Compendium of Transportation Facts of the Week posted on the Vehicle Technologies Office website in calendar year 2010

2010 Facts of the Week

655	New Freight Analysis Tool	December 27, 2010
#654	New Light Vehicle Leasing is Big in 2010	December 20, 2010
#653	Import Cars and Trucks Gaining Ground	December 13, 2010
#652	U.S. Crude Oil Production Rises	December 6, 2010
#651	Hybrid Vehicles Dominate EPA's Top Ten Fuel Sippers List for 2011	November 29, 2010
#650	Diesel Fuel Prices hit a Two-Year High	November 22, 2010
#649	Number of New Light Vehicle Dealerships Continues to Shrink	November 15, 2010
#648	Conventional and Alternative Fuel Prices	November 8, 2010
#647	Sales Shifting from Light Trucks to Cars	November 1, 2010
#646	Prices for Used Vehicles Rise Sharply from 2008 to 2010	October 25, 2010
#645	Price of Diesel versus Gasoline in Europe	October 18, 2010
#644	Share of Diesel Vehicle Sales Decline in Western Europe	October 11, 2010
#643	Four Cylinder Engine Installations Continue to Rise	October 4, 2010
#642	Material Content per Light Vehicle, 1995 and 2008	September 27, 2010
#641	Top States for the Production of Cars and Trucks	September 20, 2010
#640	Monthly Trends in Vehicle Miles of Travel	September 13, 2010
#639	Gasoline Tax Rates by State	September 6, 2010
#638	Average Expenditure for a New Car Declines in Relation to Family Earnings	August 30, 2010
#637	World Motor Vehicle Production	August 23, 2010
#636	Transportation Energy Use by Mode	August 16, 2010
#635	Fuel Consumption from Lawn and Garden Equipment	August 9, 2010
#634	Off-highway Transportation-related Fuel Consumption	August 2, 2010
#633	Alternative Fuel Vehicles	July 26, 2010
#632	The Costs of Oil Dependence	July 19, 2010
#631	Top 10 All-Time EPA Rated Vehicles	July 12, 2010
#630	Fuel Economy vs. Weight and Performance	July 5, 2010
#629	Top Ten Misconceptions about Fuel Economy	June 28, 2010
#628	Truck Stop Electrification Sites	June 21, 2010
#627	Idle Reduction for Heavy Trucks	June 14, 2010
#626	Fuel Economy for Light and Heavy Vehicles	June 7, 2010
#625	Distribution of Trucks by On-Road Vehicle Weight	May 31, 2010
#624	Corporate Average Fuel Economy Standards, Model Years 2012-2016	May 24, 2010

#623	Classification Changes in the CAFE Standards	May 17, 2010
#622	Average Length of Light Vehicle Ownership	May 10, 2010
#621	Gross Vehicle Weight vs. Empty Vehicle Weight	May 3, 2010
#620	Class 8 Truck Tractor Weight by Component	April 26, 2010
#619	Transportation Sector Revenue by Industry	April 19, 2010
#618	Vehicles per Household and Other Demographic Statistics	April 12, 2010
#617	Changes in Vehicles per Capita around the World	April 5, 2010
#616	Household Vehicle-Miles of Travel by Trip Purpose	March 29, 2010
#615	Average Vehicle Trip Length	March 22, 2010
#614	Average Age of Household Vehicles	March 15, 2010
#613	Vehicle Occupancy Rates	March 8, 2010
#612	The Distance of Trips to Work	March 1, 2010
#611	Top Ten Best Selling Cars and Light Trucks	February 22, 2010
#610	All Sectors' Petroleum Gap	February 15, 2010
#609	The Transportation Petroleum Gap	February 8, 2010
#608	Changes in Greenhouse Gas Emissions since 1990	February 1, 2010
#607	Energy and Power by Battery Type	January 25, 2010
#606	New Vehicles Trend Toward Smaller Engines	January 18, 2010
#605	Light Vehicle Sales by Month, 2008-2009	January 11, 2010
#604	HOT Lanes in the U.S.	January 4, 2010

Fact #604: January 4, 2010
HOT Lanes in the U.S.

There are six States that currently have high-occupancy toll (HOT) lanes. These lanes are similar to high-occupancy vehicle (HOV) lanes, except that they allow drivers of vehicles that do not meet the occupancy requirements to use the lane by paying a toll that varies by time of day or level of congestion. The San Diego FasTrak was the first HOT lane, opened in 1996. Tolls on the FasTrak vary from $0.50 to $4.00 on a typical day, but during peak periods can reach $8.00. The savings in travel time averages 20 minutes per journey.

Operational HOT Lanes

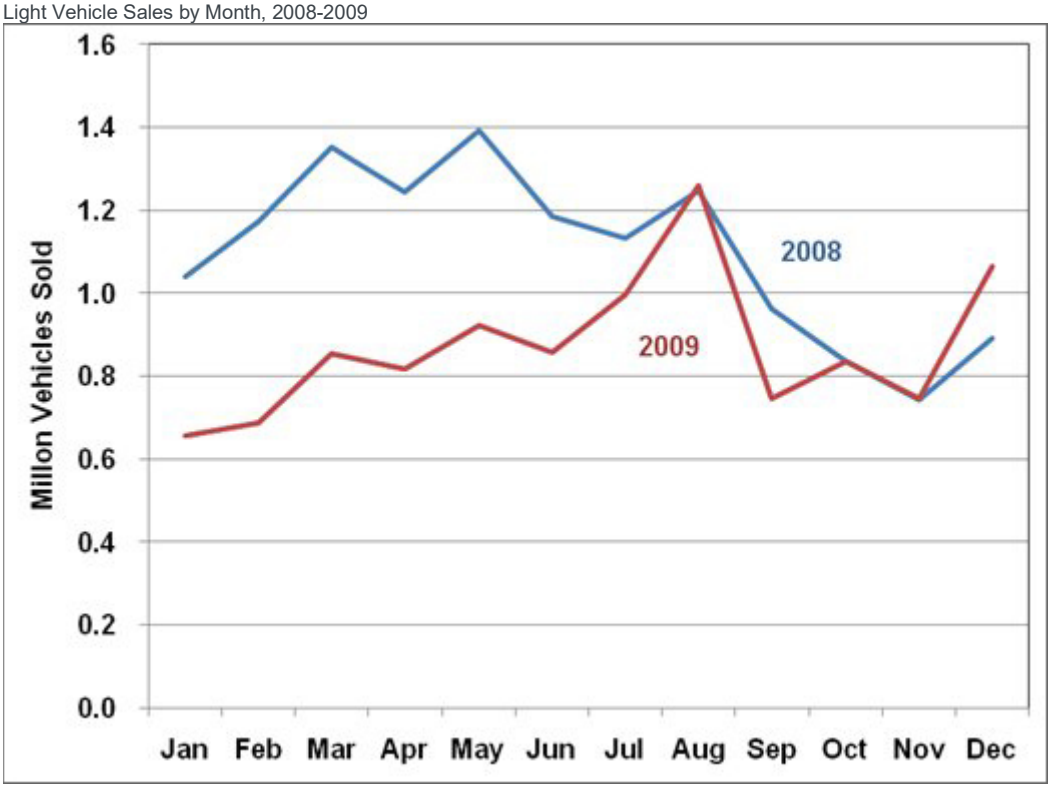
Year of Opening	Project	Size/Characteristics	Use
1996	San Diego, I-15	8 miles, 2 reversible lanes in median	25,172 transponders in use as of Nov. 30, 2008; about 15,000 HOV and 6,000 SOV vehicles per weekday
2006	Denver, I-25/US-36	7 miles, 2 barrier-separated reversible lanes in freeway	95,091 vehicles paid to travel in September 2007 (10 months after opening)
2005	Minneapolis, I-394	11 miles, including 2 reversible barrier-separated lanes for 3 miles; 1 lane each direction for 8 miles, with double striping separation	More than 10,000 transponders leased by users since May 2005 opening
1998	Houston, I-10, US-290	Single 13-mile reversible barrier-separated lane in I-10 median and 15-mile reversible lane on US-290	2,200 registered users by 2004, with access to both facilities
2008	Seattle, SR-167	Single 9-mile nonbarrier separated (buffer) lane in each direction	Opened May 2008; in first six months of operation, more than 20,000 transponders users paid to use the lanes
2008	Miami, I-95 Express	21-miles, 2 lanes in each direction	First 8 miles opened December 2008.

Source: Bhatt, Kiran, Thomas Higgins, and John T. Berg, "U.S. and Worldwide Experience with Congestion Pricing: An Overview," published in the Transportation Research Board, TR News, No. 263 July-August 2009.

Fact #605: January 11, 2010
Light Vehicle Sales by Month, 2008-2009

The impact of the Federal Government's Car Allowance Rebate System, better known as the Cash for Clunkers Program, is evident in the monthly sales of light vehicles in 2009. August 2009 sales slightly surpassed those of August 2008, though most of 2009 was well below the 2008 sales levels. After the program ended, sales fell sharply in September, but rebounded in October to the same level as October 2008. November 2008 and November 2009 sales were also nearly identical. A light vehicle sales rebound in December raised total sales for the year just above 10 million.

Light Vehicle Sales by Month, 2008-2009



Supporting Information

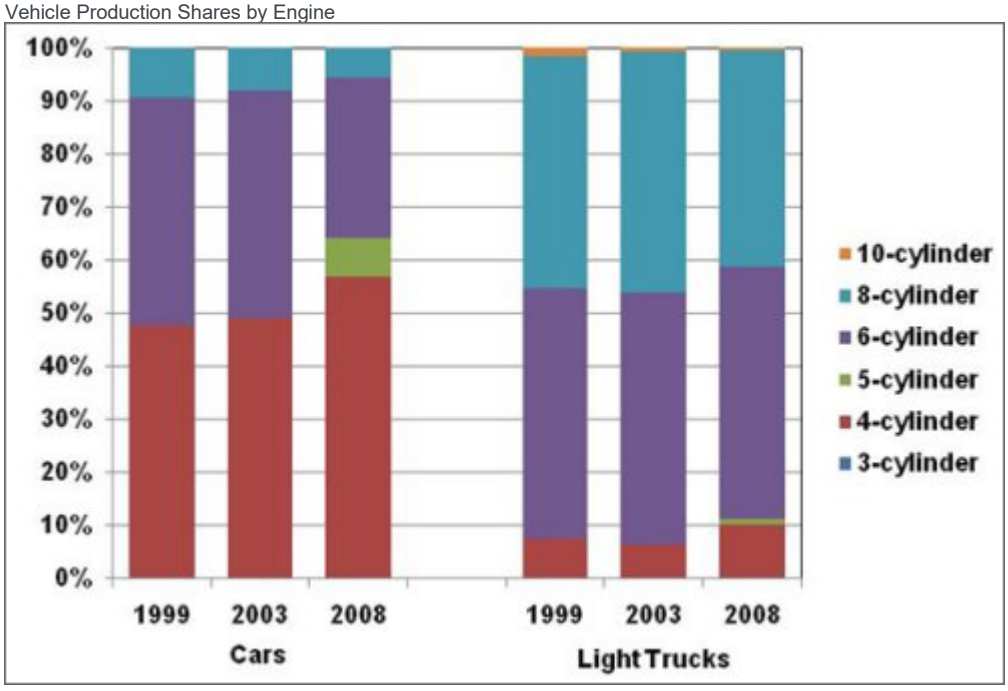
U.S. Light Vehicle Sales by Month, 2008-2009		
Month	**2008**	**2009**
January	1,039,137	655,226
February	1,171,681	687,356
March	1,351,542	855,358
April	1,243,547	817,287
May	1,392,840	923,346
June	1,185,267	857,627
July	1,132,182	995,402
August	1,246,705	1,258,944
September	962,292	744,566
October	834,622	835,925
November	743,606	744,669
December*	891,072	1,063,223
Total	13,194,493	10,438,929

* December data are projected.
Note: Light vehicles include cars and light trucks up to 14,000 lbs. gross vehicle weight.
Source: Ward's Autodata.

Fact #606: January 18, 2010
New Vehicles Trend toward Smaller Engines

In 2008, the number of 4-cylinder engine installations rose to 57% of all cars manufactured in that year. The graph below shows that the cars produced in 1999 and 2003 were very close to the same in terms of the number of cylinders. But in 2008, the share of vehicles with 6-cylinder engines declined, due to the rising share of 4-cylinder engines and the newfound popularity of 5-cylinder engines. The 5-cylinder engines also show up in the light trucks produced in 2008, but only account for 1.3%. The share of 6-cylinder engines in light trucks did not decline like it did for cars, but the shares for 8 and 10-cylinder engines did.

Vehicle Production Shares by Engine



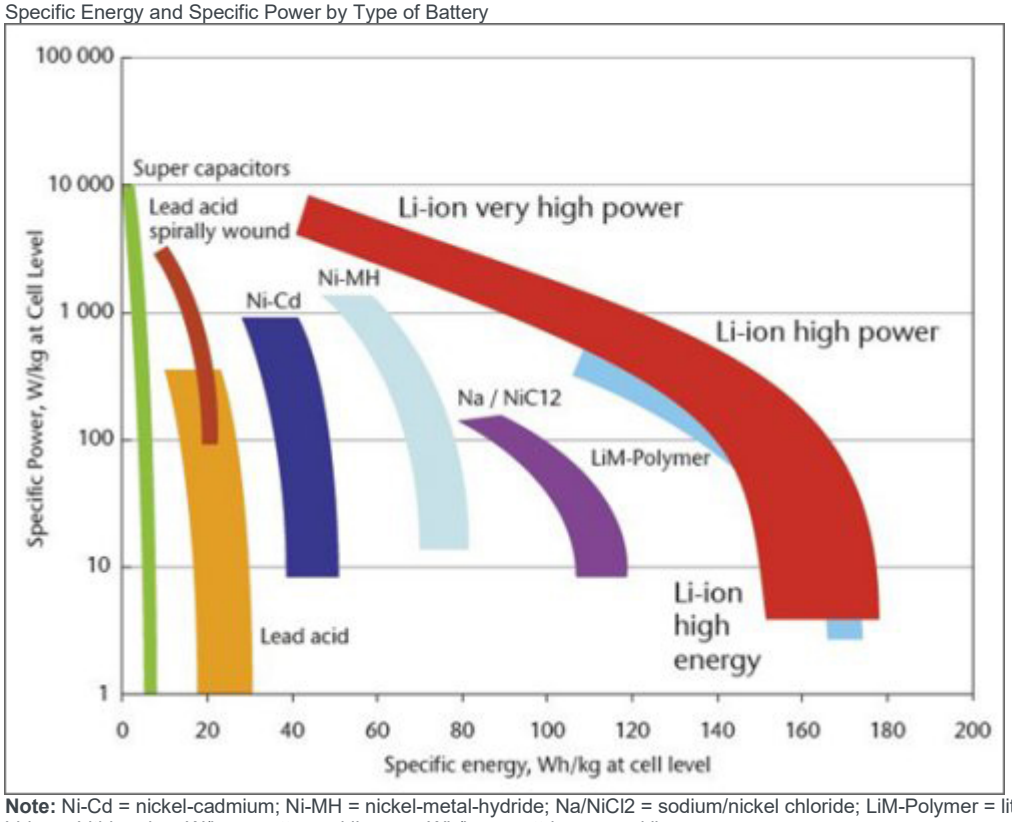
Supporting Information

Vehicle Production Shares by Engine							
	3-cylinder	**4-cylinder**	**5-cylinder**	**6-cylinder**	**8-cylinder**	**10-cylinder**	**Total Units (millions)**
	Cars						
1999	0.1%	47.7%	0.0%	42.8%	9.4%	0.0%	7.1
2003	0.0%	49.1%	0.0%	42.8%	8.1%	0.0%	6.3
2008	0.0%	57.0%	7.2%	30.2%	5.6%	0.0%	6.1
	Light Trucks						
1999	0.0%	7.5%	0.0%	47.2%	43.6%	1.7%	7.4
2003	0.0%	6.4%	0.0%	47.5%	45.2%	0.9%	8.5
2008	0.0%	10.1%	1.3%	47.5%	40.7%	0.4%	7.0
Source: Ward's Automotive Group, 2009 Ward's Automotive Yearbook, p. 29.							

Fact #607: January 25, 2010
Energy and Power by Battery Type

Batteries are made from many different types of materials. The chart below shows the energy to power ratio for different battery types (a range is shown for each battery). An increase in specific energy correlates with a decrease in specific power. Lithium-ion batteries have a clear advantage when optimized for both energy and power density. Most hybrid vehicles sold to date have had batteries made from nickel-metal-hydride. In the coming years, hybrid vehicles with lithium-ion batteries will appear in the marketplace.

Specific Energy and Specific Power by Type of Battery



Note: Ni-Cd = nickel-cadmium; Ni-MH = nickel-metal-hydride; Na/NiCl2 = sodium/nickel chloride; LiM-Polymer = lithium-metal-polymer; Li-ion = Lithium-ion; W/kg = watts per kilogram; Wh/kg = watt-hours per kilogram.
Source: International Energy Agency, *Technology Roadmaps: Electric and Plug-in Hybrid Electric Vehicles*, 2009, p. 12. (Original source: Johnson Control – SAFT 2005 and 2007.)

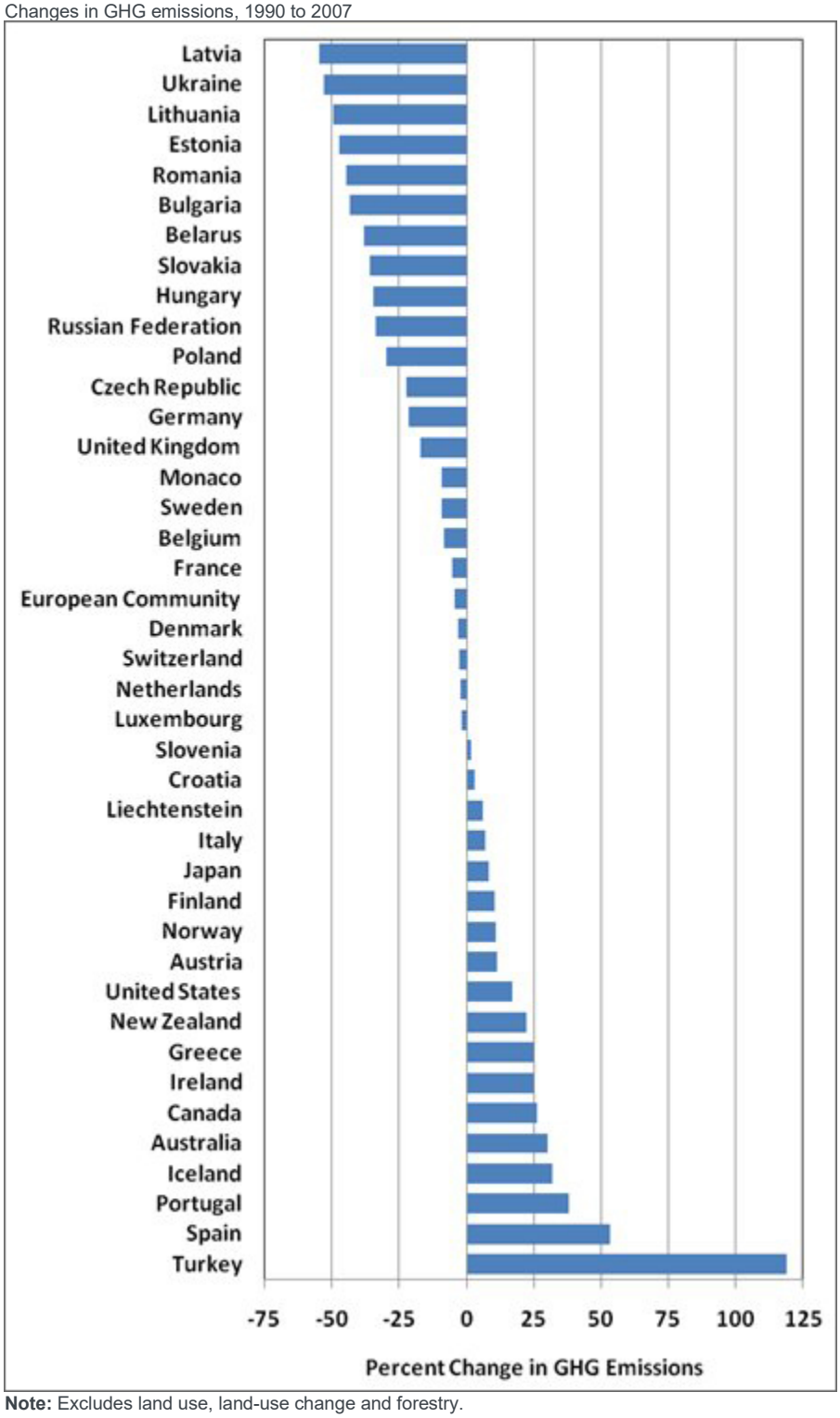
Supporting Information

The graph above shows super capacitors specific power ranging from 1 to 10,000 W/kg and specific energy ranging from 0 to 8 Wh/kg. Lead acid batteries specific power ranging from 1 to 500 W/kg and specific energy ranging from 10 to 30 Wh/kg. Lead acid spirally wound batteries specific power ranging from 100 to 5,000 W/kg and specific energy ranging from 10 to 25 Wh/kg. Nickel-cadmium batteries specific power ranging from 9 to 990 W/kg and specific energy ranging from 28 to 50 Wh/kg. Nickel-metal-hydride batteries specific power ranging from 20 to 2,000 and specific energy ranging from 48 to 82 Wh/kg. Sodium/nickel-chloride batteries specific power ranging from 9 to 300 W/kg and specific energy ranging from 80 to 120 Wh/kg. Lithium-metal-polymer batteries specific power ranging from 5 to 700 W/kg and specific energy ranging from 107 to 175 Wh/kg. Lithium-ion batteries specific power ranging from 7 to 9,000 and specific energy ranging from 42 to 180 Wh/kg.

Fact #608: February 1, 2010
Changes in Greenhouse Gas Emissions since 1990

In October of 2009, the United Nations (UN) released greenhouse gas inventory data for 1990 to 2007 for all countries that submitted data in accordance with the UN Framework Convention on Climate Change (UNFCCC). Between 1990 and 2007, total aggregate greenhouse gas (GHG) emissions for all reporting countries declined by 3.9% (this excludes emissions/removals from land use, land-use change and forestry). Changes for the individual countries are shown in the graph below. Turkey reported the greatest increase in GHG emissions from 1990 to 2007. The United States reported increased GHG emissions of 16.8% in that 17-year period.

Changes in GHG emissions, 1990 to 2007



Note: Excludes land use, land-use change and forestry.

Supporting Information

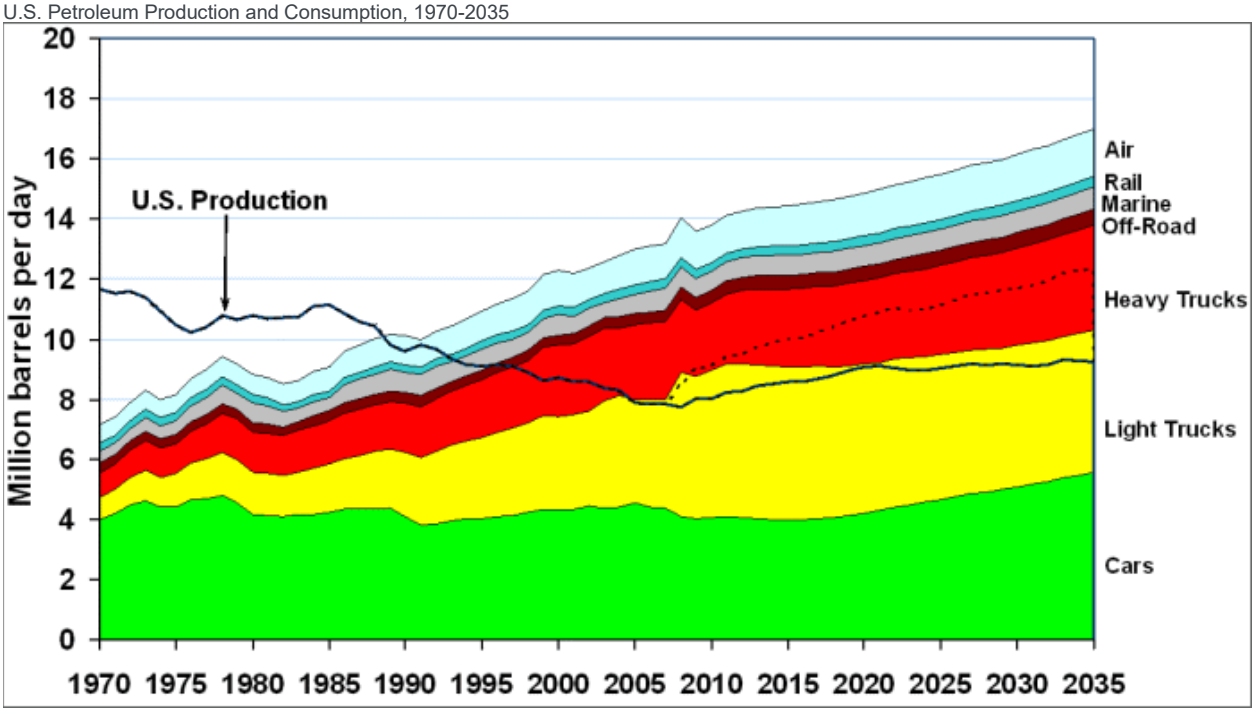
Changes in GHG Emissions, 1990 to 2007	
Country	**Percent Change, 1990-2007**
Latvia	-54.7
Ukraine	-52.9
Lithuania	-49.6
Estonia	-47.5
Romania	-44.8
Bulgaria	-43.3
Belarus	-38.0
Slovakia	-35.9
Hungary	-34.8
Russian Federation	-33.9
Poland	-30.0
Czech Republic	-22.5
Germany	-21.3
United Kingdom	-17.3
Monaco	-9.3
Sweden	-9.1
Belgium	-8.3
France	-5.3
European Community	-4.3
Denmark	-3.3
Switzerland	-2.7
Netherlands	-2.1
Luxembourg	-1.6
Slovenia	1.9
Croatia	3.2
Liechtenstein	6.1
Italy	7.1
Japan	8.2

Changes in GHG Emissions, 1990 to 2007	
Country	**Percent Change, 1990-2007**
Finland	10.6
Norway	10.8
Austria	11.3
United States	16.8
New Zealand	22.1
Greece	24.9
Ireland	25.0
Canada	26.2
Australia	30.0
Iceland	31.8
Portugal	38.1
Spain	53.5
Turkey	119.1
Average of all reporting countries	-3.9
Note: Excludes land use, land-use change and forestry. **Source:** United Nations, Framework Convention on Climate Change, "National Greenhouse Gas Inventory Data for the Period 1990-2007," Advance Version, FCCC/SBI/2009/12, October 21, 2009.	

Fact #609: February 8, 2010
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 2035, transportation petroleum consumption is expected to grow to more than 17 million barrels per day; at that time, the gap between U.S. production and transportation consumption will be about 5 million barrels per day (when including the non-petroleum sources).

U.S. Petroleum Production and Consumption, 1970-2035



Note: The U.S. Production has two lines after 2005. The solid line is conventional sources of petroleum, including crude oil, natural gas plant liquids, and refinery gains. The dashed line adds in other non-petroleum sources, including ethanol, biomass, liquids from coal, other blending components, other hydrocarbons, and ethers. 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 Transportation Petroleum Use (Million barrels per day)											
Year	Autos	Light Trucks	Medium & Heavy Trucks	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	0.617	0.397	0.347	0.262	0.468	7.621	11.656	11.656
1971	4.220	0.796	0.825	0.616	0.369	0.339	0.263	0.478	7.906	11.537	11.537
1972	4.495	0.894	0.899	0.621	0.376	0.331	0.274	0.490	8.380	11.605	11.605
1973	4.635	0.993	0.986	0.650	0.425	0.338	0.284	0.471	8.783	11.399	11.399
1974	4.401	0.983	0.987	0.592	0.417	0.314	0.293	0.441	8.428	10.942	10.942
1975	4.399	1.126	1.005	0.602	0.440	0.316	0.264	0.397	8.547	10.467	10.467
1976	4.648	1.229	1.062	0.630	0.514	0.327	0.274	0.379	9.064	10.241	10.241
1977	4.697	1.321	1.172	0.638	0.558	0.323	0.279	0.371	9.359	10.387	10.387
1978	4.795	1.426	1.298	0.672	0.655	0.310	0.278	0.370	9.805	10.771	10.771
1979	4.559	1.443	1.342	0.703	0.545	0.316	0.287	0.406	9.600	10.662	10.662
1980	4.169	1.405	1.336	0.677	0.660	0.317	0.278	0.423	9.265	10.797	10.797
1981	4.119	1.400	1.355	0.687	0.601	0.305	0.265	0.427	9.158	10.688	10.688
1982	4.109	1.340	1.350	0.682	0.504	0.283	0.227	0.404	8.898	10.729	10.729
1983	4.168	1.412	1.380	0.680	0.462	0.278	0.226	0.350	8.955	10.734	10.734
1984	4.185	1.510	1.426	0.760	0.457	0.337	0.251	0.369	9.295	11.092	11.092
1985	4.230	1.612	1.434	0.792	0.413	0.350	0.235	0.357	9.424	11.138	11.138
1986	4.327	1.714	1.473	0.861	0.627	0.352	0.230	0.347	9.932	10.847	10.847
1987	4.337	1.804	1.523	0.897	0.653	0.356	0.235	0.365	10.169	10.583	10.583
1988	4.338	1.926	1.553	0.934	0.671	0.357	0.241	0.413	10.432	10.448	10.448
1989	4.373	1.963	1.591	0.936	0.718	0.342	0.243	0.421	10.587	9.820	9.820
1990	4.115	2.102	1.654	0.981	0.683	0.357	0.239	0.436	10.567	9.597	9.597
1991	3.803	2.255	1.691	0.916	0.721	0.365	0.226	0.406	10.382	9.791	9.791
1992	3.870	2.417	1.725	0.930	0.757	0.345	0.231	0.399	10.675	9.667	9.667
1993	3.964	2.530	1.776	0.938	0.680	0.300	0.239	0.418	10.845	9.349	9.349
1994	4.013	2.605	1.871	0.978	0.660	0.309	0.254	0.449	11.140	9.156	9.156
1995	4.022	2.690	1.947	1.011	0.695	0.316	0.264	0.457	11.400	9.096	9.096
1996	4.090	2.795	1.999	1.042	0.667	0.323	0.270	0.462	11.647	9.157	9.157
1997	4.126	2.913	2.021	1.087	0.591	0.337	0.271	0.483	11.828	9.118	9.118
1998	4.233	2.977	2.085	1.120	0.582	0.337	0.273	0.424	12.031	8.897	8.897
1999	4.327	3.118	2.286	1.167	0.647	0.320	0.283	0.429	12.576	8.617	8.617

Historical and Future U.S. Petroleum Production and Transportation Petroleum Use (Million barrels per day)											
Year	Autos	Light Trucks	Medium & Heavy Trucks	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
2000	4.311	3.121	2.375	1.204	0.687	0.326	0.284	0.427	12.734	8.704	8.704
2001	4.339	3.154	2.366	1.139	0.561	0.348	0.285	0.418	12.610	8.573	8.573
2002	4.447	3.156	2.469	1.045	0.590	0.355	0.286	0.440	12.787	8.582	8.582
2003	4.383	3.567	2.401	1.047	0.508	0.364	0.291	0.401	12.963	8.374	8.374
2004	4.419	3.713	2.233	1.109	0.614	0.372	0.307	0.388	13.157	8.302	8.302
2005	4.536	3.446	2.495	1.170	0.647	0.376	0.310	0.398	13.378	7.885	7.885
2006	4.414	3.566	2.546	1.186	0.686	0.376	0.316	0.398	13.488	7.835	7.835
2007	4.368	3.626	2.583	1.185	0.736	0.376	0.311	0.417	13.603	7.843	7.843
2008	4.110	4.774	2.445	1.330	0.663	0.403	0.309	0.440	14.474	8.524	7.743
2009	4.025	4.740	2.211	1.278	0.626	0.415	0.297	0.430	14.022	8.992	8.029
2010	4.070	4.899	2.228	1.282	0.644	0.421	0.274	0.432	14.249	9.112	8.020
2011	4.105	5.064	2.334	1.257	0.664	0.425	0.272	0.421	14.542	9.411	8.236
2012	4.064	5.116	2.438	1.267	0.667	0.435	0.286	0.418	14.691	9.495	8.280
2013	4.027	5.124	2.509	1.285	0.670	0.445	0.296	0.409	14.764	9.749	8.445
2014	3.999	5.119	2.552	1.301	0.672	0.454	0.302	0.411	14.810	9.891	8.516
2015	3.988	5.101	2.586	1.325	0.675	0.454	0.308	0.419	14.856	10.004	8.585
2016	4.001	5.079	2.619	1.345	0.677	0.454	0.308	0.420	14.904	10.067	8.565
2017	4.037	5.067	2.654	1.366	0.680	0.462	0.314	0.423	15.001	10.232	8.670
2018	4.056	5.020	2.695	1.387	0.683	0.469	0.317	0.427	15.054	10.386	8.787
2019	4.120	4.998	2.741	1.407	0.686	0.478	0.322	0.430	15.181	10.603	8.957
2020	4.200	4.966	2.783	1.427	0.689	0.477	0.326	0.432	15.300	10.766	9.057
2021	4.292	4.935	2.813	1.446	0.690	0.475	0.328	0.430	15.411	10.894	9.099
2022	4.406	4.931	2.841	1.462	0.692	0.483	0.332	0.432	15.580	11.024	9.054
2023	4.485	4.885	2.880	1.476	0.694	0.491	0.334	0.457	15.703	10.957	8.976
2024	4.572	4.844	2.928	1.488	0.698	0.500	0.336	0.486	15.852	10.998	8.963
2025	4.666	4.810	2.979	1.499	0.700	0.499	0.338	0.489	15.980	11.151	9.041
2026	4.762	4.788	3.031	1.509	0.703	0.504	0.343	0.491	16.130	11.296	9.104
2027	4.855	4.773	3.081	1.518	0.706	0.509	0.343	0.495	16.279	11.482	9.185
2028	4.919	4.734	3.129	1.526	0.708	0.513	0.346	0.500	16.375	11.528	9.149
2029	4.992	4.708	3.177	1.535	0.710	0.518	0.349	0.500	16.488	11.626	9.166
2030	5.088	4.708	3.230	1.543	0.712	0.523	0.350	0.502	16.656	11.699	9.149
2031	5.182	4.704	3.281	1.552	0.713	0.518	0.354	0.502	16.807	11.806	9.122

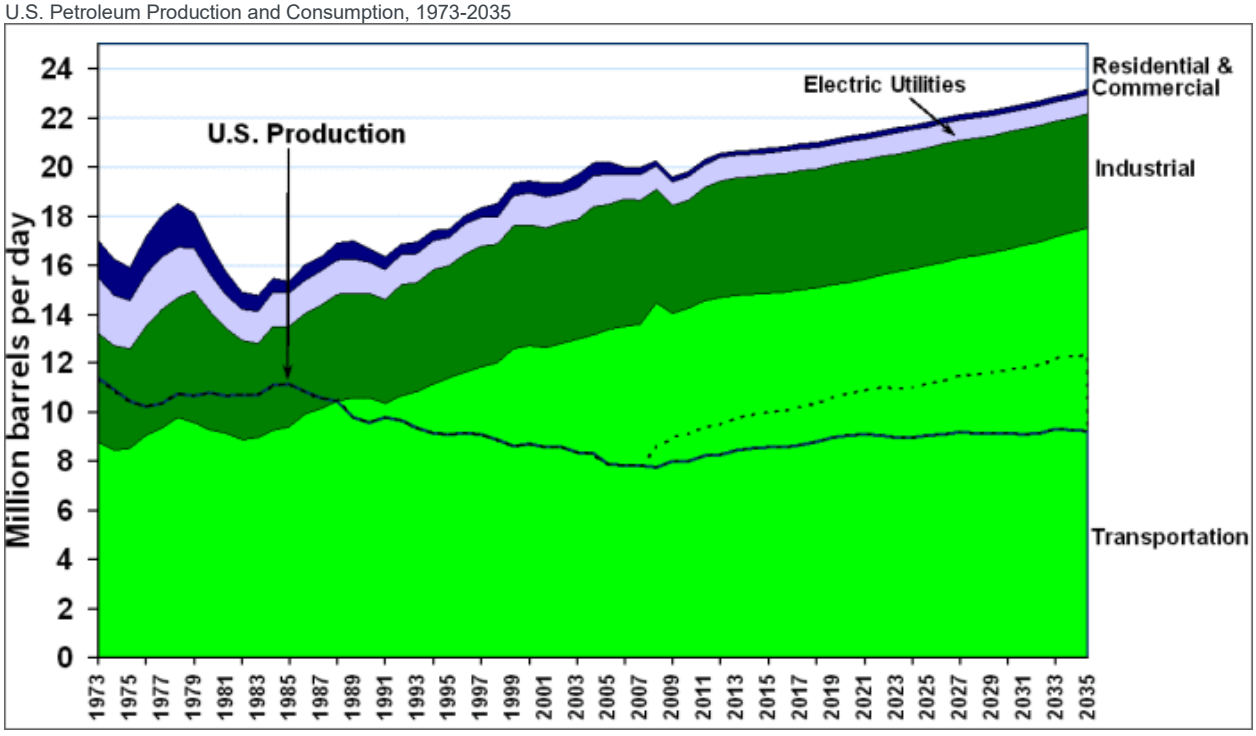
Historical and Future U.S. Petroleum Production and Transportation Petroleum Use (Million barrels per day)											
Year	Autos	Light Trucks	Medium & Heavy Trucks	Air	Water	Off-Highway	Rail	Pipeline	Total Transportation	U.S. Petroleum Production with Other Inputs 2007-on (dotted line)	U.S. Petroleum Production without Other Inputs 2007-on
2032	5.268	4.696	3.331	1.559	0.715	0.518	0.355	0.505	16.946	11.936	9.149
2033	5.380	4.715	3.386	1.565	0.718	0.518	0.357	0.505	17.144	12.200	9.304
2034	5.474	4.720	3.444	1.573	0.720	0.518	0.359	0.507	17.315	12.301	9.278
2035	5.567	4.729	3.507	1.580	0.722	0.523	0.361	0.508	17.496	12.339	9.234

Sources:
1973-2007 from Davis, S.C. and Diegel, S.W., "Transportation Energy Data Book: Edition 28," Oak Ridge National Laboratory, Oak Ridge, TN, 2009.
2008-2035 from EIA, "Annual Energy Outlook 2010," Energy Information Administration, DOE/EIA-0383(2010), U.S. Department of Energy, Washington, DC, 2010.

