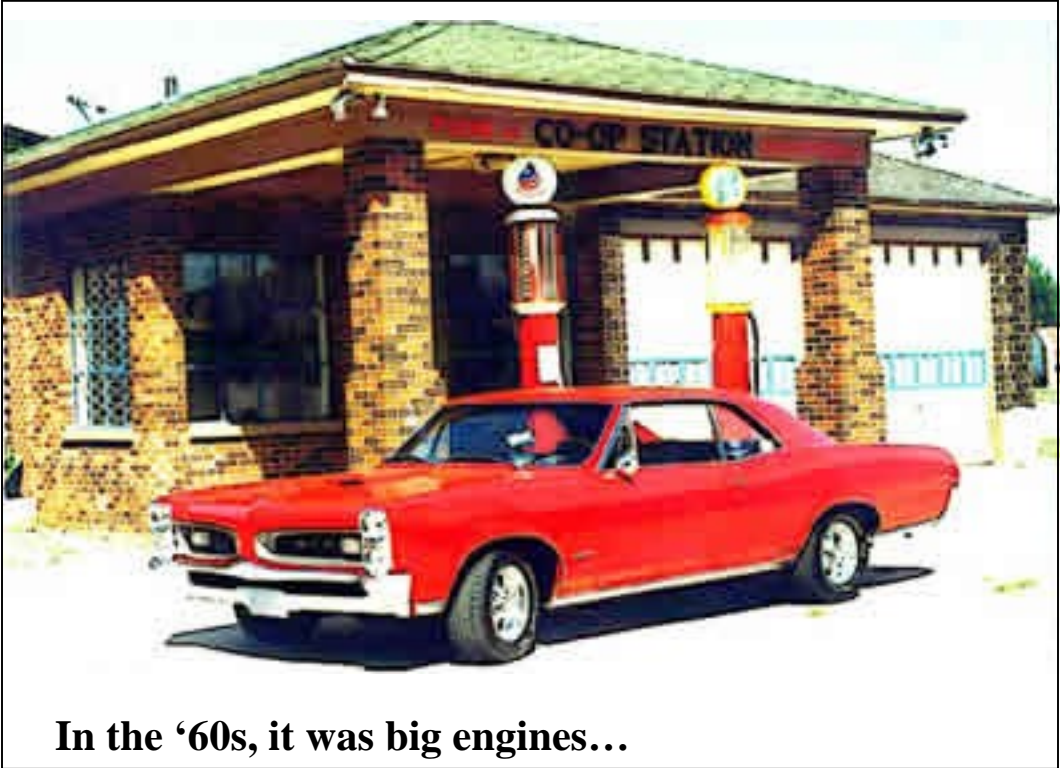


Dust to Dust Energy Report -- Automotive



In the '50s, it was big fins...



In the '60s, it was big engines...

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In the '70s it was big fuel economy...



In the '80s it was big interiors...



In the '90s it was just big...



Is the new wave in America big technology?

Dust to Dust

The Energy Cost of New Vehicles

From Concept to Disposal

The non-technical report

From CNW Marketing Research, Inc.

Dust to Dust Energy Report -- Automotive

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INTRODUCTION

In February, 2001 CNW Research staff in one of its regular brainstorming sessions hit on the notion of looking at total energy needed in the auto industry on a worldwide basis. That is, what was the real energy cost – from Dust to Dust – of producing vehicles for consumer use?

Over time and after on and off again discussions, as well as extensive Internet searches of available studies on this issue, it was discovered that many had tried, none had succeeded in measuring TOTAL energy consumption for the auto industry.

In many cases the jargon was overly technical and aimed at scientists and engineers. In other cases, the analysis was incomplete not taking into account the energy cost of simply conceiving of a new automotive idea or “off loading” manufacturing energy requirements to suppliers. In the

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latter case, for example, by requiring parts suppliers to perform sub-assemblies and “modules” that go into the production of a vehicle, it removes that energy usage from the assembly plant to the supplier production line. In some cases, Toyota being one, it allows the manufacturer to claim a significant reduction in plant energy usage and an improvement in efficiency while, in reality, the energy costs have simply been moved from one site to another.

By the end of 2001 and into 2002, it was clear that there was a need for such research that could be explained to the public in a way that would add to the general population’s knowledge about the energy cost of the vehicles they drive.

The problem remained, however, how to do it in such a way that avoided the jargon.

By the end of 2002, CNW decided to at least attempt to put numbers to the question based on whatever public and private records could be gathered. We took the “white board” approach. That is, we began listing the pieces of the energy puzzle that needed to be uncovered and/or collected and/or uniquely researched that would be necessary for a solid analysis.

Over the course of 2003, the White Board became crowded with every conceivable energy-required action necessary to conceive, produce, drive, and dispose of a vehicle. In all, nearly 4,000 data points were considered pertinent.

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In December 2003 it was decided to go ahead with the research and begin the collection process of what was available through the Society of Automotive Engineers papers, manufacturer and supplier public records, previous research and other data sources.

By late 2004 it was clear that more than half of the data could be publicly obtained with little additional research on CNW's part, but the remaining half needed a commitment of time and funds. In addition, it was clear that most of the historical information needed to be updated, in some cases significantly, to be of use.

With extensive journalistic experience as a reporter and editor for such publications as *Ward's Automotive Reports*, *Ward's Engine Update* (nee *Ward's Wankel Report*), *Ward's Auto World*, *Automotive Age* and other automotive trade publications, compiling lists of possible sources and historical data as well as current information on plants and vehicles produced at each was easily obtained.

By mid-2005, many of the gaps were being filled and a series of on-site analysis of manufacturing plants was clearly needed. This included, for example, the distances workers traveled to assembly plants; the use of mass transit and/or private vehicles; the types of vehicles driven; distances from home to plant. This had to be done on site and with phone and mail surveys in native languages and with sufficient responses to be useful.

One key ingredient: Not to let automakers, suppliers or any other outside organization know the research was underway. Nor accepting outside assistance in the funding of the project. The goal

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was to avoid, regardless of the end result, being labeled a “supporter of...” those who produce hybrid vehicles or the auto industry or the oil industry or the LPG industry or any other group, organization or partisan cause. In some cases, this meant hiding energy-related questions behind or within other inquiries.

While it may be considered a misrepresentation, the approach worked. We were able to gain insights and data that otherwise would have been blocked for this research. For those who provided the data through this method – we apologize and will not release either the names of the individuals or the companies from which this information was obtained.

The second half of 2005 required extensive time to begin formulating the information into a “by model” matrix and data base. While much had already been done, it was clear that there was much to go. And the decision had yet been made about the method of reporting the findings that could be used by average consumers rather than just technicians, engineers and scientists.

Clearly the information needed to be put into the most common and understandable rating. “Cents per mile” was the most logical choice. Technically it would be less stable because energy costs change in short bursts but energy requirements don’t. So it would require a number of assumptions and projections to be built into the data sets.

The following data will provide those assumptions, but generally we took a worse case scenario of \$80 per barrel of oil and gasoline prices of \$3.00 (sustained) per gallon as general conditions for the most volatile of the energy sources.

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Then we translated all of the non-U.S. data and prices to U.S. dollars (2005).

For future or projected costs, we elected to use 2005 Dollars as well as assuming those interested in the data as well as CNW could adjust for inflation or deflation, as needed.

By November 2005 all of the data points were filled and the next three months were spent adjusting and updating those pieces of information that had changed including the models of vehicles sold, changes in content, etc.

This was done for all 311 vehicle models measured, some 2005 models, some as early as 2002 models which were our initial test vehicles to see how the data base would be able to handle year-to-year changes and a few new models.

The first announcement of the findings provided a brief overview of the study and the list of vehicles with their “cents per mile” figure. Let’s look at the original information release:

Hybrids Consume More Energy in Lifetime Than Chevrolet’s Tahoe SUV

BANDON, OR -- As Americans become increasingly interested in fuel economy and global warming, they are beginning to make choices about the vehicles they drive based on fuel economy and to a lesser degree emissions.

