.2	24.5	23.3

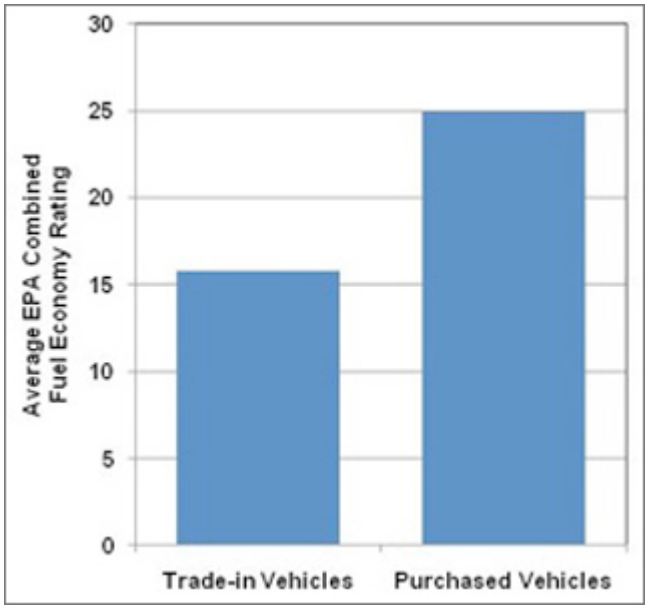
Note: Data are EPA Laboratory test values (unadjusted).
Source: U.S. Environmental Protection Agency, *Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2008*, September 2008.

Fact of the Week

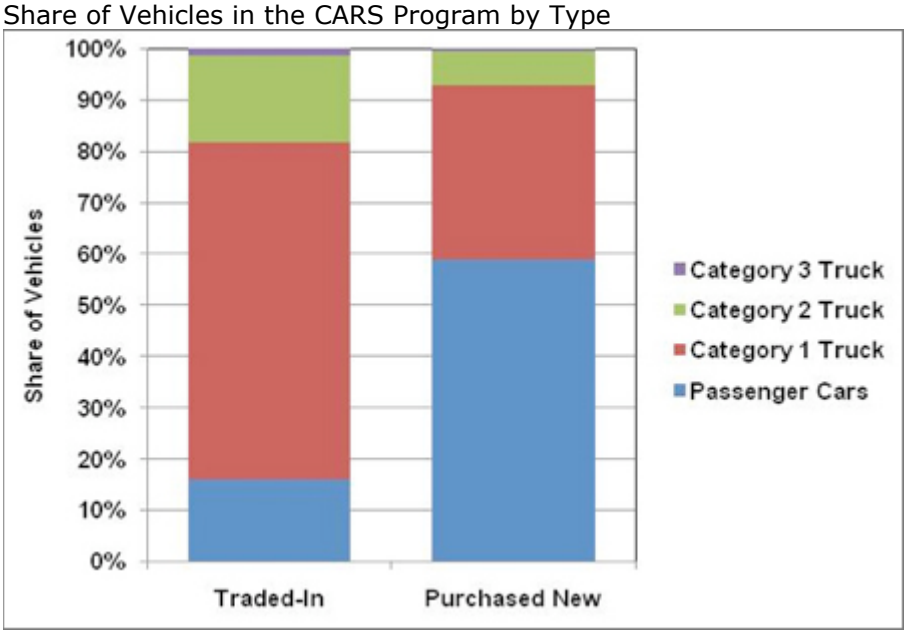
Fact #587: September 7, 2009
Cash for Clunkers Program – Fuel Economy Improvement

The Car Allowance Rebate System (CARS), also known as the Cash for Clunkers Program, provided Federal rebate money for consumers who traded old vehicles with an EPA combined fuel economy of 18 miles per gallon or less for brand new vehicles with improved fuel economy. The program was active from July 1 to August 24, 2009 and about 685,000 vehicles were traded. The average fuel economy for traded vehicles was 15.8 miles per gallon (mpg), while the average for the newly purchased vehicles was 24.9 mpg – a 58% improvement. The majority of vehicles traded were trucks (84%), but the vehicles purchased were mostly passenger cars (59%). The four-wheel drive Ford Explorer was the top trade-in vehicle, while the Toyota Camry was the top vehicle purchased.

Average Fuel Economy for Vehicles in the CARS Program



Share of Vehicles in the CARS Program by Type



Supporting Information

Average Fuel Economy for Vehicles in the CARS Program

	Miles per Gallon
Trade-in Vehicles	15.8
Purchased Vehicles	24.9

Note: Based on EPA combined fuel economy ratings.
Source: U.S. Department of Transportation, Press Release, Wednesday, August 26, 2009, DOT 133-09.

Share of Vehicles in the CARS Program by Type

Vehicle Type	Traded-in	Purchased New
Passenger Cars	16.0%	59.0%
Category 1 Truck	65.8%	33.8%
Category 2 Truck	17.1%	6.8%
Category 3 Truck	1.2%	0.4%
Total	100.0%	100.0%

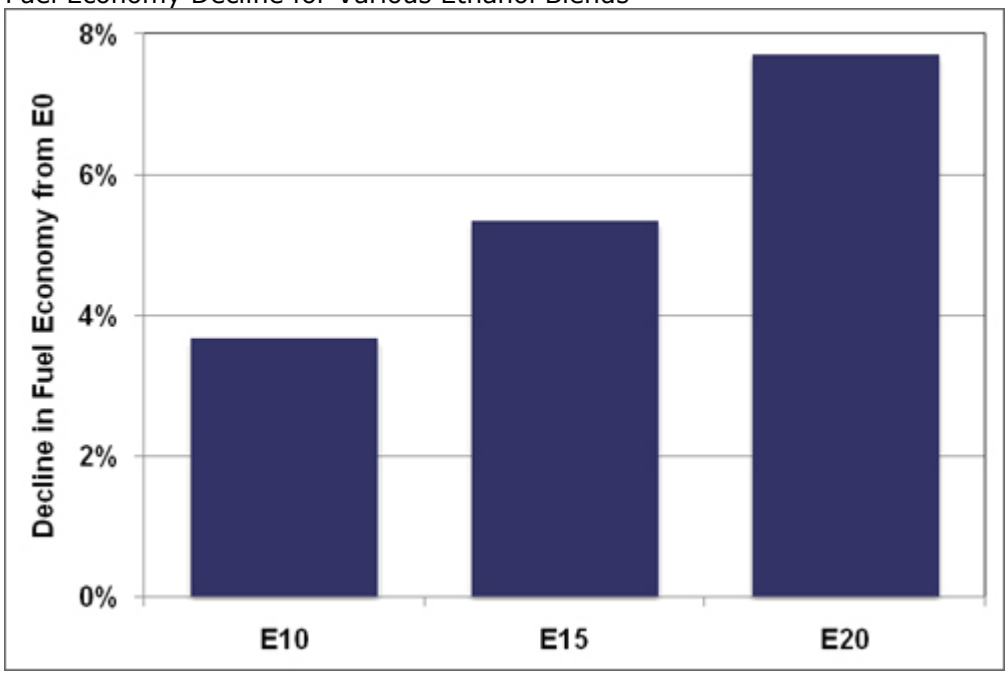
Source: U.S. Department of Transportation, Press Release, Wednesday, August 26, 2009, DOT 133-09.

Fact of the Week

Fact #588: September 14, 2009
Fuel Economy Changes Due to Ethanol Content

The fuel economy of a vehicle is dependent on many things, one of which is the fuel used in the vehicle. Two National Laboratories recently studied the effects that ethanol blends have on the fuel economy of light vehicles. The results are not surprising, since a gallon of ethanol does not have as much energy as a gallon of gasoline. A blend of gasoline with 10% ethanol (E10) will result in a 3.7% decline in fuel economy over gasoline without ethanol (E0), while a blend of gasoline with 20% ethanol (E20) results in a 7.7% decline in fuel economy over E0.

Fuel Economy Decline for Various Ethanol Blends



Supporting Information

Decline in Fuel Economy due to Ethanol Blends		
Fuel	**Share of Ethanol in Gasoline**	**Fuel Economy Loss**
E0	0% ethanol	0.0%
E10	10% ethanol	3.7% from E0
E15	15% ethanol	5.3% from E0
E20	20% ethanol	7.7% from E0

Source: Oak Ridge National Laboratory and National Renewable Energy Laboratory, *Effects of Intermediate Ethanol Blends on Legacy Vehicles and Small Non-Road Engines, Report 1 – Updated*, February 2009, Table 3.1 (PDF 1.4 MB). Download Adobe Reader.