Fact #610: February 15, 2010
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 2035, the gap is expected to be at least 10.8 million barrels per day if all sources of petroleum are included or 13.9 million barrels per day if only conventional petroleum sources are used.

U.S. Petroleum Production and Consumption, 1973-2035



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 2008 and 2009 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	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	8.43	4.30	2.04	1.48	16.24	10.94	10.94
1975	8.55	4.04	1.95	1.39	15.92	10.47	10.47
1976	9.06	4.46	2.13	1.52	17.17	10.24	10.24
1977	9.36	4.82	2.14	1.71	18.03	10.39	10.39
1978	9.80	4.87	2.07	1.75	18.49	10.77	10.77
1979	9.60	5.34	1.73	1.44	18.11	10.66	10.66
1980	9.26	4.86	1.52	1.15	16.80	10.80	10.80
1981	9.16	4.27	1.33	0.96	15.73	10.69	10.69
1982	8.90	4.06	1.24	0.69	14.89	10.73	10.73
1983	8.95	3.85	1.29	0.68	14.78	10.73	10.73
1984	9.30	4.20	1.38	0.56	15.45	11.09	11.09
1985	9.42	4.07	1.34	0.48	15.31	11.14	11.14
1986	9.93	4.09	1.37	0.64	16.02	10.85	10.85
1987	10.17	4.21	1.40	0.55	16.33	10.58	10.58
1988	10.43	4.36	1.41	0.69	16.89	10.45	10.45
1989	10.59	4.25	1.39	0.75	16.97	9.82	9.82
1990	10.57	4.30	1.23	0.57	16.67	9.60	9.60
1991	10.38	4.22	1.21	0.53	16.33	9.79	9.79
1992	10.67	4.53	1.20	0.44	16.84	9.67	9.67
1993	10.84	4.44	1.18	0.49	16.96	9.35	9.35
1994	11.14	4.67	1.17	0.47	17.44	9.16	9.16
1995	11.40	4.59	1.13	0.33	17.46	9.10	9.10
1996	11.65	4.83	1.21	0.36	18.05	9.16	9.16
1997	11.83	4.95	1.16	0.41	18.35	9.12	9.12
1998	12.03	4.84	1.08	0.58	18.53	8.90	8.90

Historical and Future U.S. Petroleum Production and Transportation 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
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
2003	12.96	4.90	1.28	0.53	19.67	8.37	8.37
2004	13.16	5.23	1.26	0.54	20.19	8.30	8.30
2005	13.38	5.10	1.20	0.55	20.22	7.88	7.88
2006	13.49	5.19	1.03	0.29	19.99	7.83	7.83
2007	13.60	5.05	1.04	0.29	19.99	7.84	7.84
2008	14.47	4.60	0.96	0.21	20.25	8.52	7.74
2009	14.02	4.398	0.98	0.207	19.60	8.99	8.03
2010	14.25	4.413	0.95	0.203	19.81	9.11	8.02
2011	14.54	4.612	0.94	0.206	20.29	9.41	8.24
2012	14.69	4.746	0.93	0.207	20.58	9.49	8.28
2013	14.76	4.776	0.92	0.202	20.66	9.75	8.45
2014	14.81	4.787	0.90	0.202	20.70	9.89	8.52
2015	14.86	4.819	0.89	0.204	20.77	10.00	8.58
2016	14.90	4.844	0.88	0.205	20.84	10.07	8.57
2017	15.00	4.862	0.87	0.205	20.94	10.23	8.67
2018	15.05	4.863	0.86	0.207	20.99	10.39	8.79
2019	15.18	4.887	0.86	0.208	21.13	10.60	8.96
2020	15.30	4.888	0.85	0.209	21.25	10.77	9.06
2021	15.41	4.870	0.85	0.211	21.34	10.89	9.10
2022	15.58	4.843	0.84	0.211	21.48	11.02	9.05
2023	15.70	4.830	0.84	0.212	21.58	10.96	8.98
2024	15.85	4.813	0.83	0.213	21.71	11.00	8.96
2025	15.98	4.810	0.83	0.213	21.83	11.15	9.04
2026	16.13	4.817	0.82	0.214	21.98	11.30	9.10

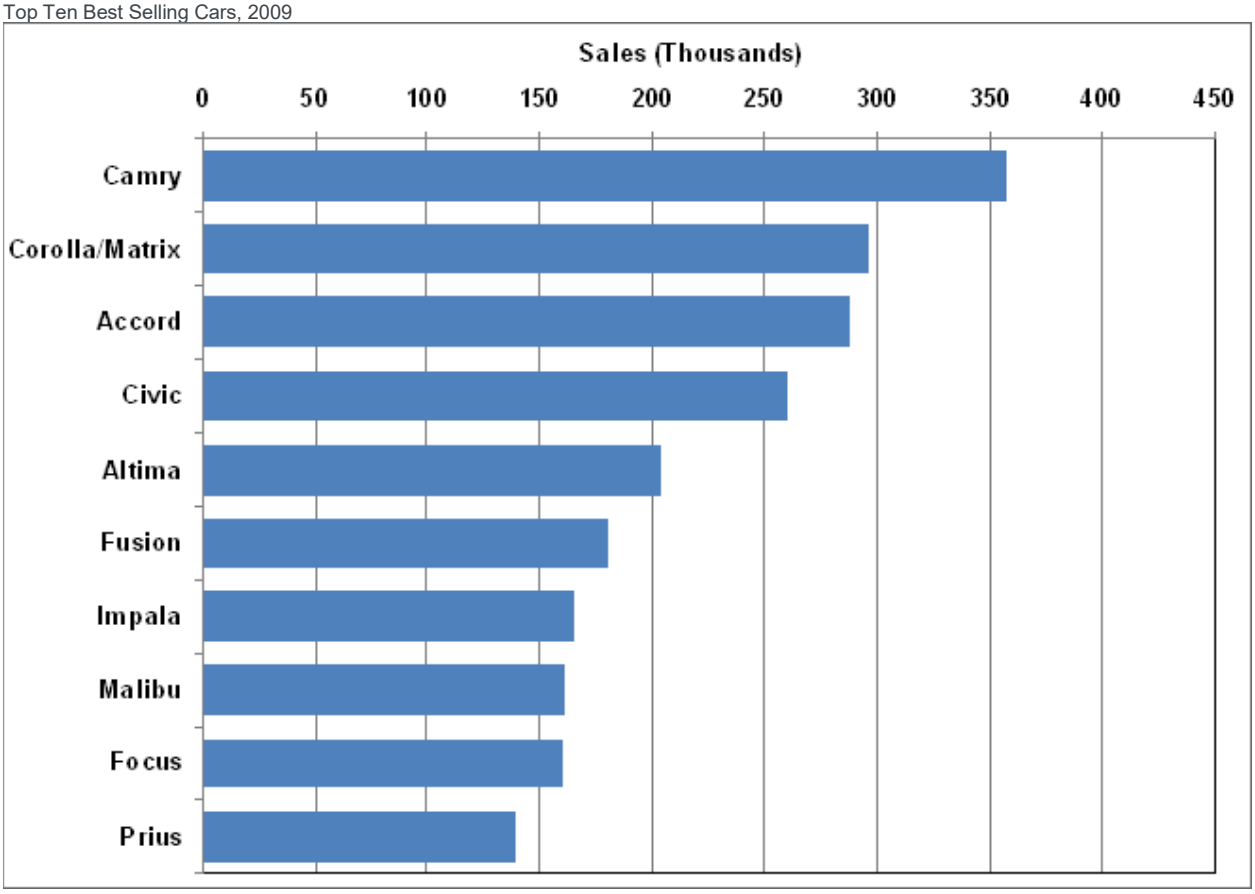
Historical and Future U.S. Petroleum Production and Transportation Petroleum Use (Million barrels per day)							
Year	Transportation	Industrial	Residential and Commercial	Electric Utilities	Total	U.S. Petroleum Production with Other Inputs 2007-on (dotted line)	U.S. Petroleum Production without Other Inputs 2007-on
2027	16.28	4.796	0.82	0.214	22.11	11.48	9.18
2028	16.37	4.786	0.82	0.215	22.19	11.53	9.15
2029	16.49	4.766	0.81	0.215	22.28	11.63	9.17
2030	16.66	4.761	0.81	0.216	22.44	11.70	9.15
2031	16.81	4.748	0.80	0.217	22.58	11.81	9.12
2032	16.95	4.725	0.80	0.217	22.69	11.94	9.15
2033	17.14	4.706	0.80	0.218	22.86	12.20	9.30
2034	17.31	4.687	0.79	0.219	23.01	12.30	9.28
2035	17.50	4.670	0.79	0.219	23.17	12.34	9.23

Sources:
1973-2008 from Davis, S.C. and Diegel, S.W., "Transportation Energy Data Book: Edition 28," Oak Ridge National Laboratory, Oak Ridge, TN, 2009.
2009-2035 from EIA, 2008, "Annual Energy Outlook 2010," Energy Information Administration, DOE/EIA-0383(2010), U.S. Department of Energy, Washington, DC, 2010.

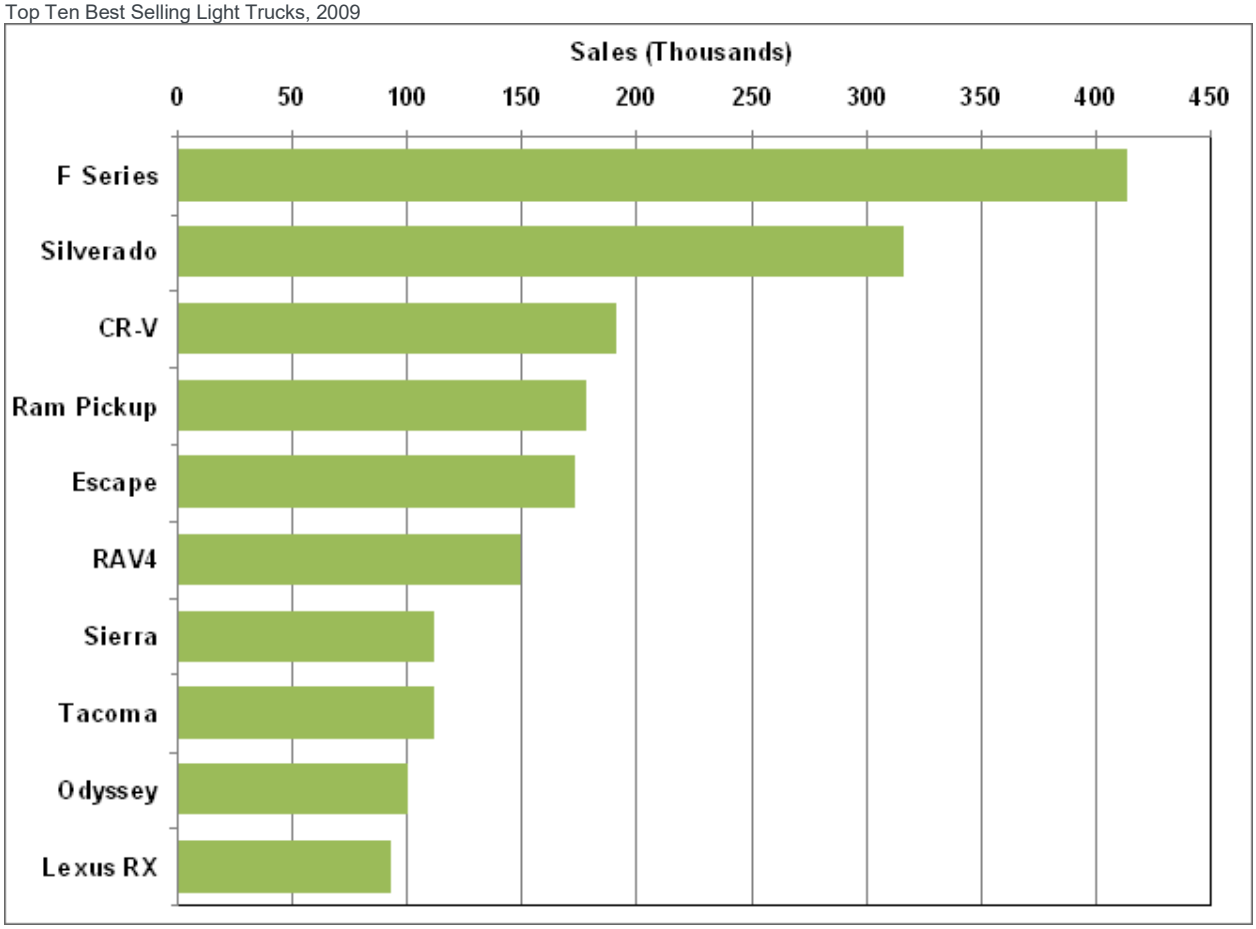
Fact #611: February 22, 2010
Top Ten Best Selling Cars and Light Trucks

The top ten lists of best selling cars and light trucks in 2009 show that the Toyota Camry was the best selling car, while the Ford F-Series pickup was the best selling light truck. The F-Series outsold the Camry by about 50,000 units. The hybrid Toyota Prius was the tenth bestselling car in 2009.

Top Ten Best Selling Cars, 2009



Top Ten Best Selling Light Trucks, 2009



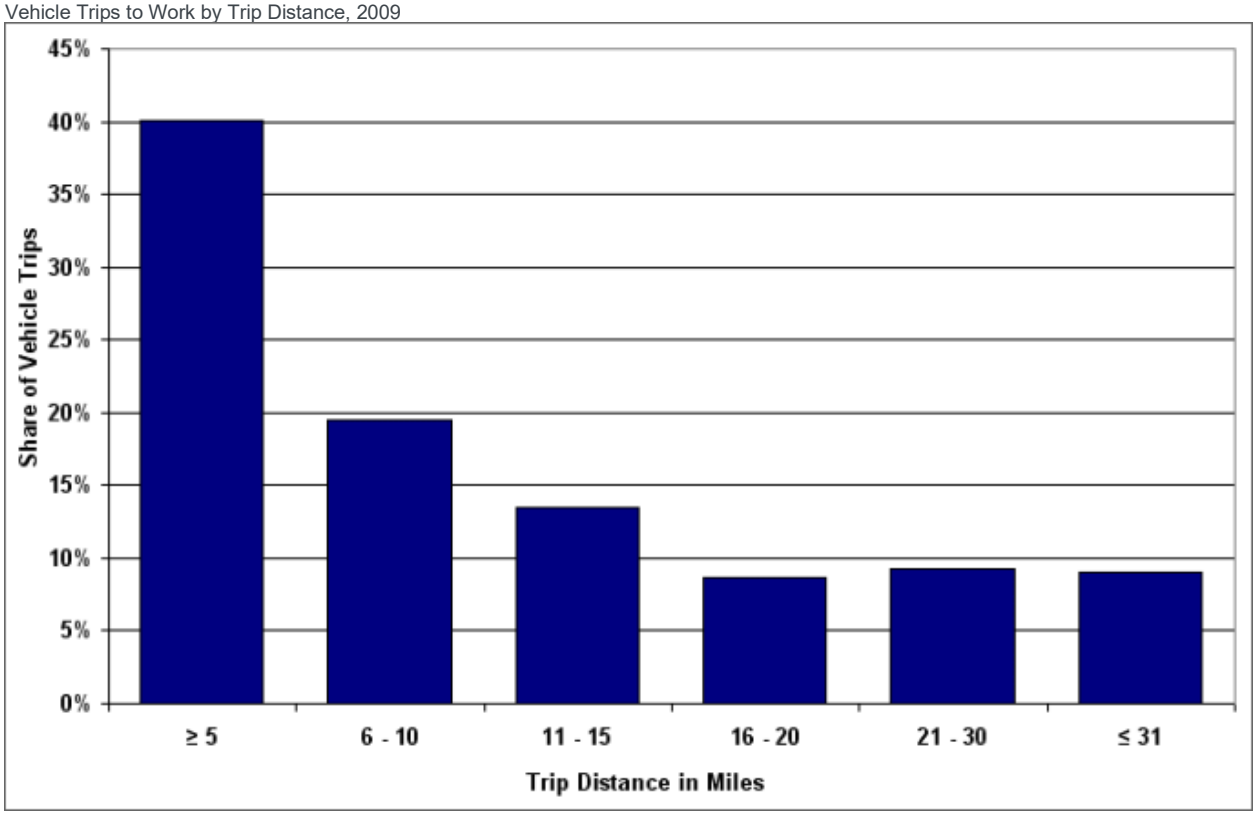
Supporting Information

Top Ten Best Selling Cars and Light Trucks, 2009				
	Cars		Light Trucks	
Rank	Make/Model	Sales (Thousands)	Make/Model	Sales (Thousands)
1	Toyota Camry	356.8	Ford F-Series	413.6
2	Toyota Corolla/Matrix	296.9	Chevrolet Silverado	316.5
3	Honda Accord	287.5	Honda CR-V	191.2
4	Honda Civic	259.7	Dodge Ram Pickup	177.3
5	Nissan Altima	203.6	Ford Escape	173.0
6	Ford Fusion	180.1	Toyota RAV4	149.1
7	Chevrolet Impala	165.6	GMC Sierra	111.8
8	Chevrolet Malibu	161.6	Toyota Tacoma	111.8
9	Ford Focus	160.4	Honda Odyssey	100.1
10	Toyota Prius	139.7	Lexus RX	93.4
Source: Ward's AutoInfoBank.				

Fact #612: March 1, 2010
The Distance of Trips to Work

The recently released Nationwide Household Travel Survey shows that nearly 60% of work trips are 10 miles or less in distance. Only 9% of work trips are over 30 miles. The average work trip distance is 13.9 miles.

Vehicle Trips to Work by Trip Distance, 2009



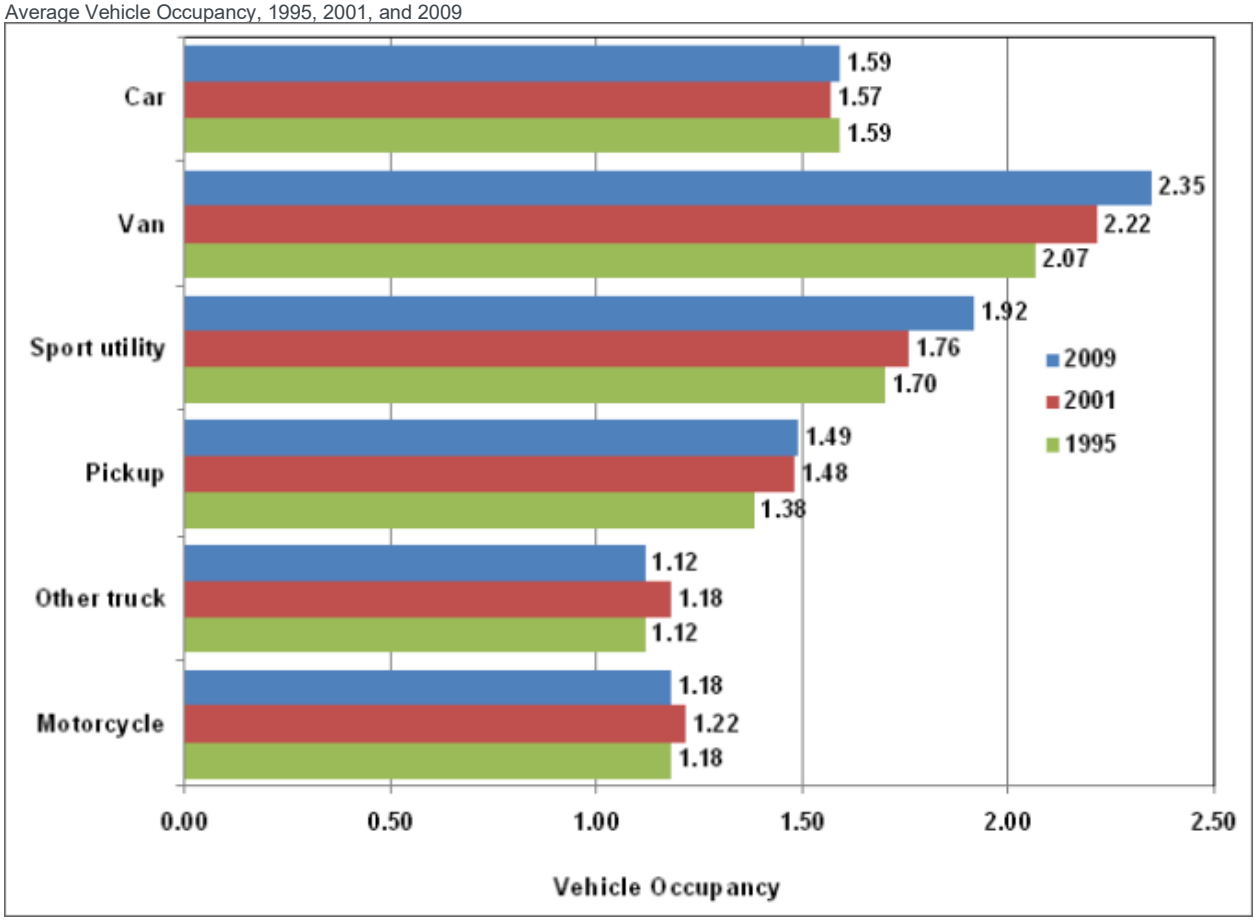
Supporting Information

Vehicle Trips to Work by Trips Distance, 2009		
NHTS		
Trip Distance	**Vehicle Trips (Millions)**	**Percent**
≥ 5 miles	13,981	40.0%
6–10 miles	6,826	19.5%
11–15 miles	4,723	13.5%
16–20 miles	3,013	8.6%
21–30 miles	3,224	9.2%
≤ 31 miles	3,152	9.0%
Total	34,919	100.0%
Source: Generated from the National Household Travel Survey (NHTS) Internet site.		

Fact #613: March 8, 2010
Vehicle Occupancy Rates

The average number of persons occupying a car is 1.59 and has not changed much since 1995. The largest increases from 1995 to 2009 have been in the occupancy rates for vans – from 2.07 to 2.35 – and sport-utility vehicles – from 1.70 to 1.92 persons per vehicle.

Average Vehicle Occupancy, 1995, 2001, and 2009



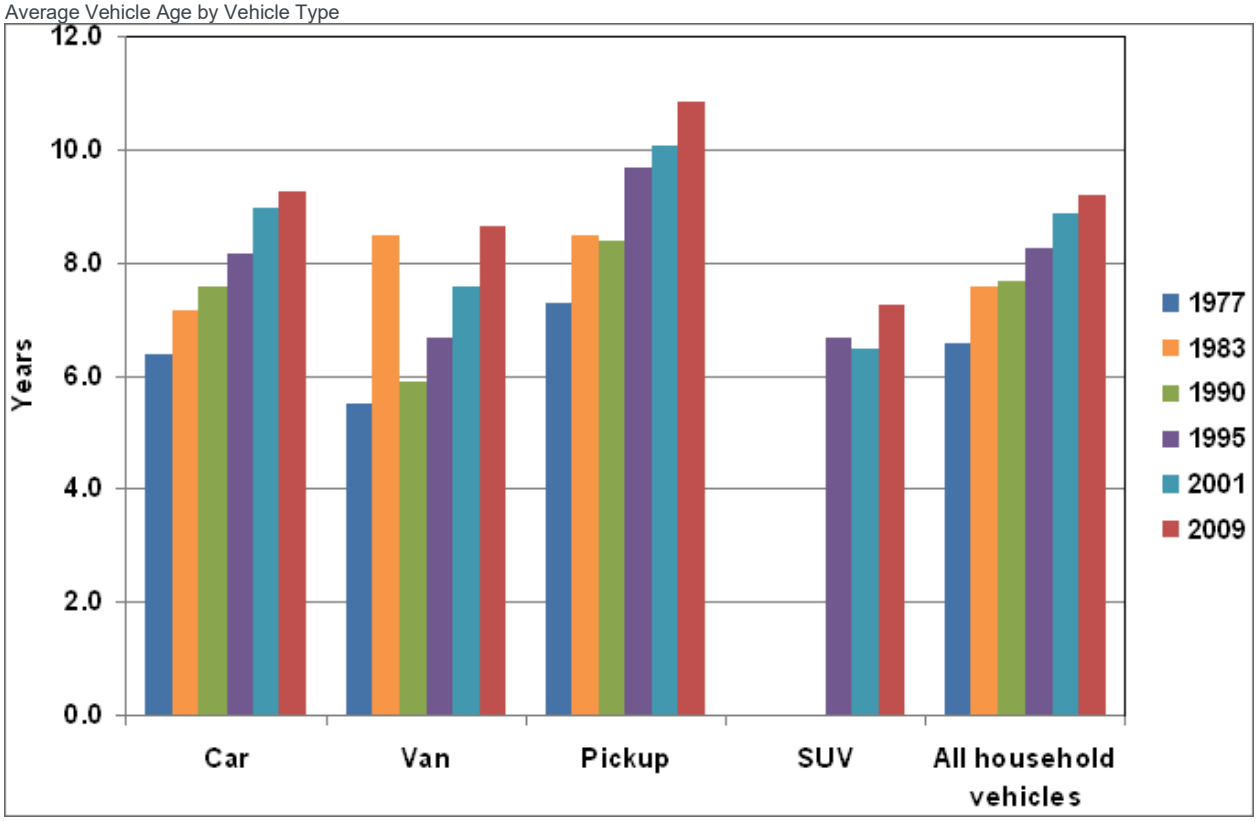
Supporting Information

Average Vehicle Occupancy, 1995, 2001, and 2009			
Mode	**1995**	**2001**	**2009**
Car	1.59	1.57	1.59
Van	2.07	2.22	2.35
Sport utility	1.70	1.76	1.92
Pickup	1.38	1.48	1.49
Other truck	1.12	1.18	1.12
Motorcycle	1.18	1.22	1.18</TD< TR>
Sources: U.S. Department of Transportation, 2001 and 2009 National Household Travel Survey. U.S. Department of Transportation, *1995 NPTS Databook*, October 2001, p. 7-13.			

Fact #614: March 15, 2010
Average Age of Household Vehicles

The average age of household vehicles has increased from 6.6 years in 1977 to 9.2 years in 2009. Pickup trucks have the oldest average age in every year listed. Sport utility vehicles (SUVs), first reported in the 1995 survey, have the youngest average age.

Average Vehicle Age by Vehicle Type



Supporting Information

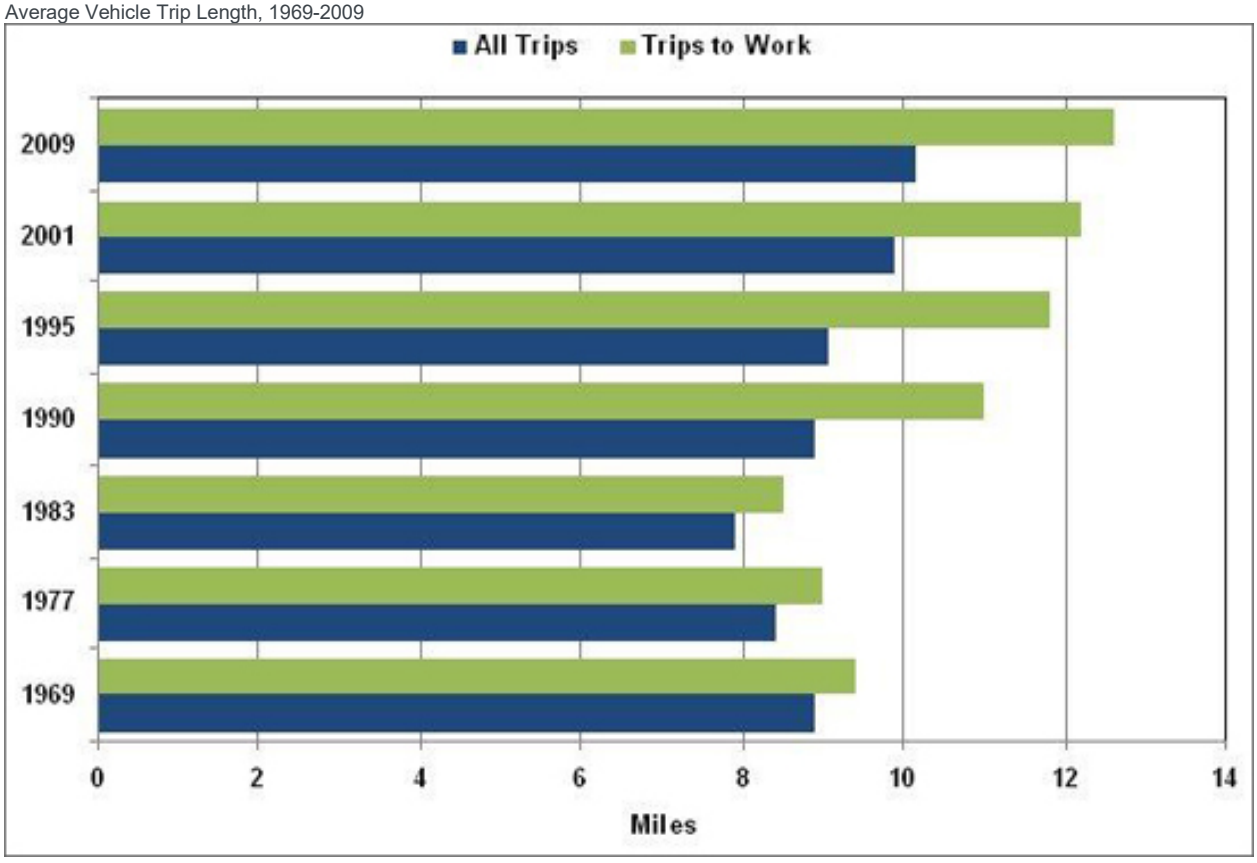
Average Vehicle Age by Type of Vehicle						
Vehicle Type	**1977**	**1983**	**1990**	**1995**	**2001**	**2009**
Car	6.4	7.2	7.6	8.2	9.0	9.3
Van	5.5	8.5	5.9	6.7	7.6	8.7
Pickup	7.3	8.5	8.4	9.7	10.1	10.9
SUV	n/a	n/a	n/a	6.7	6.5	7.3
All household vehicles	6.6	7.6	7.7	8.3	8.9	9.2

n/a = not available.
Sources: U.S. Department of Transportation, 1977, 1983, 1990 and 1995 Nationwide Personal Transportation Surveys, public use files. 2001 and 2009 National Household Travel Surveys.

Fact #615: March 22, 2010
Average Vehicle Trip Length

According to the latest National Household Travel Survey, the average trip length grew to over 10 miles in 2009, just slightly over the 9.9 mile average in 2001. Trips to work in 2009 increased to an average of 12.6 miles. The average trip length has been growing each survey year since the lowest average in 1983.