But many of those choices aren’t actually the best in terms of vehicle lifetime energy usage and the cost to society over the full lifetime of a car or truck.

CNW Marketing Research Inc. spent two years collecting data on the energy necessary to plan, build, sell, drive and dispose of a vehicle from initial concept to scrappage. This includes such

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minutia as plant to dealer fuel costs, employee driving distances, electricity usage per pound of material used in each vehicle and literally hundreds of other variables.

To put the data into understandable terms for consumers, it was translated into a “dollars per lifetime mile” figure. That is, the Energy Cost per mile driven.

The most Energy Expensive vehicle sold in the U.S. in calendar year 2005: Maybach at \$11.58 per mile. The least expensive: Scion xB at \$0.48 cents.

While neither of those figures is surprising, it is interesting that driving a hybrid vehicle costs more in terms of overall energy consumed than comparable non-hybrid vehicles.

For example, the Honda Accord Hybrid has an Energy Cost per Mile of \$3.29 while the conventional Honda Accord is \$2.18. Put simply, over the “Dust to Dust” lifetime of the Accord Hybrid, it will require about 50 percent more energy than the non-hybrid version.

One of the reasons hybrids cost more than non-hybrids is the manufacture, replacement and disposal of such items as batteries, electric motors (in addition to the conventional engine), lighter weight materials and complexity of the power package.

And while many consumers and environmentalists have targeted sport utility vehicles because of their lower fuel economy and/or perceived inefficiency as a means of transportation, the energy cost per mile shows at least some of that disdain is misplaced.

For example, while the industry average of all vehicles sold in the U.S. in 2005 was \$2.28 cents per mile, the Hummer H3 (among most SUVs) was only \$1.949 cents per mile. That figure is also lower than all currently offered hybrids and Honda Civic at \$2.42 per mile.

“If a consumer is concerned about fuel economy because of family budgets or depleting oil supplies, it is perfectly logical to consider buying high-fuel-economy vehicles,” says Art Spinella, president of CNW Marketing Research, Inc. “But if the concern is the broader issues such as environmental impact of energy usage, some high-mileage vehicles actually cost society more than conventional or even larger models over their lifetime.

“We believe this kind of data is important in a consumer’s selection of transportation,” says Spinella. “Basing purchase decisions solely on fuel economy or vehicle size does not get to the heart of the energy usage issue.”

The goal of overall worldwide energy conservation and the cost to society in general – not just the auto buyer – can often be better addressed by being aware of a car or truck’s “dust to dust” energy requirements, he said.

This study is not the end of the energy-usage discussion. “We hope to see a dialog begin that puts educated and aware consumers into energy policy decisions,” Spinella said. “We undertook this research to see if perceptions (about energy efficiency) were true in the real world.”

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The second release added some break downs in the overall research.

Energy Efficiency is More than Just Fuel Economy

Looking for an energy efficient vehicle? Scion xB leads the list, significantly better than even the best hybrids.

That's the conclusion of long-term study of "dust to dust" energy costs for cars and trucks. The research tracked and calculated the energy cost of each model sold in the U.S. in 2005 from initial concept to the projected time it is scrapped.

The Top 10 most energy efficient vehicles over their lifetime:

1. Scion xB (\$0.48 per mile)
2. Ford Escort (0.57 per mile)
3. Jeep Wrangler (\$0.60 per mile)
4. Chevrolet Tracker (\$0.69 per mile)
5. Toyota Echo (\$0.70 per mile)
6. Saturn Ion (\$0.71 per mile)
7. Hyundai Elantra (\$0.72 per mile)
8. Dodge Neon (\$0.73 per mile)
9. Toyota Corolla (\$0.73 per mile)
10. Scion xA (\$0.74 per mile)

The 10 least energy efficient vehicles over their lifetime:

1. Mercedes Benz produced Maybach (\$11.58 per mile)
2. Volkswagen Phaeton (\$11.21 per mile)
3. Rolls-Royce (full line average: \$10.66 per mile)
4. Bentley (full line average: \$10.56 per mile)
5. Audi allroad Quattro (\$5.59 per mile)
6. Audi A8 (\$4.96 per mile)
7. Audi A6 (\$4.96 per mile)
8. Lexus LS430 (\$4.73 per mile)
9. Porsche Carrera GT (\$4.53 per mile)
10. Acura NSX (\$4.45 per mile)

Hybrid energy efficiency over their lifetime:

1. Honda Insight (\$2.94 per mile)
2. Ford Escape Hybrid (\$3.18 per mile)
3. Honda Civic Hybrid (\$3.24 per mile)
4. Toyota Prius (\$3.25 per mile)
5. Honda Accord Hybrid (\$3.30 per mile)

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The study measures all energy needed for vehicles sold in the U.S. in cy2005. The data applies to new and used vehicles even though most calculations were made on cy05 models.

Data includes supplier as well as brand manufacturer energy consumption for the listed vehicles; transportation at all levels of distribution; use of materials (plastics, steel, light-weight steel, aluminum, etc.) and literally hundreds of other factors.

While historical data is spotty, CNW analysis shows the industry as a whole has improved manufacturing energy efficiency significantly in the production portion of the calculation – between 15 and 20 percent – since 1995. This, however, is only a small part of the total Energy Cost per Mile calculation.

The full list of vehicles will be dissected later in this report, but needless to say the first two releases were received with some extreme reactions, both positive and negative. We've provided samples of those emails and letters in the **Q&A Section** of this report.

Some of the Q&A entries include references to other studies.

We've also added a number of reports, press stories and other related information in the **Appendices Section**.

While initially we intended to charge a fee for the initial data and report, the intense consumer interest altered those plans. We now intend to release the information at no charge to the public with CNW subscribers receiving a two-week advance on any and all data that comes from this research.

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WHERE TO NOW?

With the data base and methodology set, we believe we can provide this information on an annual basis if the demand seems appropriate. In many cases, as with the Lexus RX400h, we will add the data as the vehicles are introduced and the information becomes available to us.

HOW IMPORTANT IS THIS RESEARCH?

The United States and other parts of the world have been bombarded with news stories about global warming and the impact of human behavior on that condition. Simultaneously, there have been parallel stories about oil dependence and the impact Sport Utility Vehicles (for example) are having on the reliance on that commodity.

Some have begun promoting hybrid passenger cars and trucks as a means of reducing both of these conditions. Government agencies are offering significant incentives for consumers to buy hybrids as are manufacturers. Is this misguided? Perhaps. We make no conclusion about such good intentions. **Our goal, again, is simply to look at what society has to pay for the energy needed to support various vehicles.**

The true issue is one of energy expenditures not just oil consumption. While we could add data related to emissions, the point was and is to keep it all very simple and concentrate on the broader issue of world energy requirements and generation, specifically related to the cars Americans drive. (Subsequent reports will add Europe and Asian countries.)

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The goal for many environmental, government and other groups seems to be concentrated on reducing energy needs. Truthfully, as under-developed and newly industrialized countries forge ahead with industrialization, the overall requirement for energy increases. Since automotive products are in high demand in those countries for various personal reasons, it is unlikely and improbable that an overall demand for energy will ever decrease.

So, in reality, the true issue is how energy is produced in ways that cause the least impact on society in general and can that energy be generated in as clean a way as possible?

The first step toward that goal is to understand that automobiles are not going to disappear from any roads anytime soon. And while many focus on “fuel efficiency,” that is only a small part of the total energy needed to design, develop, produce, drive and dispose of those vehicles. In fact, as the data shows, some of the less fuel efficient vehicles actually have extremely good Dust-to-Dust energy consumption requirements and conversely some hybrids – at least the current iterations of hybrids – are inferior in total energy demands while offering extremely high fuel efficiency.