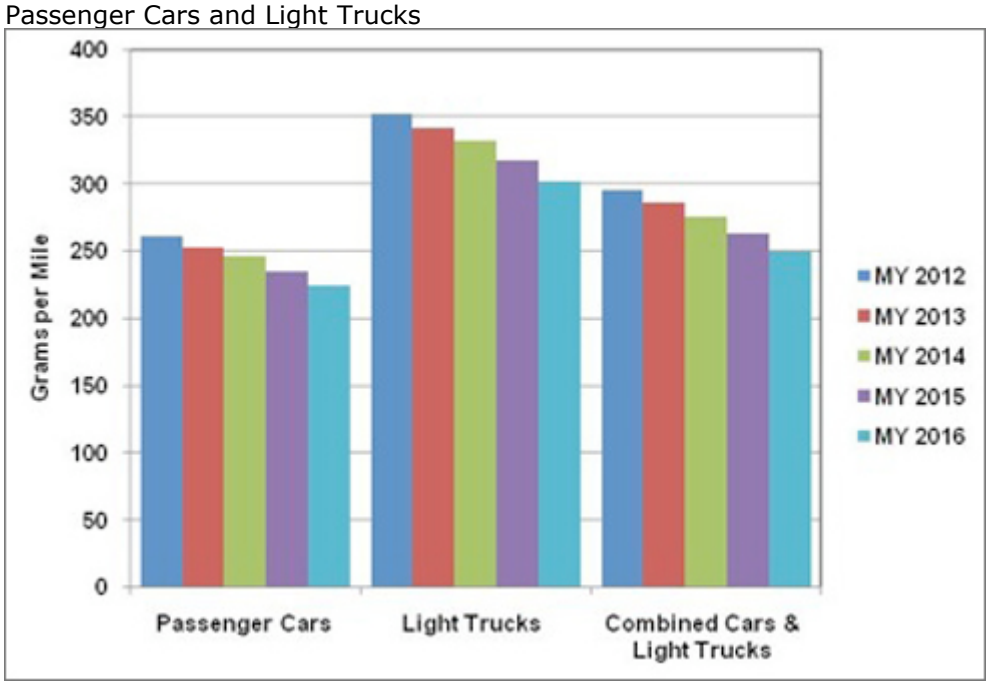
Fact of the Week

Fact #589: September 21, 2009
Proposed Fuel Economy and Greenhouse Gas Emissions Standards

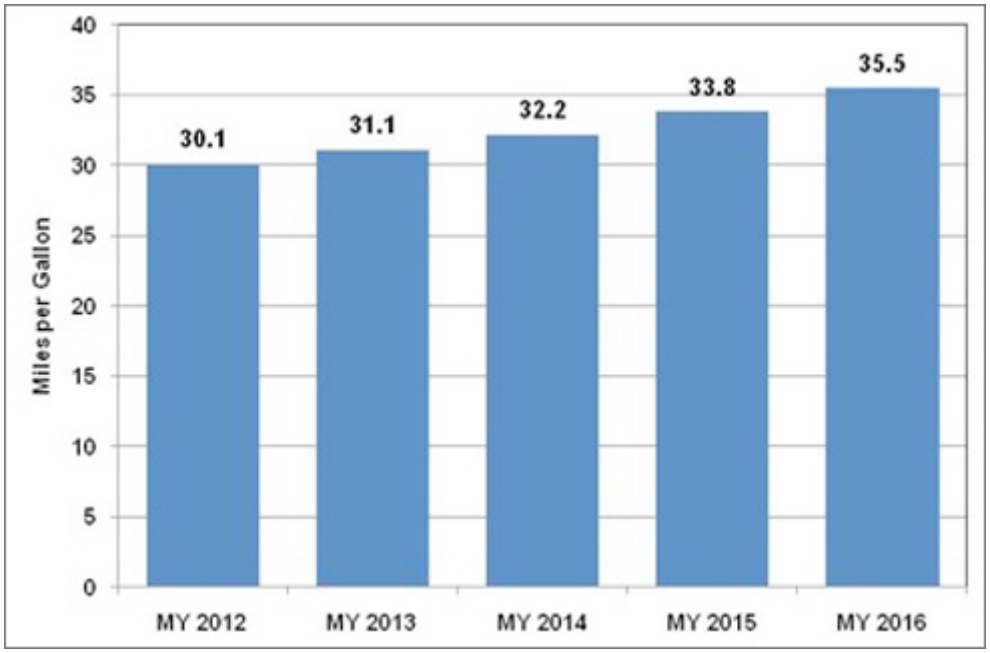
On September 15, the U.S. Environmental Protection Agency (EPA) and U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) jointly announced a proposal to establish national standards for greenhouse gas (GHG) emissions and Corporate Average Fuel Economy (CAFE). The standards would apply to model year 2012 – 2016 passenger cars and light trucks and are based on the vehicle footprint, which is related to the vehicle size. Thus, the standards for vehicles with a large footprint would be different than for a vehicle with a smaller footprint.

The proposal and information about how to submit comments on the proposed standards can be found on both EPA and NHTSA websites.

Projected Emissions Compliance Levels under the Proposed Carbon Dioxide Standards for Passenger Cars and Light Trucks



Projected Fuel Economy Levels under the Proposed Standards for Passenger Cars and Light Trucks Combined



Note: Greenhouse gases other than carbon dioxide are dealt with separately in the proposed rules.

Supporting Information

Projected Fleet-Wide Emissions Compliance Levels under the Proposed Carbon Dioxide Standards and Corresponding Fuel Economy

Model Year	2012	2013	2014	2015	2016
Passenger Cars (grams/mile)	261	253	246	235	224
Light Trucks (grams/mile)	352	341	332	317	302
Combined Cars & Trucks (grams/mile)	295	286	276	263	250
Combined Cars & Trucks (miles per gallon)	30.1	31.1	32.2	33.8	35.5

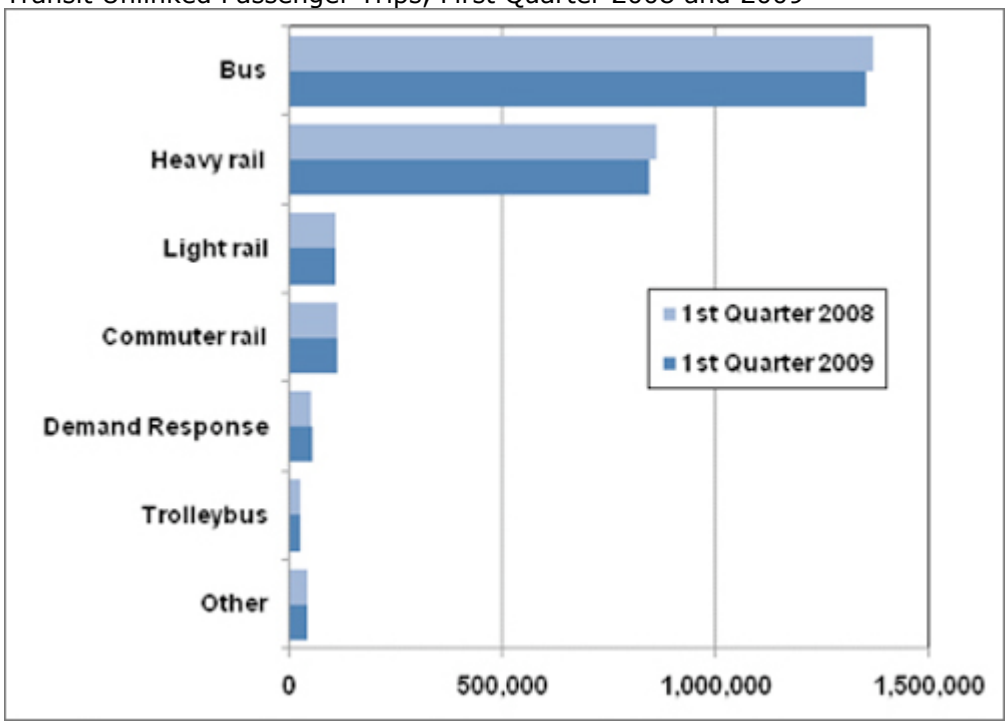
Source: U.S. EPA

Fact of the Week

Fact #590: September 28, 2009
Transit Ridership Still Strong in 2009

"Even with significant declines in gasoline prices, higher unemployment, a general economic downturn, and lower state and local revenue, public transportation use in the first quarter is essentially flat – almost matching last year's modern record first quarter ridership – declining by only 1.2%." (Source: Transit News Press Release, June, 15, 2009). Bus and heavy rail transit trips, which made up the majority of transit trips, were down less than 2% from 2008 to 2009. Light rail, trolleybus and the "other" category experienced increased ridership during 2009.

Transit Unlinked Passenger Trips, First Quarter 2008 and 2009



* Other includes aerial tramway, automated guideway, cable car, ferryboat, inclined plane, monorail, and vanpool.