Average Vehicle Trip Length, 1969-2009



Note: A vehicle trip is defined as a trip from one address to another by a single privately-operated vehicle regardless of the number of persons in the vehicle.

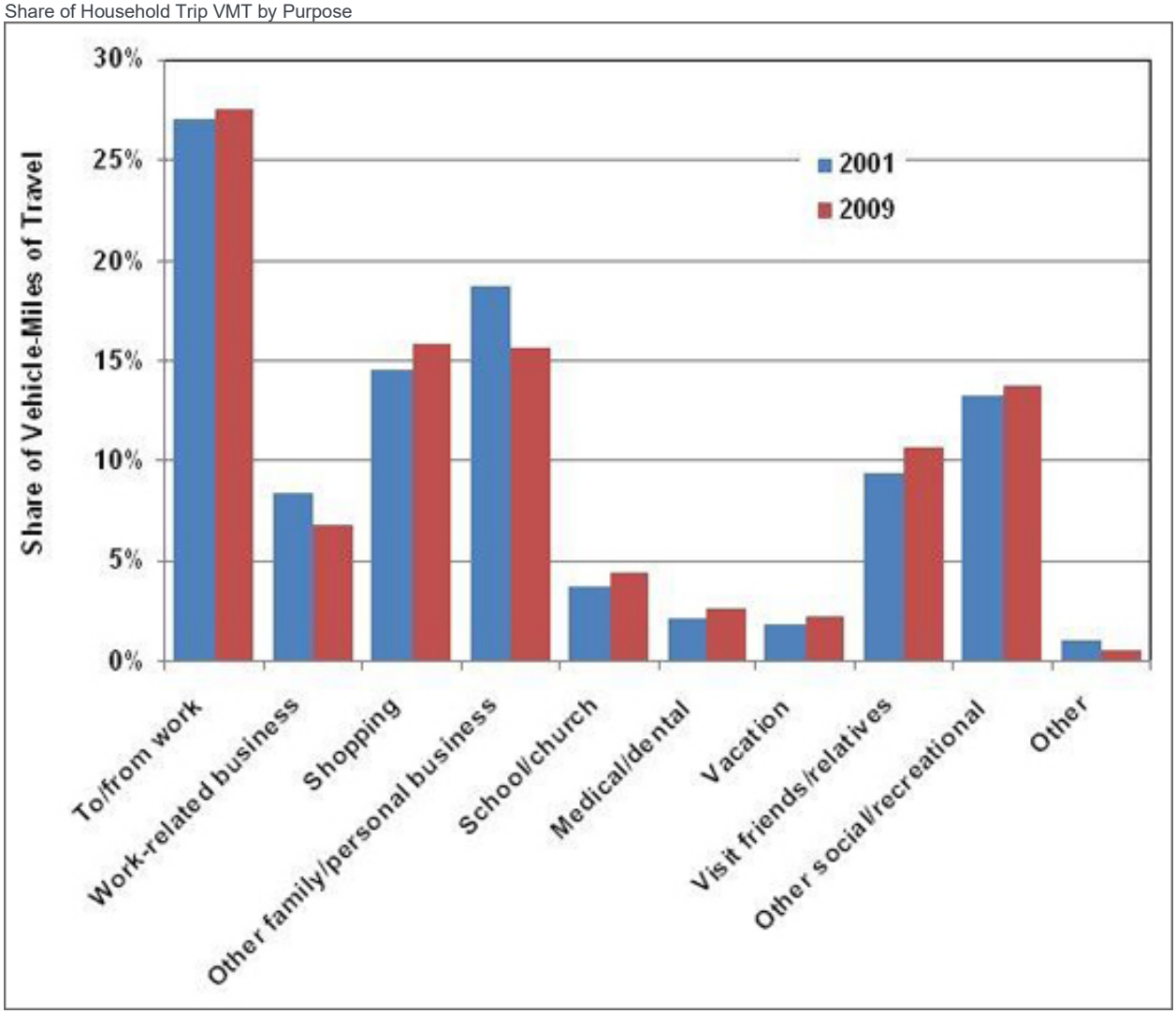
Supporting Information

Average Vehicle Trip Length, 1969-2009		
Survey Year	**Average Vehicle Trip Length for All Trips (miles)**	**Average Journey-to-Work Trip Length (miles)**
1969	8.9	9.4
1977	8.4	9.0
1983	7.9	8.5
1990	8.9	11.0
1995	9.1	11.8
2001	9.9	12.2
2009	10.1	12.6
Sources: Nationwide Household Travel Survey website.		

Fact #616: March 29, 2010
Household Vehicle-Miles of Travel by Trip Purpose

In 2009, getting to and from work accounted for about 27% of household vehicle-miles of travel (VMT). Work-related business was 8.4% of VMT in 2001, but declined to 6.7% in 2009, possibly due to advancements in computing technology making it possible for more business to be handled electronically. VMT for shopping was almost 16% of VMT, up about 1% from the 2001 level.

Share of Household Trip VMT by Purpose



Supporting Information

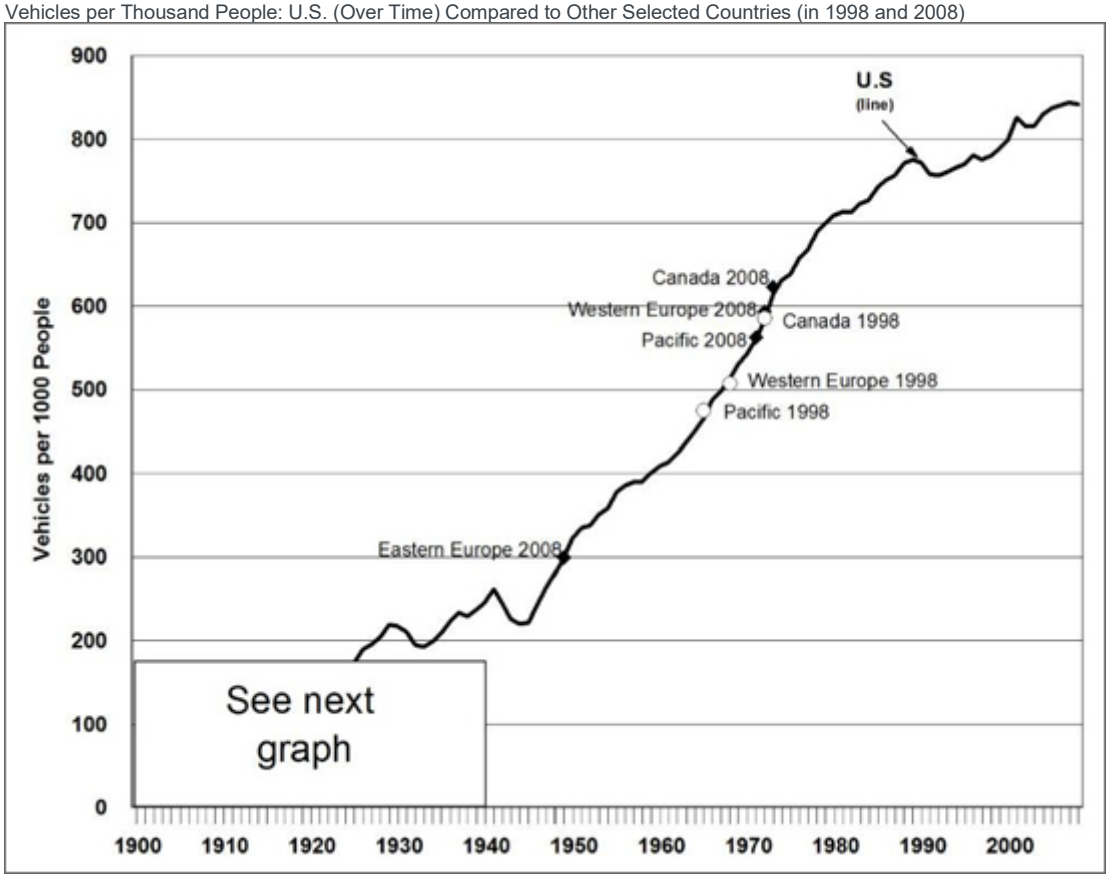
Share of Vehicle Miles of Travel by Trip Purpose, 2001 and 2009 NHTS		
	Shares of vehicle-miles traveled	
Trip Purpose	**2001**	**2009**
To/from work	27.0%	27.5%
Work-related business	8.4%	6.7%
Shopping	14.5%	15.8%
Other family/personal business	18.7%	15.7%
School/church	3.7%	4.4%
Medical/dental	2.2%	2.7%
Vacation	1.8%	2.2%
Visit friends/relatives	9.4%	10.7%
Other social/recreational	13.2%	13.7%
Other	1.0%	0.5%
All	100.0%	100.0%
Source: Generated from the National Household Travel Survey website.		

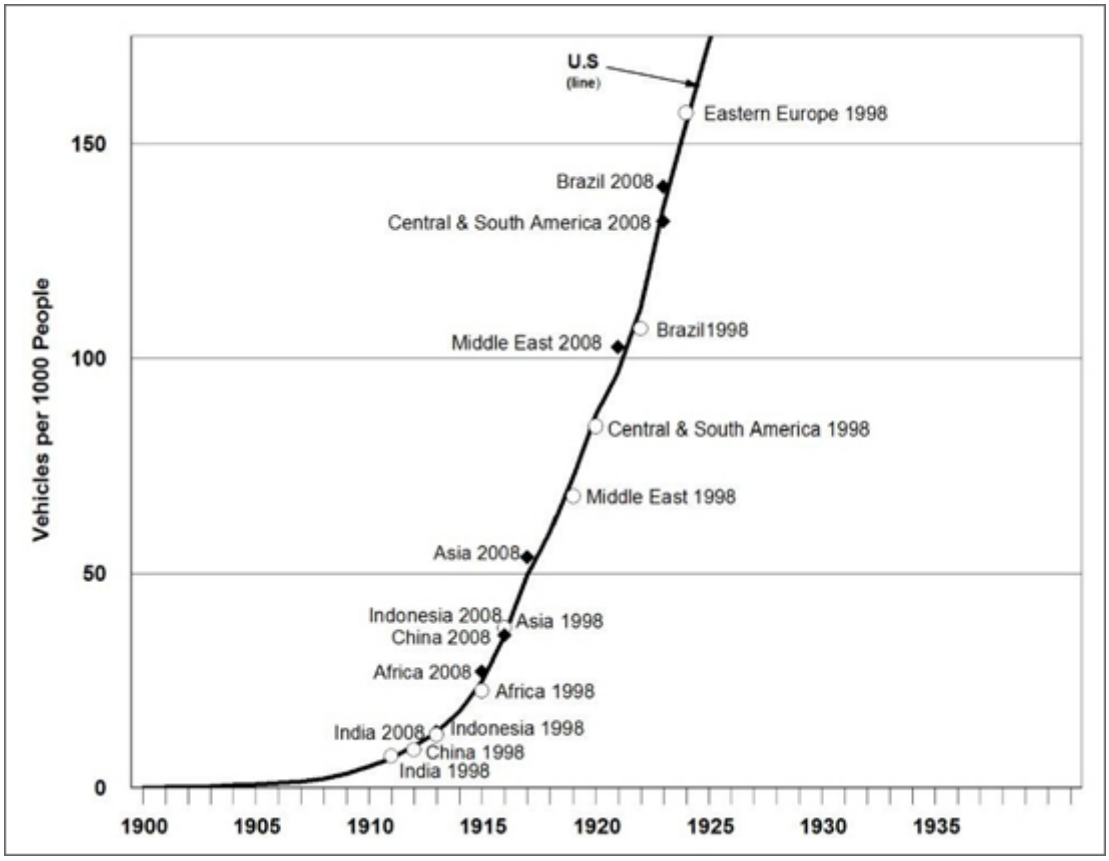
Fact #617: April 5, 2010
Changes in Vehicles per Capita around the World

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 2008. 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, 1998 and 2008. For instance, the top graph shows that in 1998, Western Europe's vehicles per thousand people was about where the U.S. was in 1968, but by 2008 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 1998 to 2008.

Vehicles per Thousand People: U.S. (Over Time) Compared to Other Selected Countries (in 1998 and 2008)




U.S
(line)
Eastern Europe 1998
Brazil 2008
Central & South America 2008
Brazil1998
Middle East 2008
Central & South America 1998
Middle East 1998
Asia 2008
Indonesia 2008
Asia 1998
China 2008
Africa 2008
Africa 1998
India 2008
Indonesia 1998
China 1998
India 1998
Vehicles per 1000 People
0
50
100
150
1900
1905
1910
1915
1920
1925
1930
1935

Supporting Information

Other Countries' Vehicles per Thousand People, 1998 and 2008		
	Vehicles per 1000 People	
Country/Region	**1998**	**2008**
Africa	22.8	27.2
Asia, Far East	37.5	53.8
Asia, Middle East	68.0	102.7
Brazil	106.9	140.0
Canada	585.5	623.0
Central & South America	84.3	131.9
China	9.0	35.7
Europe, East	157.2	300.0
Europe, West	507.2	593.2
India	7.6	13.2
Indonesia	12.5	34.7
Pacific	475.1	563.1

U.S. Vehicles per Thousand People, 1900-2008					
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	800.30
1921	96.68	1961	413.53	2001	825.61
1922	111.53	1962	424.31	2002	815.44
1923	134.90	1963	436.99	2003	815.82
1924	154.35	1964	449.81	2004	829.69
1925	173.26	1965	465.03	2005	837.12
1926	189.10	1966	486.89	2006	840.74
1927	195.77	1967	497.50	2007	844.38
1928	204.87	1968	513.12	2008	841.67

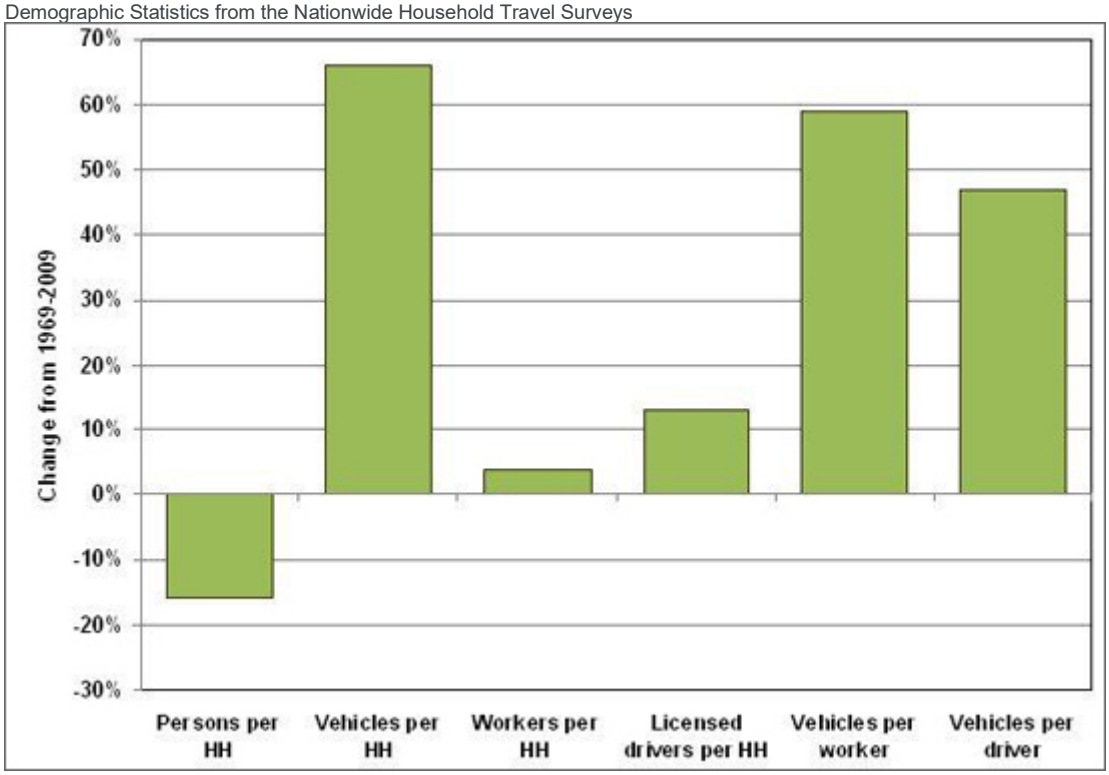
U.S. Vehicles per Thousand People, 1900-2008					
Year	**U.S. Vehicles per 1000 People**	**Year**	**U.S. Vehicles per 1000 People**	**Year**	**U.S. Vehicles per 1000 People**
1929	219.31	1969	529.97		
1930	217.34	1970	542.51		
1931	210.37	1971	560.19		
1932	195.38	1972	583.89		
1933	192.38	1973	613.59		
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		

Sources:
Population – (2008) U.S. Census Bureau, Population Division, International Data Base (IDB), February, 2010. (Additional resources: U.S. Census Bureau, International Data Base (IDB) Web site).
Vehicles – (2008) U.S.: U.S. Department of Transportation, Federal Highway Administration, *Highway Statistics 2008*, Washington, D.C. 2009. All others: Ward's Communications, Ward's World Motor Vehicle Data 2009, pp. 257-260. (Additional resources: U.S. Department of Tansporation, Federal Highway Administration Web site, Ward's Auto Web site).

Fact #618: April 12, 2010
Vehicles per Household and Other Demographic Statistics

Since 1969, the number of vehicles per household has increased by 66% and the number of vehicles per licensed driver has increased by 47%. The number of workers per household has changed the least of the statistics shown here. There has been a decline in the number of persons per household from 1969 to 2009.

Demographic Statistics from the Nationwide Household Travel Surveys



Supporting Information

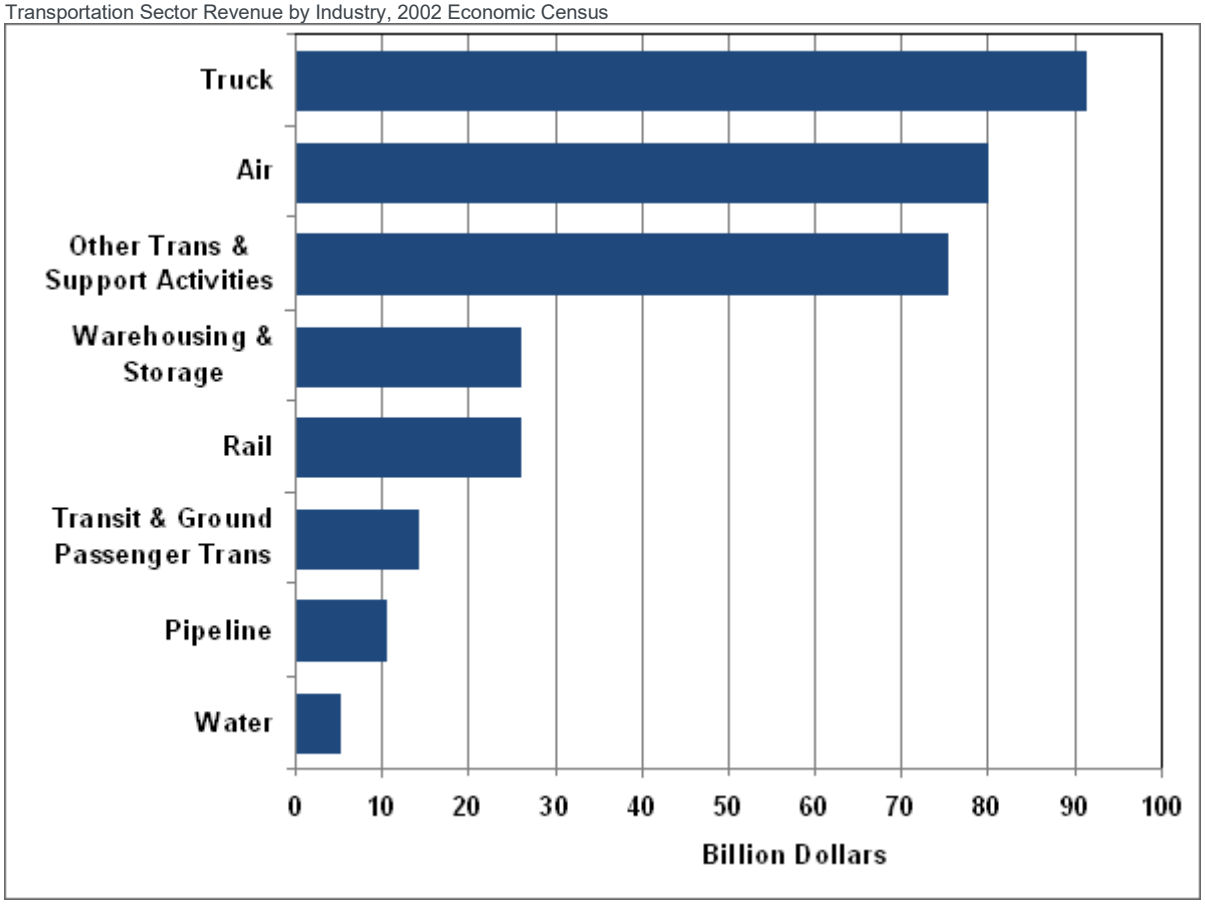
Demographic Statistics from the 1969, 1977, 1983, 1990, 1995 NPTS and 2001, 2009 NHTS								
	1969	**1977**	**1983**	**1990**	**1995**	**2001**	**2009**	**Percent change 1969–2009**
Persons per household	3.16	2.83	2.69	2.56	2.63	2.58	2.66	-16%
Vehicles per household	1.16	1.59	1.68	1.77	1.78	1.89	1.92	66%
Workers per household	1.21	1.23	1.21	1.27	1.33	1.35	1.26	4%
Licensed drivers per household	1.65	1.69	1.72	1.75	1.78	1.77	1.87	13%
Vehicles per worker	0.96	1.29	1.39	1.40	1.34	1.39	1.52	59%
Vehicles per licensed driver	0.70	0.94	0.98	1.01	1.00	1.06	1.03	47%

Sources:
U.S. Department of Transportation, Federal Highway Administration, 1990 Nationwide Personal Transportation Survey: Summary of Travel Trends, FHWA-PL-92-027, Washington, DC, March 1992, Table 2. Data for 1995, 2001 and 2009 were generated from the National Household Travel Survey Web site.
Note: Average vehicle trip length for 1990 and 1995 is calculated using only those records with trip mileage information present. The 1969 survey does not include pickups and other light trucks as household vehicles.

Fact #619: April 19, 2010
Transportation Sector Revenue by Industry

According the latest Economic Census (2002), the trucking industry is the largest contributor of revenue in the transportation sector, contributing more than one-quarter of the sectors revenue. The air industry contributes just under one-quarter, as does other transportation and support activities, which include sightseeing, couriers and messengers, towing services, port and airport operations, and other support activities.

Transportation Sector Revenue by Industry, 2002 Economic Census



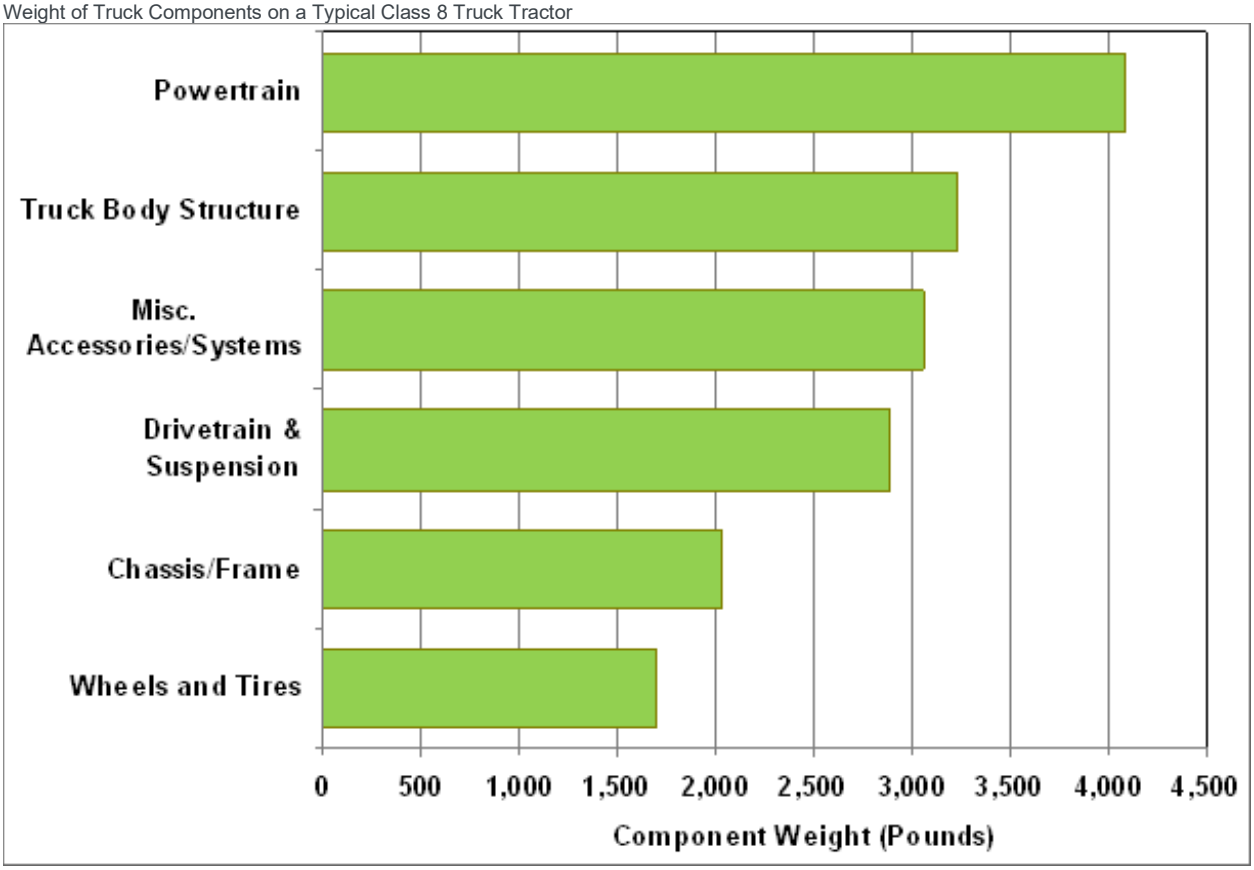
Supporting Information

Transportation Sector Revenue by Industry, 2002 Economic Census		
Industry	**Billion Dollars**	**Share of Total**
Truck	91.4	27.8%
Air	80.0	24.3%
Other Transportation & Support Activities	75.5	22.9%
Warehousing & Storage	26.1	7.9%
Rail	26.0	7.9%
Transit & Ground Passenger Transportation	14.4	4.4%
Pipeline	10.4	3.2%
Water	5.3	1.6%
Total	329.1	100.0%
Source: National Academy of Sciences, *Technologies and Approaches to Reducing the Fuel Consumption of Medium and Heavy-Duty Vehicles*, prepublication copy, March 2010, p. 1-8. **Original source:** U.S. Department of Commerce, Bureau of the Census, 2005.		

Fact #620: April 26, 2010
Class 8 Truck Tractor Weight by Component

A typical class 8 truck tractor weighs about 17,000 lbs. The powertrain is nearly a quarter of the weight (24%) while the truck body structure is 19%.

Weight of Truck Components on a Typical Class 8 Truck Tractor



- Powertrain includes engine and cooling system, transmission and accessories.
- Truck body structure includes cab-in-white, sleeper unit, hood and fairings, interior and glass.
- Miscellaneous accessories/systems include batteries, fuel system, and exhaust hardware.
- Drivetrain and suspension includes drive axles, steer axle, and suspension system.
- Chassis/frame includes frame rails and crossmembers, fifth wheel and brackets. Wheels and tires include a set of 10 aluminum wheels, plus tires.

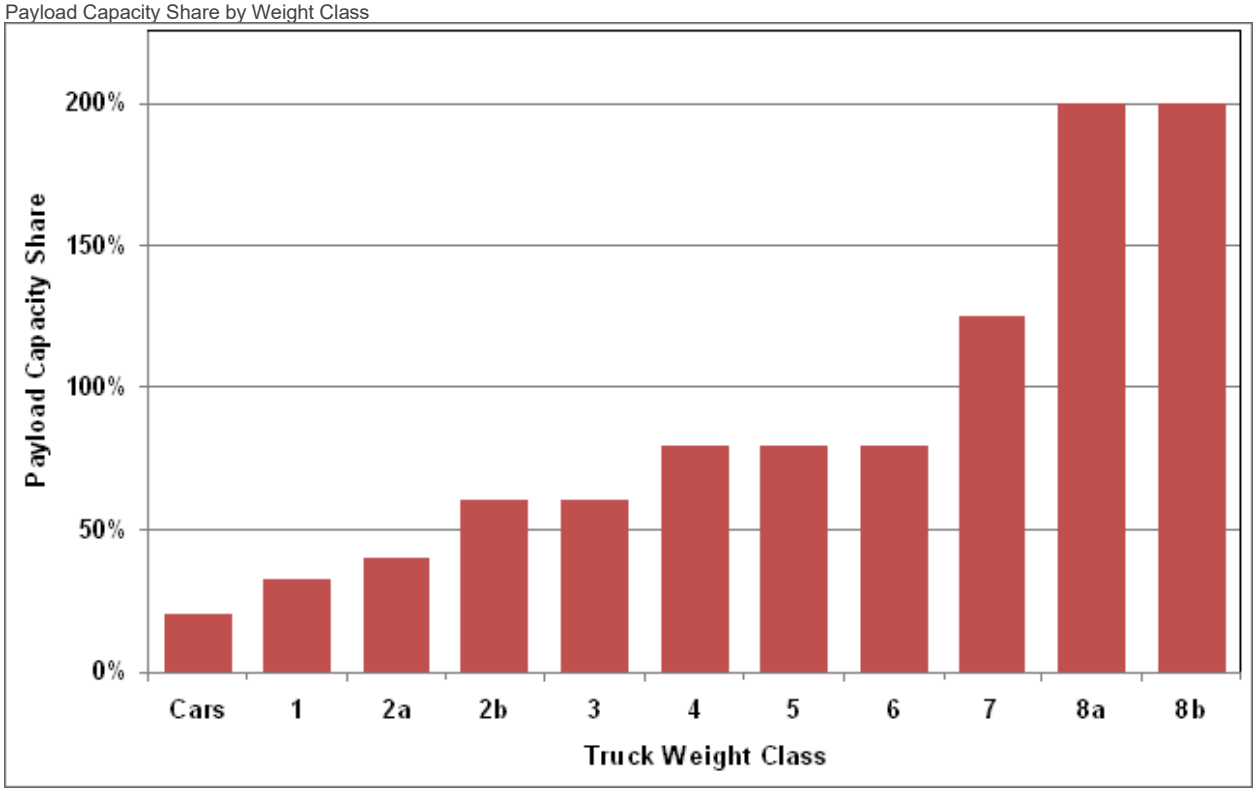
Supporting Information

Weight of Truck Components on a Typical Class 8 Truck Tractor		
	Pounds	**Share of Total**
Wheels and Tires	1,700	10%
Chassis/Frame	2,040	12%
Drivetrain & Suspension	2,890	17%
Misc. Accessories/Systems	3,060	18%
Truck Body Structure	3,230	19%
Powertrain	4,080	24%
Total	17,000	100%
Source: National Academy of Sciences, *Technologies and Approaches to Reducing the Fuel Consumption of Medium and Heavy-Duty Vehicles*, prepublication copy, March 2010, p. 5-42.		

Fact #621: May 3, 2010
Gross Vehicle Weight vs. Empty Vehicle Weight

The gross weight of a vehicle (GVW) is the weight of the empty vehicle plus the weight of the maximum payload that the vehicle was designed to carry. In cars and small light trucks, the difference between the empty weight of the vehicle and the GVW is not significantly different (1,000 to 1,500 lbs.). The largest trucks and tractor-trailers, however, have a payload capacity share of 200%, which means they can carry 200% of their empty weight. The medium-sized trucks (truck classes 3-6) have payload capacity shares between 50% and 100%.

Payload Capacity Share by Weight Class



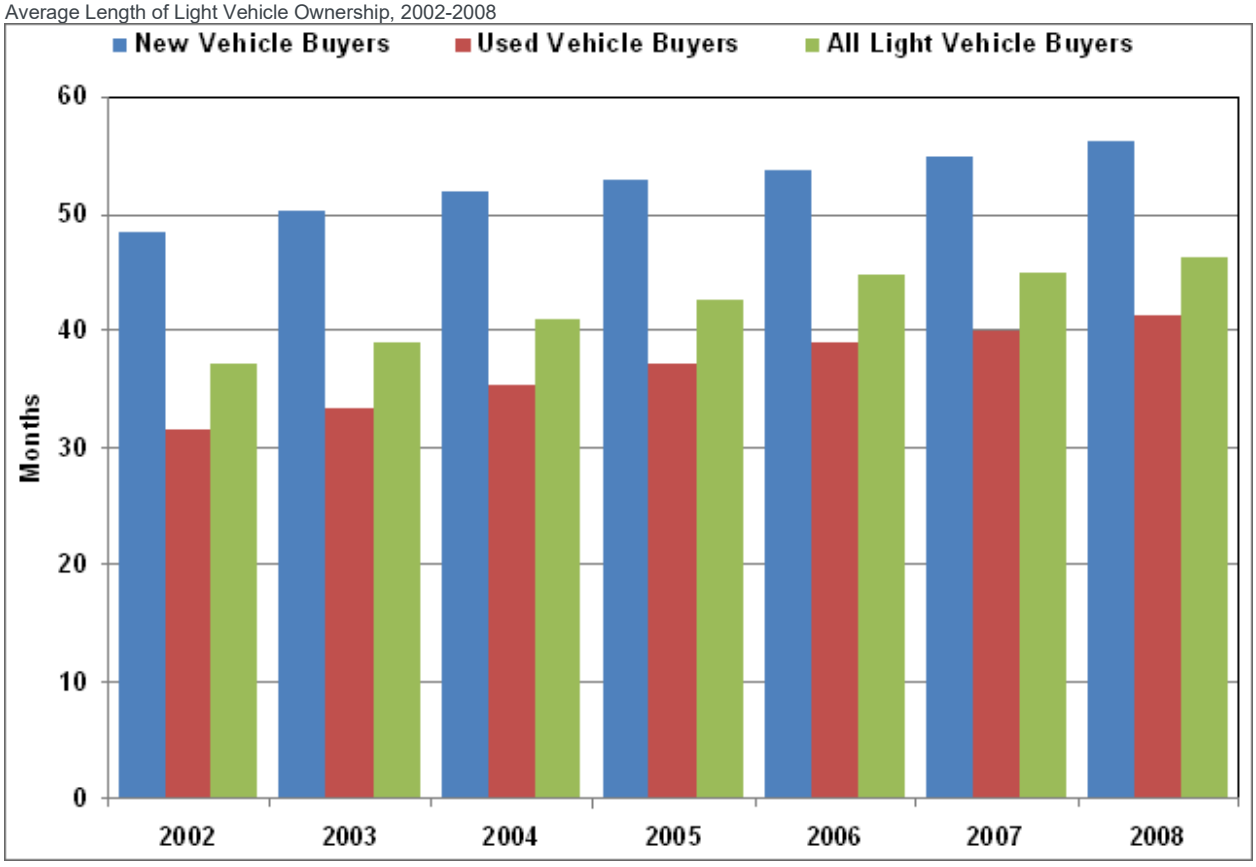
Supporting Information

Gross Vehicle Weight vs. Empty Weight of Vehicles					
Vehicle Description	**Truck Class**	**Gross Vehicle Weight Range (Pounds)**	**Empty Vehicle Weight Range (Pounds)**	**Maximum Payload Capacity (Pounds)**	**Payload Capacity Share (Percent of Empty Weight)**
Cars		3,200-6,000	2,400-5,000	1,000	20%
Minivans, Small SUVs, Small Pick-Ups	1	4,000-2,400	3,200-4,500	1,500	33%
Large SUVs, Standard Pick-Ups	2a	6,001-8,500	4,500-6,000	2,500	40%
Large SUVs, Standard Pick-Ups	2b	8,501-10,000	5,000-6,300	3,700	60%
Utility Van, Multi-Purpose, Mini-Bus, Step Van	3	10,001-14,000	7,650-8,750	5,250	60%
City Delivery, Parcel Delivery, Large Walk-in, Bucket, Landscaping	4	14,001-16,000	7,650-8,750	7,250	80%
City Delivery, Parcel Delivery, Large Walk-in, Bucket	5	16,001-19,500	9,500-10,000	8,700	80%
City Delivery, School Bus, Large Walk-in, Bucket	6	19,501-26,000	11,500-14,500	11,500	80%
City Bus, Furniture, Refrigerated, Refuse, Fuel Tanker, Dump, Tow, Concrete, Fire Engine, Tractor-Trailer	7	26,001-33,000	11,500-14,500	18,500	125%
Refuse, Concrete, Furniture, City Bus, Tow, Fire Engine (straight trucks)	8a	33,001-80,000	20,000-26,000	54,000	200%
Tractor-Trailer: Van, Refrigerated, Bulk Tanker, Flat Bed (combination trucks)	8b	33,001-80,000	20,000-26,000	54,000	200%
Source: National Academy of Sciences, *Technologies and Approaches to Reducing the Fuel Consumption of Medium and Heavy-Duty Vehicles*, prepublication copy, March 2010, pp. 2-2 and 5-42.					