This doesn't mean that hybrids, for example, are a “bad choice.” That is NOT the intention of the research. What it does mean, however, is that a 2005 hybrid uses less gasoline and produced fewer tailpipe emissions, but costs society significantly more in overall energy costs than conventional Internal Combustion Engine (ICE) vehicles.

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Example: If the consumer lives in the Los Angeles Basin, reducing smog and contending with some of the country's highest fuel costs make a hybrid a solid and logical vehicle choice. What consumers need to know, however, is that the LA Basin and the Los Angelino's wallet might benefit, the energy demands and pollution are exported somewhere else – either to the country of manufacture or to the states where the eventual vehicle will be disposed through recycling or scrap.

ABOUT THIS REPORT

This is a general-consumer report, not a technical document per se. It includes breakdowns of each vehicle's total energy requirements from Dust to Dust but does not include issues of gigajoules, kW hours or other unfriendly (to consumers) terms. **Perhaps, in time, we will release our data in such technical terms. First, however, we will only look at the energy consumption cost.**

We will look at each section of the energy consumption for classes of models, individual examples and our own analysis of the data.

The information contained is as accurate as we can make it currently although we believe it has an error margin somewhere between 11 and 14 percent due to shifting production plans and new technologies being implemented in the salvage industry which includes recycled, non-recyclable and re-used vehicle components. Over time, we hope to be able to reduce that error margin as data becomes more easily available. There are some disclaimers and caveats which you can find in the Appendix section.

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CHAPTER 1 – An Overview by Model

We will put the data into a consumer-friendly order by looking first at the total energy cost by model and work our way into more detail in subsequent chapters.

The sum result of the study shows that the Mercedes-Benz produced Maybach is the least energy efficient vehicle offered for sale in calendar year (cy) 2005 costing society more than \$11.58 per mile driven. The least expensive was the Scion xB at less than \$0.48 per mile.

It is important to note that the original owner of the vehicle doesn't pay this amount. The purpose here is to calculate the total energy requirements in a cents-per-mile matrix over its entire lifetime. Some parts of this cost, as we'll see, are borne by the auto company in a way that leverages future products while other costs are passed along to support industries such as tires, batteries, replacement parts, repair parts and disposal/scrappage.

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Why doesn't the original buyer pay for this? We'll see in a subsequent chapter how second, third and other owners of this vehicle bear a large part of the cost. And the existence of such secondary sources of energy expenditures is justifiable because there is a market – a profitable market – for such goods and services resulting from the original buyer's vehicle selection.

For the time being, let's look at the data table below and what each of the columns means.

“Segment” is the part of the auto industry the particular vehicle is categorized as. That is, the Maybach is an “Ultra Luxury” passenger car while the Audi A6 is a “Luxury” model.

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Legend to segments

	Small cars
b	Budget
e	Economy
	Mid-range cars
lmr	Lower Mid-range
smr	Standard Mid-range
pmr	Premium Mid-range
	Traditional cars
tr	Traditional
	Upscale cars
nl	Near Luxury
l	Luxury
p	Premium
u	Ultra
	Sporty cars
t	Touring
ps	Premium
ups	Upper Premium
ul	Ultra Luxury
	Alternative power cars
hy	Hybrid
ng	Natural Gas
	Alternative power trucks
hytr	Hybrid truck
	Sport-utility
elsw	Entry-level sport wagon
mrs	Mid-range sport wagon
psw	Premium sport wagon
elsuv	Entry-level sport-utility
lmr suv	Lower mid-range sport-utility
umr suv	Upper mid-range sport-utility
lsuv	Large sport-utility
psuv	Premium sport-utility
sup	Sport-utility pickups
	Pickups
spu	Small
fspu	Full-sized
	Vans
mv	Mini
fsv	Full-sized

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The second column (**Model**) is the actual model as it was known in cy2005. The “Dust to Dust E Cost per Mile” data is the total energy cost to society over the vehicle lifetime broken down to a cents-per-mile figure.

Finally, the “**Estimated Life in Miles**” is based on historical data as well as manufacturer information and real-world life-cycle information that average the miles over comparable historic models as well as a CNW analysis of repair and replacement as well as scrappage records. In effect, the miles figure here is a realistic approximation of the likely life-cycle of the individual models.

Note that there are clearly many consumers who have driven further and clocked more miles for some of these vehicles, but this information takes into account historic accident and disposal records for individual demographic groups and how long these vehicles are likely to last.

Why demographics are included in the life cycle.

Let’s look at the Scion xB as an example. While touted as a “youth” vehicle, the reality is that this efficient small vehicle is seeing a growing number of buyers are over 65 years of age. It is more of a lifestyle vehicle than a pure economy car.

What is that lifestyle? Buyers – regardless of age – desire a compact exterior, roomy interior, ease of entry and egress, good fuel economy and low initial purchase cost. While initially this was thought to characterize the youth market, the reality is quite different. It also includes older

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consumers who live in generally fair weather climates and travel minimal distances in their daily excursions.

Because of its generally overall attractiveness to an older consumer group and the concentration of xBs in relatively fair weather climates, there is (as history and CNW data has shown) less likelihood of accidents and repairs yet because of its high acquisition by younger consumers there are lower incidents of regular energy-consuming maintenance (oil, tires, batteries, etc.).

In both the older and younger audiences, repair of minor damage to sheet metal is more often ignored thus similarly reducing the energy requirements on a Dust to Dust basis.

It should also be pointed out that on a Dust to Dust basis, the Estimated Miles doesn't mean the vehicle is "used up" and has no life remaining, only that this is the approximate mileage at the time it is removed from the streets as a daily-use vehicle and sent for disposal as either a source of parts or eventually scrapped.

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Segment	Model	Dust to Dust	
		E Cost Per Mile	Est. Life-Miles
U	Maybach	\$ 11.582	257,000
L	Phaeton	\$ 11.213	241,000
U	Rolls-Royce	\$ 10.660	273,000
UI	Bentley	\$ 10.555	271,000
L	allroad quattro	\$ 5.595	202,000
p	A8	\$ 4.964	214,000
I	A6	\$ 4.963	189,000
I	LS 430	\$ 4.734	223,000
ul	Carrera GT	\$ 4.528	186,000
ups	NSX	\$ 4.453	192,000
I	GS 430	\$ 4.416	181,000
I	Q45	\$ 4.243	201,000
psuv	Cayenne	\$ 4.146	193,000
psuv	Touareg	\$ 4.134	186,000
ul	Lamborghini	\$ 4.009	121,000
I	S-Type	\$ 3.989	165,000
ps	SLK class	\$ 3.982	159,000
ul	Ferrari	\$ 3.962	119,000
I	M45	\$ 3.876	126,000
I	GS 300	\$ 3.861	131,000
ul	GT	\$ 3.851	116,000
psuv	Range Rover	\$ 3.775	206,000
psuv	G class	\$ 3.711	237,000
lsuv	Sequoia	\$ 3.672	175,000
p	S class	\$ 3.669	251,000
ps	CLS class	\$ 3.668	237,000
psuv	H1	\$ 3.505	379,000
ps	CLK class	\$ 3.492	191,000
I	DTS	\$ 3.471	190,000
lsuv	Armada	\$ 3.450	162,000
ups	SC 430	\$ 3.407	165,000
I	DeVille	\$ 3.385	203,000
psw	XC90	\$ 3.325	229,000
I	E class	\$ 3.313	256,000
psw	RX330	\$ 3.306	192,000
I	Seville	\$ 3.305	162,000
lsuv	Excursion	\$ 3.304	269,000
I	80 series	\$ 3.301	202,000
hy	Accord Hybrid	\$ 3.295	117,000
ups	XLR	\$ 3.276	164,000
hy	Prius	\$ 3.249	109,000
hy	Civic Hybrid	\$ 3.238	113,000
psuv	LX 470	\$ 3.229	213,000
ps	Boxster	\$ 3.224	157,000
psuv	Escalade ESV	\$ 3.197	234,000
psuv	Land Cruiser	\$ 3.184	301,000