Supporting Information

Transit Trips, First Quarter 2008 Compared to 2009			
	Unlinked Passenger Trips		
	1st Quarter 2008	1st Quarter 2009	Percent Change
Heavy rail	861,349	846,091	-1.77%
Light rail	108,776	110,708	1.78%
Commuter rail	115,148	111,661	-3.03%
Trolleybus	24,804	25,994	4.80%
Bus	1,369,586	1,352,941	-1.22%
Demand Response	53,633	55,641	3.75%
Other*	44,676	44,773	0.22%
U.S. Total	2,577,971	2,547,808	-1.17%

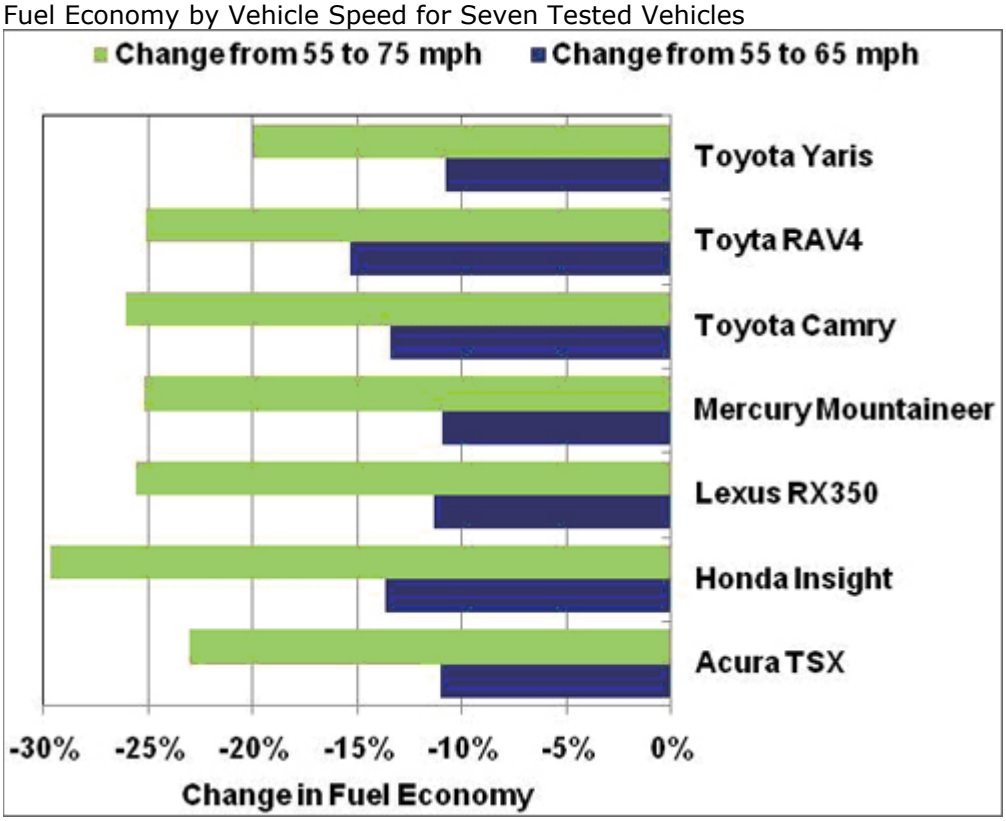
* Other includes aerial tramway, automated guideway, cable car, ferryboat, inclined plane, monorail, and vanpool.
Source: American Public Transportation Association, Transit Ridership Report, First Quarter 2009, June 2009.

Fact of the Week

Fact #591: October 5, 2009
Consumer Reports Tests Vehicle Fuel Economy by Speed

Seven vehicles were tested by *Consumer Reports* recently to determine the fuel economy of the vehicles at a given speed. For these vehicles, the decline in fuel economy from a speed of 55 miles per hour (mph) to 75 mph was between 20% and 30%. The Honda Insight, which is a hybrid vehicle, had the greatest fuel economy decline (30%) from 55 to 75 mph, but the Toyota RAV4 had the greatest fuel economy decline from 55 to 65 mph (15%).

Fuel Economy by Vehicle Speed for Seven Tested Vehicles



Supporting Information

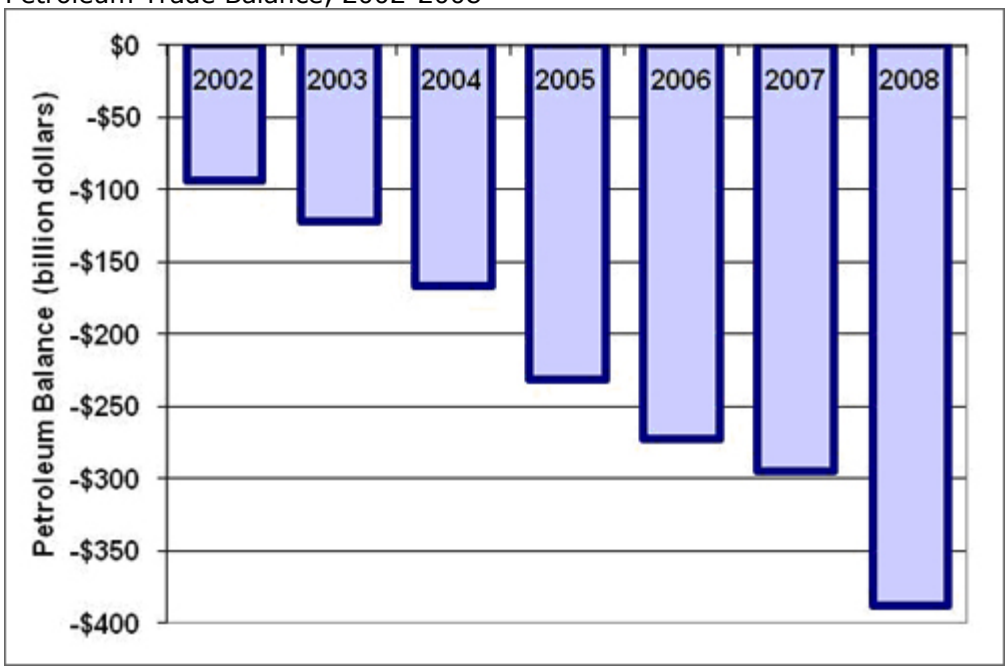
Fuel Economy by Vehicle Speed						
Make and model	**Engine**	**55 mph**	**65 mph**	**75 mph**	**Change from 55 to 65 mph**	**Change from 55 to 75 mph**
Acura TSX	2.4 liter, 4 cylinder	39.9	35.5	30.7	-11%	-23%
Honda Insight	1.3 liter, 4 cylinder	51.9	44.8	36.5	-14%	-30%
Lexus RX350	3.5 liter, V6	30.9	27.4	23.0	-11%	-26%
Mercury Mountaineer	4.6 liter, V8	23.8	21.2	17.8	-11%	-25%
Toyota Camry	2.5 liter, 4 cylinder	40.3	34.9	29.8	-13%	-26%
Toyta RAV4	2.5 liter, 4 cylinder	34.6	29.3	25.9	-15%	-25%
Toyota Yaris	1.5 liter, 4 cylinder	42.5	37.9	34.0	-11%	-20%
Source: *Consumer Reports*, "Tested Speed vs. Fuel Economy," September 9, 2009. (Links to *Consumer Reports* blog.)						

Fact of the Week

Fact #592: October 12, 2009
The Trade Value of Petroleum

The U.S. petroleum balance, calculated as petroleum exports minus petroleum imports, has been declining since 2002. In 2008, the balance fell to -388 billion dollars, which is almost four times the 2002 balance.

Petroleum Trade Balance, 2002-2008



Supporting Information

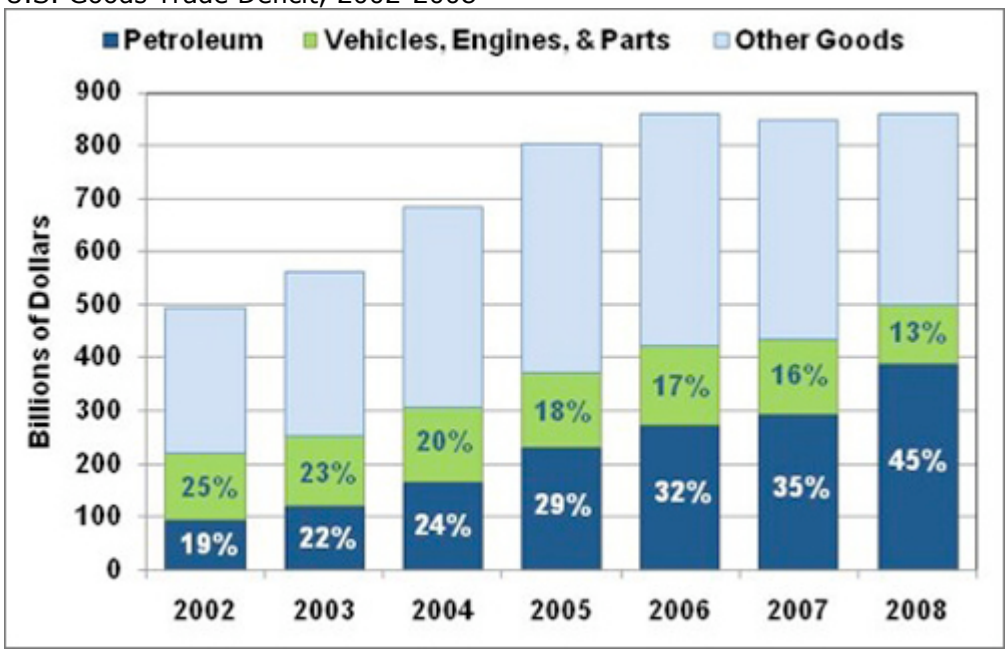
Petroleum Balance, 2002-2008 (billion dollars)			
Year	U.S. Petroleum Exports	U.S. Petroleum Imports	Net U.S. Petroleum Exports
2002	$9	$103	-$94
2003	$10	$132	-$122
2004	$13	$179	-$166
2005	$19	$250	-$231
2006	$28	$300	-$272
2007	$33	$328	-$295
2008	$62	$450	-$388
Source: Energy Information Administration, *Monthly Energy Review*, September 2009, Table 1.5 (PDF 16 KB). Download Adobe Reader.			