Fact #622: May 10, 2010
Average Length of Light Vehicle Ownership

Vehicle owners are holding onto their vehicles for a longer period, according to data from R.L. Polk and Company. The vehicle retention trends show that owners held onto a new vehicle for 56.3 months in 2008, up from 48.4 months six years earlier. New vehicle owners hold onto vehicles about 15 or 16 months longer than used vehicle owners.

Average Length of Light Vehicle Ownership, 2002-2008



Supporting Information

Average Length of Light Vehicle Ownership, 2002-2008			
	New Vehicle Buyers	Used Vehicle Buyers	All Light Vehicle Buyers
Year	Length of Ownership (Months)		
2002	48.4	31.6	37.2
2003	50.2	33.4	38.9
2004	52.0	35.3	41.1
2005	52.9	37.3	42.5
2006	53.6	38.9	44.8
2007	54.9	40.0	45.0
2008	56.3	41.3	46.3
Source: Estimated using graph from R.L. Polk and Company, *The Changing U.S. Auto Industry Series: Consumer Sentiment During Challenging Times*.			

Fact #623: May 17, 2010
Classification Changes in the CAFE Standards

Beginning with model year (MY) 2011, the classification of cars or light trucks has changed for the purposes of the Corporate Average Fuel Economy (CAFE) Standards. Two-wheel-drive (2wd) sport utility vehicles of 6,000 pounds or less gross vehicle weight rating (GVWR) will no longer be classified as light trucks, though the 4wd models of these vehicles will continue to be light trucks. A cargo van sold without rear seating will be classified as a light truck because it provides greater cargo-carrying than passenger-carrying volume, while the same vehicle sold with rear seating will be classified as a car. The classification rules are complicated, but in general, in order to be classified as a light truck, a vehicle must:

- have 4wd and meet 4 out of 5 ground clearance characteristics,
- have a GVWR over 6,000 lbs. and meet 4 out of 5 ground clearance characteristics,
- have greater cargo-carrying than passenger-carrying volume, or
- have three rows of seats and the capability to expand cargo-carrying volume through folding or removing seats.

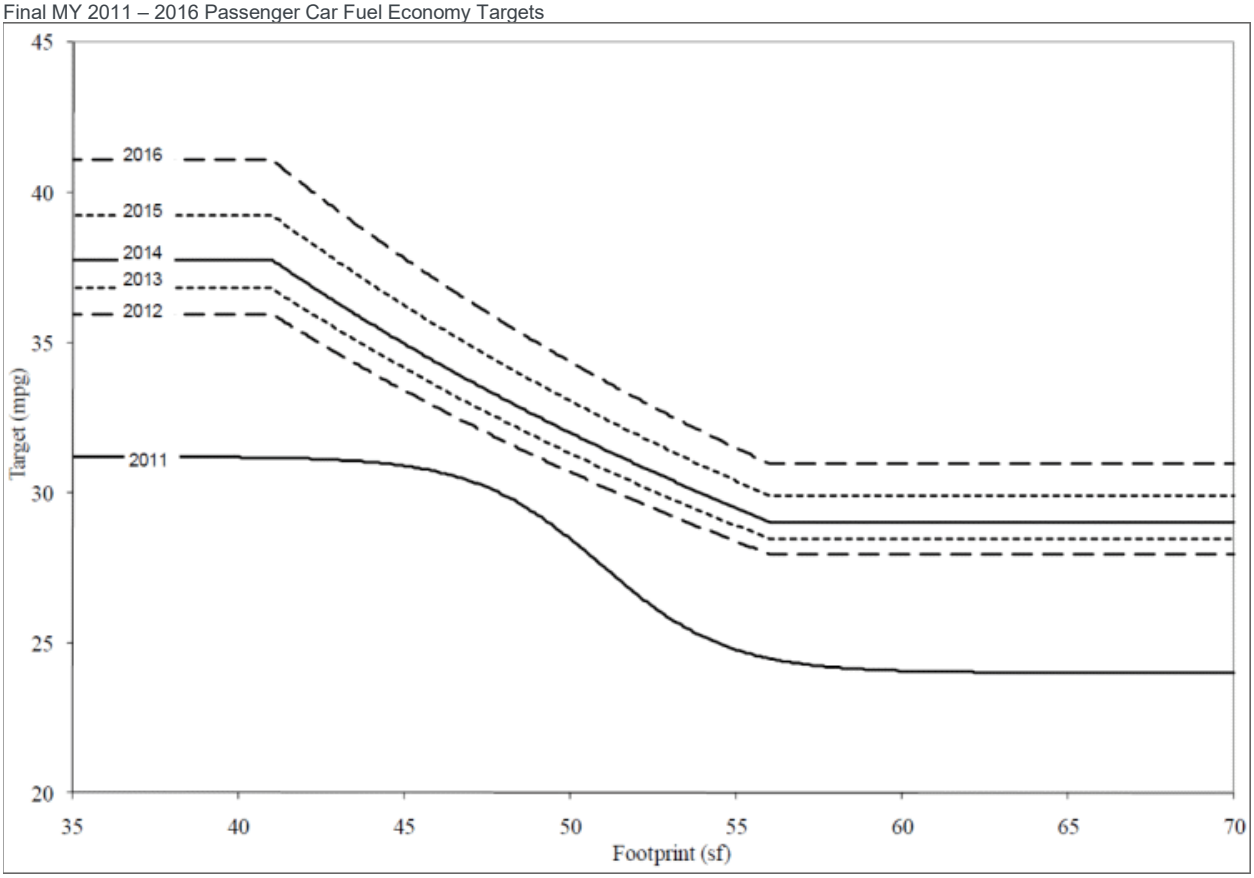
The list below shows which vehicles will likely be changing from light trucks to cars, based on MY2008 vehicle specifications. Those vehicles accounted for about 6% of total light vehicle sales in MY2008.

Vehicles Likely Changing from Light Truck to Car Classification for MY2011 CAFE Standards		
Make and Model	**Vehicle Sales MY2008 (Thousands)**	**Share of Total Sales**
Chrysler Pacifica Awd* 2007 Ward's %	2.0	0.02%
Chrysler Pacifica Fwd* 2007 Ward's %	5.3	0.04%
Chrysler Town & Country	118.6	0.90%
Dodge Caravan 2wd	123.7	0.94%
Mercedes-Benz R320 CDI 4Matic Diesel Mercedes-Benz R350 Mercedes-Benz R350 4Matic	7.7	0.06%
Cadillac SRX 2wd	6.3	0.05%
Chevrolet G1500/2500 Express 2wd	13.2	0.10%
Chevrolet Uplander Fwd	40.5	0.31%
GMC Acadia Awd	26.2	0.20%
GMC Acadia Fwd	40.2	0.30%
GMC G1500/2500 2wd Savana	1.3	0.01%
Saturn Outlook Awd	7.8	0.06%
Saturn Outlook Fwd	17.5	0.13%
Honda Odyssey 2wd	135.5	1.03%
Hyundai Veracruz 2wd	4.5	0.03%
Hyundai Entourage	8.5	0.06%
Kia Sedona	26.9	0.20%
Mazda Mazda5	22.0	0.17%
Nissan Pathfinder 2wd	16.4	0.12%
Nissan Quest	18.3	0.14%
Toyota 4Runner 2wd	17.7	0.13%
Toyota Highlander 2wd	35.6	0.27%
Toyota Sienna 2wd	104.4	0.79%
Toyota Sienna 4wd	11.6	0.09%
Total of Vehicles Listed	**811.7**	**6.15%**
Total Model Year Light Vehicle Sales	**13,194.7**	**100.00%**
Note: Based on MY2008 vehicle data. **Sources:** National Highway Traffic Safety Administration. Sales data from Ward's Communications.		

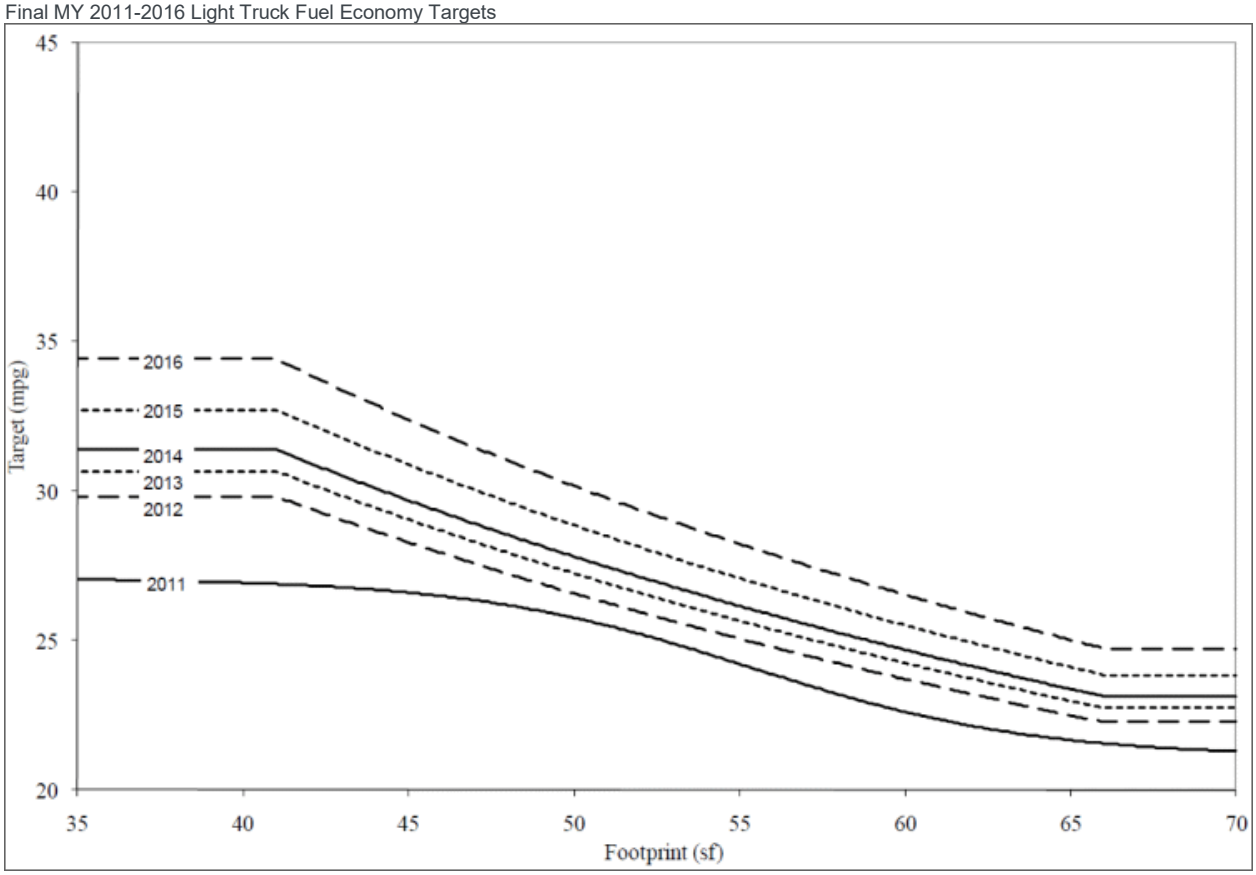
Fact #624: May 24, 2010
Corporate Average Fuel Economy Standards, Model Years 2012-2016

The final rule for the Corporate Average Fuel Economy (CAFE) Standards was published in March 2010. Under this rule, each light vehicle model produced for sale in the United States will have a fuel economy target based on its footprint. A vehicle's footprint is defined as the wheelbase (the distance from the center of the front axle to the center of the rear axle) times the average track width (the distance between the center lines of the tires) of the vehicle in square feet. The CAFE levels that must be met by the fleet of each manufacturer will be determined by computing the sales-weighted harmonic average of the targets applicable to each of the manufacturer's passenger cars and light trucks.

Final MY 2011 – 2016 Passenger Car Fuel Economy Targets

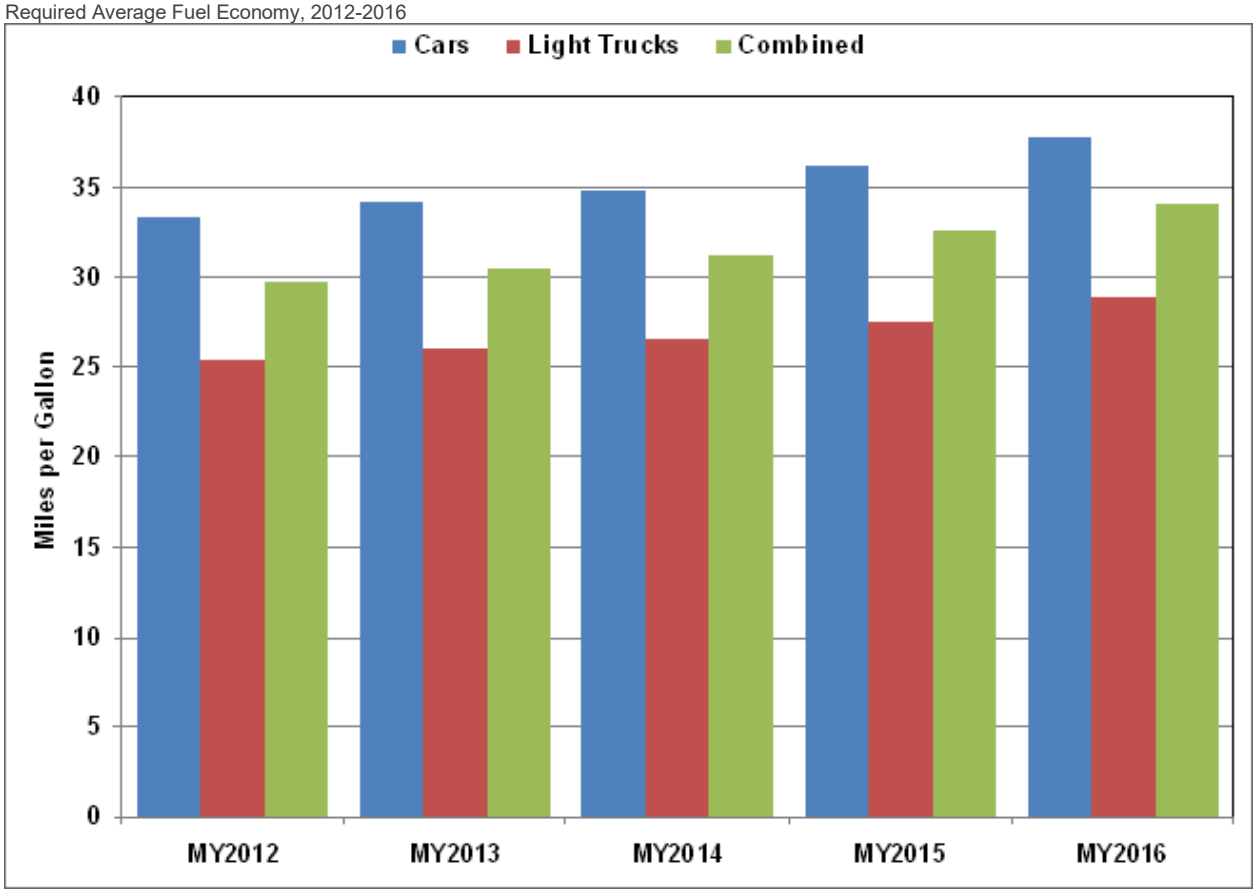


Final MY 2011-2016 Light Truck Fuel Economy Targets



Based on the forecast of the vehicle fleet, average required fuel economies were calculated. The combined average required fuel economy for cars and light trucks in 2012 is 29.7 mpg, rising to 34.1 mpg by 2016. The required average for cars is about 30% higher than that of light trucks.

Required Average Fuel Economy, 2012-2016



Supporting Information

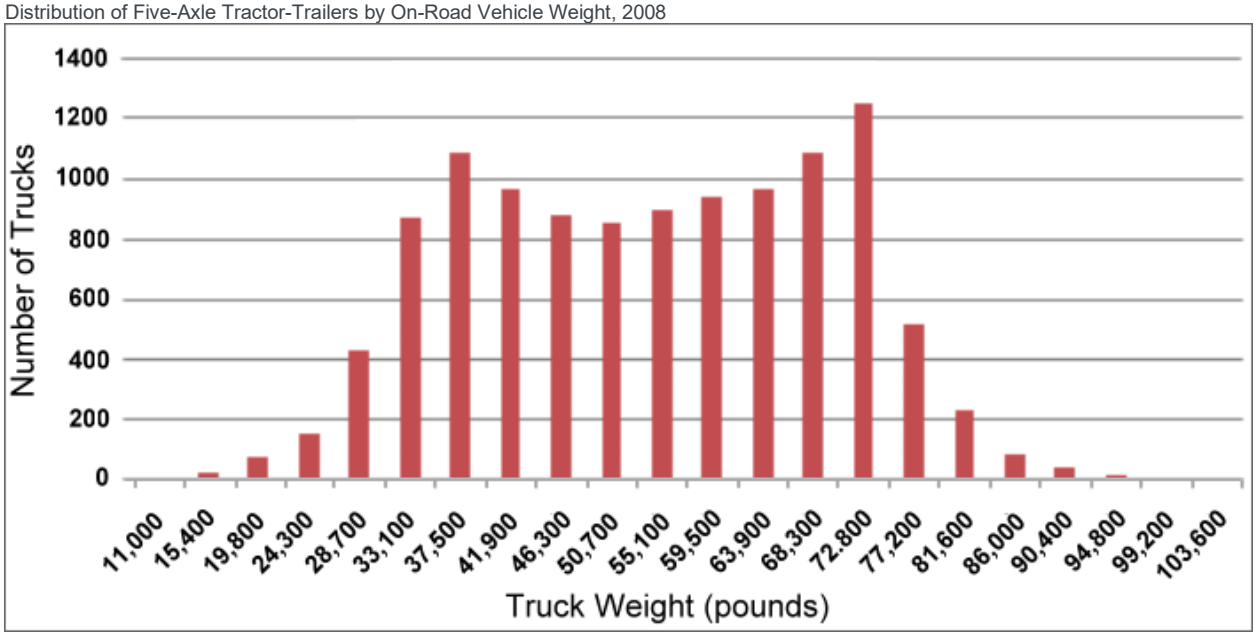
For detailed data on the Final Passenger Car and Light Truck Fuel Economy Targets graphs, see the National Highway Traffic Safety Administration Web site.

Average Required Fuel Economy, MY 2012-1016			
Model Year	**Cars**	**Light Trucks**	**Combined Cars and Light Trucks**
2012	33.3	25.4	29.7
2013	34.2	26.0	30.5
2014	34.9	26.6	31.3
2015	36.2	27.5	32.6
2016	37.8	28.8	34.1
Source: Federal Register, Vol. 75, No. 88, May 7, 2010, p. 25330 on the National Highway Transportation Safety Administration Web site.			

Fact #625: May 31, 2010
Distribution of Trucks by On-Road Vehicle Weight

According to weigh-in-motion data collected by fifteen states, the majority of 5-axle tractor-trailers on the road weigh between 33,000 and 73,000 lbs. Eleven percent of the tractor-trailers had weight recorded around 72,800 lbs. and 10% around 68,300 lbs. Another 10% of tractor-trailers were on the lighter end of the scale – around 37,500 lbs. These data show that only a small percent of trucks on the road are near the maximum roadway gross vehicle weight of 80,000 lbs. Thus, most trucks are filling the trailer space to capacity (cubing-out) before they reach the maximum weight limit (weighing-out).

Distribution of Five-Axle Tractor-Trailers by On-Road Vehicle Weight, 2008



Supporting Information

Distribution of Five-Axle Tractor-Trailers by On-Road Weight, 2008		
Truck Weight (Pounds)	**Number of Trucks**	**Share of Total**
11,000	0	0%
15,400	20	0%
19,800	80	1%
24,300	160	1%
28,700	435	4%
33,100	875	8%
37,500	1,090	10%
41,900	965	8%
46,300	880	8%
50,700	845	7%
55,100	900	8%
59,500	940	8%
63,900	965	8%
68,300	1,085	10%
72,800	1,245	11%
77,200	520	5%
81,600	230	2%
86,000	80	1%
90,400	40	0%
94,800	10	0%
99,200	0	0%
103,600	0	0%

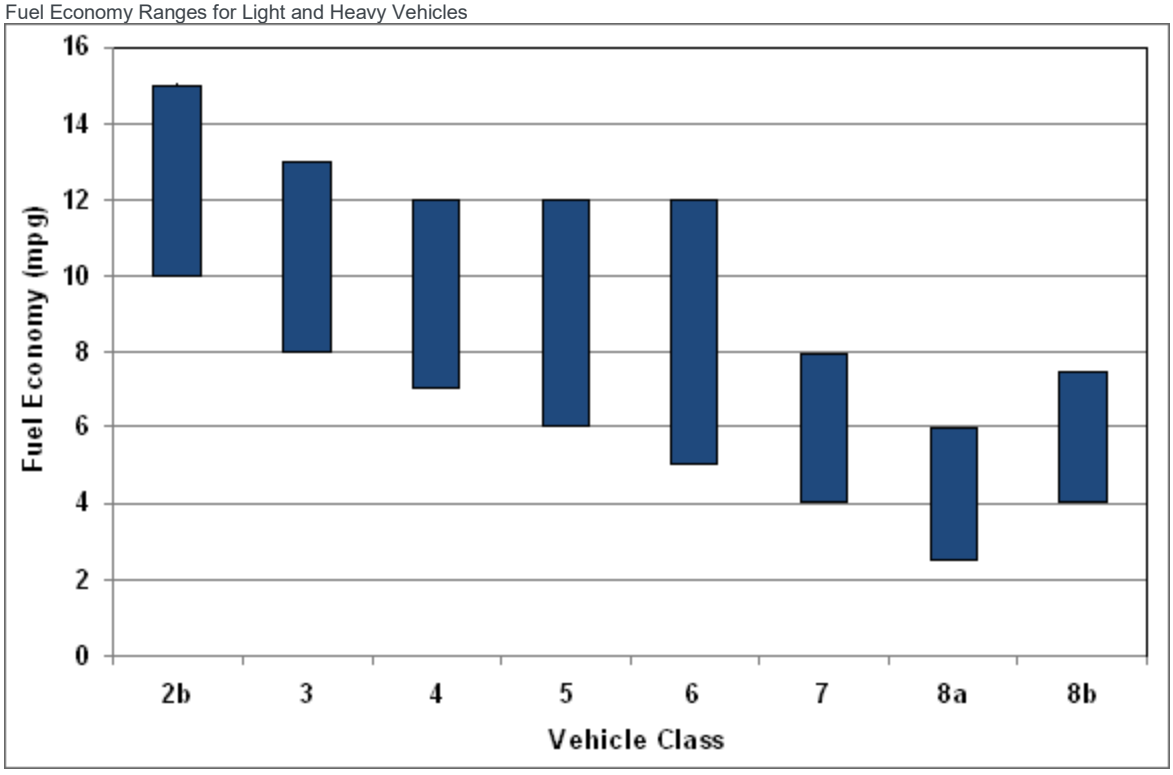
Note: Data are from these 15 States: California, Connecticut, Florida, Georgia, Hawaii, Iowa, Minnesota, Missouri, Montana, North Carolina, Oregon, Pennsylvania, South Dakota, Texas, and Washington.

Source: National Academy of Sciences, *Technologies and Approaches to Reducing the Fuel Consumption of Medium and Heavy-Duty Vehicles*, prepublication copy, March 2010, p. 5-45.
Original source: Federal Highway Administration, Vehicle Travel Information System, 2008.

Fact #626: June 7, 2010
Fuel Economy for Light and Heavy Vehicles

In the next few years it is expected that fuel economy standards will be imposed on new medium and heavy trucks sold in the U.S. Currently, the estimates of the medium and heavy truck population range from a high of 15 miles per gallon (mpg) for class 2b trucks to a low of 2.5 mpg for class 8a trucks. The chart below shows the range of fuel economy for medium and heavy trucks. Descriptions of the vehicle classes are in the table below.

Fuel Economy Ranges for Light and Heavy Vehicles



Note: See supporting information for vehicle class description.

Supporting Information

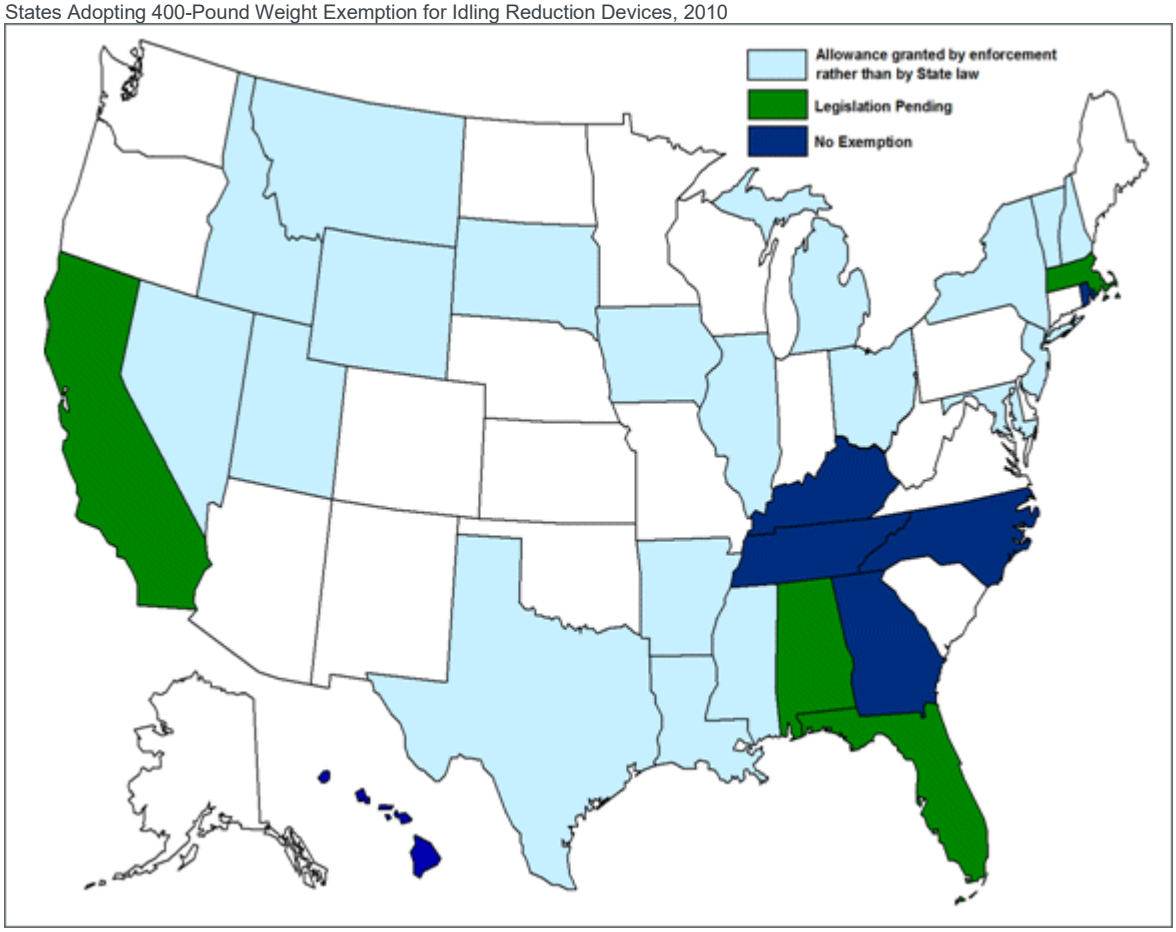
Fuel Economy Ranges for Light and Heavy Vehicles		
Vehicle Class	**Vehicle Class Description**	**Fuel Economy Range (mpg)**
2b	Large Pickup, Utility Van, Multi-purpose, Mini-bus, Step Van	10 - 15
3	Utility Van, Multi-purpose, Mini-bus, Step Van	8 - 13
4	City Delivery, Parcel Delivery, Large Walk-in, Bucket, Landscaping	7 - 12
5	City Delivery, Parcel Delivery, Large Walk-in, Bucket	6 - 12
6	City Delivery, School Bus, Large Walk-in, Bucket	5 - 12
7	City Bus, Furniture, Refrigerated, Refuse, Fuel Tanker, Dump, Tow Concrete, Fire Engine, Tractor-trailer	4 - 8
8a	Dump, Refuse, Concrete, Furniture, City Bus, Tow, Fire Engine (Straight Trucks)	2.5 - 6
8b	Tractor-trailer, Van, Refrigerated, Bulk Tanker, Flat Bed (Combination Trucks)	4 - 7.5
Source: National Academy of Sciences, *Technologies and Approaches to Reducing the Fuel Consumption of Medium and Heavy-Duty Vehicles*, prepublication copy, March 2010, pp. 2-2 and 2-3.		

Fact #627: June 14, 2010
Idle Reduction for Heavy Trucks

In order to encourage the use of idling reduction devices in large trucks, the Energy Policy Act of 2005 allowed for a 400-pound weight exemption for the additional weight of idling reduction technology. States were given the discretion of adopting this exemption without being subjected to penalty.

Since then, most States have passed laws which allow trucks to exceed the maximum gross vehicle weight limit by an additional 400 lbs. (white States) Other States have a 400 lb. weight allowance which is granted by enforcement personnel (light blue States). Four States have legislation pending at this time (green States) and another four States have not adopted the weight exemption.

States Adopting 400-Pound Weight Exemption for Idling Reduction Devices, 2010



An additional incentive for equipping large trucks with idle reduction technologies was in the Energy Improvement and Extension Act of 2008. The Act excludes certain idling reduction devices and advanced insulation from Federal excise taxes. Products which are eligible for the tax exemption include:

- fuel operated heaters,
- battery air conditioning/heating systems,
- auxiliary power units/generator sets,
- thermal storage systems, and
- shore connection systems

Supporting Information

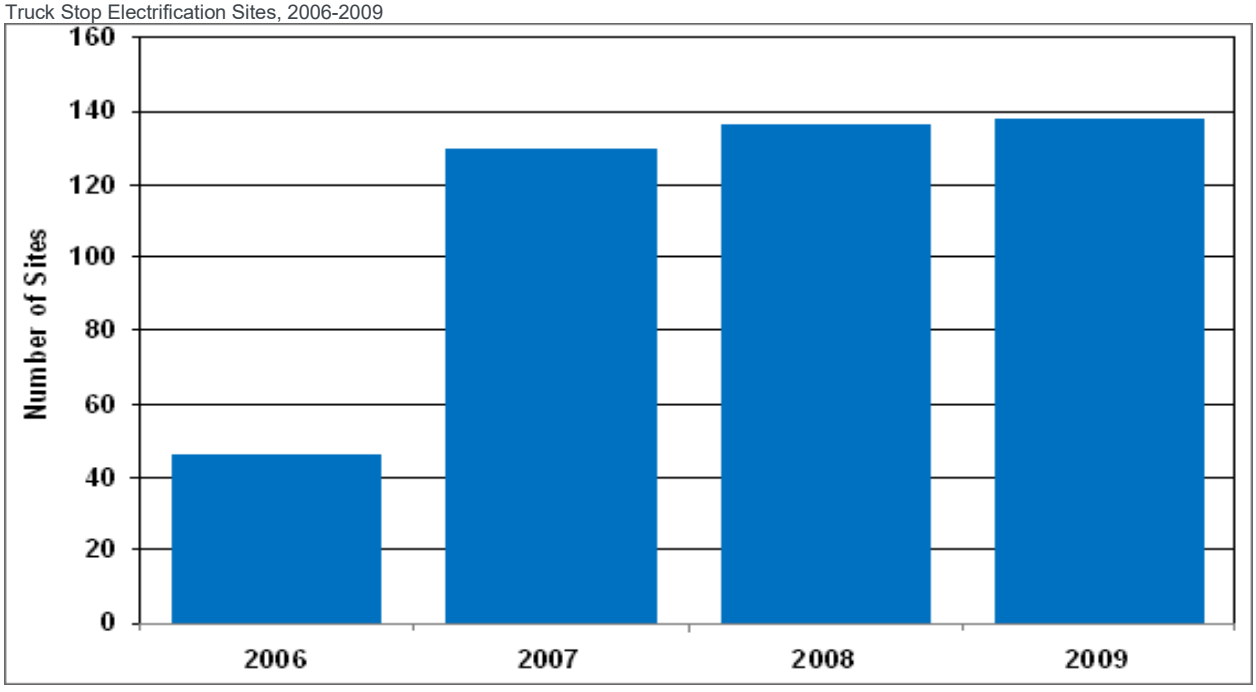
State Recognition of the 400-Pound Auxiliary Power Unit Exemption to the Gross Vehicle Weight Limit			
States Allowing Exemption	**States where Allowance is Granted by Enforcement**	**States where Legislation is Pending for Exemption**	**States That Have Not Adopted the Exemption**
Alaska	Arkansas	Alabama	Georgia
Arizona	Idaho	California	Hawaii
Colorado	Illinois	Florida	Kentucky
Connecticut	Iowa	Massachusetts	North Carolina
Delaware	Louisiana		Rhode Island
Indiana*	Maryland		Tennessee
Kansas	Michigan		
Maine	Mississippi		
Minnesota	Montana		
Missouri	Nevada		
Nebraska	New Hampshire		
New Mexico	New Jersey		
North Dakota	New York		
Oklahoma	Ohio		
Oregon	South Dakota		
Pennsylvania	Texas		
South Carolina	Utah		
Virginia	Vermont		
Washington			
West Virginia**			
Wisconsin			
Wyoming			

* Effective July 1, 2010
** Effective June 11, 2010
Sources: U.S. Department of Energy, Energy Efficiency & Renewable Energy, National Idling Reduction News, April 2010
U.S. Environmental Protection Agency, SmartWay Transport Partnership.