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l	STS	\$	3.175	216,000
ps	Corvette	\$	3.158	162,000
l	5 Series	\$	3.140	207,000
lsuv	Suburban	\$	3.134	272,000
lsuv	Yukon XL	\$	3.132	271,000
lsuv	Expedition	\$	3.058	284,000
ups	XK	\$	3.058	188,000
p	Maserati	\$	3.055	162,000
psw	FX35/45	\$	3.029	173,000
ul	Aston Martin	\$	3.028	156,000
psuv	H2	\$	3.027	197,000
psw	R class	\$	2.960	164,000
hy	Insight	\$	2.939	109,000
lsuv	Tahoe	\$	2.937	268,000
psw	50 series	\$	2.937	156,000
lsuv	Yukon	\$	2.936	265,000
p	7 Series	\$	2.936	201,000
psw	MDX	\$	2.845	195,000
ups	911 Carrera 4	\$	2.830	151,000
p	XJ	\$	2.785	162,000
psw	SRX	\$	2.782	171,000
mrs	Pacifica	\$	2.780	183,000
ps	TT	\$	2.768	141,000
l	RL	\$	2.762	164,000
l	Town Car	\$	2.756	219,000
psuv	Escalade	\$	2.753	239,000
ups	911 Carrera	\$	2.738	164,000
ps	Z8	\$	2.733	177,000
l	M3	\$	2.727	143,000
l	Golf/GTI	\$	2.697	151,000
fsv	Savana/G Van	\$	2.692	272,000
fspu	Titan	\$	2.691	169,000
fsv	Econoline/Club Wagon	\$	2.686	258,000
umr suv	GX 470	\$	2.686	177,000
ups	SL Coupe/Roadster	\$	2.686	169,000
psuv	Navigator	\$	2.617	201,000
l	L series	\$	2.534	164,000
ups	CL class	\$	2.533	188,000
umr suv	Discovery	\$	2.525	203,000
mrs	Murano	\$	2.510	178,000
fspu	Tundra	\$	2.509	191,000
mrs	Highlander	\$	2.490	156,000
umr suv	LR3	\$	2.489	222,000
fspu	Ram pickup	\$	2.484	231,000
ps	Z4	\$	2.483	147,000
umr suv	QX4	\$	2.483	151,000
fsv	Express/G Van	\$	2.482	253,000
nl	70 series	\$	2.482	185,000
t	RX8	\$	2.482	139,000
psw	M class	\$	2.482	215,000

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mrsw	Freestyle/Windstar	\$	2.481	206,000
fspu	Silverado	\$	2.450	239,000
fspu	Sierra	\$	2.450	232,000
spu	SSR	\$	2.442	143,000
umr suv	Range Rover Sport	\$	2.420	206,000
fsv	Sprinter Van	\$	2.420	381,000
lmr	Civic	\$	2.420	178,000
lmr	HHR	\$	2.397	169,000
mrsw	Rendezvous	\$	2.392	168,000
fspu	F Series	\$	2.392	268,000
psw	X5	\$	2.368	166,000
umr suv	Aviator	\$	2.347	191,000
lmr	G6	\$	2.342	159,000
umr suv	Mountaineer	\$	2.336	171,000
mv	EuroVan/T4	\$	2.294	159,000
	Industry Straight Average	\$	2.281	178,739
lmr	Classic	\$	2.269	229,000
nl	60 series	\$	2.269	161,000
psuv	QX56	\$	2.269	16,900
fsv	Ram Van	\$	2.267	227,000
ups	6 Series	\$	2.267	173,000
ups	Lotus	\$	2.267	121,000
mv	Odyssey	\$	2.267	192,000
elsw	Outlander	\$	2.266	183,000
psw	X3	\$	2.264	167,000
pmr	Montego	\$	2.264	152,000
pmr	LaCrosse	\$	2.245	165,000
umr suv	B9 Tribeca	\$	2.240	147,000
mv	Montana SV6	\$	2.239	166,000
lmr	Impreza	\$	2.225	137,000
lmr	Grand Am	\$	2.224	192,000
lmr suv	Pathfinder	\$	2.220	158,000
mv	Town & Country	\$	2.218	171,000
elsw	Tucson	\$	2.215	146,000
elsw	Tribute	\$	2.212	153,000
mv	Terraza	\$	2.212	179,000
lmr	Fusion	\$	2.202	192,000
lmr	Milan	\$	2.202	189,000
mrsw	Pilot	\$	2.197	156,000
nl	Zephyr	\$	2.196	179,000
umr suv	Envoy	\$	2.196	202,000
fsv	Econoline van	\$	2.195	281,000
lmr suv	4Runner	\$	2.193	176,000
t	350Z	\$	2.193	156,000
mv	Caravan/Grand Caravan	\$	2.181	164,000
mv	Sienna	\$	2.180	158,000
smr	Accord	\$	2.180	209,000
umr suv	Rainier	\$	2.180	176,000
lmr suv	Montero	\$	2.177	157,000
ups	Viper	\$	2.176	118,000

Dust to Dust Energy Report -- Automotive

umr suv	9-7X	\$	2.169	143,000
lmr	Stratus	\$	2.165	201,000
mv	Venture	\$	2.144	173,000
mv	Relay	\$	2.143	162,000
mv	Montana	\$	2.142	166,000
lmr suv	Montero Sport	\$	2.123	142,000
nl	TL	\$	2.122	171,000
mv	Quest	\$	2.118	160,000
mv	Uplander	\$	2.117	156,000
t	A3	\$	2.096	139,000
t	Eclipse Spyder	\$	2.079	119,000
mv	Freestar	\$	2.069	161,000
mv	Monterey	\$	2.069	159,000
pmr	Passat	\$	2.052	192,000
sup	Escalade EXT	\$	2.048	221,000
smr	<i>Jetta wagon</i>	\$	2.046	136,000
nl	CL	\$	2.022	182,000
elsuv	Xterra	\$	2.022	191,000
t	Eclipse	\$	2.021	144,000
elsw	Santa Fe	\$	2.019	151,000
pmr	Magnum	\$	2.019	183,000
pmr	Five Hundred	\$	2.018	172,000
nl	LS	\$	2.017	156,000
smr	<i>Jetta</i>	\$	2.016	132,000
t	GTO	\$	1.995	146,000
lmr	Optima	\$	1.994	161,000
mv	Sedona	\$	1.994	138,000
lmr	Sonata	\$	1.980	162,000
sup	Avalanche	\$	1.978	234,000
elsw	Torrent	\$	1.974	162,000
mrs	Endeavor	\$	1.974	153,000
pmr	Charger	\$	1.974	172,000
t	Celica	\$	1.969	139,000
tr	Avalon	\$	1.967	201,000
pmr	Maxima	\$	1.966	193,000
pmr	300/300M	\$	1.961	192,000
smr	Camry	\$	1.954	198,000
mv	MPV	\$	1.953	156,000
elsw	Escape	\$	1.950	161,000
umr suv	H3	\$	1.949	207,000
elsw	Mariner	\$	1.948	151,000
elsw	RAV4	\$	1.948	162,000
sup	Mark LT	\$	1.944	192,000
pmr	Diamante	\$	1.932	151,000
lmr	Malibu	\$	1.919	163,000
smr	Baja	\$	1.909	157,000
elsuv	Trooper	\$	1.909	209,000
nl	X-Type	\$	1.908	169,000
lmr	Verona	\$	1.908	152,000
t	Mini Cooper S	\$	1.908	161,000