Fact of the Week

Fact #593: October 19, 2009
Petroleum Accounts for Nearly Half of the Total Trade Deficit

As recently as 2002, the petroleum trade balance accounted for less than 20% of the total U.S. goods trade deficit. In 2008, however, petroleum accounted for 45% of the trade deficit. However, as petroleum's share of the deficit grew, the deficit for vehicles, engines and parts went from 25% in 2002 to 13% in 2008.

U.S. Goods Trade Deficit, 2002-2008



Supporting Information

U.S. Goods Trade Deficit, 2001-2008						
	(Billions of Dollars)					
Year	Petroleum	Vehicles, Engines, & Parts	Other Goods	Total	Petroleum Share of Total	Vehicles, Engines & Parts Share of Total
2002	94	125	275	494	19%	25%
2003	122	130	311	563	22%	23%
2004	166	139	380	685	24%	20%
2005	231	141	430	802	29%	18%
2006	272	149	439	861	32%	17%
2007	295	138	415	848	35%	16%
2008	388	112	359	860	45%	13%
Source: U.S. Department of Commerce, Bureau of Economic Analysis, National Income and Product Accounts, Table 4.2.5, August 2009.						

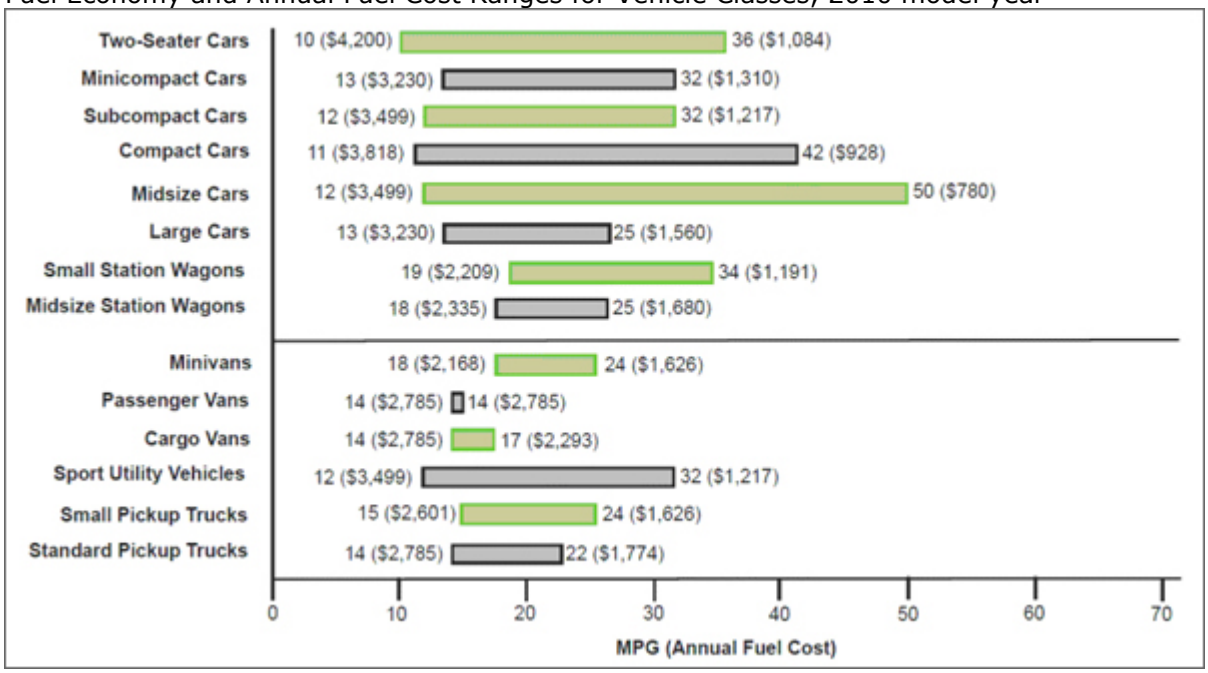
Fact of the Week

Fact #594: October 26, 2009
Fuel Economy and Annual Fuel Cost Ranges for Vehicle Classes

The graph below shows the range of the lowest and highest fuel economy for each vehicle class, along with the lowest and highest annual fuel cost (in parentheses). For example, the two-seater model with the lowest fuel economy gets 10 miles per gallon (MPG) with an estimated annual fuel cost of $4,200, while the two-seater model with the highest fuel economy gets 36 MPG with an estimated annual fuel cost of $1,084.

The midsize class has the greatest range in fuel economy, followed by compact cars, two-seater cars, subcompact cars and SUVs. Except for two-seater cars, these vehicle classes all contain hybrid models which greatly extend the range of their respective classes. Consumers interested in purchasing a vehicle in one of these vehicle classes have a great deal of choice in terms of fuel economy, while consumers interested in vans have little or no choice concerning fuel efficiency in the 2010 model year.

Fuel Economy and Annual Fuel Cost Ranges for Vehicle Classes, 2010 model year



Supporting Information

Fuel Economy and Annual Fuel Cost Ranges for Vehicle Classes, 2010 model year

Vehicle Class	Lowest MPG in the Vehicle Class	Highest MPG in the Vehicle Class	Lowest Annual Fuel Cost in the Vehicle Class	Highest Annual Fuel Cost in the Vehicle Class
Two-Seater Cars	10	36	$4,200	$1,084
Minicompact Cars	13	32	$3,230	$1,310
Subcompact Cars	12	32	$3,499	$1,217
Compact Cars	11	42	$3,818	$928
Midsize Card	12	50	$3,499	$780
Large Cars	13	25	$3,230	$1,560
Small Station Wagons	19	34	$2,209	$1,191
Midsize Station Wagons	18	25	$2,335	$1,680
Minivans	18	24	$2,168	$1,626
Passenger Vans	14	14	$2,785	$2,785
Cargo Vans	14	17	$2,785	$2,293
Sport Utility Vehicles	12	32	$3,499	$1,217
Small Pickup Trucks	15	24	$2,501	$1,626
Standard Pickup Trucks	14	22	$2,785	$1,774

Note:
Combined city and highway MPG estimates are used; these assume you will drive 55% in the city and 45% on the highway. Annual fuel costs assume you travel 15,000 miles each year and fuel costs $2.60/gallon for regular unleaded gasoline and $2.80/gallon for premium. Visit www.fueleconomy.gov to calculate annual fuel cost for a specific vehicle based on your own driving conditions and per-gallon fuel costs.

Source:
U.S. Department of Energy and U.S. Environmental Protection Agency, *2010 Fuel Economy Guide*.

Fact of the Week

Fact #595: November 2, 2009
Plug-in Hybrid Vehicle Purchases May Depend on Fuel Savings and Incremental Cost

The recently released results of a 2008 survey on plug-in hybrid vehicles (PHEVs) show that 42% of respondents said there was some chance that they would buy a PHEV sometime in the future. Questions were also asked that gave an added vehicle price for a PHEV, with the assumption that the vehicle fuel costs would be reduced by 75%. When asked about a PHEV that costs $2,500 more than an ordinary vehicle but resulted in a 75% reduction in fuel costs, 46% of the respondents said there was some chance they would purchase a PHEV. When the incremental vehicle price went up to $5,000, only 30% of respondents said there was a chance they would buy a PHEV; with the incremental vehicle price at $10,000, only 14% said there was a chance they would buy a PHEV.