Fact #628: June 21, 2010
Truck Stop Electrification Sites

Long haul truck drivers routinely idle their engines to heat or cool their cab during their rest period. (Federal laws require 10 hours of rest for every 11 hours on the road.) Truck Stop Electrification allows truckers to operate the heater, air conditioner, television, and other appliances without running the engine, which saves fuel, reduces air pollution, and reduces engine wear. There are single system electrification systems which are owned and operated by the truck stop, and shore power systems which require both onboard and off-board equipment. As of 2009 there are 138 Truck Stop Electrification sites in 34 States – three times the number that were available in 2006, but only two more (net total) than 2008.

Truck Stop Electrification Sites, 2006-2009



Supporting Information

Truck Stop Electrification Sites				
State	**2006**	**2007**	**2008**	**2009**
Alabama	1	2	2	2
Arkansas	2	6	6	6
Arizona	0	4	4	4
California	10	13	13	13
Colorado	0	1	1	1
Florida	0	2	2	2
Georgia	4	5	5	5
Illinois	0	7	7	7
Indiana	0	4	4	4
Kentucky	0	1	1	1
Louisiana	1	2	3	3
Maryland	1	3	3	3
Michigan	0	1	2	2
Minnesota	0	1	1	1
Missouri	0	3	3	3
Mississippi	1	1	1	1
North Carolina	1	2	2	2
North Dakota	0	1	1	1
Nebraska	0	1	1	1
New Jersey	1	3	3	3
New Mexico	0	5	5	5
Nevada	0	1	1	1
New York	2	3	1	3
Ohio	0	10	11	11
Oklahoma	1	3	3	2
Oregon	0	5	5	5
Pennsylvania	3	9	11	11
South Carolina	1	1	1	1
Tennessee	4	5	5	5
Texas	12	19	22	21

Truck Stop Electrification Sites				
State	**2006**	**2007**	**2008**	**2009**
Utah	0	1	1	1
Virginia	1	2	2	3
Washington	0	2	2	3
West Virginia	0	1	1	1
Total	46	130	136	138

Source: U.S. Department of Energy, Alternative Fuels Data Center, Truck Stop Electrification Site Locator.

Fact #629: June 28, 2010
Top Ten Misconceptions about Fuel Economy

The Fuel Economy Guide Web site, sponsored by the U. S. Department of Energy and the U.S. Environmental Protection Agency, displays a list of misconceptions about fuel economy. Knowing the facts on fuel economy can help reduce oil consumption and save money at the pump.

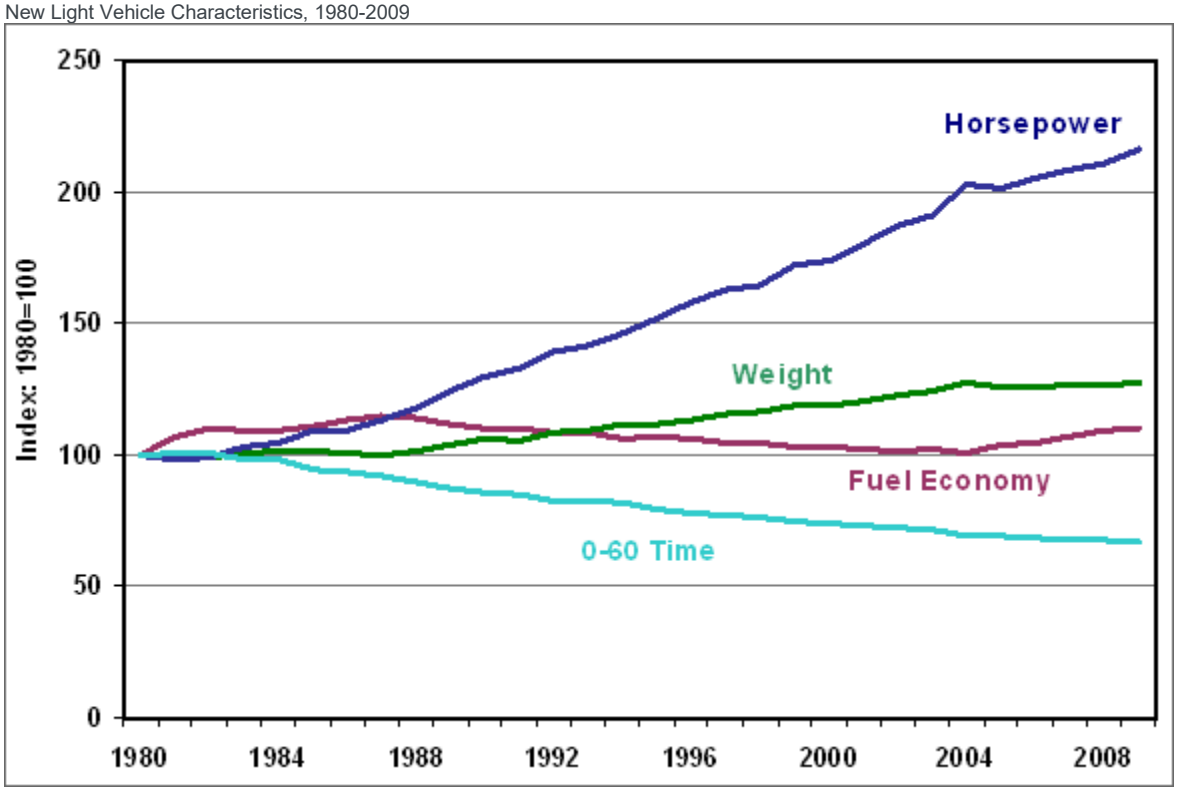
Top Ten Misconceptions about Fuel Economy	
Misconception	**The Facts**
1. You have to drive a small car to get good fuel economy.	Advanced technologies like hybrid drivetrains, diesel engines, direct fuel injection, turbocharging, advanced transmissions, low rolling resistance tires and aerodynamic designs are allowing standard-sized vehicles to be very fuel efficient. For the 2010 model year, five of the top ten most efficient vehicles are midsized cars, with a midsized car taking the top spot.
2. Manual transmissions always get better fuel economy than automatics.	Advances in automatic transmissions have improved their efficiency to the point that the automatic version of a vehicle often gets the same or better fuel economy than the version with a manual transmission. For vehicles offered in both automatic and manual transmissions, consumers can easily compare fuel economy on the www.fueleconomy.gov Web site, Find a Car.
3. It takes more fuel to start a vehicle than it does to let it idle.	Modern fuel injected engines start very efficiently, especially when warmed up. Idling can use a quarter to a half gallon of fuel per hour — depending on your vehicle's engine size — costing you about 1 to 2 cents per minute. Turn off your engine when your vehicle is sitting still, except when you are waiting in traffic or waiting in a line where you would need to turn it on and off frequently. Restarting your engine too frequently can wear out your starter.
4. Vehicles need to warm up before they can be driven.	Modern vehicles can be driven within seconds of being started, though the engine should not be subjected to extreme loads until it has reached its normal operating temperature. Plus, the quickest way to warm up a vehicle's engine is to drive it.

Top Ten Misconceptions about Fuel Economy	
Misconception	**The Facts**
5. As a vehicle ages, its fuel economy decreases significantly.	A vehicle that is properly maintained will retain its efficiency for many years. The EPA tests vehicles with about 5,000 miles on the odometer to account for the break-in period since a vehicle's fuel economy will typically continue to improve over the first several years of ownership. Vehicles that are 10 or even 15 years old will experience little decrease in fuel economy if properly maintained.
6. Replacing your air filter will help your car run more efficiently.	This is true for older vehicles with carbureted engines, but modern fuel-injected engines have onboard computers that automatically adjust the fuel-air ratio to the proper level. Changing a dirty air filter won't increase your fuel economy, but it might improve your engine's performance.
7. Aftermarket additives and devices can dramatically improve your fuel economy.	Excluding full conversions that meet all EPA certification standards, tests have shown that such devices and additives do not improve fuel economy and may damage your engine and/or increase your tailpipe emissions. For further information, see "Gas-Saving Products: Fact or Fuelishness?" on the Federal Trade Commission Web site.
8. Using premium fuel improves fuel economy.	Unless your vehicle was specifically designed for premium fuel or knocks severely with regular fuel, you will probably experience no benefit from using premium fuel over regular. Consult your owner's manual to see whether premium is recommended and under what conditions (e.g., towing).
9. The EPA fuel economy estimates are a government guarantee on what fuel economy each vehicle will deliver.	The primary purpose of EPA fuel economy estimates is to provide consumers with a uniform, unbiased way of comparing the *relative* efficiency of vehicles. Even though the EPA's test procedures are designed to reflect real-world driving conditions, no single test can accurately model all driving styles and environments. Differing fuel blends will also affect fuel economy. The use of gasoline with 10% ethanol can decrease fuel economy by about 3% due to its lower energy density.
10. All vehicles are tested for fuel economy.	Current testing regulations only require light-duty vehicles of 8,500 lbs or less to be tested for fuel economy. Several popular models, such as the Ford F250/350, Chevrolet/GMC 2500/3500, and Dodge 2500/3500 vehicles, exceed this weight limit and are therefore not tested and have no official fuel economy rating. The EPA also does not test motorcycles or four wheel vehicles that are not legal for highway driving like neighborhood vehicles. Beginning with the 2011 model year, passenger vehicles (vans and SUVs but NOT pickup trucks) up to 10,000 lbs will be required to have fuel economy labels.
Source: Fuel Economy Guide Web site.	

Fact #630: July 5, 2010
Fuel Economy vs. Weight and Performance

From 1980 to 2009, there have been significant gains made in automotive technology, but those advancements have been applied toward improved performance and safety rather than fuel economy. Horsepower has more than doubled, top speed has climbed from 107 miles per hour to 139 miles per hour, and "0-to-60" times have dropped from 14.3 seconds to 9.5 seconds. Average vehicle weight has increased 27% during the same period, primarily due to increased vehicle size as well as reinforced structures and added equipment such as airbags that improve crashworthiness. Fuel economy has remained relatively unchanged in the period, with only a 2.9% increase in average light-vehicle fuel economy between 1981 and 2009.

New Light Vehicle Characteristics, 1980-2009



Supporting Information

Light Vehicle Characteristics, 1980-2009					
Model Year	**MPG**	**Weight**	**Horsepower**	**0-60 Time**	**Top Speed**
1980	19.2	3,228	104	14.3	107
1981	20.5	3,202	102	14.4	107
1982	21.1	3,202	103	14.4	107
1983	21.0	3,257	107	14.1	108
1984	21.0	3,262	109	14.0	109
1985	21.3	3,271	114	13.5	110
1986	21.8	3,238	114	13.4	111
1987	22.0	3,221	118	13.1	112
1988	21.9	3,283	123	12.8	114
1989	21.4	3,351	129	12.5	115
1990	21.2	3,426	135	12.2	117
1991	21.2	3,410	138	12.1	118
1992	20.8	3,512	145	11.8	120
1993	20.9	3,519	147	11.8	120
1994	20.4	3,603	152	11.7	121
1995	20.5	3,613	158	11.3	123
1996	20.4	3,659	164	11.1	125
1997	20.1	3,727	169	11.0	126
1998	20.1	3,744	171	10.9	126
1999	19.7	3,835	179	10.7	128
2000	19.8	3,821	181	10.6	129
2001	19.6	3,879	187	10.5	130
2002	19.4	3,951	195	10.3	132
2003	19.6	3,999	199	10.2	133
2004	19.3	4,111	211	9.9	135
2005	19.9	4,059	209	9.9	135

Light Vehicle Characteristics, 1980-2009					
Model Year	**MPG**	**Weight**	**Horsepower**	**0-60 Time**	**Top Speed**
2006	20.1	4,067	213	9.8	137
2007	20.6	4,093	217	9.7	137
2008	21.0	4,085	219	9.7	138
2009	21.1	4,108	225	9.5	139
Source: U.S. Environmental Protection Agency, Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2009, November 2009.					

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Vehicle Technologies Program

Fact #631: July 12, 2010
Top 10 All-Time EPA Rated Vehicles

Fueleconomy.gov is the official source for light vehicle fuel economy ratings. The Web site has data extending back to 1984 and has recently published a list showing the highest-rated vehicles over this 26-year period. The list breaks down into two broad categories: (1) very small, light-weight vehicles from the mid-80's/early 90's with few amenities, and (2) technologically advanced hybrid vehicles produced in 2000 and later. Top honors goes to the 2000 Honda Insight with a combined rating of 53 miles per gallon while the 2010 Toyota Prius, a midsized vehicle, takes second place.

Fueleconomy.gov's Top Ten EPA-Rated Fuel Sippers (1984 to present)

1.		Honda Insight Model Year 2000 3 cyl, 1.0L, Manual 5-spd, Regular • Similar models that qualify...	City 49	Combined 53	Highway 61
2.		Toyota Prius Model Year 2010 4 cyl, 1.8L, Automatic (variable gear ratios), Regular • Similar models that qualify...	City 51	Combined 50	Highway 48
3.		Chevrolet Sprint ER Model Year 1986 3 cyl, 1.0L, Manual 5-spd, Regular • Similar models that qualify...	City 44	Combined 48	Highway 53
4.		Geo Metro XFI Model Years 1990-1994 3 cyl, 1.0L, Manual 5-spd, Regular • Similar models that qualify...	City 43	Combined 47	Highway 52
5.		Honda Civic Coupe HF Model Years 1986-1987 4 cyl, 1.5L, Manual 5-spd, Regular • Similar models that qualify...	City 42	Combined 46	Highway 51
6.		Honda Civic HB VX Model Years 1994-1995 4 cyl, 1.5L, Manual 5-spd, Regular • Similar models that qualify...	City 39	Combined 43	Highway 50
7.		Honda Civic Hybrid Model Years 2006-2010 4 cyl, 1.3L, Automatic (variable gear ratios), Regular • Similar models that qualify...	City 40	Combined 42	Highway 45
8.		Honda Insight Model Year 2010 4 cyl, 1.3L, Auto(AV-S7), Regular • Similar models that qualify...	City 40	Combined 41	Highway 43
9.		Toyota Prius Model Years 2001-2003 4 cyl, 1.5L, Automatic (variable gear ratios), Regular	City 42	Combined 41	Highway 41
10.		Chevrolet Sprint Model Year 1989 3 cyl, 1.0L, Manual 5-spd, Regular	City 38	Combined 41	Highway 45
		Suzuki Swift Model Year 1989 3 cyl, 1.0L, Manual 5-spd, Regular	City 38	Combined 41	Highway 45

Vehicles are ranked based on EPA's unrounded combined rating. In the event of a tie, multiple vehicles may share the same ranking. Only the most efficient configuration of a particular model is presented for a given rank — variants of a ranked model are listed as "similar models" if they would have otherwise made the list. Models classified under different EPA size classes, however, are ranked separately.

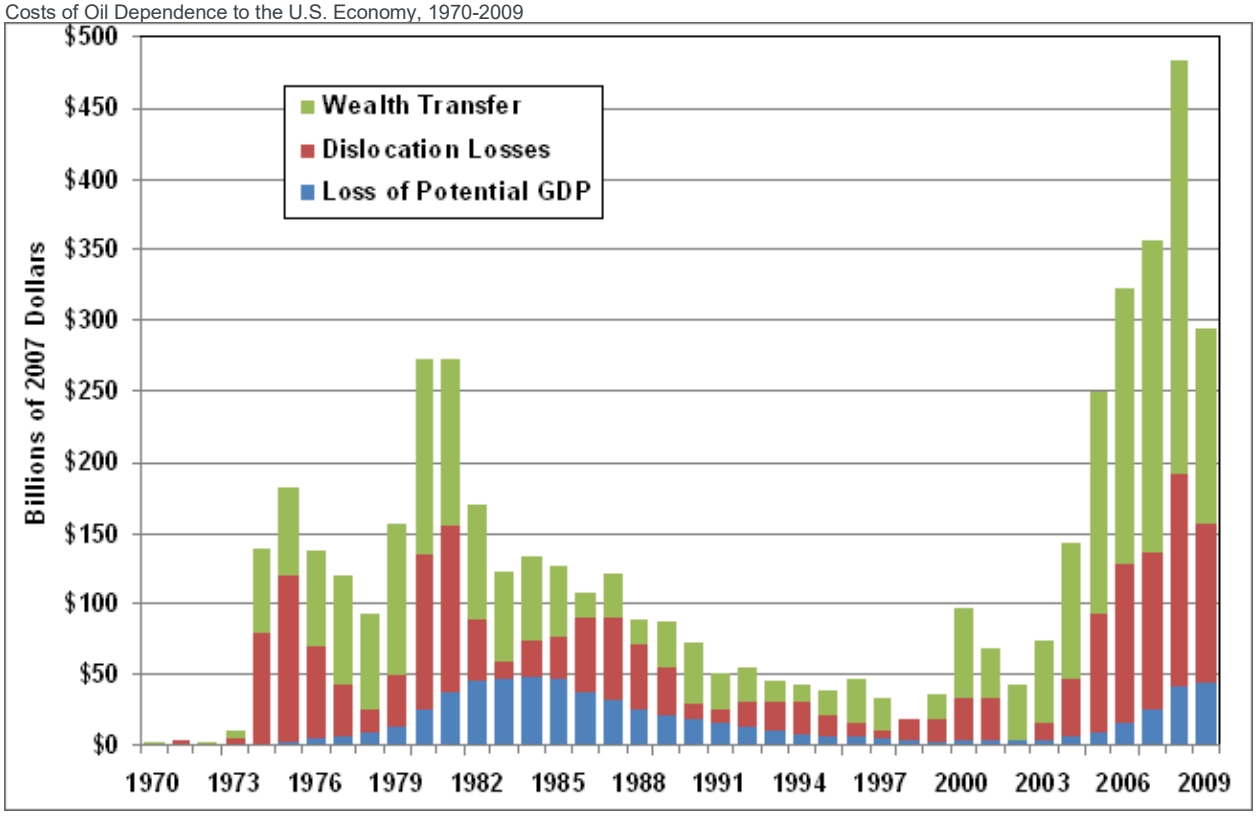
Supporting Information

Supporting information for the information listed above can be found on the Fueleconomy.gov Web site.

Fact #632: July 19, 2010
The Costs of Oil Dependence

The United States has long recognized the problem of oil dependence and the economic problems that arise from it. According to Oak Ridge National Laboratory (ORNL) researchers Greene and Hopson, oil dependence is a combination of four factors: (1) a noncompetitive world oil market strongly influenced by the OPEC cartel, (2) high levels of U.S. imports, (3) the importance of oil to the U.S. economy, and (4) the lack of economical and readily available substitutes for oil. ORNL developed a model to estimate the historical cost of oil dependence and analyze the potential effectiveness of policies on likely future costs. The most recent study using this model shows that the U.S. economy suffered the greatest losses in 2008 when wealth transfer and GDP losses (combined) amounted to approximately half a trillion dollars. However, when comparing oil dependence to the size of the economy, the year 1980 is the highest. Oil dependence costs were almost 4.5% of GDP in 1980, but were under 3.5% in 2008.

Costs of Oil Dependence to the U.S. Economy, 1970-2009



Wealth Transfer is the product of total U.S. oil imports and the difference between the actual market price of oil (influenced by market power) and what the price would have been in a competitive market.

Dislocation Losses are temporary reductions in GDP as a result of oil price shocks. Loss of Potential Gross Domestic Product (GDP) results because a basic resource used by the economy to produce output has become more expensive. As a consequence, with the same endowment of labor, capital, and other resources, our economy cannot produce quite as much as it could have at a lower oil price.

Supporting Information

Costs of Oil Dependence to the U.S. Economy, 1970-2009 (Billions of 2007 Dollars)			
Year	**Loss of Potential GDP**	**Dislocation Losses**	**Wealth Transfer**
1970	$0	$2	$1
1971	$0	$4	$1
1972	$0	$2	$2
1973	$0	$6	$5
1974	$1	$79	$60
1975	$3	$118	$63
1976	$5	$65	$68
1977	$8	$36	$76
1978	$9	$15	$69
1979	$14	$36	$107
1980	$26	$110	$137
1981	$38	$118	$117
1982	$45	$43	$81
1983	$48	$12	$63
1984	$49	$25	$60
1985	$48	$29	$51
1986	$37	$54	$16
1987	$32	$59	$31
1988	$25	$46	$18
1989	$21	$35	$32
1990	$20	$10	$43
1991	$17	$9	$26
1992	$14	$17	$24

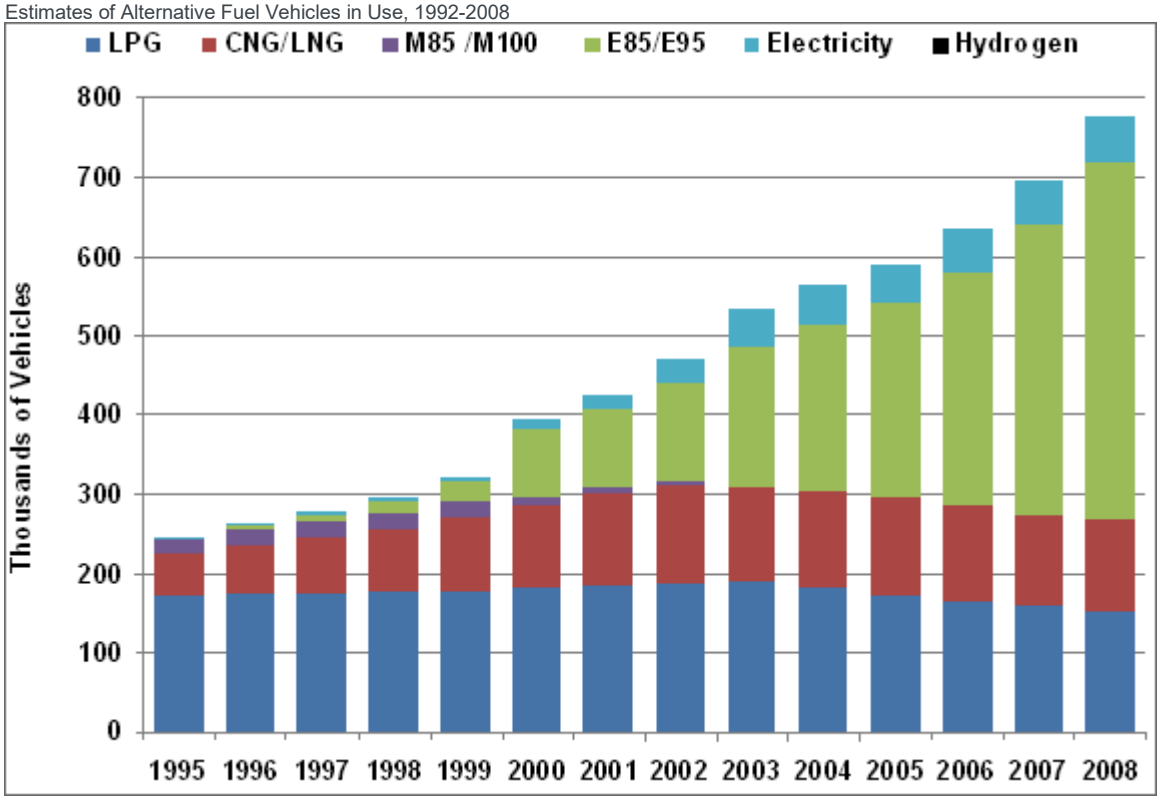
Costs of Oil Dependence to the U.S. Economy, 1970-2009 (Billions of 2007 Dollars)			
Year	**Loss of Potential GDP**	**Dislocation Losses**	**Wealth Transfer**
1993	$11	$19	$16
1994	$9	$21	$13
1995	$7	$14	$18
1996	$7	$9	$32
1997	$6	$6	$22
1998	$4	$16	($6)
1999	$3	$16	$16
2000	$4	$30	$63
2001	$4	$30	$34
2002	$4	$0	$40
2003	$5	$12	$57
2004	$6	$41	$97
2005	$10	$83	$157
2006	$16	$111	$194
2007	$25	$112	$220
2008	$42	$149	$293
2009	$45	$111	$138

Source: Greene, David L., and Janet L. Hopson, "The Costs of Oil Dependence 2009," Oak Ridge National Laboratory Memorandum, 2010. Related published material on oil dependence can also be found on the Oak Ridge National Laboratory, Center for Transportation Analysis Web site, Costs of Oil Dependence: A 2000 Update

Fact #633: July 26, 2010
Alternative Fuel Vehicles

The Energy Information Administration publishes estimates of the number of alternative fuel vehicles (AFVs) in use. Vehicles running on E85 make up the majority of AFVs, with 450,327 vehicles in 2008. That figure, however, only accounts for the portion of E85 vehicles that are believed to be typically using E85. Through 2007, about 7.1 million vehicles had been sold that are capable of operating on E85, but the majority of those vehicles are using traditional gasoline.

Estimates of Alternative Fuel Vehicles in Use, 1992-2008



Supporting Information

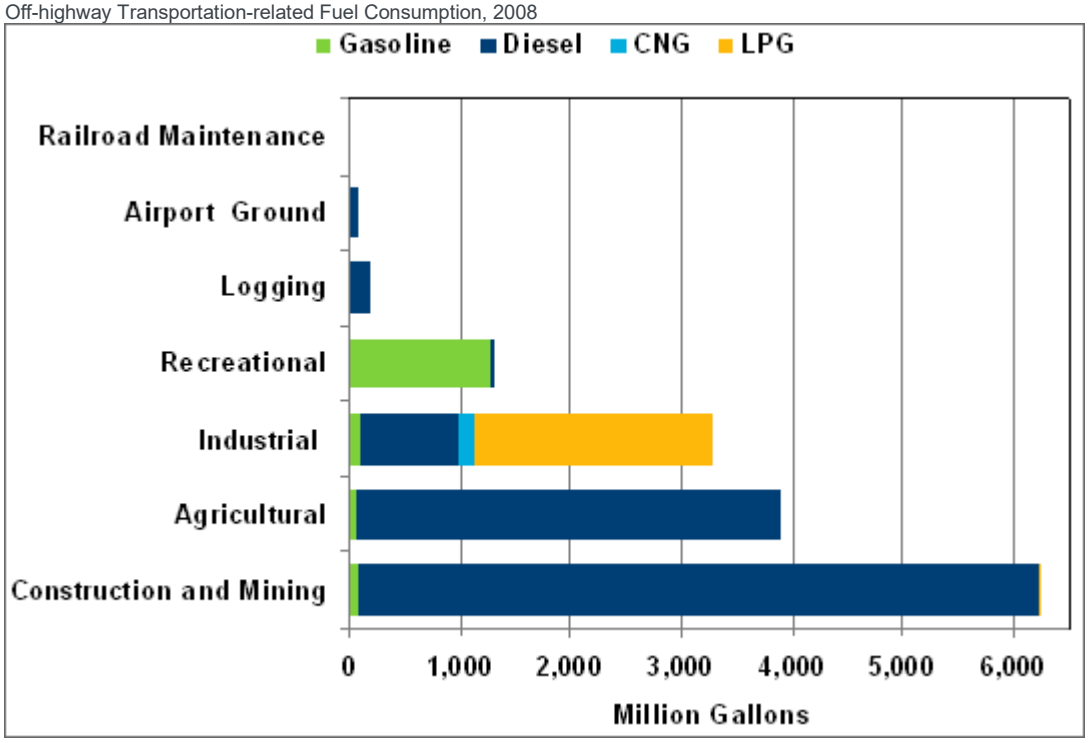
Estimates of Alternative Fuel Vehicles in Use, 1992-2008							
Year	**LPG**	**CNG/LNG**	**M85 /M100**	**E85/E95**	**Electricity**	**Hydrogen**	**Total**
1995	172,806	50,821	18,705	1,663	2,860	0	246,855
1996	175,585	60,807	20,437	4,897	3,280	0	265,006
1997	175,679	69,384	21,212	9,477	4,453	0	280,205
1998	177,183	79,954	19,848	12,802	5,243	0	295,030
1999	178,610	92,948	19,162	24,618	6,964	0	322,302
2000	181,994	102,840	10,426	87,574	11,830	0	394,664
2001	185,053	114,427	7,827	100,303	17,847	0	425,457
2002	187,680	123,547	5,873	120,951	33,047	0	471,098
2003	190,369	117,046	0	179,090	47,485	9	533,999
2004	182,864	121,249	0	211,800	49,536	43	565,492
2005	173,795	120,447	0	246,363	51,398	119	592,122
2006	164,846	118,929	0	297,099	53,526	159	634,559
2007	158,254	117,172	0	364,384	55,730	223	695,763
2008	151,049	117,074	0	450,327	56,901	313	775,664

Source: Energy Information Administration, Alternatives to Traditional Transportation Fuels, 2008, April 2010, Table VI.

Fact #634: August 2, 2010
Off-highway Transportation-related Fuel Consumption

The Environmental Protection Agency's NONROAD2008a model estimates fuel use for off-highway equipment. Construction and mining equipment using diesel fuel account for the majority of this fuel use. Nearly all of the alternative fuel used in off-highway equipment is consumed by forklifts.

Off-highway Transportation-related Fuel Consumption, 2008



Supporting Information

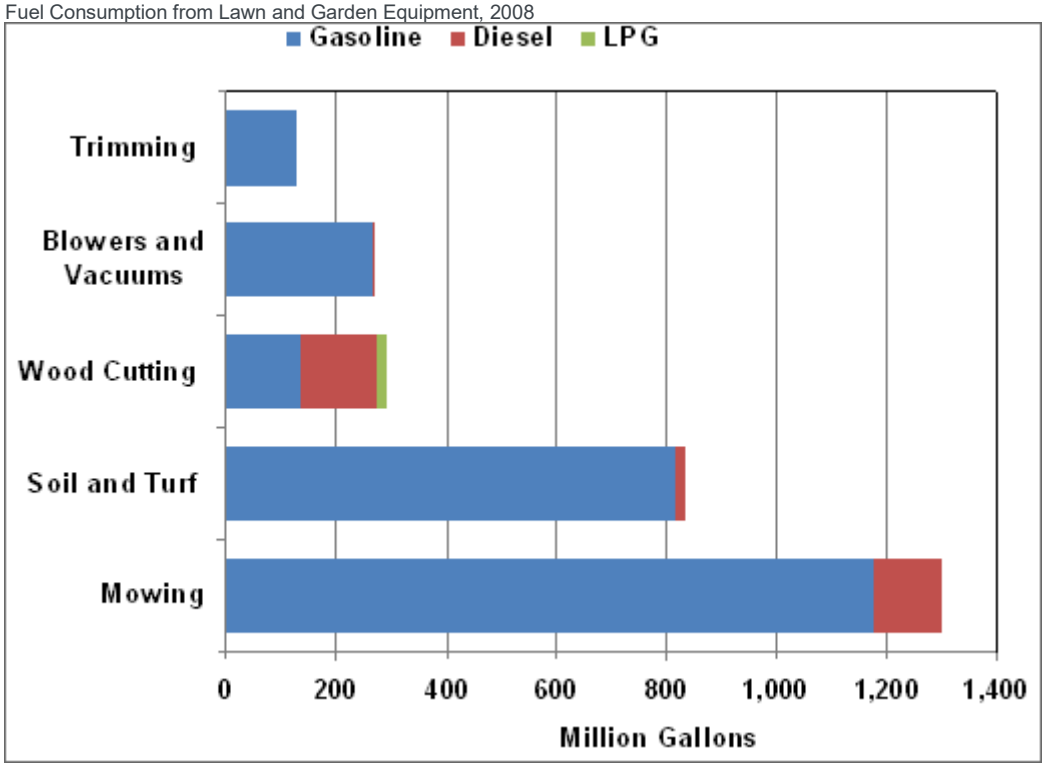
Off-highway Transportation-related Fuel Consumption, 2008 (million gallons)					
	Gasoline	**Diesel**	**LPG**	**CNG**	**Total**
Agricultural Equipment *Tractors, mowers, combines, balers, and other farm equipment which has utility in its movement*	66.3	3,833.8	0.1	0.0	3,900.2
Airport Ground Equipment	2.1	94.8	2.5	-	6,235.0
Construction and Mining Equipment *Pavers, rollers, drill rigs, graders, backhoes, excavators, cranes, mining equipment*	91.9	6,123.0	20.1	-	6,235.0
Industrial Equipment *Forklifts, terminal tractors, sweeper/scrubbers*	113.9	869.2	2,154.2	146.9	3,284.2
Logging Equipment *Feller/buncher/skidder*	12.9	170.6	-	-	183.5
Railroad Maintenance Equipment	1.3	23.2	0.1	-	24.6
Recreational Equipment *Off-road motorcycles, snowmobiles, all-terrain vehicles, golf carts, specialty vehicles*	1,289.6	13.2	1.3	-	1,304.1
Total	1,578.0	11,127.8	2,178.3	147.0	15,031.0

*There is no equipment listed for this fuel type.
Source: Environmental Protection Agency, NONROAD2008a Model.

Fact #635: August 9, 2010
Fuel Consumption from Lawn and Garden Equipment

Most lawn and garden equipment uses gasoline instead of diesel fuel. Mowing equipment consumes nearly half of all the fuel used by lawn and garden equipment. The fuel used in this equipment accounts for only 1.8% of total gasoline use.