Dust to Dust Energy Report -- Automotive

t	RSX	\$	1.908	159,000
pmr	40 series	\$	1.897	162,000
t	Solstice	\$	1.880	153,000
nl	ES 330	\$	1.852	172,000
pmr	I30/I35	\$	1.851	188,000
smr	Legacy	\$	1.849	156,000
elsw	Vue	\$	1.847	161,000
nl	IS 300	\$	1.833	162,000
lmr	Beetle	\$	1.828	171,000
smr	Forester	\$	1.825	165,000
elsw	Equinox	\$	1.821	189,000
spu	Ridgeline	\$	1.807	163,000
elsw	Element	\$	1.807	142,000
pmr	Millenia	\$	1.802	136,000
tr	Lucerne	\$	1.802	177,000
smr	Mazda6	\$	1.796	162,000
t	Mini Cooper	\$	1.795	169,000
tr	Bonneville	\$	1.782	183,000
nl	G35	\$	1.777	172,000
pmr	A4/S4	\$	1.774	169,000
smr	Intrepid	\$	1.772	178,000
t	Mustang	\$	1.758	181,000
lmr suv	Axiom	\$	1.735	142,000
pmr	TSX	\$	1.725	169,000
mv	Safari	\$	1.725	202,000
mv	Astro	\$	1.725	205,000
nl	C class	\$	1.699	171,000
t	MR2 Spyder	\$	1.683	162,000
nl	CTS	\$	1.680	160,000
elsuv	Mazda5	\$	1.679	171,000
lmr suv	Freelander	\$	1.674	158,000
pmr	9-3	\$	1.636	182,000
nl	330	\$	1.616	176,000
lmr	PT Cruiser	\$	1.612	192,000
nl	Park Avenue	\$	1.556	179,000
pmr	9-2	\$	1.553	171,000
elsw	Aztek	\$	1.542	168,000
elsuv	Rodeo	\$	1.542	184,000
tr	Concorde	\$	1.531	183,000
lmr suv	Ascender	\$	1.531	161,000
lmr suv	Commander	\$	1.531	208,000
nl	325	\$	1.531	171,000
nl	9-5	\$	1.529	162,000
smr	Monte Carlo	\$	1.506	189,000
lmr suv	Grand Cherokee	\$	1.495	209,000
elsw	CR-V	\$	1.478	156,000
elsuv	XL-7	\$	1.477	165,000
ps	Thunderbird	\$	1.477	171,000
t	MX-5 Miata	\$	1.471	182,000
smr	Galant	\$	1.465	153,000

Dust to Dust Energy Report -- Automotive

smr	Grand Prix	\$	1.465	161,000
smr	Century	\$	1.455	174,000
t	S2000	\$	1.455	162,000
smr	Sable	\$	1.447	201,000
smr	Taurus	\$	1.446	206,000
t	Tiburon	\$	1.439	192,000
lmr suv	Durango	\$	1.429	184,000
tr	Grand Marquis	\$	1.418	207,000
tr	Crown Victoria	\$	1.417	212,000
elsuv	Grand Vitara	\$	1.414	171,000
lmr suv	Explorer	\$	1.404	203,000
smr	626	\$	1.397	171,000
smr	Altima	\$	1.381	153,000
tr	LeSabre	\$	1.372	183,000
lmr suv	TrailBlazer	\$	1.363	187,000
smr	Impala	\$	1.357	174,000
ps	Crossfire	\$	1.323	131,000
elsuv	Sorento	\$	1.320	143,000
elsuv	Blazer	\$	1.295	209,000
t	Firebird	\$	1.287	173,000
t	Camaro	\$	1.286	179,000
smr	XG350	\$	1.285	151,000
lmr	Sebring	\$	1.283	164,000
spu	Canyon	\$	1.283	188,000
spu	Sonoma	\$	1.283	187,000
smr	Amanti	\$	1.263	162,000
elsuv	Vitara	\$	1.257	158,000
elsuv	Rodeo Sport	\$	1.225	162,000
elsuv	Sportage	\$	1.168	159,000
pmr	Regal	\$	1.167	152,000
spu	Frontier	\$	1.160	171,000
spu	Tacoma	\$	1.147	173,000
spu	Colorado	\$	1.125	184,000
spu	Raider	\$	1.124	175,000
elsuv	Liberty	\$	1.099	189,000
spu	B-Series	\$	1.088	193,000
spu	Dakota	\$	1.014	172,000
e	Cobalt	\$	1.013	169,000
e	Matrix **	\$	1.011	162,000
lmr	Vibe	\$	1.011	161,000
e	Mazda3	\$	0.980	164,000
spu	Ranger	\$	0.968	188,000
b	Rio	\$	0.964	162,000
e	Sentra	\$	0.962	164,000
e	Aerio	\$	0.888	159,000
e	Lancer	\$	0.872	154,000
e	Spectra	\$	0.864	158,000
b	Accent	\$	0.852	151,000
e	tC	\$	0.845	139,000
e	Forenza	\$	0.840	143,000

Dust to Dust Energy Report -- Automotive

e	Focus	\$	0.803	169,000
spu	S10	\$	0.779	172,000
e	Protégé	\$	0.772	161,000
b	Aveo	\$	0.765	142,000
e	Sunfire	\$	0.758	157,000
e	Cavalier	\$	0.757	152,000
e	xA	\$	0.736	156,000
e	Corolla	\$	0.732	169,000
e	Neon	\$	0.728	148,000
e	Elantra	\$	0.723	162,000
e	Ion	\$	0.709	161,000
b	Echo	\$	0.703	157,000
elsuv	Tracker	\$	0.694	153,000
elsuv	Wrangler	\$	0.604	207,000
e	Escort	\$	0.568	192,000
e	xB	\$	0.478	189,000

It is important to look at the above data in a more organized way that consumers can understand and is more useful in terms of comparison.

Most new-vehicle buyers look at specific types of vehicles when hunting for a car or truck that suits their purposes. Some look for small sport utilities others look for mid-size sedans.

Beginning on the next page, the energy data is broken down by the various market segments as defined by *Automotive News*.

As the data show, there are two pieces of information consumers can use to make a vehicle choice decision. In the “Budget” car category, the most expensive Dust to Dust model is the Kia Rio at nearly \$1 per mile while the least expensive is the Toyota Echo at about \$0.70. While the Rio has a slightly longer Estimated Life-Miles than the Echo, the initial owner is unlikely to keep the vehicle for this length of time.

Dust to Dust Energy Report -- Automotive

Segment	Model	Dust to Dust E Cost Per Mile	Est. Life- Miles
b	Rio	\$ 0.964	162,000
b	Accent	\$ 0.852	151,000
b	Aveo	\$ 0.765	142,000
b	Echo	\$ 0.703	157,000
e	Cobalt	\$ 1.013	169,000
e	Matrix	\$ 1.011	162,000
e	Mazda3	\$ 0.980	164,000
e	Sentra	\$ 0.962	164,000
e	Aerio	\$ 0.888	159,000
e	Lancer	\$ 0.872	154,000
e	Spectra	\$ 0.864	158,000
e	tC	\$ 0.845	139,000
e	Forenza	\$ 0.840	143,000
e	Focus	\$ 0.803	169,000
e	Protégé	\$ 0.772	161,000
e	Sunfire	\$ 0.758	157,000
e	Cavalier	\$ 0.757	152,000
e	xA	\$ 0.736	156,000
e	Corolla	\$ 0.732	169,000
e	Neon	\$ 0.728	148,000
e	Elantra	\$ 0.723	162,000
e	Ion	\$ 0.709	161,000
e	Escort	\$ 0.568	192,000
e	xB	\$ 0.478	189,000
elsuv	Xterra	\$ 2.022	191,000
elsuv	Trooper	\$ 1.909	209,000
elsuv	Mazda5	\$ 1.679	171,000
elsuv	Rodeo	\$ 1.542	184,000
elsuv	XL-7	\$ 1.477	165,000
elsuv	Grand Vitara	\$ 1.414	171,000
elsuv	Sorento	\$ 1.320	143,000
elsuv	Blazer	\$ 1.295	209,000
elsuv	Vitara	\$ 1.257	158,000
elsuv	Rodeo Sport	\$ 1.225	162,000
elsuv	Sportage	\$ 1.168	159,000
elsuv	Liberty	\$ 1.099	189,000
elsuv	Tracker	\$ 0.694	153,000
elsuv	Wrangler	\$ 0.604	207,000
elsw	Outlander	\$ 2.266	183,000
elsw	Tucson	\$ 2.215	146,000
elsw	Tribute	\$ 2.212	153,000
elsw	Santa Fe	\$ 2.019	151,000
elsw	Torrent	\$ 1.974	162,000
elsw	Escape	\$ 1.950	161,000
elsw	Mariner	\$ 1.948	151,000