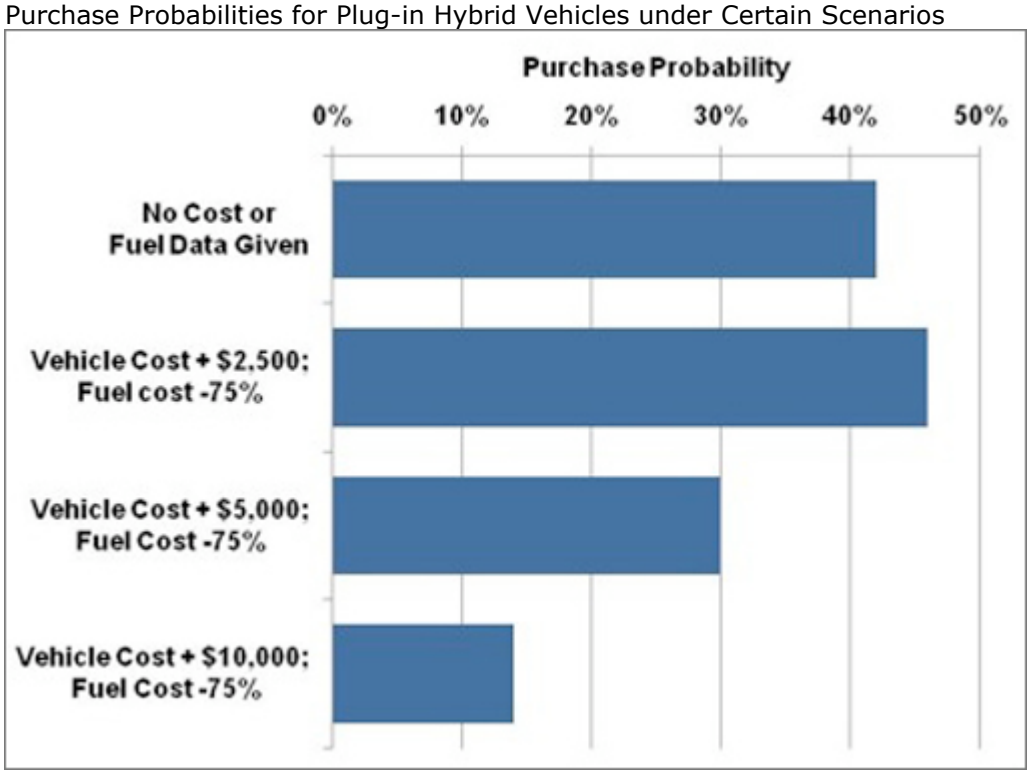
Survey Questions:

On a scale of zero to one hundred, where zero means that you would definitely not buy and one hundred means you definitely would buy, what are the chances that you might buy a plug-in hybrid vehicle sometime in the future?

AND

If a plug-in hybrid reduced total fuel costs by seventy-five percent and cost _____ dollars more than an ordinary vehicle, what are the chances you might buy the plug-in hybrid?

Purchase Probabilities for Plug-in Hybrid Vehicles under Certain Scenarios



Supporting Information

Purchase Probabilities for Plug-In Hybrid Vehicles Under Certain Scenarios	
	Purchase Probabilities
No Cost or Fuel Data Given	42%
Vehicle Cost + $2,500; Fuel Cost -75%	46%
Vehicle Cost + $5,000; Fuel Cost -75%	30%
Vehicle Cost + $10,000; Fuel Cost -75%	14%
Source: University of Michigan, *Plug-in Hybrid Electric Vehicles*, October 2009. Based on a survey conducted between July and November 2008, N=2,513.	

Fact of the Week

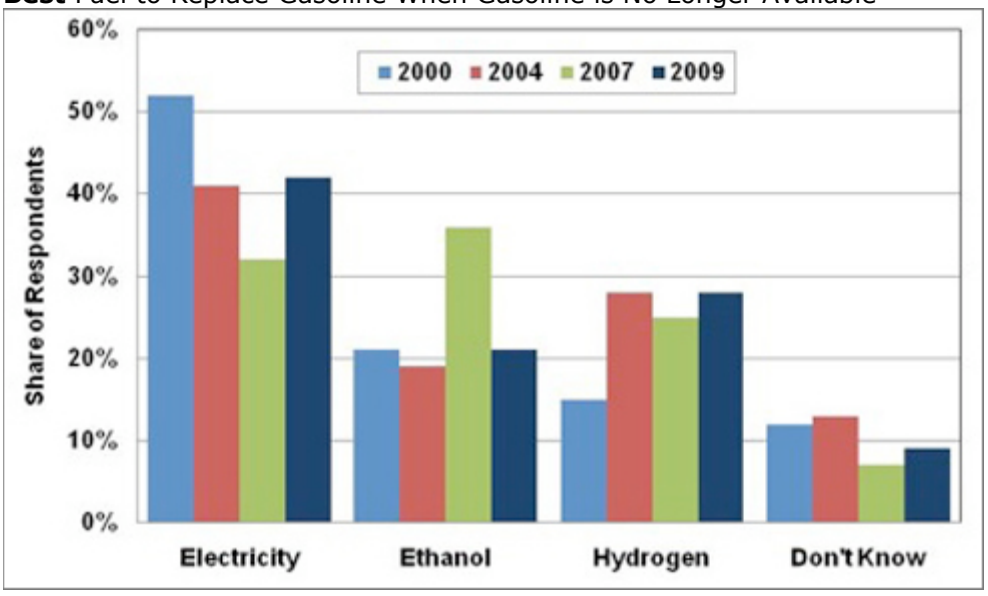
Fact #596: November 9, 2009
Best and Worst Fuel to Replace Gasoline

Public opinion surveys from December 2000, August 2004, February 2007 and March 2009 posed this question:

Consider a future date when gasoline is no longer available. Which of the following do you think would be the **best** fuel for use in personal vehicles: electricity, ethanol, or hydrogen?

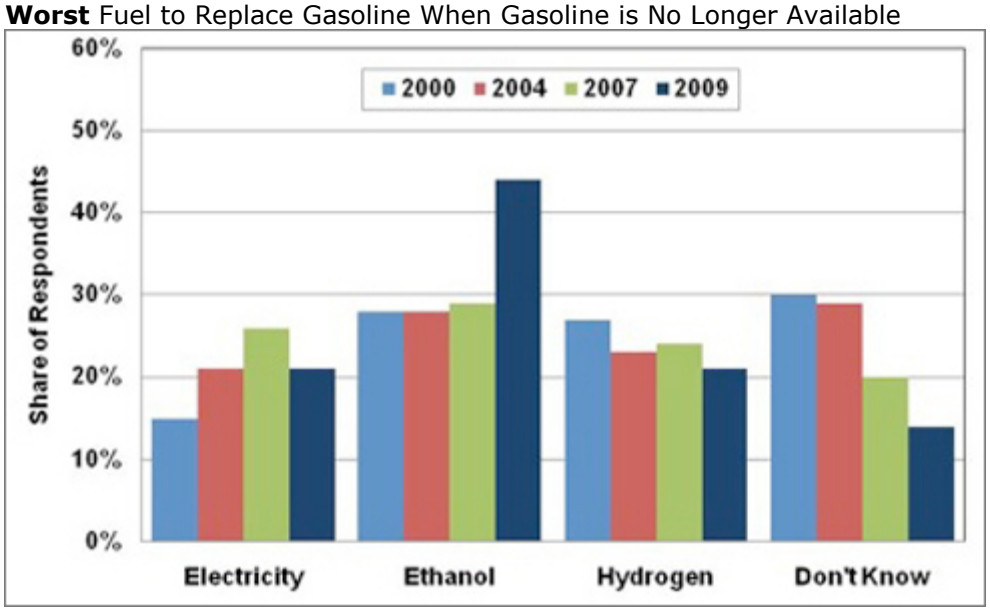
A comparison of the answers from the three different years shows a change in the public's view of future fuels. In the 2000, 2004, and 2009 surveys, electricity was chosen more often than any other fuel type. However, in 2007, ethanol was chosen by more than one-third of the respondents.

Best Fuel to Replace Gasoline When Gasoline is No Longer Available



The respondents were also given the same choices and asked which would be the **worst** fuel for use in personal vehicles when gasoline is no longer available. In 2009, ethanol was chosen by 44% of survey respondents as being the worst fuel to replace gasoline. In the earlier three survey years, a growing share of respondents chose electricity as the worst fuel, but that reversed with the 2009 survey. The share of respondents who responded "don't know" (or were unwilling to make a choice) declined to 14% in 2009.

Worst Fuel to Replace Gasoline When Gasoline is No Longer Available



Supporting Information

Best and Worst Replacement Fuels								
	Best Fuel to Replace Gasoline				Worst Fuel to Replace Gasoline			
Fuel	**2000**	**2004**	**2007**	**2009**	**2000**	**2004**	**2007**	**2009**
Electricity	52%	41%	32%	42%	15%	21%	26%	21%
Ethanol	21%	19%	36%	21%	28%	28%	29%	44%
Hydrogen	15%	28%	25%	28%	27%	23%	24%	21%
Don't know	12%	13%	7%	9%	30%	29%	20%	14%