Fuel Consumption from Lawn and Garden Equipment, 2008



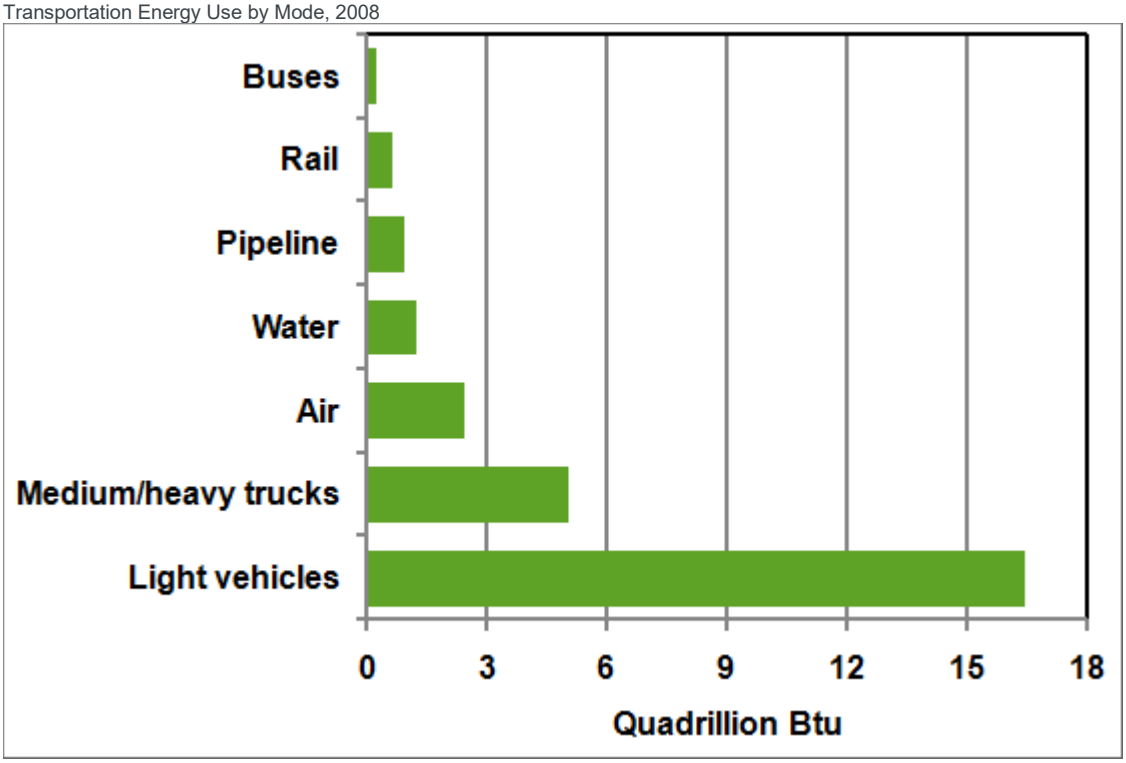
Supporting Information

Fuel Consumption from Lawn and Garden Equipment, 2008 (million gallons)			
	Gasoline	**Diesel**	**LPG**
Mowing Equipment	1,175.41	123.80	0.00
Soil and Turf Equipment	815.72	16.46	0.00
Wood Cutting Equipment	135.70	139.65	19.00
Blowers and Vacuums	267.85	1.83	0.00
Trimming Equipment	128.34	0.39	0.00
Total All Equipment	2,523.02	282.14	19.00
Source: U.S. Environmental Protection Agency, NONROAD2008a Model.			

Fact #636: August 16, 2010
Transportation Energy Use by Mode

Highway vehicles were responsible for 80.7% of all transportation energy use in 2008. Light vehicles make up the majority of highway fuel use.

Transportation Energy Use by Mode, 2008



Supporting Information

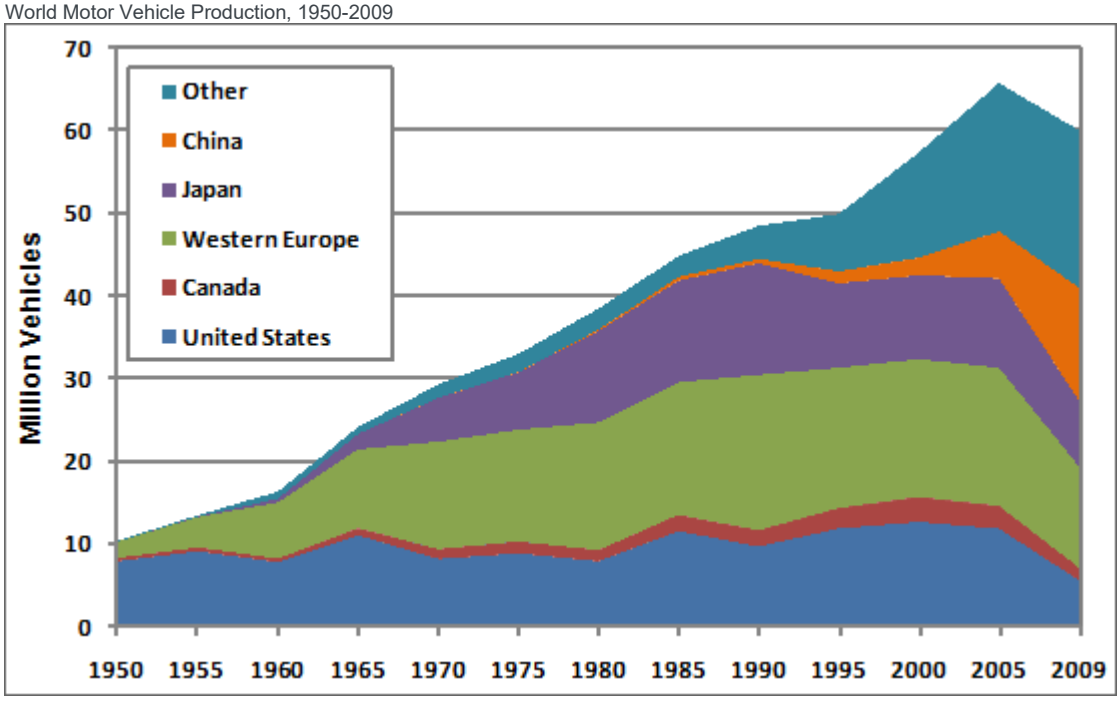
Transportation Energy Use by Mode, 2008		
Mode	**Quadrillion Btu**	**Percentage of Total**
HIGHWAY	21.7	80.7%
Light vehicles	16.4	61.3%
Buses	0.2	0.7%
Medium/heavy trucks	5.0	18.7%
NONHIGHWAY	5.2	19.3%
Air	2.4	8.9%
Water	1.2	4.6%
Pipeline	0.9	3.4%
Rail	0.6	2.4%
TOTAL	26.8	100.0%

Source: Davis, Stacy, Susan Diegel, and Robert Boundy, *Transportation Energy Data Book: Edition 29*, Oak Ridge National Laboratory, July 2010.

Fact #637: August 23, 2010
World Motor Vehicle Production

The number of vehicles produced, including cars, trucks, and buses, rose substantially from 1950 to 2005. In 1950, the majority of the vehicles were produced in the U.S. and Western Europe. In 2009, Japan, China, and other countries around the world produced about two-thirds of the vehicles. The U.S. share of world vehicle production declined to 9.5% in 2009. The category "Other" includes notable markets such as South Korea, Brazil and India.

World Motor Vehicle Production, 1950-2009



Supporting Information

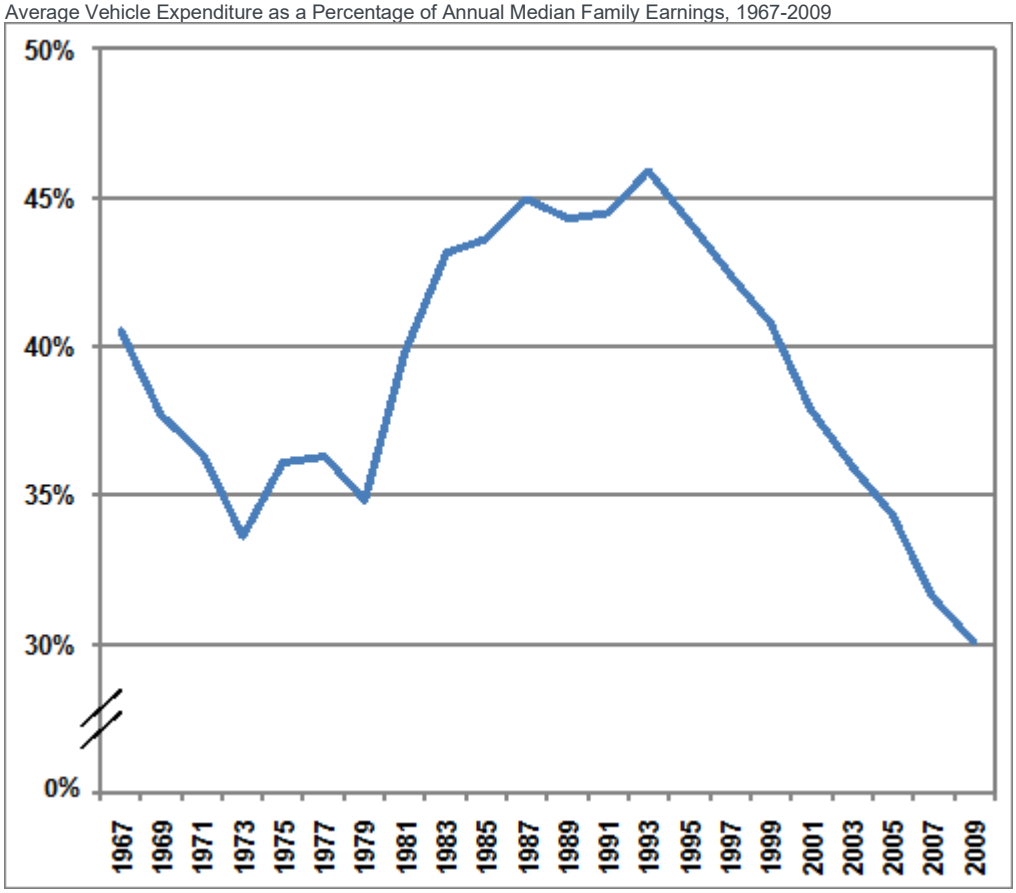
World Vehicle Production (Thousands)								
Year	United States	Canada	Western Europe	Japan	China	Other	World Total	U.S. Share (%)
1950	8.01	0.39	1.99	0.03	*	0.16	10.58	75.7
1955	9.20	0.45	3.74	0.07	*	0.16	13.63	67.5
1960	7.91	0.40	6.84	0.48	*	0.87	16.49	47.9
1965	11.14	0.85	9.58	1.88	*	0.83	24.27	45.9
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	48.55	20.1
1995	11.99	2.41	17.05	10.20	1.43	6.92	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
2009	5.71	1.49	12.30	7.94	13.65	19.01	60.09	9.5

* Data for China before 1980 are not available.
Source: Ward's Automotive Group, *Ward's Motor Vehicle Facts and Figures 2010*.

Fact #638: August 30, 2010
Average Expenditure for a New Car Declines in Relation to Family Earnings

Although the average expenditure for a new car has increased from 1967 to 2009, family earnings have also been on the rise. For this period, new car expenditures went from $3,216 to $23,186, while median family earnings went from $7,933 to $77,149. The expenditure for a new car as a percentage of annual median family earnings reached its peak in 1993 at more than 45%; in 2009 it declined to its lowest point at just 30%.

Average Vehicle Expenditure as a Percentage of Annual Median Family Earnings, 1967-2009



Supporting Information

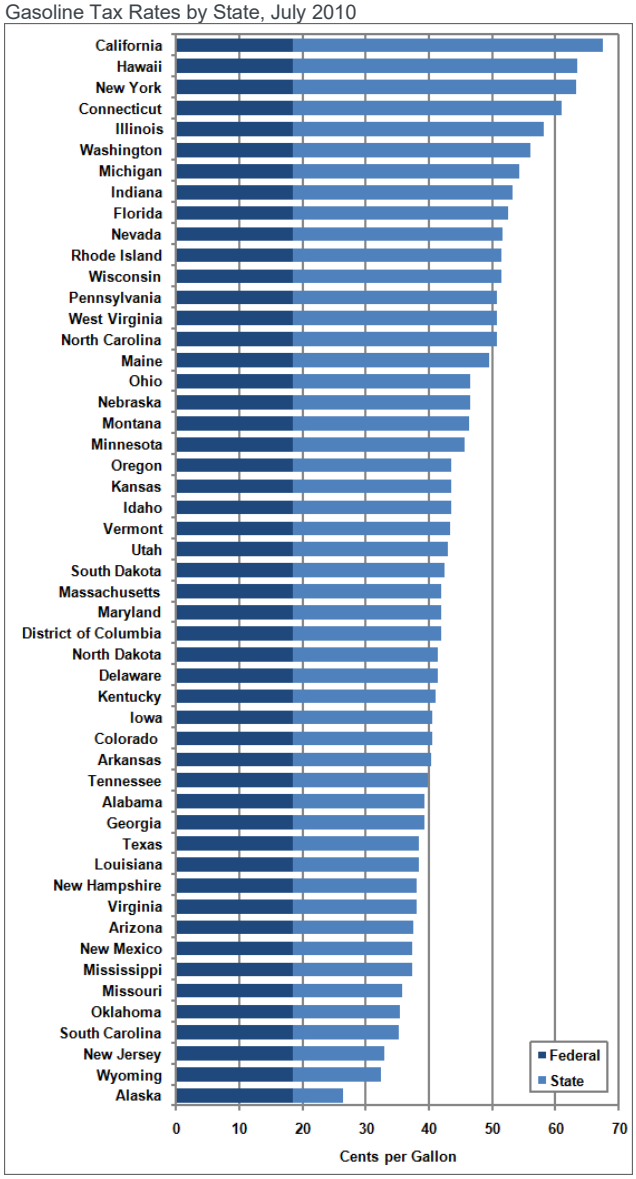
Average Expenditure for a New Car and Annual Median Family Earnings			
Year	**Average Expenditure for a New Car**	**Annual Median Family Earnings**	**New Car Expenditure Share of Annual Median Family Earnings**
1967	$3,216	$7,933	40.5%
1969	$3,557	$9,433	37.7%
1971	$3,742	$10,285	36.4%
1973	$4,052	$12,051	33.6%
1975	$4,950	$13,719	36.1%
1977	$5,814	$16,009	36.3%
1979	$6,847	$19,661	34.8%
1981	$8,910	$22,388	39.8%
1983	$10,606	$24,580	43.1%
1985	$11,838	$27,144	43.6%
1987	$13,386	$29,744	45.0%
1989	$14,371	$32,448	44.3%
1991	$15,475	$34,775	44.5%
1993	$16,871	$36,764	45.9%
1995	$17,959	$40,572	44.3%
1997	$19,236	$45,326	42.4%
1999	$20,710	$50,784	40.8%
2001	$21,474	$56,628	37.9%
2003	$21,646	$60,135	36.0%
2005	$23,017	$66,977	34.4%
2007	$23,892	$75,610	31.6%
2009	$23,186	$77,149	30.1%

* Even years not included.
Source: Ward's Automotive Group, Average Expenditure per New Car, on the wardsauto.com Web site.

Fact #639: September 6, 2010
Gasoline Tax Rates by State

The Federal Excise Tax on motor gasoline is 18.4 cents per gallon for all states. Each state applies additional taxes which vary from state to state. As of July 2010, Alaska had the lowest overall tax rate for gasoline at 26.4 cents per gallon while California had the highest tax rate at 67.4 cents per gallon. The national average was 47.7 cents per gallon.

Gasoline Tax Rates by State, July 2010



Supporting Information

Gasoline Tax Rates by State, July 2010			
State	Federal Excise Tax	Total State Taxes and Fees	Total State and Federal Taxes
Alabama	18.4	20.9	39.3
Alaska	18.4	8.0	26.4
Arizona	18.4	19.0	37.4
Arkansas	18.4	21.8	40.2
California	18.4	49.0	67.4
Colorado	18.4	22.0	40.4
Connecticut	18.4	42.5	60.9
Delaware	18.4	23.0	41.4
District of Columbia	18.4	23.5	41.9
Florida	18.4	34.0	52.4
Georgia	18.4	20.8	39.2
Hawaii	18.4	45.0	63.4
Idaho	18.4	25.0	43.4
Illinois	18.4	39.6	58.0
Indiana	18.4	34.7	53.1
Iowa	18.4	22.0	40.4
Kansas	18.4	25.0	43.4
Kentucky	18.4	22.5	40.9
Louisiana	18.4	20.0	38.4
Maine	18.4	31.0	49.4
Maryland	18.4	23.5	41.9
Massachusetts	18.4	23.5	41.9
Michigan	18.4	35.8	54.2
Minnesota	18.4	27.2	45.6
Mississippi	18.4	18.8	37.2
Missouri	18.4	17.3	35.7
Montana	18.4	27.8	46.2
Nebraska	18.4	28.0	46.4
Nevada	18.4	33.1	51.5

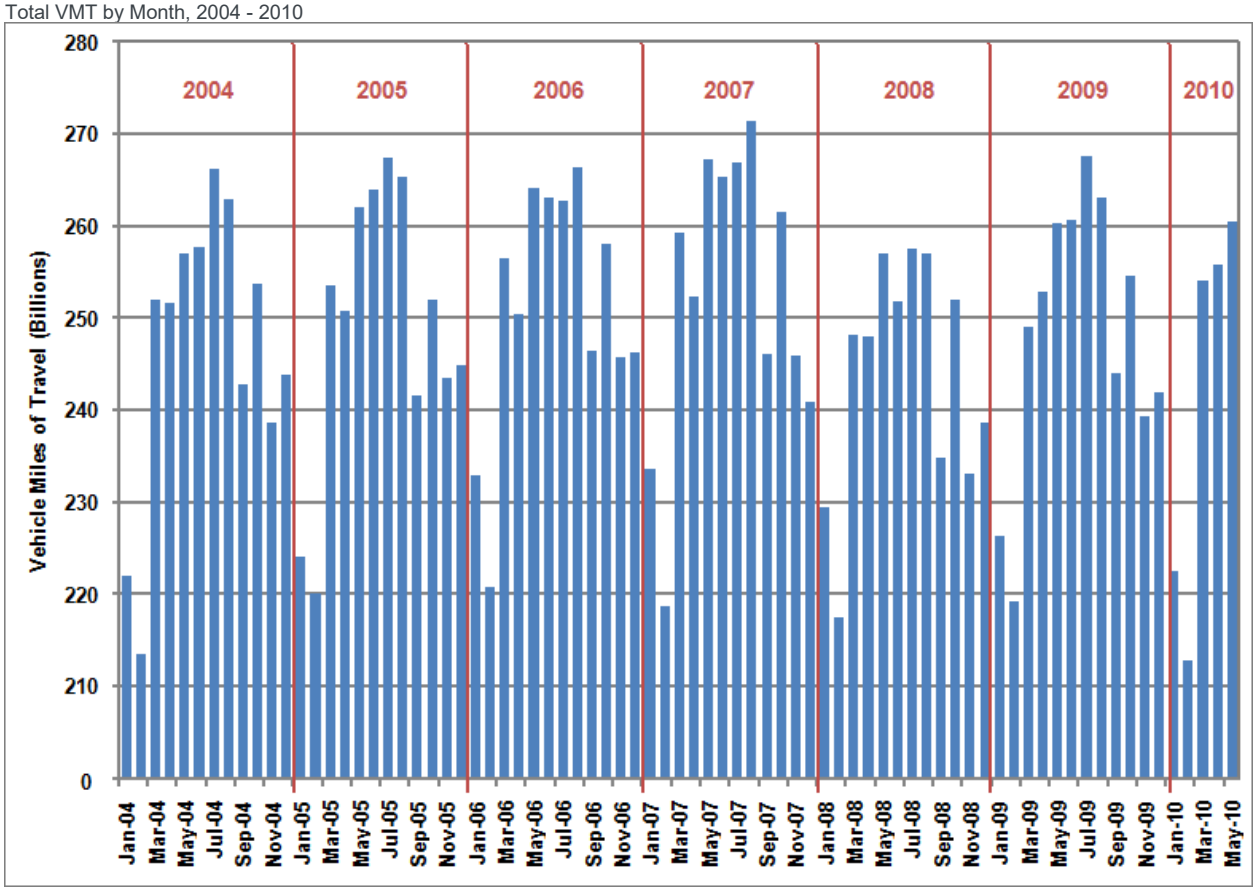
Gasoline Tax Rates by State, July 2010			
State	**Federal Excise Tax**	**Total State Taxes and Fees**	**Total State and Federal Taxes**
New Hampshire	18.4	19.6	38.0
New Jersey	18.4	14.5	32.9
New Mexico	18.4	18.8	37.2
New York	18.4	44.8	63.2
North Carolina	18.4	32.2	50.6
North Dakota	18.4	23.0	41.4
Ohio	18.4	28.0	46.4
Oklahoma	18.4	17.0	35.4
Oregon	18.4	25.0	43.4
Pennsylvania	18.4	32.3	50.7
Rhode Island	18.4	33.0	51.4
South Carolina	18.4	16.8	35.2
South Dakota	18.4	24.0	42.4
Tennessee	18.4	21.4	39.8
Texas	18.4	20.0	38.4
Utah	18.4	24.5	42.9
Vermont	18.4	24.9	43.3
Virginia	18.4	19.5	37.9
Washington	18.4	37.5	55.9
West Virginia	18.4	32.2	50.6
Wisconsin	18.4	32.9	51.3
Wyoming	18.4	14.0	32.4
U.S. Average	**18.4**	**29.3**	**47.7**

Source: The American Petroleum Institute. *July 2010 Notes to State Motor Fuel Excise Tax Report*.

Fact #640: September 13, 2010
Monthly Trends in Vehicle Miles of Travel

Vehicle travel in the U.S. varies by month. There are many reasons for this, including the fact that some months are shorter than others. The vehicle miles of travel (VMT) recorded in February is always the lowest of the year. February 2010 was the lowest in this data series, which is likely weather-related (snowstorms in the Northeast). Travel always increases in the summer months, then declines in September, which is the beginning of the school year for many systems across the nation. In the year 2008, when gas prices rose to over $4 per gallon for a short time, monthly travel did not rise above 260 billion in any month.

Total VMT by Month, 2004 - 2010



Supporting Information

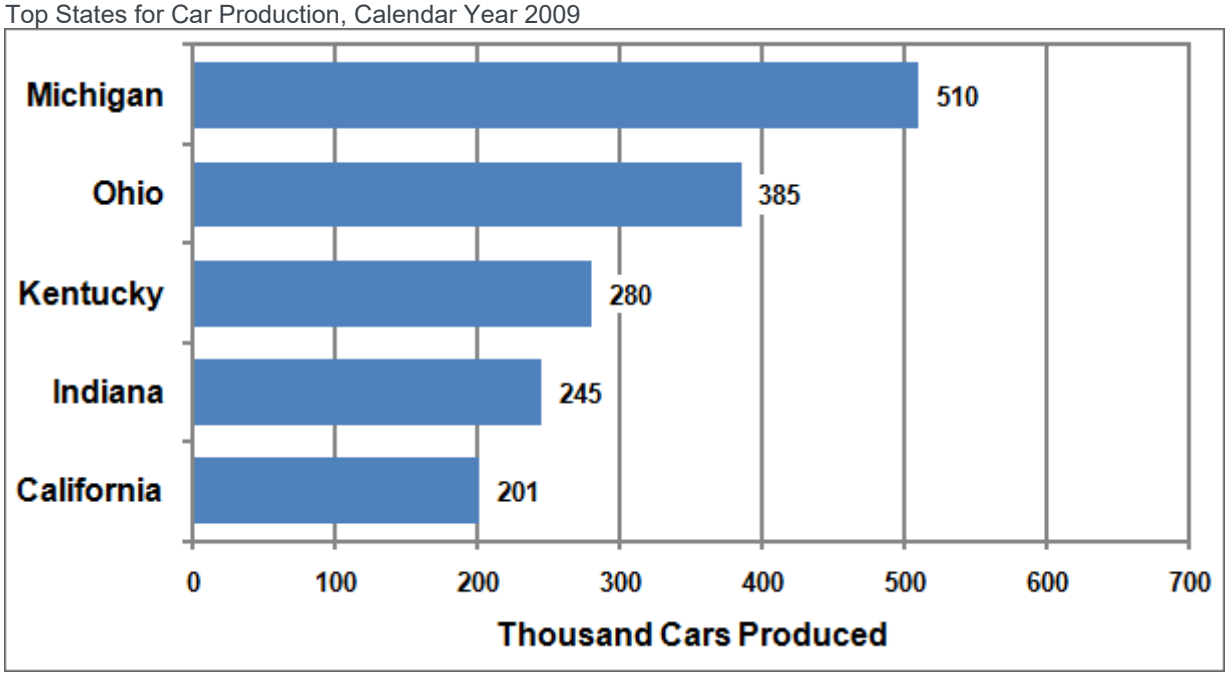
Total VMT by Month, 2004-2010				
Month	**(Billions of Miles)**		**Month**	**(Billions of Miles)**
Jan-04	222.0		Apr-07	252.4
Feb-04	213.5		May-07	267.2
Mar-04	252.1		Jun-07	265.3
Apr-04	251.7		Jul-07	267.0
May-04	257.1		Aug-07	271.5
Jun-04	257.8		Sep-07	246.2
Jul-04	266.2		Oct-07	261.6
Aug-04	262.9		Nov-07	246.0
Sep-04	242.9		Dec-07	240.9
Oct-04	253.7		Jan-08	229.5
Nov-04	238.6		Feb-08	217.6
Dec-04	243.9		Mar-08	248.2
Jan-05	224.2		Apr-08	248.1
Feb-05	220.1		May-08	257.1
Mar-05	253.6		Jun-08	251.8
Apr-05	250.9		Jul-08	257.6
May-05	262.1		Aug-08	257.1
Jun-05	264.0		Sep-08	234.9
Jul-05	267.4		Oct-08	252.1
Aug-05	265.3		Nov-08	233.2
Sep-05	241.6		Dec-08	238.6
Oct-05	252.1		Jan-09	226.3
Nov-05	243.5		Feb-09	219.2
Dec-05	244.9		Mar-09	249.0
Jan-06	232.9		Apr-09	252.9
Feb-06	220.8		May-09	260.4
Mar-06	256.6		Jun-09	260.7
Apr-06	250.4		Jul-09	267.7
May-06	264.2		Aug-09	263.1
Jun-06	263.2		Sep-09	244.1

Total VMT by Month, 2004-2010				
Month	**(Billions of Miles)**		**Month**	**(Billions of Miles)**
Jul-06	262.8		Oct-09	254.7
Aug-06	266.5		Nov-09	239.3
Sep-06	246.4		Dec-09	241.9
Oct-06	258.1		Jan-10	222.5
Nov-06	245.8		Feb-10	212.9
Dec-06	246.3		Mar-10	254.1
Jan-07	233.7		Apr-10	255.9
Feb-07	218.7		May-10	260.6
Mar-07	259.3			
Source: Federal Highway Administration, Traffic Volume Trends, May 2010, and older editions.				

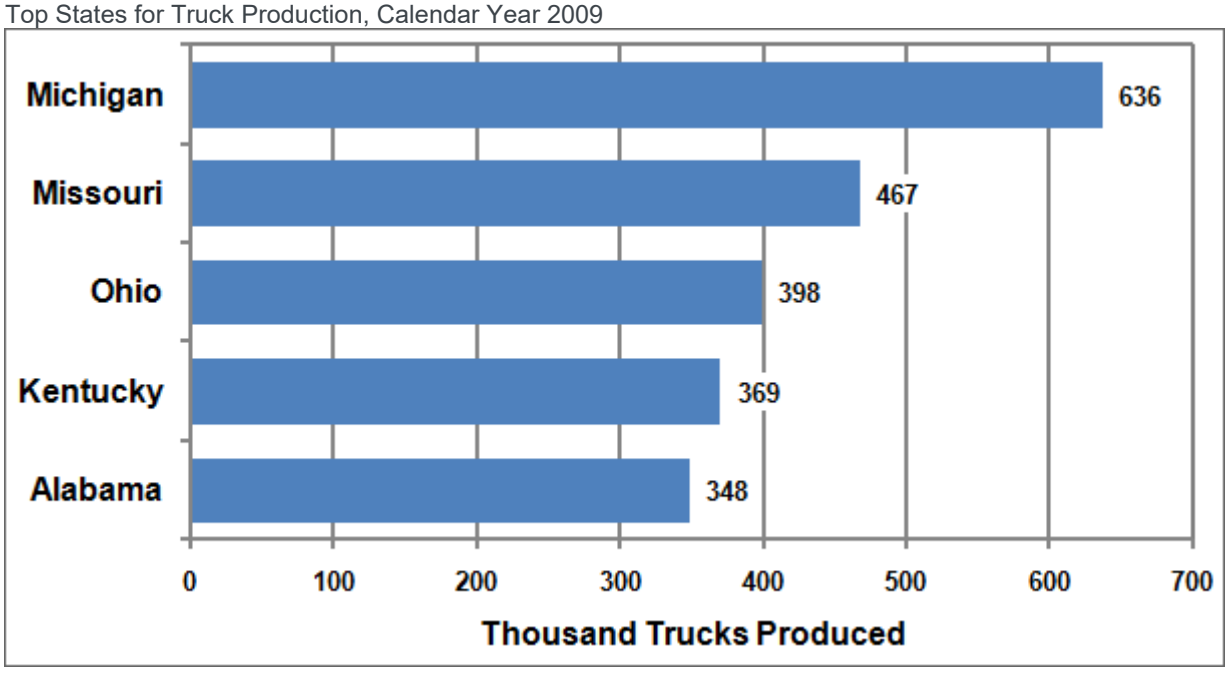
Fact #641: September 20, 2010
Top States for the Production of Cars and Trucks

For the 2009 calendar year, Michigan retained its lead position as the top producing state for both cars and trucks. Ohio and Kentucky were the only other states to place in the top 5 for both cars and trucks. Missouri was the second largest producer of trucks for that year.

Top States for Car Production, Calendar Year 2009



Top States for Truck Production, Calendar Year 2009



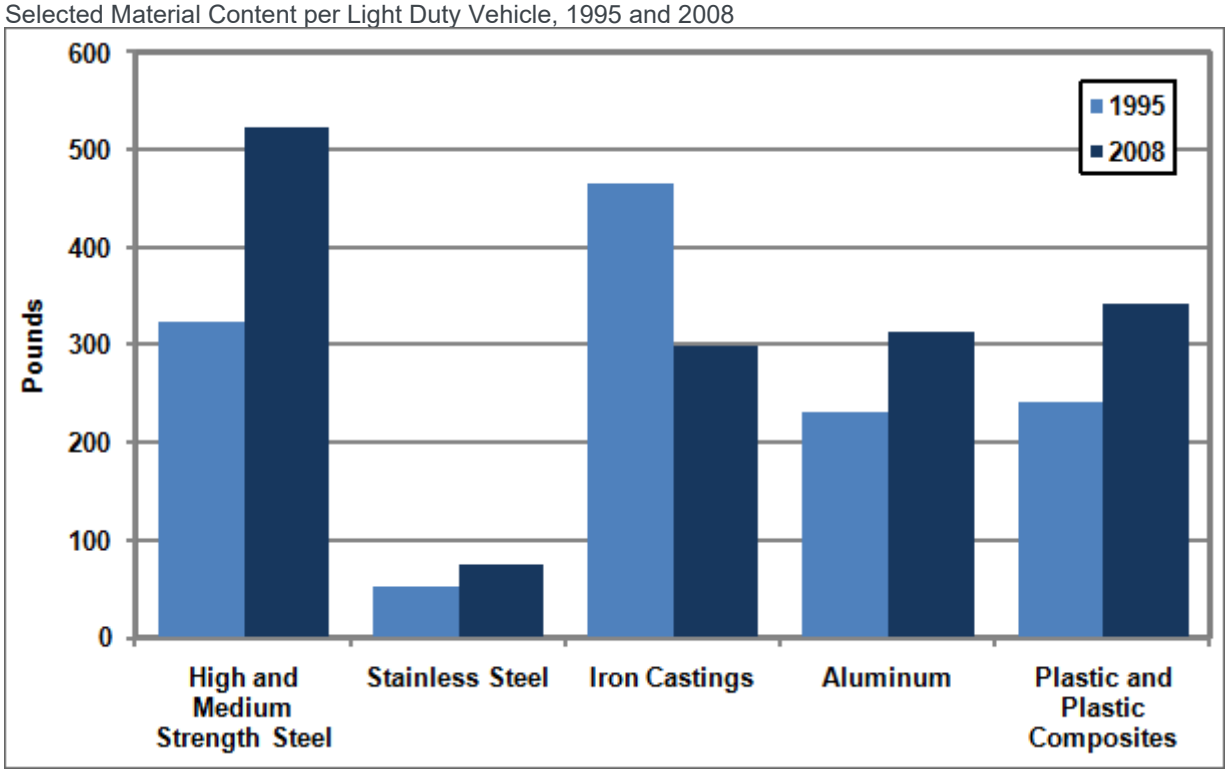
Supporting Information

Top States for Car and Truck Production, CY 2009				
State	**Cars**		**State**	**Trucks**
Michigan	510		Michigan	636
Ohio	385		Missouri	467
Kentucky	280		Ohio	398
Indiana	245		Kentucky	369
California	201		Alabama	348
Note: Trucks include all trucks up to 14,000 lbs. **Source:** Ward's Automotive Group, *Ward's Motor Vehicle Facts & Figures, 2010*.				

Fact #642: September 27, 2010
Material Content per Light Vehicle, 1995 and 2008

The use of high and medium strength steels in light vehicle construction increased by more than 60% from 1995 to 2008. Plastic and plastic composites, aluminum, and stainless steel also saw increased use during that period, while iron castings decreased by about 35%. Though there has been greater use of lightweight materials during this period, the overall material weight in light vehicles has increased by 376 lbs – from 3,694 pounds in 1995 to 4,070 pounds in 2008.

Selected Material Content per Light Duty Vehicle, 1995 and 2008



Note: See supporting information for weight of other materials not shown on graph.