Dust to Dust Energy Report -- Automotive

elsw	RAV4	\$	1.948	162,000
elsw	Vue	\$	1.847	161,000
elsw	Equinox	\$	1.821	189,000
elsw	Element	\$	1.807	142,000
elsw	Aztek	\$	1.542	168,000
elsw	CR-V	\$	1.478	156,000
fspu	Titan	\$	2.691	169,000
fspu	Tundra	\$	2.509	191,000
fspu	Ram pickup	\$	2.484	231,000
fspu	Silverado	\$	2.450	239,000
fspu	Sierra	\$	2.450	232,000
fspu	F Series	\$	2.392	268,000
fsv	Savana/G Van	\$	2.692	272,000
fsv	Econoline/Club Wagon	\$	2.686	258,000
fsv	Express/G Van	\$	2.482	253,000
fsv	Sprinter Van	\$	2.420	381,000
fsv	Ram Van	\$	2.267	227,000
fsv	Econoline van	\$	2.195	281,000
hy	Accord Hybrid	\$	3.295	117,000
hy	Prius	\$	3.249	109,000
hy	Civic Hybrid	\$	3.238	113,000
hy	Escape Hybrid	\$	3.178	127,000
hy	Insight	\$	2.939	109,000
I	Phaeton	\$	11.213	241,000
I	allroad quattro	\$	5.595	202,000
I	A6	\$	4.963	189,000
I	LS 430	\$	4.734	223,000
I	GS 430	\$	4.416	181,000
I	Q45	\$	4.243	201,000
I	S-Type	\$	3.989	165,000
I	M45	\$	3.876	126,000
I	GS 300	\$	3.861	131,000
I	DTS	\$	3.471	190,000
I	DeVille	\$	3.385	203,000
I	E class	\$	3.313	256,000
I	Seville	\$	3.305	162,000
I	80 series	\$	3.301	202,000
I	STS	\$	3.175	216,000
I	5 Series	\$	3.140	207,000
I	RL	\$	2.762	164,000
I	Town Car	\$	2.756	219,000
I	M3	\$	2.727	143,000
lmr	Golf/GTI	\$	2.697	151,000
lmr	L series	\$	2.534	164,000
lmr	Civic	\$	2.420	178,000

Dust to Dust Energy Report -- Automotive

lmr	HHR	\$	2.397	169,000
lmr	G6	\$	2.342	159,000
lmr	Classic	\$	2.269	229,000
lmr	Impreza	\$	2.225	137,000
lmr	Grand Am	\$	2.224	192,000
lmr	Fusion	\$	2.202	192,000
lmr	Milan	\$	2.202	189,000
lmr	Stratus	\$	2.165	201,000
lmr	Optima	\$	1.994	161,000
lmr	Sonata	\$	1.980	162,000
lmr	Malibu	\$	1.919	152,000
lmr	Verona	\$	1.908	171,000
lmr	Beetle	\$	1.828	161,000
lmr	PT Cruiser	\$	1.612	163,000
lmr	Sebring	\$	1.283	192,000
lmr	Vibe	\$	1.011	164,000
lmr suv	Pathfinder	\$	2.220	158,000
lmr suv	4Runner	\$	2.193	176,000
lmr suv	Montero	\$	2.177	157,000
lmr suv	Montero Sport	\$	2.123	142,000
lmr suv	Axiom	\$	1.735	142,000
lmr suv	Freelander	\$	1.674	158,000
lmr suv	Ascender	\$	1.531	161,000
lmr suv	Commander	\$	1.531	208,000
lmr suv	Grand Cherokee	\$	1.495	209,000
lmr suv	Durango	\$	1.429	184,000
lmr suv	Explorer	\$	1.404	203,000
lmr suv	TrailBlazer	\$	1.363	187,000
lsuv	Sequoia	\$	3.672	175,000
lsuv	Armada	\$	3.450	162,000
lsuv	Excursion	\$	3.304	269,000
lsuv	Suburban	\$	3.134	272,000
lsuv	Yukon XL	\$	3.132	271,000
lsuv	Expedition	\$	3.058	284,000
lsuv	Tahoe	\$	2.937	268,000
lsuv	Yukon	\$	2.936	265,000
mrs	Pacifica	\$	2.780	183,000
mrs	Murano	\$	2.510	178,000
mrs	Highlander	\$	2.490	156,000
mrs	Freestyle/Windstar	\$	2.481	206,000
mrs	Rendezvous	\$	2.392	168,000
mrs	Pilot	\$	2.197	156,000
mrs	Endeavor	\$	1.974	153,000
mv	EuroVan/T4	\$	2.294	159,000
mv	Odyssey	\$	2.267	192,000
mv	Montana SV6	\$	2.239	166,000

Dust to Dust Energy Report -- Automotive

mv	Town & Country	\$	2.218	171,000
mv	Terraza	\$	2.212	179,000
mv	Caravan/Grand Caravan	\$	2.181	164,000
mv	Sienna	\$	2.180	158,000
mv	Venture	\$	2.144	173,000
mv	Relay	\$	2.143	162,000
mv	Montana	\$	2.142	166,000
mv	Quest	\$	2.118	160,000
mv	Uplander	\$	2.117	156,000
mv	Freestar	\$	2.069	161,000
mv	Monterey	\$	2.069	159,000
mv	Sedona	\$	1.994	138,000
mv	MPV	\$	1.953	156,000
mv	Safari	\$	1.725	202,000
mv	Astro	\$	1.725	205,000
nl	70 series	\$	2.482	185,000
nl	60 series	\$	2.269	161,000
nl	Zephyr	\$	2.196	179,000
nl	TL	\$	2.122	171,000
nl	CL	\$	2.022	182,000
nl	LS	\$	2.017	156,000
nl	X-Type	\$	1.908	169,000
nl	ES 330	\$	1.852	172,000
nl	IS 300	\$	1.833	162,000
nl	G35	\$	1.777	172,000
nl	C class	\$	1.699	171,000
nl	CTS	\$	1.680	160,000
nl	330	\$	1.616	176,000
nl	Park Avenue	\$	1.556	179,000
nl	325	\$	1.531	171,000
nl	9-5	\$	1.529	162,000
p	A8	\$	4.964	214,000
p	S class	\$	3.669	251,000
p	Maserati	\$	3.055	162,000
p	7 Series	\$	2.936	201,000
p	XJ	\$	2.785	162,000
pmr	Montego	\$	2.264	152,000
pmr	LaCrosse	\$	2.245	165,000
pmr	Passat	\$	2.052	192,000
pmr	Magnum	\$	2.019	183,000
pmr	Five Hundred	\$	2.018	172,000
pmr	Charger	\$	1.974	172,000
pmr	Maxima	\$	1.966	193,000
pmr	300/300M	\$	1.961	192,000
pmr	Diamante	\$	1.932	151,000
pmr	40 series	\$	1.897	162,000
pmr	I30/I35	\$	1.851	188,000