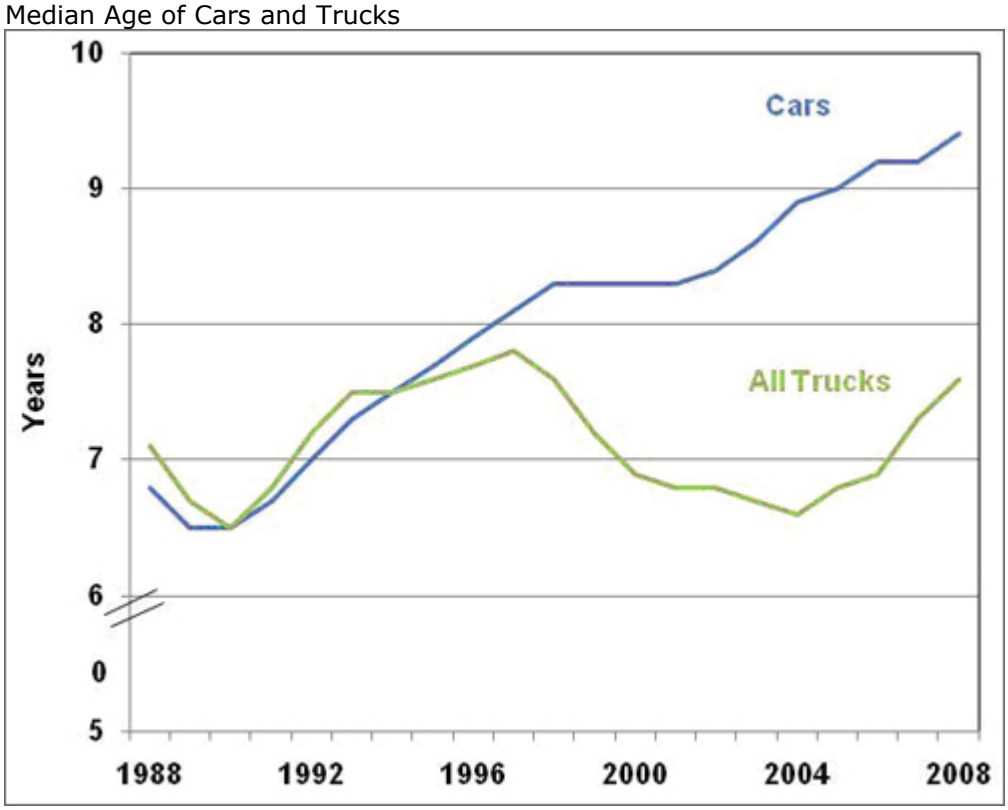
Source: Opinion Research Corporation for National Renewable Energy Laboratory, December 1, 2000 (N = 1,000), August 27, 2004 (N = 1,041), February 8, 2007 (N=1022), and March 2009 (N=1,000).

Fact of the Week

Fact #597: November 16, 2009
Median Age of Cars and Trucks Rising in 2008

The median age of cars and trucks in the U.S. continued to grow in 2008. Due to the economic climate and high gasoline prices that summer, consumers held onto their vehicles longer and delayed new purchases of vehicles. The median age of cars was at an all-time high in 2008, while the median age of trucks reached its highest point since the mid-1990's – before sport utility vehicles and pickup trucks became popular as passenger vehicles.

Median Age of Cars and Trucks



Supporting Information

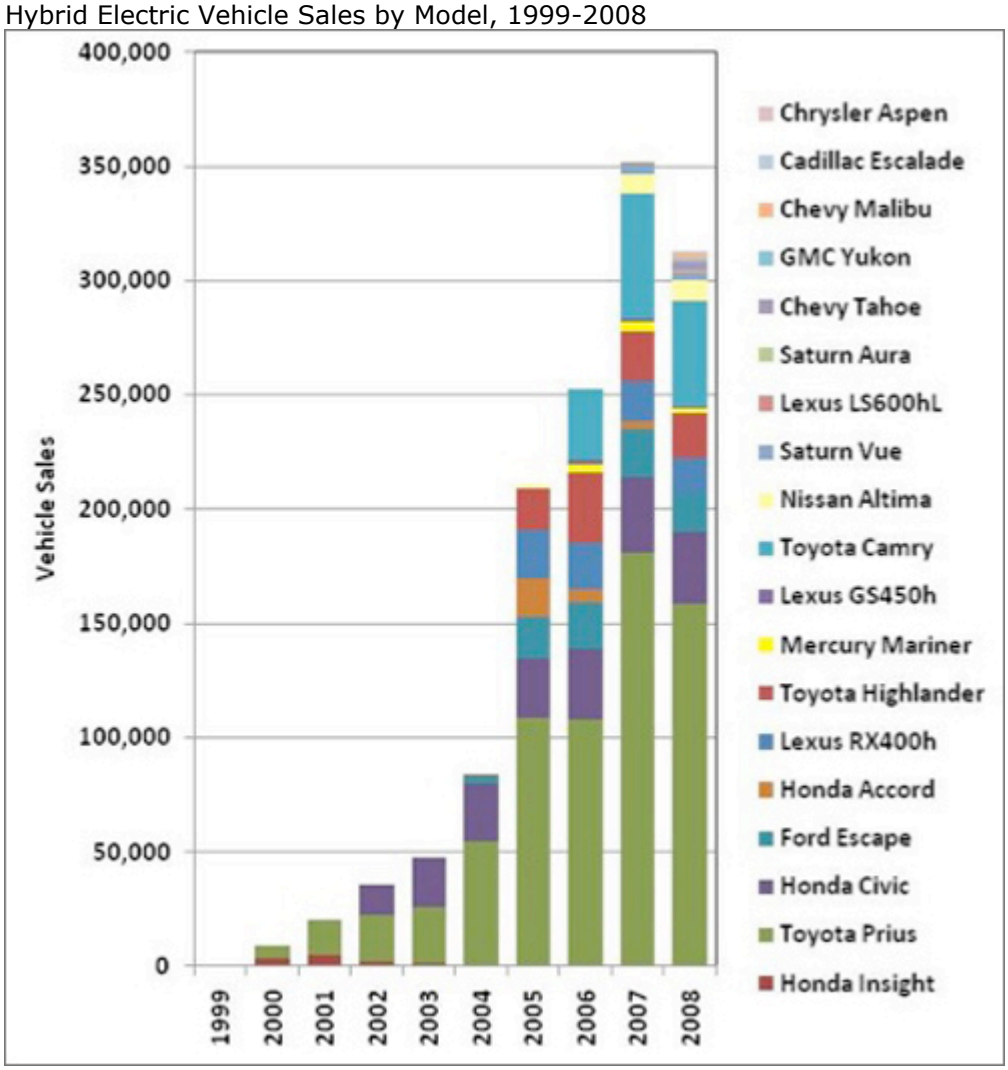
Median Age of Vehicles (Years)		
Year	Cars	All Trucks
1988	6.8	7.1
1989	6.5	6.7
1990	6.5	6.5
1991	6.7	6.8
1992	7.0	7.2
1993	7.3	7.5
1994	7.5	7.5
1995	7.7	7.6
1996	7.9	7.7
1997	8.1	7.8
1998	8.3	7.6
1999	8.3	7.2
2000	8.3	6.9
2001	8.3	6.8
2002	8.4	6.8
2003	8.6	6.7
2004	8.9	6.6
2005	9.0	6.8
2006	9.2	6.9
2007	9.2	7.3
2008	9.4	7.6
Source: R.L. Polk and Company, Press Release,		

Fact of the Week

Fact #598: November 23, 2009
Hybrid Vehicle Sales by Model

The number of all light vehicles sold declined about 18% from 2007 to 2008, while the number of hybrid vehicles sold declined about 11%. Five new hybrid models were sold in 2008; other than those, the only hybrid model that sold more in 2008 than in 2007 was the Nissan Altima. Despite the downturn in sales, the Toyota Prius continues to dominate hybrid sales.

Hybrid Electric Vehicle Sales by Model, 1999-2008



Supporting Information

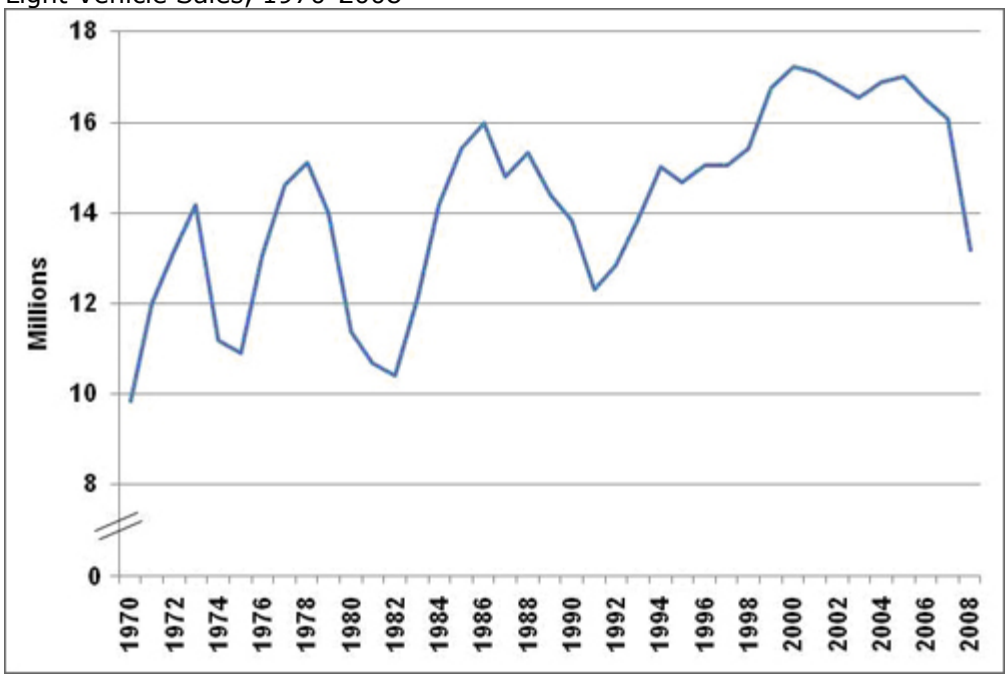
Hybrid Electric Vehicle Sales by Model, 1999-2008											
Vehicle	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**Total**
Honda Insight	17	3,788	4,726	2,216	1,200	583	666	722	0	0	13,918
Toyota Prius		5,562	15,556	20,119	24,600	53,991	107,897	106,971	181,221	158,574	674,491
Honda Civic				13,700	21,800	25,571	25,864	31,251	32,575	31,297	182,058
Ford Escape						2,993	18,797	20,149	21,386	17,173	80,498
Honda Accord						1,061	16,826	5,598	3,405	196	27,086
Lexus RX400h							20,674	20,161	17,291	15,200	73,326
Toyota Highlander							17,989	31,485	22,052	19,441	90,967
Mercury Mariner							998	3,174	3,722	2,329	10,223
Lexus GS 450h								1,784	1,645	678	4,107
Toyota Camry								31,341	54,477	46,272	132,090
Nissan Altima									8,388	8,819	17,207
Saturn Vue									4,403	2,920	7,323
Lexus LS600hL									937	907	1,844
Saturn Aura									772	285	1,057
Chevy Tahoe										3,745	3,745
GMC Yukon										1,610	1,610
Chevy Malibu										2,093	2,093
Cadillac Escalade										801	801
Chrysler Aspen										46	46
Total	17	9,350	20,282	36,035	47,600	84,199	209,711	252,636	352,274	312,386	1,288,764
Source: Alternative Fuels and Advanced Vehicle Technologies Center,											