Supporting Information

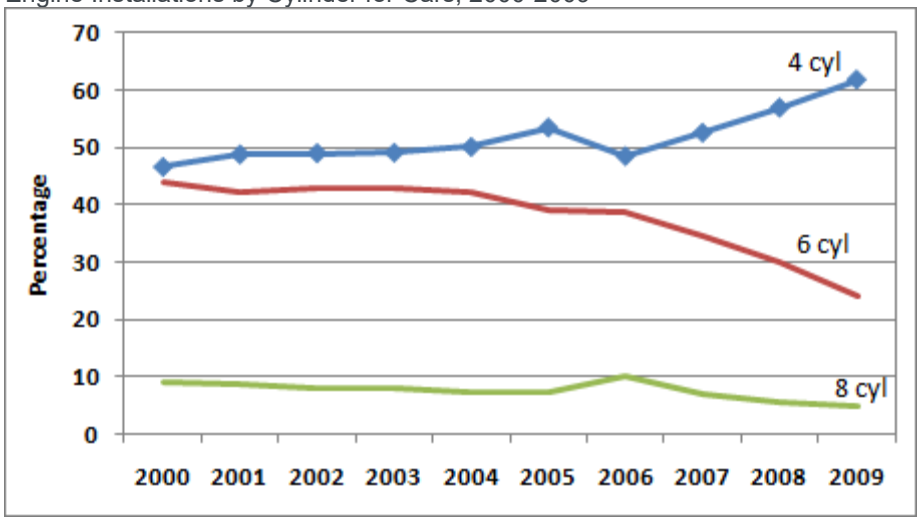
Select Material Content per Light Vehicle, 1995 and 2008 (Pounds)		
Material	**1995**	**2008**
High and Medium Strength Steel	324	523
Stainless Steel	51	75
Iron Castings	466	301
Aluminum	231	315
Plastic and Plastic Composites	240	343
*Other Materials**	*2,382*	*2,513*
Total Materials	**3,694**	**4,070**

***Other Materials include:** Regular steel, other steels, magnesium castings, copper and brass, lead, zinc castings, powder metal, other metals, rubber, coatings, textiles, fluids and lubricants, glass and other materials (not specified in original source table).
Source: Ward's Automotive Group, *Ward's Motor Vehicle Facts & Figures, 2010*.

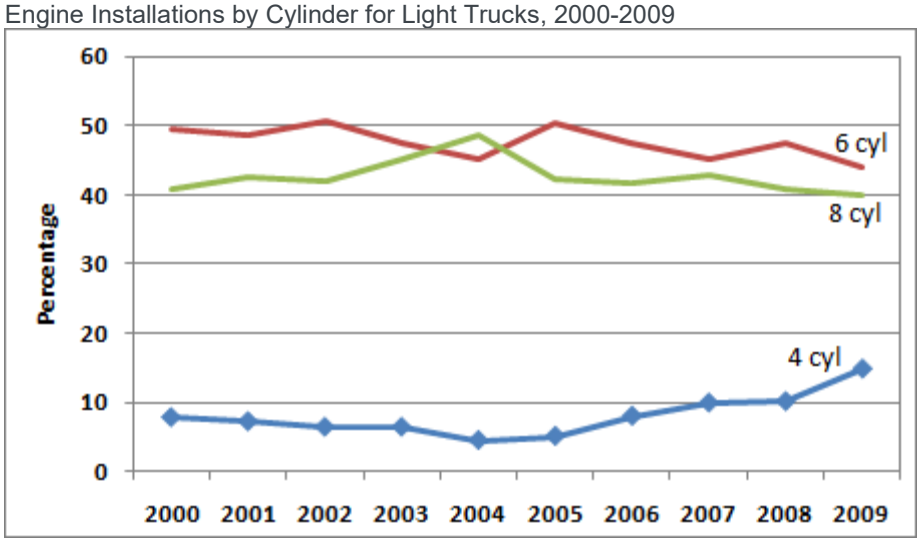
Fact #643: October 4, 2010
Four Cylinder Engine Installations Continue to Rise

The share of 4 cylinder engines installed in light vehicles has been increasing since 2004. Beginning in 2006, cars have shown an increase in 4 cylinder engine installations while 8 cylinder engine installations have declined during that same period. For light trucks, 6 and 8 cylinder engine installations have declined modestly while the number of 4 cylinder engines has increased markedly from 4.5% in 2004 to nearly 15% in 2009.

Engine Installations by Cylinder for Cars, 2000-2009



Engine Installations by Cylinder for Light Trucks, 2000-2009



Supporting Information

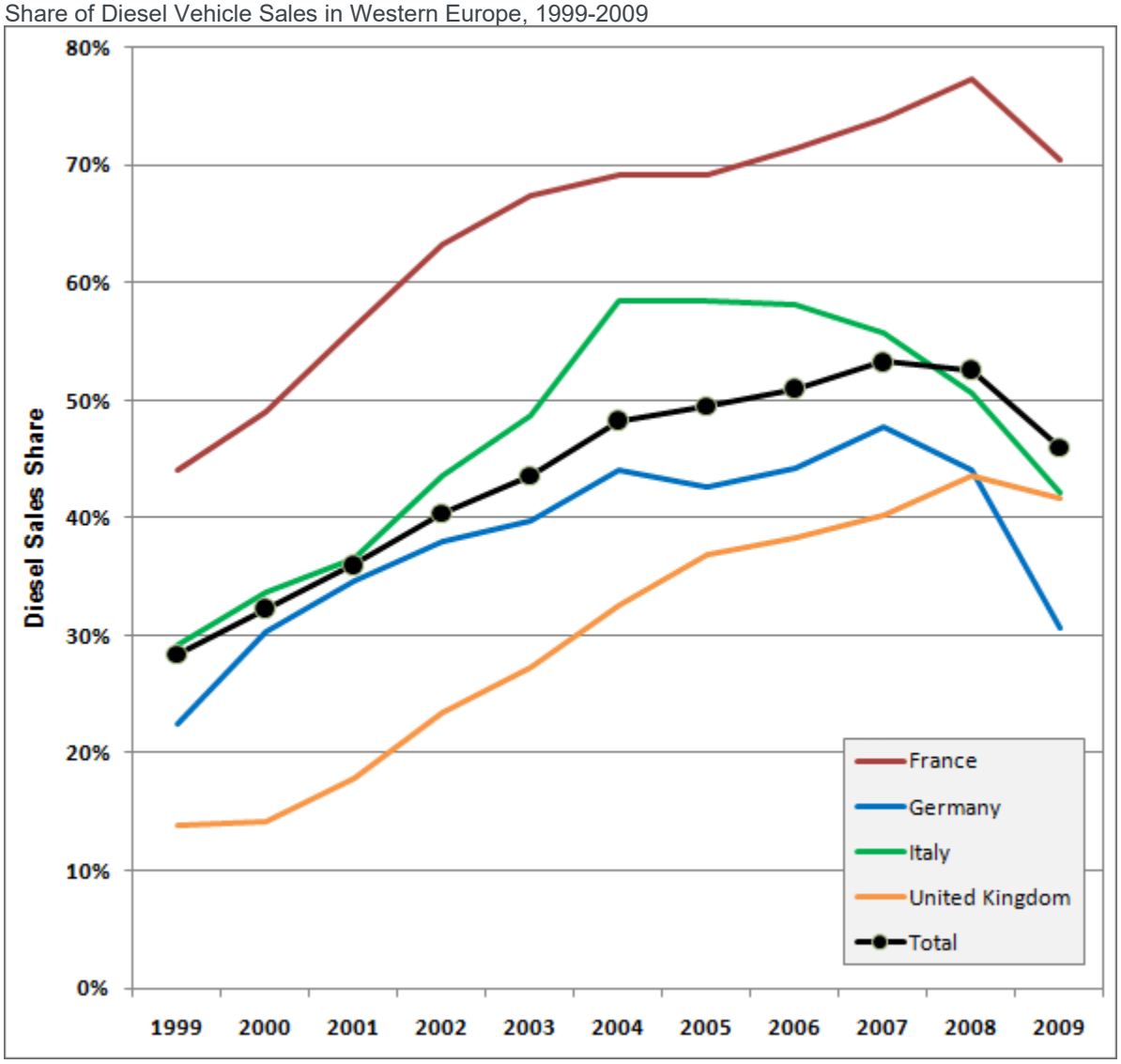
Light Vehicle Engine Installations by Cylinder, 2000-2009 (Percent of Total)												
Cars					**Trucks**					**All Light Vehicles**		
Year	**4cyl**	**6cyl**	**8cyl**		**Year**	**4cyl**	**6cyl**	**8cyl**		**Year**	**4cyl**	**6cyl**	**8cyl**
2000	46.6	44.0	9.3		2000	7.8	49.6	40.8		2000	26.9	46.8	25.3
2001	48.8	42.3	8.9		2001	7.2	48.7	42.6		2001	27.1	45.6	26.5
2002	49.0	43.0	8.1		2002	6.4	50.8	41.9		2002	24.3	47.5	27.7
2003	49.1	42.8	8.1		2003	6.4	47.5	45.2		2003	24.6	45.5	29.4
2004	50.1	42.4	7.5		2004	4.5	45.2	48.5		2004	22.7	44.1	32.1
2005	53.5	39.1	7.4		2005	5.1	50.4	42.2		2005	24.9	45.8	27.9
2006	48.5	38.8	10.2		2006	8.0	47.6	41.6		2006	25.4	43.8	28.1
2007	52.6	34.6	7.2		2007	9.9	45.3	42.9		2007	28.4	40.7	27.5
2008	57.0	30.2	5.6		2008	10.1	47.5	40.7		2008	31.9	39.5	24.4
2009	61.9	24.2	4.9		2009	14.8	44.0	40.0		2009	37.9	34.3	22.8

Note: Only 4, 6, and 8 cylinder engines are considered in these data, though a small amount of other engines are installed.
Source: Ward's Automotive Group, *Ward's Automotive Yearbook 2010*.

Fact #644: October 11, 2010
Share of Diesel Vehicle Sales Decline in Western Europe

The share of new diesel vehicles sold in Western Europe rose steadily from 1999 to 2007. However, from 2007 to 2009, the share of diesel vehicle sales has begun to decline. Germany and Italy have experienced the greatest declines in diesel vehicle sales, though other countries in Western Europe have shown a similar trend.

Share of Diesel Vehicle Sales in Western Europe, 1999-2009



Supporting Information

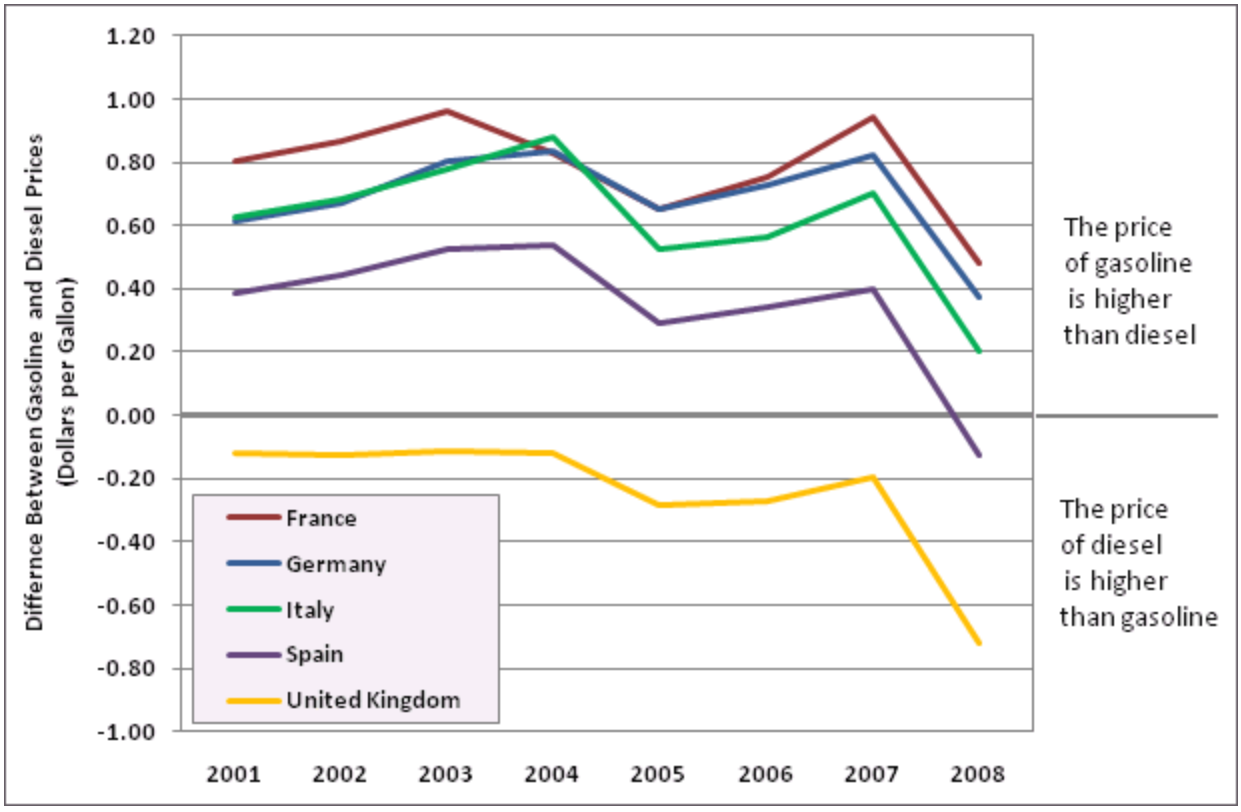
Western Europe Diesel Car Sales Shares, 1999-2009											
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Belgium*	54.3%	56.7%	62.6%	64.2%	68.3%	69.9%	72.9%	74.7%	76.9%	78.7%	75.1%
France	44.1%	49.0%	56.2%	63.2%	67.4%	69.2%	69.1%	71.4%	73.9%	77.3%	70.4%
Germany	22.4%	30.4%	34.6%	38.0%	39.8%	44.0%	42.7%	44.3%	47.7%	44.1%	30.7%
Italy	29.1%	33.7%	36.6%	43.6%	48.7%	58.4%	58.5%	58.2%	55.7%	50.6%	42.2%
Norway	8.2%	9.0%	13.3%	17.5%	23.2%	27.0%	39.2%	48.4%	74.4%	72.4%	72.7%
Spain	51.7%	53.1%	52.5%	57.3%	60.4%	65.1%	67.8%	70.0%	70.8%	69.3%	70.1%
Switzerland	6.6%	9.2%	13.3%	17.8%	21.5%	25.9%	28.1%	30.0%	32.5%	32.4%	29.6%
United Kingdom	13.8%	14.1%	17.8%	23.5%	27.3%	32.5%	36.8%	38.3%	40.2%	43.6%	41.7%
Total	28.4%	32.3%	36.0%	40.4%	43.6%	48.3%	49.5%	51.0%	53.3%	52.6%	46.0%

* 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 #645: October 18, 2010
Price of Diesel Fuel versus Gasoline in Europe

A comparison between the average annual price of a gallon of gasoline and a gallon of highway diesel fuel in several European countries shows that a large change took place in 2008. In most of the selected countries, the price of gasoline was 30 to 95 cents higher than that of diesel from 2001 to 2007. In 2008, the price difference between the two fuels sharply declined for every country shown. Even the United Kingdom, which had higher diesel prices than gasoline since 2001, shows the same trend. Spain is the only country shown that reversed which fuel was priced higher; in 2007 gasoline was 40 cents more than diesel, but in 2008 gasoline was 12 cents less than diesel. This narrowing of fuel prices is likely a contributing factor to the decline of diesel sales share (See Fact of the Week #644).

Calculated Difference in the Price of Gasoline and Diesel for Selected Countries



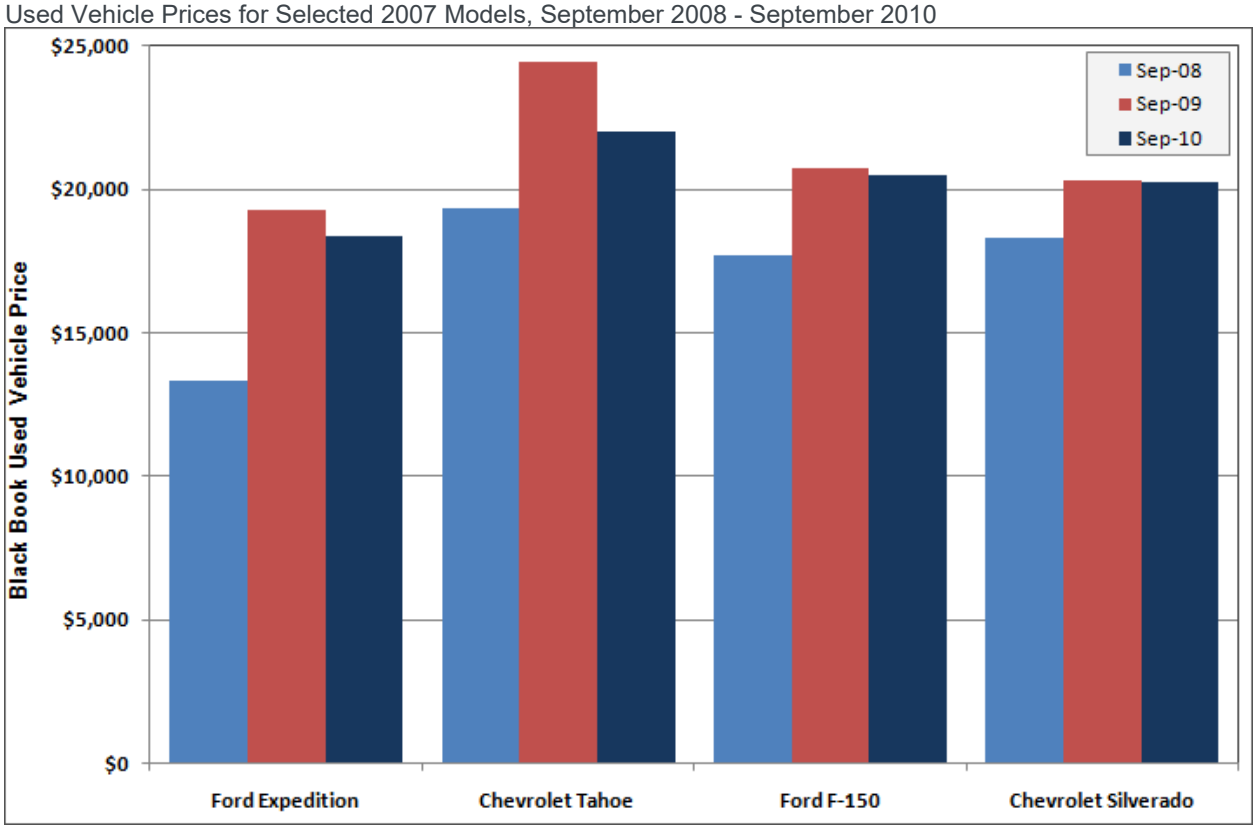
Supporting Information

Gasoline and Diesel Prices for Selected Countries and the Difference Between the Two Prices, 2001-2008 (Dollars per gallon)									
	France			Germany			Italy		
Year	Gasoline	Diesel	Difference	Gasoline	Diesel	Difference	Gasoline	Diesel	Difference
2001	3.51	2.71	0.80	3.40	2.79	0.61	3.57	2.95	0.62
2002	3.62	2.75	0.87	3.67	3.00	0.67	3.74	3.05	0.69
2003	4.35	3.39	0.96	4.59	3.79	0.80	4.53	3.75	0.78
2004	4.99	4.16	0.83	5.24	4.41	0.83	5.29	4.41	0.88
2005	5.46	4.81	0.65	5.66	5.01	0.65	5.74	5.21	0.53
2006	5.88	5.13	0.75	6.03	5.30	0.73	6.10	5.53	0.57
2007	6.60	5.66	0.94	6.88	6.06	0.82	6.73	6.03	0.70
2008	7.51	7.03	0.48	7.75	7.37	0.38	7.63	7.43	0.20
	Spain			United Kingdom					
Year	Gasoline	Diesel	Difference	Gasoline	Diesel	Difference			
2001	2.73	2.35	0.38	4.13	4.25	-0.12			
2002	2.90	2.46	0.44	4.16	4.29	-0.13			
2003	3.49	2.97	0.52	4.70	4.82	-0.12			
2004	4.09	3.55	0.54	5.56	5.68	-0.12			
2005	4.49	4.20	0.29	5.97	6.25	-0.28			
2006	4.84	4.50	0.34	6.36	6.63	-0.27			
2007	5.36	4.96	0.40	7.15	7.34	-0.19			
2008	6.13	6.25	-0.12	7.42	8.14	-0.72			
Source: Energy Information Administration, "Retail Motor Gasoline Prices in Selected Countries, 1990-2009" and "Automotive Diesel Prices for Non-Commercial (Household) Use, Selected Countries, Recent Years."									

Fact #646: October 25, 2010
Prices for Used Vehicles Rise Sharply from 2008 to 2010

The collapse of new vehicle sales in 2008 has led to lower sales volumes of new vehicles. Also, consumers and business are holding on to their vehicles longer. Both of these factors have resulted in a shorter supply of used vehicles, driving up the price. The graph below illustrates this effect, showing that for these selected vehicles, the price for a 2007 model is higher in 2010 than it was two years earlier when the vehicle was only one year old.

Used Vehicle Prices for Selected 2007 Models, September 2008 - September 2010



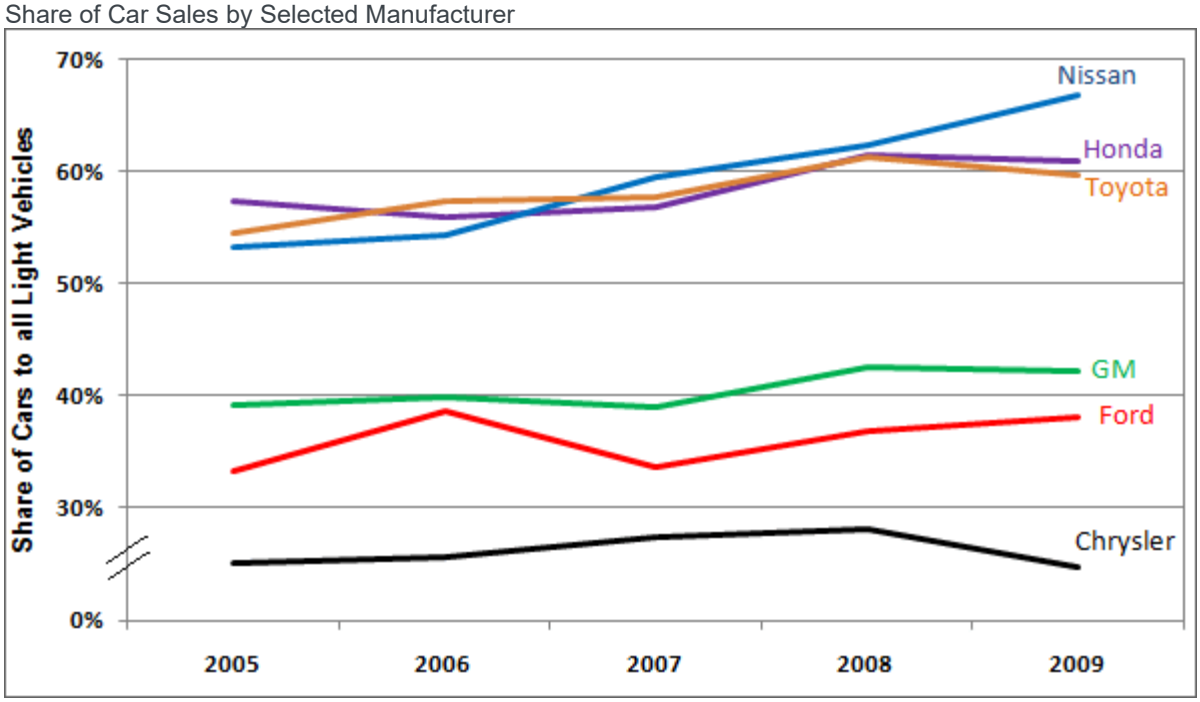
Supporting Information

Used Vehicle Prices for Selected Models, September 2008 – September 2010				
	Ford Expedition	**Chevrolet Tahoe**	**Ford F-150**	**Chevrolet Silverado**
Sep-08	$13,325	$19,325	$17,675	$18,300
Sep-09	$19,300	$24,425	$20,725	$20,325
Sep-10	$18,400	$22,025	$20,525	$20,225
Note: Prices based on *Black Book* values. **Source:** Automotive News, September 13, 2010. Crain Communications, Inc.				

Fact #647: November 1, 2010
Sales Shifting from Light Trucks to Cars

From 2005 to 2009 light vehicle sales have gradually shifted toward cars over light trucks. The graph below shows this trend broken down by the major manufacturers. This trend is more evident among the major import brands than the domestic brands.

Share of Car Sales by Selected Manufacturer



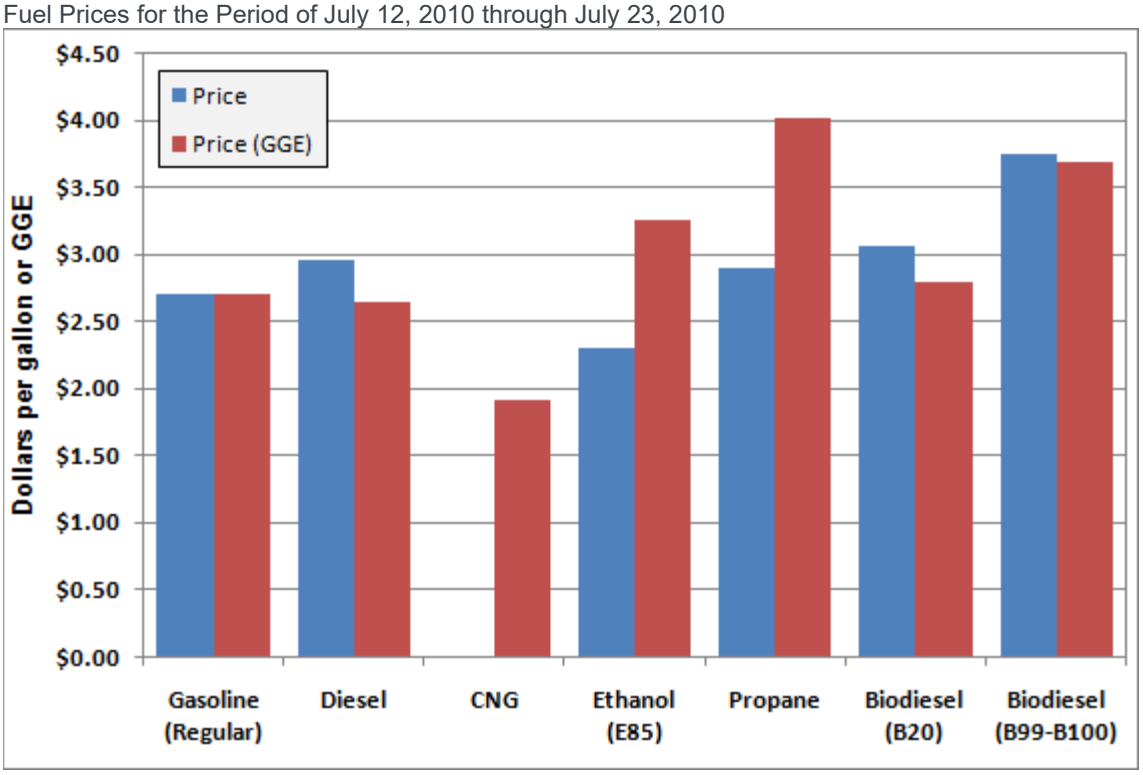
Supporting Information

Share of Car Sales by Selected Manufacturer, 2005 - 2009					
	2005	**2006**	**2007**	**2008**	**2009**
Chrysler	25.1%	25.7%	27.4%	28.1%	24.7%
Ford	33.3%	38.6%	33.6%	36.9%	38.1%
GM	39.1%	39.9%	38.9%	42.5%	42.2%
Honda	57.3%	55.9%	56.9%	61.4%	60.8%
Nissan	53.2%	54.3%	59.5%	62.4%	66.8%
Toyota	54.5%	57.4%	57.8%	61.2%	59.6%
Source: Ward's AutoInfo Bank.					

Fact #648: November 8, 2010
Conventional and Alternative Fuel Prices

The Department of Energy's *Clean Cities Alternative Fuel Price Report* is a quarterly report that tracks prices for conventional and alternative fuels in the U.S. The graph below shows the nationwide average price for each fuel type in blue. The red bars in the graph show the nationwide average price on an energy-equivalent basis adjusted to a Gasoline-Gallon Equivalent (GGE). The relationship between actual per unit fuel cost and energy-equivalent cost shows the comparable cost of each fuel. Diesel is more expensive than gasoline but it contains more energy for the same unit of fuel so the GGE price for diesel is actually a little less than for gasoline. A gallon of ethanol (E85) is less expensive than a gallon of gasoline; however, E85 contains less energy and is therefore more expensive than gasoline on a GGE basis.

Fuel Prices for the Period of July 12, 2010 through July 23, 2010



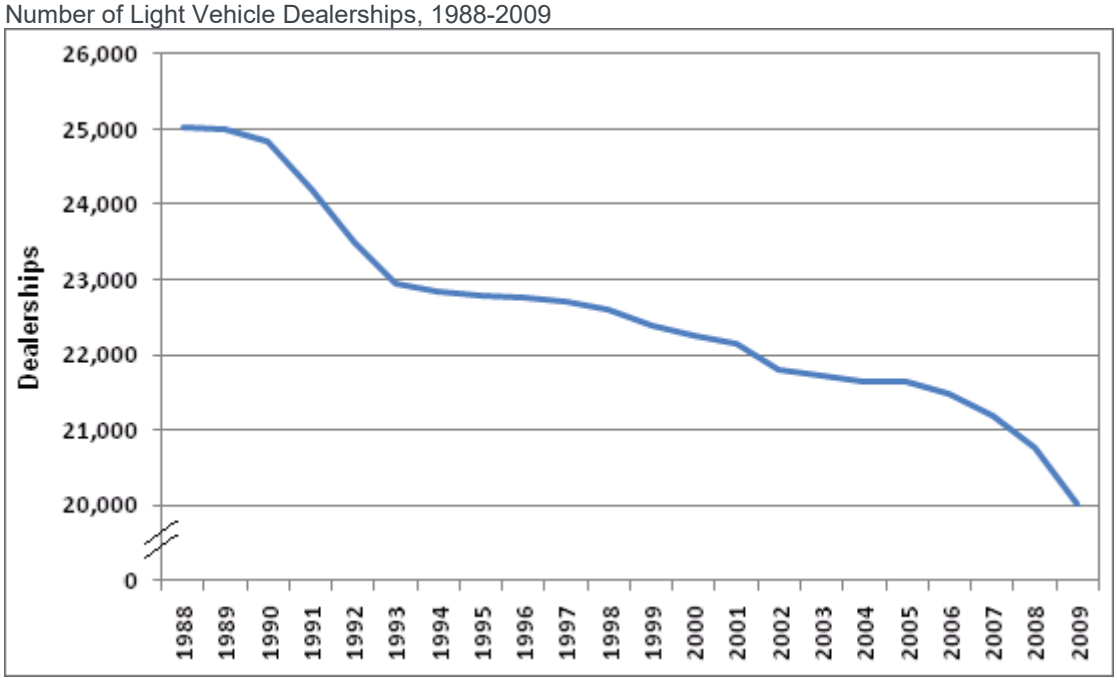
Supporting Information

Conventional and Alternative Fuel Prices, July 12, 2010 through July 23, 2010		
Fuel Type	**Nationwide Average Price (Dollars/gallon)**	**Energy-Equivalent Price (Dollars/GGE)**
Gasoline (Regular)	$2.71	$2.71
Diesel	$2.95	$2.65
CNG	N/A	$1.91
Ethanol (E85)	$2.30	$3.25
Propane	$2.90	$4.01
Biodiesel (B20)	$3.06	$2.79
Biodiesel (B99-B100)	$3.75	$3.69
Note: CNG prices are reported in GGE, thus no unit price comparison can be made. **Source:** Department of Energy, Clean Cities Alternative Fuel Price Report, July 2010.		

Fact #649: November 15, 2010
Number of New Light Vehicle Dealerships Continues to Shrink

The number of new light vehicle dealerships has been decreasing since the late 1980s. The rate of decline has increased dramatically from 2005 to 2009, nearly matching the decline of the early 1990's. In 2009 there are about 5,000 fewer light vehicle dealerships than in 1988.

Number of Light Vehicle Dealerships, 1988-2009



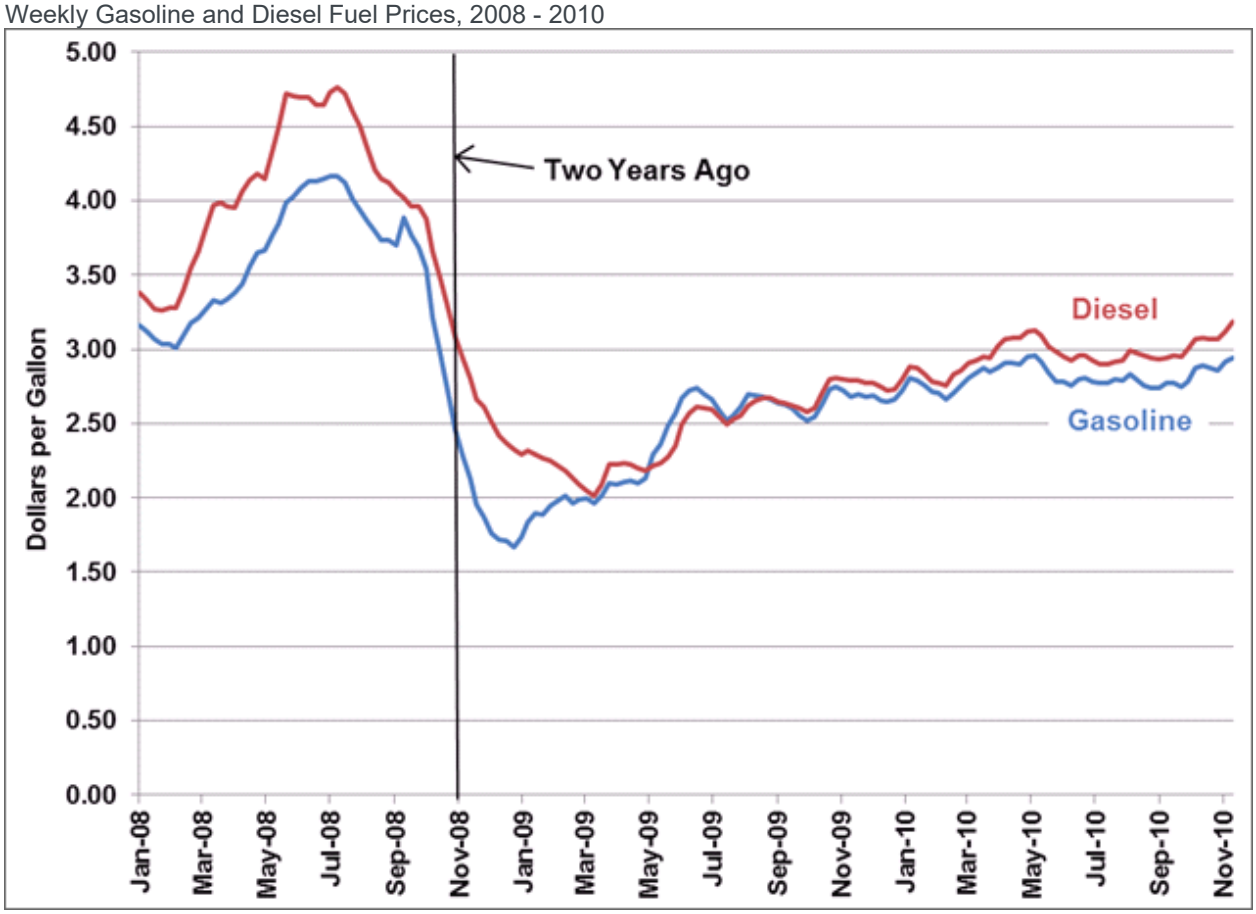
Supporting Information

New Light Vehicle Dealerships, 1988-2009	
Year	**Dealerships**
1988	25,025
1989	25,000
1990	24,825
1991	24,200
1992	23,500
1993	22,950
1994	22,850
1995	22,800
1996	22,750
1997	22,700
1998	22,600
1999	22,400
2000	22,250
2001	22,150
2002	21,800
2003	21,725
2004	21,650
2005	21,640
2006	21,495
2007	21,200
2008	20,770
2009	20,010
Source: NADA data 2009.	