Dust to Dust Energy Report -- Automotive

pmr	Millenia	\$	1.802	136,000
pmr	A4/S4	\$	1.774	169,000
pmr	TSX	\$	1.725	169,000
pmr	9-3	\$	1.636	182,000
pmr	9-2	\$	1.553	171,000
pmr	Regal	\$	1.167	152,000
ps	SLK class	\$	3.982	159,000
ps	CLS class	\$	3.668	237,000
ps	CLK class	\$	3.492	191,000
ps	Boxster	\$	3.224	157,000
ps	Corvette	\$	3.158	162,000
ps	TT	\$	2.768	141,000
ps	Z8	\$	2.733	177,000
ps	Z4	\$	2.483	147,000
ps	Thunderbird	\$	1.477	171,000
ps	Crossfire	\$	1.323	131,000
psuv	Cayenne	\$	4.146	193,000
psuv	Touareg	\$	4.134	186,000
psuv	Range Rover	\$	3.775	206,000
psuv	G class	\$	3.711	237,000
psuv	H1	\$	3.505	379,000
psuv	LX 470	\$	3.229	213,000
psuv	Escalade ESV	\$	3.197	234,000
psuv	Land Cruiser	\$	3.184	301,000
psuv	H2	\$	3.027	197,000
psuv	Escalade	\$	2.753	239,000
psuv	Navigator	\$	2.617	201,000
psuv	QX56	\$	2.269	16,900
psw	XC90	\$	3.325	229,000
psw	RX330	\$	3.306	192,000
psw	FX35/45	\$	3.029	173,000
psw	R class	\$	2.960	164,000
psw	50 series	\$	2.937	156,000
psw	MDX	\$	2.845	195,000
psw	SRX	\$	2.782	171,000
psw	M class	\$	2.482	215,000
psw	X5	\$	2.368	166,000
psw	X3	\$	2.264	167,000
smr	Accord	\$	2.180	209,000
smr	<i>Jetta wagon</i>	\$	2.046	136,000
smr	<i>Jetta</i>	\$	2.016	132,000
smr	Camry	\$	1.954	198,000
smr	Baja	\$	1.909	157,000
smr	Legacy	\$	1.849	156,000
smr	Forester	\$	1.825	165,000
smr	Mazda6	\$	1.796	162,000

Dust to Dust Energy Report -- Automotive

smr	Intrepid	\$	1.772	178,000
smr	Monte Carlo	\$	1.506	189,000
smr	Galant	\$	1.465	153,000
smr	Grand Prix	\$	1.465	161,000
smr	Century	\$	1.455	174,000
smr	Sable	\$	1.447	201,000
smr	Taurus	\$	1.446	206,000
smr	626	\$	1.397	171,000
smr	Altima	\$	1.381	153,000
smr	Impala	\$	1.357	174,000
smr	XG350	\$	1.285	151,000
smr	Amanti	\$	1.263	162,000
spu	SSR	\$	2.442	143,000
spu	Ridgeline	\$	1.807	163,000
spu	Canyon	\$	1.283	188,000
spu	Sonoma	\$	1.283	187,000
spu	Frontier	\$	1.160	171,000
spu	Tacoma	\$	1.147	173,000
spu	Colorado	\$	1.125	184,000
spu	Raider	\$	1.124	175,000
spu	B-Series	\$	1.088	193,000
spu	Dakota	\$	1.014	172,000
spu	Ranger	\$	0.968	188,000
spu	S10	\$	0.779	172,000
sup	Escalade EXT	\$	2.048	221,000
sup	Avalanche	\$	1.978	234,000
sup	Mark LT	\$	1.944	192,000
t	RX8	\$	2.482	139,000
t	350Z	\$	2.193	156,000
t	A3	\$	2.096	139,000
t	Eclipse Spyder	\$	2.079	119,000
t	Eclipse	\$	2.021	144,000
t	GTO	\$	1.995	146,000
t	Celica	\$	1.969	139,000
t	Mini Cooper S	\$	1.908	161,000
t	RSX	\$	1.908	159,000
t	Solstice	\$	1.880	153,000
t	Mini Cooper	\$	1.795	169,000
t	Mustang	\$	1.758	181,000
t	MR2 Spyder	\$	1.683	162,000
t	MX-5 Miata	\$	1.471	182,000
t	S2000	\$	1.455	162,000
t	Tiburon	\$	1.439	192,000
t	Firebird	\$	1.287	173,000
t	Camaro	\$	1.286	179,000
tr	Avalon	\$	1.967	201,000

Dust to Dust Energy Report -- Automotive

tr	Lucerne	\$	1.802	177,000
tr	Bonneville	\$	1.782	183,000
tr	Concorde	\$	1.531	183,000
tr	Grand Marquis	\$	1.418	207,000
tr	Crown Victoria	\$	1.417	212,000
tr	LeSabre	\$	1.372	183,000
u	Maybach	\$	11.582	257,000
u	Rolls-Royce	\$	10.660	273,000
ul	Bentley	\$	10.555	271,000
ul	Carrera GT	\$	4.528	186,000
ul	Lamborghini	\$	4.009	121,000
ul	Ferrari	\$	3.962	119,000
ul	GT	\$	3.851	116,000
ul	Aston Martin	\$	3.028	156,000
umr suv	GX 470	\$	2.686	177,000
umr suv	Discovery	\$	2.525	203,000
umr suv	LR3	\$	2.489	222,000
umr suv	QX4	\$	2.483	151,000
umr suv	Range Rover Sport	\$	2.420	206,000
umr suv	Aviator	\$	2.347	191,000
umr suv	Mountaineer	\$	2.336	171,000
umr suv	B9 Tribeca	\$	2.240	147,000
umr suv	Envoy	\$	2.196	202,000
umr suv	Rainier	\$	2.180	176,000
umr suv	9-7X	\$	2.169	143,000
umr suv	H3	\$	1.949	207,000
ups	NSX	\$	4.453	192,000
ups	SC 430	\$	3.407	165,000
ups	XLR	\$	3.276	164,000
ups	XK	\$	3.058	188,000
ups	911 Carrera 4	\$	2.830	151,000
ups	911 Carrera	\$	2.738	164,000
ups	SL Coupe/Roadster	\$	2.686	169,000
ups	CL class	\$	2.533	188,000
ups	6 Series	\$	2.267	173,000
ups	Lotus	\$	2.267	121,000
ups	Viper	\$	2.176	118,000
	Industry Straight Average	\$	2.281	178,739

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From purely a consumer auto-buy perspective, the first consideration has to be suitability of the vehicle to current driving needs. That narrows the field to the appropriate market segment or segments. **From that point on, while family budget will decide price and other conditions such as fuel economy expenses, somewhere in the equation that consumer may wish to include the overall energy cost to society. That, however, in our view, is a personal choice.**

Government, on the other hand, is a different matter. To offer incentives to a select group of vehicles under the guise of energy efficiency is misdirected because government is purported to represent all consumers, or society in general. Without at least the consideration of overall energy cost it is doing a disservice. If governments include Dust-to-Dust energy data and still decide to offer tax or other incentives, at least it would be a better informed choice.

As mentioned, however, if the goal is to reduce smog in specific region such as the LA Basin, hybrids could well be the logical choice for such incentives within the boundaries of logic.

For example, the most efficient fuel-economy and emission-reducing speed for most hybrids is below 35 mph. To encourage their use in high-speed, high-occupancy lanes where speeds are typically over 55 mph and the hybrid is operating solely on its gasoline engine offering only modest (if any) mpg advantages over comparably sized ICE-only small cars is simply illogical.

Similarly, tax breaks to high-density urban taxi companies for using hybrids (e.g. Escape) are a perfect use of such incentives.

But again, these decisions should be made with all factors considered.

CHAPTER TWO – The New-Vehicle Buyer Perspective

As mentioned, the original buyer of a new model is not being asked to pay for the entire life of that vehicle in terms of energy costs. This expense is spread over dozens of industries which, at various points, profit from being involved in the public use of cars and trucks.

Every stage of the automobile business has the potential to generate profit. Similarly, every stage requires energy consumption, be it the transportation of vehicles from plant to port to dealer to the maker of the crushing equipment that turns what once was a shiny new vehicle into a block of scrap “iron.”

The first buyer of that vehicle actually pays a small portion of the total energy cost. But his or her purchase supports many upstream and downstream companies ranging from the small plastic-fastener manufacturers to the dealership’s janitorial service.