Fact of the Week

Fact #599: November 30, 2009
Historical Trend for Light Vehicle Sales

The sales of light vehicles dropped from 16.1 million vehicles in 2007 to 13.2 million vehicles in 2008. Light vehicle sales haven't dropped off that sharply in one year since 1974, when sales fell by 3 million vehicles from the 1973 sales level. Though the sales decline in the early 1980's was large, the decline was spread over several years. Historically, light vehicle sales rebounded quickly after these sharp declines.

Light Vehicle Sales, 1970-2008



Supporting Information

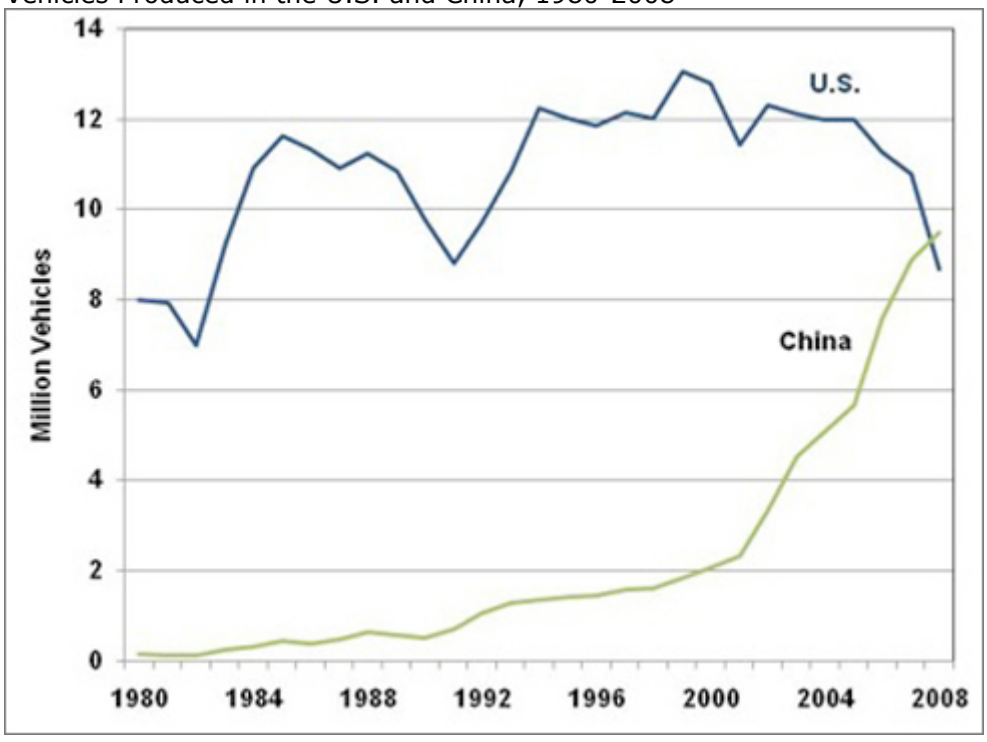
Light Vehicle Sales, 1970-2008	
Year	**Sales (Millions)**
1970	9.9
1971	12.0
1972	13.2
1973	14.2
1974	11.2
1975	10.9
1976	13.1
1977	14.6
1978	15.1
1979	14.0
1980	11.4
1981	10.7
1982	10.4
1983	12.1
1984	14.2
1985	15.4
1986	16.0
1987	14.8
1988	15.3
1989	14.4
1990	13.9
1991	12.3
1992	12.8
1993	13.9
1994	15.0
1995	14.7
1996	15.0
1997	15.1
1998	15.4
1999	16.8
2000	17.2
2001	17.1
2002	16.8
2003	16.5
2004	16.9
2005	17.0
2006	16.5
2007	16.1
2008	13.2
Source: Ward's Automotive Group, *Ward's Motor Vehicle Facts & Figures 2*009.	

Fact of the Week

Fact #600: December 7, 2009
China Produced More Vehicles than the U.S. in 2008

In 1980, the U.S. produced 56 times more vehicles than China. China's vehicle production has been growing since then, while U.S. vehicle production was hit hard in the recent economic downturn. In the year 2008, China produced 9.5 million vehicles, while the U.S. produced 8.7 million vehicles.

Vehicles Produced in the U.S. and China, 1980-2008



Supporting Information

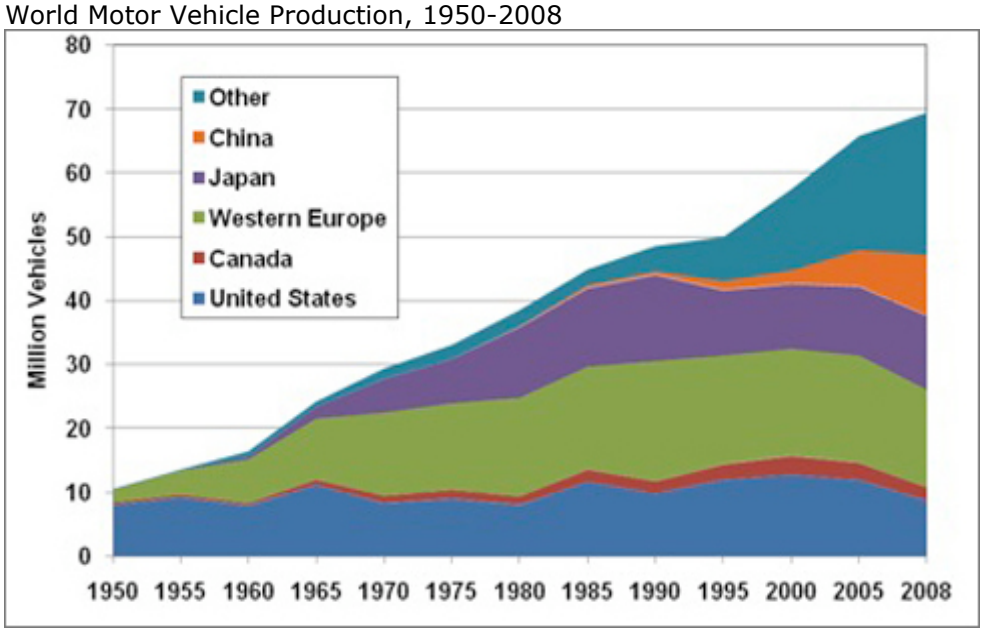
Vehicle Production in the U.S. and China, 1980-2008 (Million Vehicles)		
Year	**U.S.**	**China**
1980	8.01	0.14
1981	7.94	0.11
1982	6.99	0.13
1983	9.22	0.24
1984	10.92	0.32
1985	11.65	0.44
1986	11.34	0.37
1987	10.93	0.47
1988	11.24	0.65
1989	10.87	0.59
1990	9.78	0.51
1991	8.81	0.71
1992	9.71	1.06
1993	10.87	1.30
1994	12.26	1.35
1995	12.01	1.43
1996	11.85	1.46
1997	12.15	1.58
1998	12.03	1.63
1999	13.05	1.83
2000	12.80	2.07
2001	11.45	2.33
2002	12.30	3.34
2003	12.12	4.55
2004	11.99	5.07
2005	11.98	5.67
2006	11.29	7.57
2007	10.78	8.89
2008	8.70	9.51
Source: Ward's Automotive Group, Ward's World Motor Vehicle Data 2009, Southfield, MI, 2009.		

Fact of the Week

Fact #601: December 14, 2009
World Motor Vehicle Production

The number of vehicles produced, including cars, trucks, and buses, has risen substantially from 1950 to 2008. In 1950, the majority of the vehicles were produced in the U.S. and Western Europe. In 2008, Japan, China, and other countries around the world produce the majority of vehicles. The U.S. share of world vehicle production declined to 12.5% in 2008.