Fact #650: November 22, 2010
Diesel Fuel Prices hit a Two-Year High

According to the Energy Information Administration's weekly fuel price data, the price of highway diesel fuel on the week of November 17, 2010, reached a 2-year high of $3.18 per gallon. Back in 2008, the prices for gasoline and diesel fuel rose to record levels in mid-summer, but plummeted by about 50% before the end of the year. Though fuel prices have been up and down several times over the last two years, there is a general upward trend. Diesel prices have been over $3.00 per gallon only one other period since 2008 – in April and May 2010.

Weekly Gasoline and Diesel Fuel Prices, 2008 - 2010



Note: Prices include taxes.

Supporting Information

Weekly Fuel Prices, 2008 – 2010 (Dollars per Gallon)									
Week	Gasoline, All Grades	Highway Diesel Fuel		Week	Gasoline, All Grades	Highway Diesel Fuel		Week	Gasoline, All Grades	Highway Diesel Fuel
Jan 07, 2008	3.159	3.376		Jan 05, 2009	1.737	2.291		Jan 04, 2010	2.718	2.797
Jan 14, 2008	3.119	3.326		Jan 12, 2009	1.835	2.314		Jan 11, 2010	2.804	2.879
Jan 21, 2008	3.070	3.270		Jan 19, 2009	1.898	2.296		Jan 18, 2010	2.793	2.870
Jan 28, 2008	3.030	3.259		Jan 26, 2009	1.890	2.268		Jan 25, 2010	2.760	2.833
Feb 04, 2008	3.030	3.280		Feb 02, 2009	1.944	2.246		Feb 01, 2010	2.717	2.781
Feb 11, 2008	3.011	3.280		Feb 09, 2009	1.978	2.219		Feb 08, 2010	2.707	2.769
Feb 18, 2008	3.092	3.396		Feb 16, 2009	2.016	2.186		Feb 15, 2010	2.664	2.756
Feb 25, 2008	3.180	3.552		Feb 23, 2009	1.963	2.130		Feb 22, 2010	2.709	2.832
Mar 03, 2008	3.212	3.658		Mar 02, 2009	1.988	2.087		Mar 01, 2010	2.756	2.861
Mar 10, 2008	3.273	3.819		Mar 09, 2009	1.993	2.045		Mar 08, 2010	2.804	2.904
Mar 17, 2008	3.332	3.974		Mar 16, 2009	1.964	2.017		Mar 15, 2010	2.841	2.924
Mar 24, 2008	3.310	3.989		Mar 23, 2009	2.014	2.090		Mar 22, 2010	2.870	2.946
Mar 31, 2008	3.339	3.964		Mar 30, 2009	2.097	2.221		Mar 29, 2010	2.851	2.939
Apr 07, 2008	3.381	3.955		Apr 06, 2009	2.090	2.228		Apr 05, 2010	2.877	3.015
Apr 14, 2008	3.438	4.059		Apr 13, 2009	2.104	2.229		Apr 12, 2010	2.909	3.069
Apr 21, 2008	3.557	4.143		Apr 20, 2009	2.112	2.221		Apr 19, 2010	2.911	3.074
Apr 28, 2008	3.653	4.177		Apr 27, 2009	2.102	2.201		Apr 26, 2010	2.901	3.078
May 05, 2008	3.663	4.149		May 04, 2009	2.129	2.185		May 03, 2010	2.950	3.122
May 12, 2008	3.771	4.331		May 11, 2009	2.290	2.216		May 10, 2010	2.958	3.127
May 19, 2008	3.840	4.497		May 18, 2009	2.360	2.231		May 17, 2010	2.918	3.094

Weekly Fuel Prices, 2008 – 2010 (Dollars per Gallon)									
Week	Gasoline, All Grades	Highway Diesel Fuel	Week	Gasoline, All Grades	Highway Diesel Fuel	Week	Gasoline, All Grades	Highway Diesel Fuel
May 26, 2008	3.986	4.723	May 25, 2009	2.485	2.274	May 24, 2010	2.842	3.021
Jun 02, 2008	4.026	4.707	Jun 01, 2009	2.572	2.352	May 31, 2010	2.784	2.980
Jun 09, 2008	4.090	4.692	Jun 08, 2009	2.673	2.498	Jun 07, 2010	2.780	2.946
Jun 16, 2008	4.134	4.692	Jun 15, 2009	2.722	2.572	Jun 14, 2010	2.756	2.928
Jun 23, 2008	4.131	4.648	Jun 22, 2009	2.743	2.616	Jun 21, 2010	2.795	2.961
Jun 30, 2008	4.146	4.645	Jun 29, 2009	2.695	2.608	Jun 28, 2010	2.809	2.956
Jul 07, 2008	4.165	4.727	Jul 06, 2009	2.666	2.594	Jul 05, 2010	2.779	2.924
Jul 14, 2008	4.164	4.764	Jul 13, 2009	2.584	2.542	Jul 12, 2010	2.771	2.903
Jul 21, 2008	4.118	4.718	Jul 20, 2009	2.519	2.496	Jul 19, 2010	2.775	2.899
Jul 28, 2008	4.010	4.603	Jul 27, 2009	2.557	2.528	Jul 26, 2010	2.801	2.919
Aug 04, 2008	3.935	4.502	Aug 03, 2009	2.610	2.550	Aug 02, 2010	2.788	2.928
Aug 11, 2008	3.864	4.353	Aug 10, 2009	2.700	2.625	Aug 09, 2010	2.835	2.991
Aug 18, 2008	3.794	4.207	Aug 17, 2009	2.691	2.652	Aug 16, 2010	2.798	2.979
Aug 25, 2008	3.738	4.145	Aug 24, 2009	2.682	2.668	Aug 23, 2010	2.759	2.957
Sep 01, 2008	3.733	4.121	Aug 31, 2009	2.667	2.674	Aug 30, 2010	2.736	2.938
Sep 08, 2008	3.701	4.059	Sep 07, 2009	2.642	2.647	Sep 06, 2010	2.735	2.931
Sep 15, 2008	3.887	4.023	Sep 14, 2009	2.632	2.634	Sep 13, 2010	2.772	2.943
Sep 22, 2008	3.772	3.958	Sep 21, 2009	2.607	2.622	Sep 20, 2010	2.775	2.960
Sep 29, 2008	3.687	3.959	Sep 28, 2009	2.554	2.601	Sep 27, 2010	2.747	2.951
Oct 06, 2008	3.543	3.875	Oct 05, 2009	2.523	2.582	Oct 04, 2010	2.784	3.000
Oct 13, 2008	3.213	3.659	Oct 12, 2009	2.543	2.60	Oct 11, 2010	2.871	3.066

Weekly Fuel Prices, 2008 – 2010 (Dollars per Gallon)									
Week	Gasoline, All Grades	Highway Diesel Fuel		Week	Gasoline, All Grades	Highway Diesel Fuel		Week	Gasoline, All Grades	Highway Diesel Fuel
Oct 20, 2008	2.974	3.482		Oct 19, 2009	2.626	2.705		Oct 18, 2010	2.887	3.073
Oct 27, 2008	2.718	3.288		Oct 26, 2009	2.727	2.801		Oct 25, 2010	2.870	3.067
Nov 03, 2008	2.462	3.088		Nov 02, 2009	2.746	2.808		Nov 01, 2010	2.861	3.067
Nov 10, 2008	2.284	2.944		Nov 09, 2009	2.720	2.801		Nov 08, 2010	2.917	3.116
Nov 17, 2008	2.132	2.809		Nov 16, 2009	2.684	2.790		Nov 15, 2010	2.944	3.184
Nov 24, 2008	1.952	2.664		Nov 23, 2009	2.694	2.787				
Dec 01, 2008	1.870	2.615		Nov 30, 2009	2.684	2.775				
Dec 08, 2008	1.758	2.515		Dec 07, 2009	2.689	2.772				
Dec 15, 2008	1.716	2.422		Dec 14, 2009	2.655	2.748				
Dec 22, 2008	1.710	2.366		Dec 21, 2009	2.645	2.726				
Dec 29, 2008	1.670	2.327		Dec 28, 2009	2.662	2.732				
Source: Energy Information Administration, Weekly Retail Gasoline and Diesel Prices.										

Fact #651: November 29, 2010
Hybrid Vehicles Dominate EPA's Top Ten Fuel Sippers List for 2011

Each year, the Environmental Protection Agency (EPA) produces a list of the top ten most fuel efficient vehicles for the model year. In past years, it was the small, lightweight vehicles that achieved the highest ratings. However, in recent years, hybrid vehicle technology has expanded throughout the automotive industry and now the list is dominated by hybrid vehicles, many of which are midsized cars and even SUVs. The only non hybrid vehicle to make the list is the Smart ForTwo which came in at number 7. The Toyota Prius again took top honors with a rating of 51 miles per gallon (mpg) City and 48 mpg Highway.

Top Ten EPA-Rated Fuel Sippers (2011)

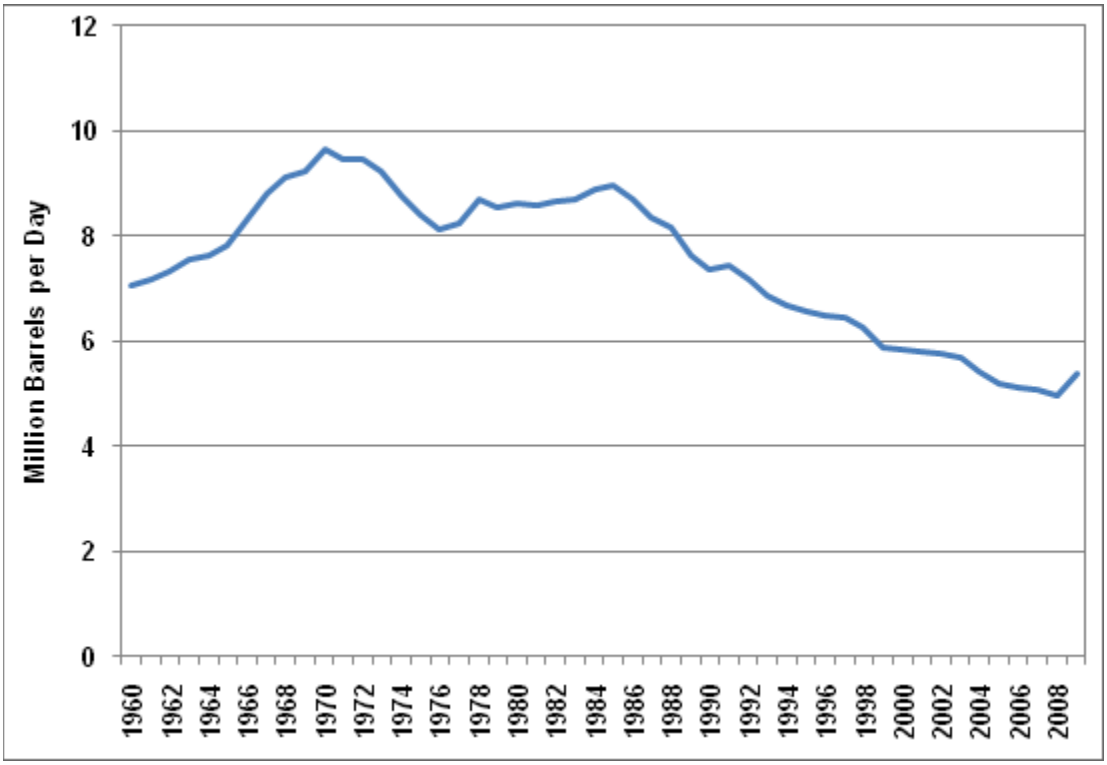
1.		2011 Toyota Prius Hybrid 4 cyl, 1.8 L, Automatic (variable gear ratios), Regular	City 51	Highway 48
2.		2011 Ford Fusion Hybrid FWD 4 cyl, 2.5 L, Automatic (variable gear ratios), Regular	City 41	Highway 36
		2011 Mercury Milan Hybrid FWD 4 cyl, 2.5 L, Automatic (variable gear ratios), Regular	City 41	Highway 36
		2011 Lincoln MKZ Hybrid FWD 4 cyl, 2.5 L, Automatic (variable gear ratios), Regular	City 41	Highway 36
3.		2011 Honda Civic Hybrid 4 cyl, 1.3 L, Automatic (variable gear ratios), Regular	City 40	Highway 43
		2011 Honda Insight Hybrid 4 cyl, 1.3 L, Auto (variable gear ratios and AV-S7), Regular	City 40	Highway 43
4		2011 Honda CR-Z Hybrid 4 cyl, 1.5 L, Auto(AV-S7), Regular	City 35	Highway 39
5.		2011 Lexus HS 250h Hybrid 4 cyl, 2.4 L, Automatic (variable gear ratios), Regular	City 35	Highway 34
6.		2011 Ford Escape Hybrid FWD 4 cyl, 2.5 L, Automatic (variable gear ratios)	City 34	Highway 31
		2011 Mazda Tribute Hybrid 2WD 4 cyl, 2.5 L, Automatic (variable gear ratios)	City 34	Highway 31
		2011 Mercury Mariner Hybrid FWD 4 cyl, 2.5 L, Automatic (variable gear ratios)	City 34	Highway 31
7.		2011 smart fortwo cabriolet 3 cyl, 1.0 L, Auto(AM5)	City 33	Highway 41
		2011 smart fortwo coupe 3 cyl, 1.0 L, Auto(AM5)	City 33	Highway 41
8		Nissan Altima Hybrid 4 cyl, 2.5 L, Automatic (variable gear ratios)	City 33	Highway 33
9.		2011 Lexus RX 450h Hybrid 6 cyl, 3.5 L, Auto(AV-S6)	City 32	Highway 28
10.		2011 Honda CR-Z Hybrid 4 cyl, 1.5 L, Manual 6-spd, Regular	City 31	Highway 37

Source: The Fuel Economy Website

Fact #652: December 6, 2010
U.S. Crude Oil Production Rises

The production of crude oil in the U.S., including lease condensates, rose in 2009 for the first time since 1991. The general trend of declining oil production began in 1986 after a slight peak in 1985 of 8.97 million barrels per day. In 2008, the lowest point in the series, oil production was only 4.95 million barrels per day. The highest U.S. crude oil production was forty years ago in 1970.

Crude Oil Production in the U.S.



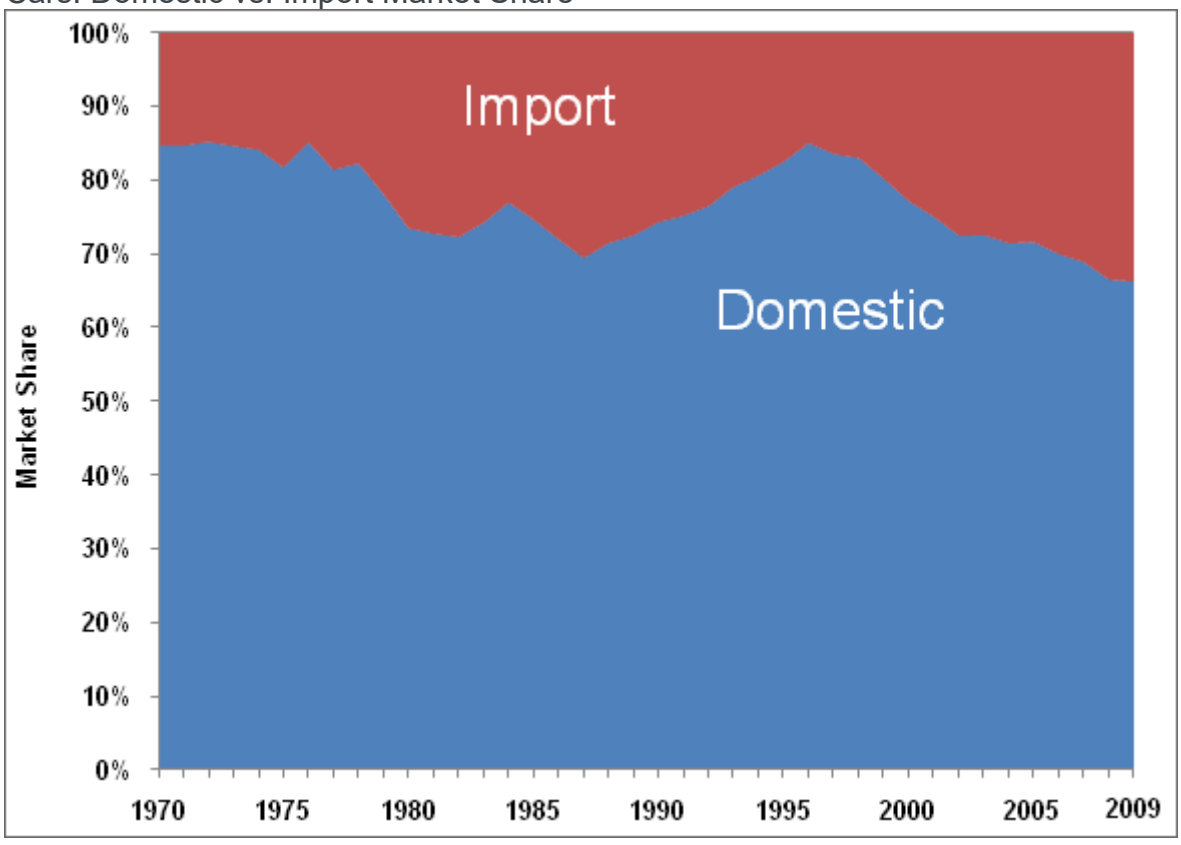
Supporting Information

U.S. Production of Crude Oil (including Lease Condensate)				
Year	Million Barrels per Day		Year	Million Barrels per Day
1960	7.04		1985	8.97
1961	7.18		1986	8.68
1962	7.33		1987	8.35
1963	7.54		1988	8.14
1964	7.61		1989	7.61
1965	7.80		1990	7.36
1966	8.30		1991	7.42
1967	8.81		1992	7.17
1968	9.10		1993	6.85
1969	9.24		1994	6.66
1970	9.64		1995	6.56
1971	9.46		1996	6.46
1972	9.44		1997	6.45
1973	9.21		1998	6.25
1974	8.77		1999	5.88
1975	8.38		2000	5.82
1976	8.13		2001	5.80
1977	8.24		2002	5.75
1978	8.71		2003	5.68
1979	8.55		2004	5.42
1980	8.60		2005	5.18
1981	8.57		2006	5.10
1982	8.65		2007	5.06
1983	8.69		2008	4.95
1984	8.88		2009	5.36
Source: Source: Energy Information Administration, Crude Oil Production.				

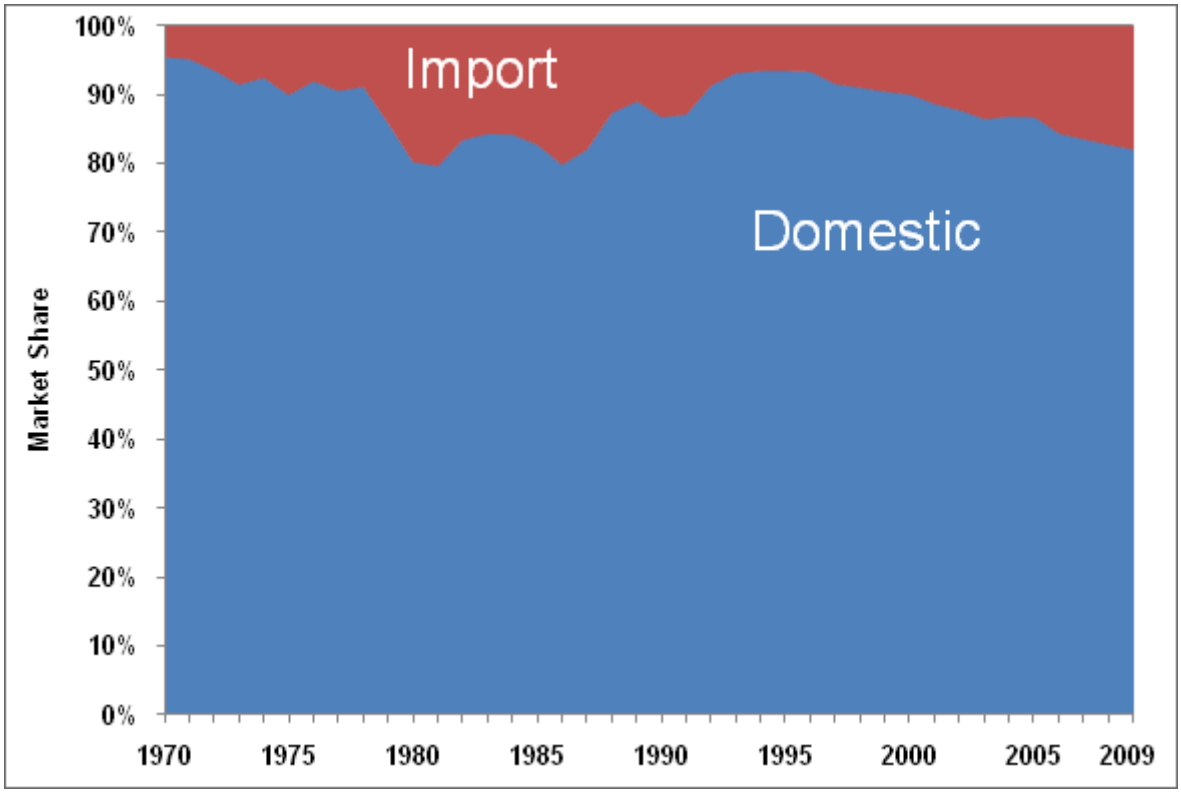
Fact #653: December 13, 2010
Import Cars and Trucks Gaining Ground

The market share for import cars and light trucks has been growing nearly every year since the mid-1990's. Import car market share more than doubled in that time -- from 14.9% in 1996 to 33.7% in 2009. Imports cars have a larger share of the market than import trucks, but import truck market share has nearly tripled since the mid-1990's. Import truck market share rose from 6.5% in 1994 to 17.9% in 2009.

Cars: Domestic vs. Import Market Share



Light Trucks: Domestic vs. Import Market Share



Supporting Information

Domestic and Import Retail Light Vehicle Sales in the U.S., 1970-2009						
	Cars (Thousands)			Light Trucks (Thousands)		
Year	Domestic	Import	Percent Import	Domestic	Import	Percent Import
1970	7,119	1,280	15.2%	1,397	66	4.5%
1971	8,681	1,561	15.2%	1,673	84	4.8%
1972	9,327	1,614	14.8%	2,096	143	6.4%
1973	9,676	1,748	15.3%	2,512	233	8.5%
1974	7,454	1,399	15.8%	2,163	175	7.5%
1975	7,053	1,571	18.2%	2,053	228	10.0%
1976	8,611	1,499	14.8%	2,720	236	8.0%
1977	9,109	2,074	18.5%	3,108	322	9.4%
1978	9,312	2,002	17.7%	3,473	335	8.8%
1979	8,341	2,332	21.8%	2,844	467	14.1%
1980	6,580	2,369	26.5%	1,959	481	19.7%
1981	6,181	2,308	27.2%	1,745	444	20.3%
1982	5,757	2,200	27.6%	2,062	408	16.5%
1983	6,795	2,353	25.7%	2,518	466	15.6%
1984	7,952	2,372	23.0%	3,257	606	15.7%
1985	8,205	2,775	25.3%	3,691	767	17.2%
1986	8,215	3,189	28.0%	3,671	923	20.1%
1987	7,085	3,107	30.5%	3,785	825	17.9%
1988	7,543	3,004	28.5%	4,195	605	12.6%
1989	7,098	2,680	27.4%	4,108	502	10.9%
1990	6,919	2,384	25.6%	3,948	600	13.2%
1991	6,162	2,028	24.8%	3,595	528	12.8%
1992	6,286	1,927	23.5%	4,231	398	8.6%
1993	6,742	1,776	20.8%	4,987	364	6.8%
1994	7,255	1,735	19.3%	5,641	392	6.5%
1995	7,129	1,506	17.4%	5,660	393	6.5%
1996	7,255	1,271	14.9%	6,089	430	6.6%

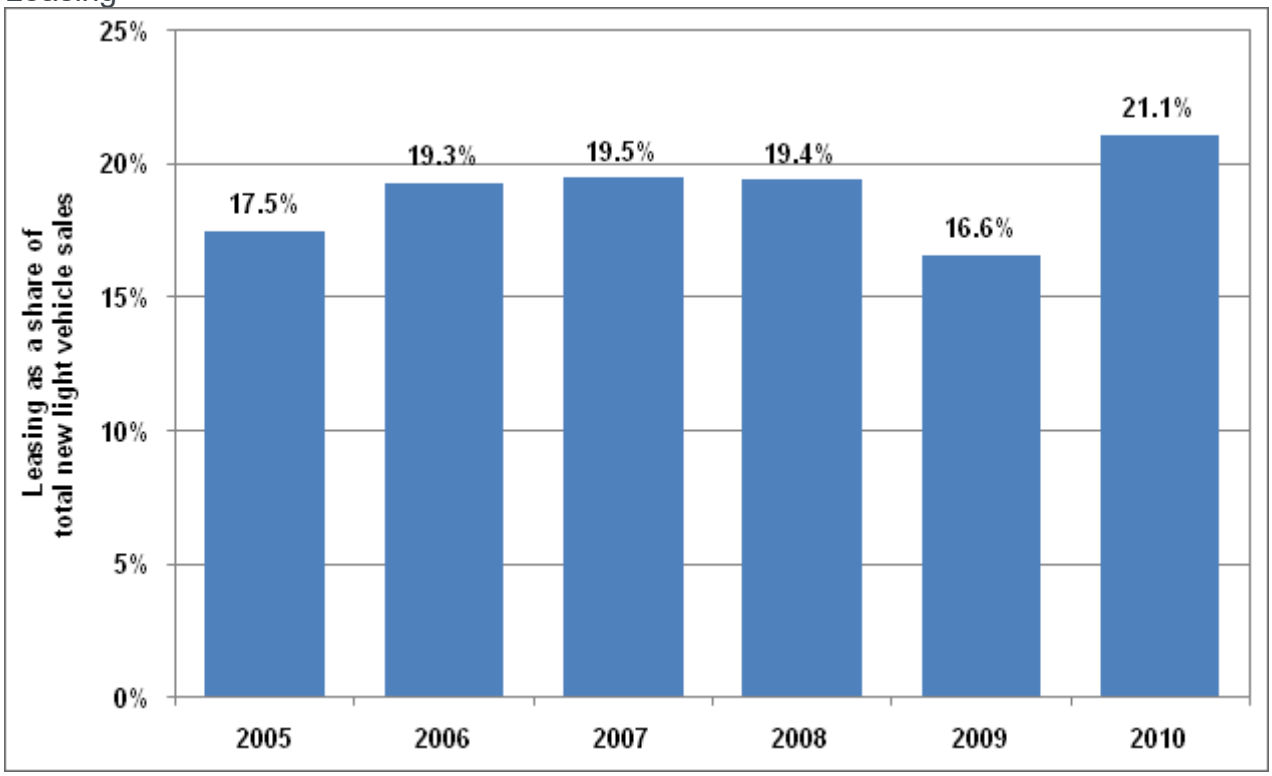
1997	6,917	1,355	16.4%	6,226	571	8.4%
1998	6,762	1,380	16.9%	6,649	650	8.9%
1999	6,979	1,719	19.8%	7,306	767	9.5%
2000	6,831	2,016	22.8%	7,557	830	9.9%
2001	6,325	2,098	24.9%	7,717	983	11.3%
2002	5,878	2,226	27.5%	7,650	1,063	12.2%
2003	5,527	2,083	27.4%	7,731	1,207	13.5%
2004	5,396	2,149	28.5%	8,135	1,226	13.1%
2005	5,533	2,187	28.3%	8,056	1,225	13.2%
2006	5,476	2,345	30.0%	7,329	1,355	15.6%
2007	5,253	2,365	31.0%	7,082	1,389	16.4%
2008	4,535	2,278	33.4%	5,283	1,098	17.2%
2009	3,619	1,837	33.7%	4,060	885	17.9%

Note: Domestic includes all vehicles built in North America. Imports are units imported from outside North America.
Source: Oak Ridge National Laboratory, Transportation Energy Data Book: Edition 29, Tables 4.5 and 4.6..

Fact #654: December 20, 2010
New Light Vehicle Leasing is Big in 2010

New vehicle leasing has had ups and downs over the last five years, but from January to September 2010 the share of leases as a proportion of total new light vehicles sales is over 20%. Last year, as credit grew tight, leasing fell to 16.6%. However, in 2010, all major manufacturers have increased leasing.

Share of Leasing



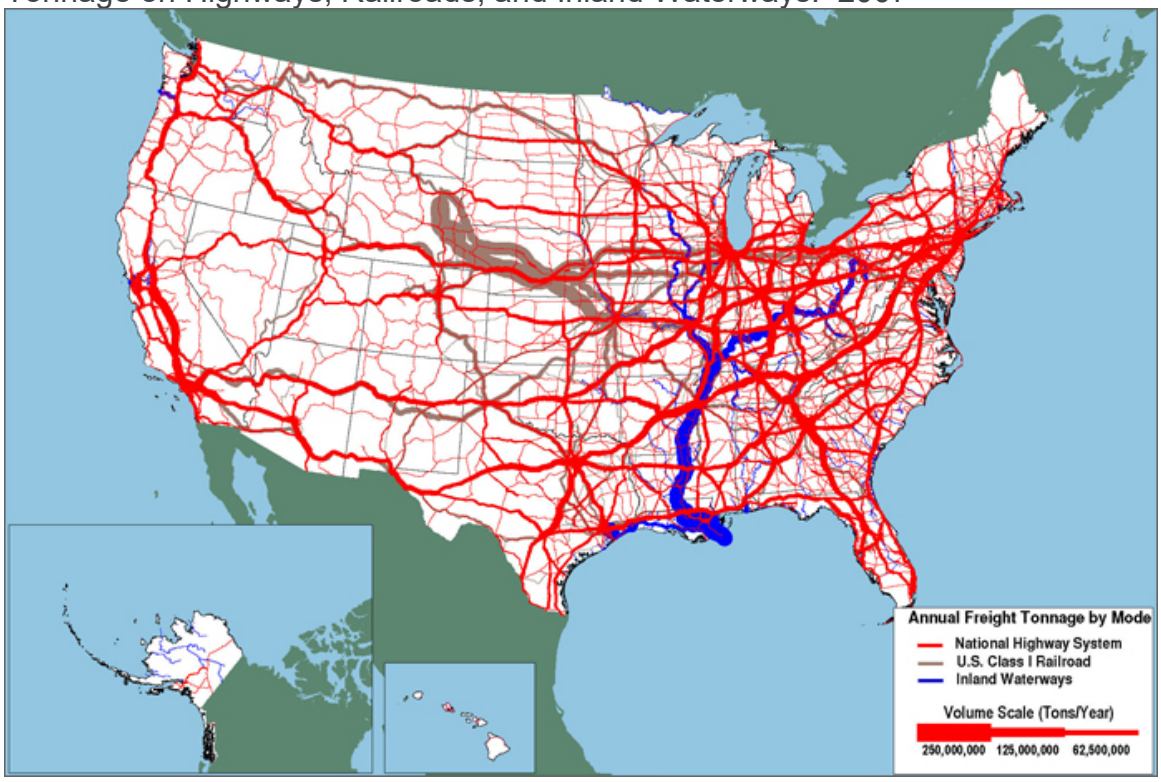
Supporting Information

Leases as a Share of Total U.S. New Vehicle Sales, 2005-2010	
Year	**Lease Share**
2005	17.5%
2006	19.3%
2007	19.5%
2008	19.4%
2009	16.6%
2010*	21.1%
* January - September 2010 **Source:** Crain Communications, Automotive News, October 18, 2010.	

Fact #655: December 27, 2010
New Freight Analysis Tool

The Department of Transportation has released a new version of the Freight Analysis Framework, a comprehensive data set on freight movement. The Freight Analysis Framework includes data on the amount and types of goods moved by land, sea and air between large metropolitan areas, states and regions. The map below shows the tons of freight moved by highway (red), rail (brown), and water (blue), with the thickness of the lines corresponding to the amount of freight moved. The rail network moves significant tonnage in the Midwest, while the lower Mississippi River carries the most freight tonnage over the water. Freight tonnage moved by highway is the heaviest in the Eastern third of the United States. The Freight Analysis Framework data set is available for download.

Tonnage on Highways, Railroads, and Inland Waterways: 2007



Sources: Highways: U.S. Department of Transportation, Federal Highway Administration, Freight Analysis Framework, Version 3.1, 2010. Rail: Based on Surface Transportation Board, Annual Carload Waybill Sample and rail freight flow assignments done by Oak Ridge National Laboratory. Inland Waterways: U.S. Army Corps of Engineers (USACE), Annual Vessel Operating Activity and Lock Performance Monitoring System data, as processed by USACE by the Tennessee Valley Authority; and USACE, Institute for Water Resources, Waterborne Foreign Trade Data, Water flow assignments done by

Oak Ridge National Laboratory.
Source: Federal Highway Administration, Freight Management and Operations

Supporting Information

The Freight Analysis Framework Data, can be located on the Federal Highway Administration web site.