World Motor Vehicle Production, 1950-2008



Supporting Information

World Vehicle Production (Thousands)								
Year	United States	Canada	Western Europe	Japan	China	Other	World Total	U.S. Share
1950	8.01	0.39	1.99	0.03	*	0.16	10.58	75.7%
1955	9.20	0.45	3.74	0.07	*	0.16	13.63	67.5%
1960	7.91	0.40	6.84	0.48	*	0.87	16.49	47.9%
1965	11.14	0.85	9.58	1.88	*	0.83	24.27	45.9%
1970	8.28	1.16	13.05	5.29	*	1.64	29.42	28.2%
1975	8.99	1.39	13.58	6.94	*	2.21	33.11	27.1%
1980	8.01	1.32	15.50	11.04	0.14	2.55	38.57	20.8%
1985	11.65	1.93	16.11	12.27	0.44	2.50	44.91	25.9%
1990	9.78	1.93	18.87	13.49	0.51	3.99	48.56	20.1%
1995	11.99	2.41	17.05	10.20	1.43	6.91	49.98	24.0%
2000	12.77	2.96	16.75	10.15	2.07	12.73	57.43	22.2%
2005	11.95	2.69	16.81	10.78	5.67	17.88	65.77	18.2%
2008	8.67	2.08	15.31	11.56	9.51	22.26	69.40	12.5%

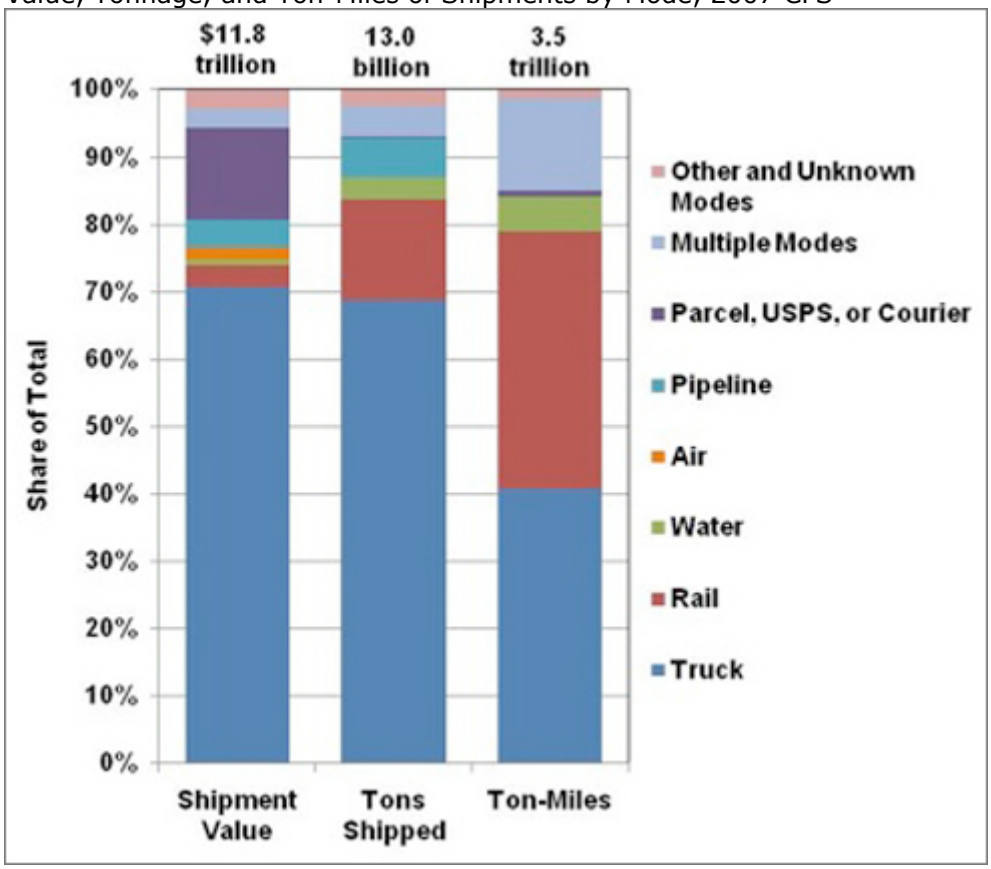
* Data for China before 1980 are not available.
Source: Ward's Automotive Group, *Ward's Motor Vehicle Facts and Figures 2009*, Southfield, MI, 2009.

Fact of the Week

Fact #602: December 21, 2009
Freight Statistics by Mode, 2007 Commodity Flow Survey

Results from the 2007 Commodity Flow Survey (CFS) show that about 70% of all freight movement in the U.S. is by truck, in terms of the shipment value and tonnage. Rail moves about 15% of freight tons, but moves those tons over great distances, accounting for 37% of ton-miles. Parcel delivery, US Postal Service (USPS) or courier service account for 13.5% of shipments by value, but less than half of one percent by tonnage.

Value, Tonnage, and Ton-Miles of Shipments by Mode, 2007 CFS



Supporting Information

World Vehicle Production (Thousands)			
Transportation Mode	**Shipment Value**	**Tons Shipped**	**Ton-Miles**
Truck	70.7%	68.8%	39.8%
Rail	3.3%	14.8%	37.1%
Water	0.9%	3.3%	5.0%
Air	1.8%	0.0%	0.1%
Pipeline	4.1%	6.0%	NA
Parcel, USPS, or Courier	13.5%	0.3%	0.8%
Multiple Modes	2.9%	4.5%	13.2%
Other and Unknown Modes	2.9%	2.3%	1.4%
All Modes	$11.8 trillion	13.0 billion	3.5 trillion

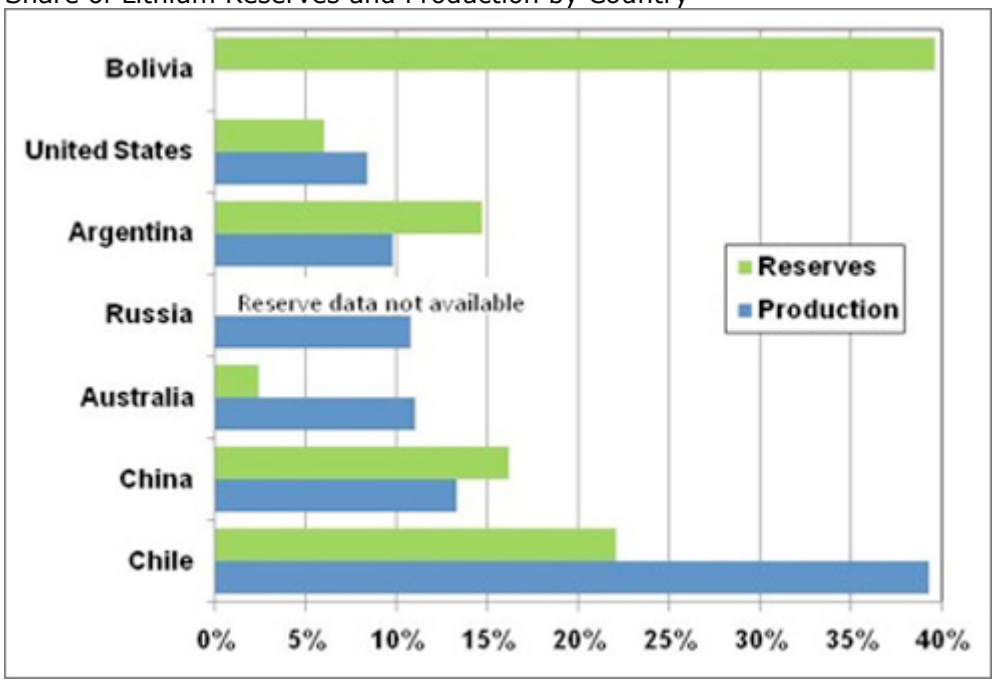
Note: NA = not available due to high sampling variability or poor response quality.
Air includes truck to/from airport.
Source: U.S. Department of Transportation, Bureau of Transportation Statistics, "U.S. Freight on the Move: Survey Preliminary Data," SR-018, September 2009.

Fact of the Week

Fact #603: December 28, 2009
Where Does Lithium Come From?

Lithium ion batteries will be used in many of the upcoming plug-in hybrid vehicles and electric vehicles because they are lighter and more powerful than the nickel-metal hydride batteries used in current hybrid vehicles. Global lithium production reached 22,800 tons in 2008. Lithium reserves are a topic of debate, with estimates ranging from 4 million tons to 20 million tons. The latest data show that Chile has the largest share of lithium production, while Bolivia has the largest reserves. The U.S. is responsible for less than 10% of lithium production.

Share of Lithium Reserves and Production by Country



Supporting Information

Sources of Lithium		
Country	**Production**	**Reserves**
Chile	39.3%	22.1%
China	13.3%	16.2%
Australia	11.0%	2.4%
Russia	10.8%	*
Argentina	9.8%	14.7%
United States	8.4%	6.0%
Bolivia	0.0%	39.7%

* Data are not available.
Source: Crain Communications, Automotive News, September 21, 2009, p. 34.
Original source: Meridian International Research, 2005 levels.