Dust to Dust Energy Report -- Automotive

Much of this cost is never recognized by the new-vehicle buyer. For example, buying a minivan is money in the bank for the tire and brake industries, for the quick-lube franchisee and government revenue departments. All will profit from this single purchase at some point in the near or medium and even long-term future.

And importantly, all will consume energy to support that individual new-car purchase over time. First by ordering, stocking and installing these maintenance and repair parts for vehicles years' old and eventually for that current new minivan. Second, by employing people who rely on energy for transport to and from work and third for the manufacturers of equipment for the support industries.

The mix of vehicles sold is as important as the total number of new vehicles purchased. For example, as the auto industry has discovered, profitability of large SUVs cannot be easily replaced if consumers elect instead to buy budget cars.

CNW has been tracking estimated profits per vehicle on a segment basis since 1999, but here is the latest data through the first quarter of 2006 compared to the two previous years.

Note that these are manufacturing profits excluding marketing costs such as incentives. Clearly a \$2,000 incentive on a budget car that produces only \$900 in manufacturing profit is a net-loss vehicle.

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Manufacturing Profits (excluding marketing costs such as incentives)

	cy04	cy05	Q1 cy06
Budget Car	\$ 810	\$837	\$916
Economy Car	\$ 825	\$818	\$834
Entry-level sport-utility	\$ 5,750	\$5,439	\$5,278
Entry-level sport wagon	\$ 6,100	\$6,246	\$6,381
Full Size Pickup	\$ 9,350	\$10,867	\$12,946
Full Size Van	\$ 6,900	\$6,455	\$6,273
Hybrid Vehicles	\$ 1,375	\$1,486	\$1,968
Luxury Car	\$ 8,955	\$9,148	\$10,063
Lower Midrange	\$ 1,250	\$1,292	\$1,406
Lower Mid Range SUV	\$ 1,100	\$987	\$956
Large SUV	\$ 10,975	\$10,057	\$9,382
Mid-range sport wagon	\$ 7,900	\$8,286	\$9,045
Minivan	\$ 5,275	\$5,809	\$6,227
Near Luxury Car	\$ 8,975	\$9,124	\$9,163
Premium Car	\$ 19,800	\$21,315	\$22,774
Premium Mid Range Car	\$ 9,010	\$9,246	\$9,482
Premium Sporty Car	\$ 8,250	\$8,671	\$8,739
Premium SUV	\$ 13,250	\$12,776	\$11,937
Premium Sportwagon	\$ 7,450	\$7,669	\$8,004
Standard Mid Range	\$ 3,860	\$4,226	\$4,419
Small Pickup	\$ 970	\$953	\$969
Sport Utility Pickup	\$ 7,610	\$7,773	\$7,851
Touring Car	\$ 7,150	\$7,226	\$7,426
Traditional Car	\$ 7,725	\$7,854	\$7,891
Ultra Upscale Car	\$ 32,850	\$33,441	\$35,483
Ultra Luxury Sporty Car	\$ 9,475	\$10,044	\$10,357
Upper Mid Range SUV	\$ 9,250	\$8,967	\$8,864
Upper Premium Sporty Car	\$ 21,750	\$21,643	\$21,473

Source: CNW Marketing Research, Inc.

Note that the above figures represent the difference between the manufacturing cost and the price an automaker receives from a franchised dealer. Franchised dealers do not receive this amount or any amount close to this when selling to a consumer.

Dust to Dust Energy Report -- Automotive

So, to take this analysis to the next stage, here are the average retail transaction prices paid for each model in calendar year 2005 along with the estimated life in miles and the average years of service along with the lifetime average annual mileage.

Once again, the caveat is this: These are general averages. Many consumers exceed these figures; many do not.

Division	Model	New Avg Trans Prc	Est. Life- Miles*	Lifetime Avg Miles/Yr	Years of Service
Kia	Rio	\$ 12,947	162,000	10,989	14.74
Hyundai	Accent	\$ 12,668	151,000	10,521	14.35
Chevrolet	Aveo	\$ 12,624	142,000	13,503	10.52
Toyota	Echo	\$ 11,217	157,000	12,775	12.29
	Total Budget Cars	\$ 12,364	153,000	11,947	12.98
Chevrolet	Cobalt	\$ 16,791	169,000	10,376	16.29
Toyota	Matrix **	\$ 17,421	162,000	11,018	14.70
Mazda	Mazda3	\$ 16,375	164,000	10,238	16.02
Nissan	Sentra	\$ 15,972	164,000	10,523	15.58
Suzuki	Aerio	\$ 15,112	159,000	12,328	12.90
Mitsubishi	Lancer	\$ 16,743	154,000	12,868	11.97
Kia	Spectra	\$ 15,645	158,000	13,520	11.69
Scion	tC	\$ 16,942	139,000	12,591	11.04
Suzuki	Forenza	\$ 16,118	143,000	11,142	12.83
Ford	Focus	\$ 16,372	169,000	11,278	14.98
Mazda	Protégé	\$ 14,628	161,000	10,631	15.14
Pontiac	Sunfire	\$ 15,925	157,000	12,625	12.44
Chevrolet	Cavalier	\$ 15,678	152,000	13,136	11.57
Scion	xA	\$ 13,151	156,000	11,255	13.86
Toyota	Corolla	\$ 15,873	169,000	13,242	12.76
Dodge	Neon	\$ 15,424	148,000	10,624	13.93
Hyundai	Elantra	\$ 15,333	162,000	12,422	13.04
Saturn	Ion	\$ 15,002	161,000	13,248	12.15
Ford	Escort	\$ 14,522	192,000	12,548	15.30
Scion	xB	\$ 14,971	189,000	12,494	15.13
	Total Economy Cars	\$ 15,700	161,400	11,905	13.67
Nissan	Xterra	\$ 24,528	191,000	13,194	14.48
Isuzu	Trooper	\$ 26,524	209,000	13,806	15.14
Mazda	Mazda5	\$ 18,742	171,000	13,319	12.84

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Isuzu	Rodeo	\$	19,474	184,000	13,306	13.83
Suzuki	XL-7	\$	25,280	165,000	12,430	13.27
Suzuki	Grand Vitara	\$	23,642	171,000	13,904	12.30
Kia	Sorento	\$	24,427	143,000	11,986	11.93
Chevrolet	Blazer	\$	20,268	209,000	13,754	15.20
Suzuki	Vitara	\$	18,942	158,000	13,152	12.01
Isuzu	Rodeo Sport	\$	19,556	162,000	12,163	13.32
Kia	Sportage	\$	21,111	159,000	13,083	12.15
Jeep	Liberty	\$	26,092	189,000	11,867	15.93
Chevrolet	Tracker	\$	18,567	153,000	11,751	13.02
Jeep	Wrangler	\$	25,375	207,000	13,024	15.89
Ttl Entry Level SUVs		\$	22,323	176,500	12,910	13.66
Mitsubishi	Outlander	\$	22,663	183,000	13,501	13.55
Hyundai	Tucson	\$	22,427	146,000	13,414	10.88
Mazda	Tribute	\$	23,159	153,000	11,504	13.30
Hyundai	Santa Fe	\$	24,874	151,000	12,960	11.65
Pontiac	Torrent	\$	23,027	162,000	12,891	12.57
Ford	Escape	\$	23,627	161,000	13,927	11.56
Mercury	Mariner	\$	23,942	151,000	12,486	12.09
Toyota	RAV4	\$	23,649	162,000	12,075	13.42
Saturn	Vue	\$	22,209	161,000	12,229	13.17
Chevrolet	Equinox	\$	24,273	189,000	12,567	15.04
Honda	Element	\$	19,745	142,000	13,780	10.30
Pontiac	Aztek	\$	22,206	168,000	11,709	14.35
Honda	CR-V	\$	24,514	156,000	11,448	13.63
Ttl Entry Level Sportwagons		\$	23,101	160,385	12,653	12.73
Nissan	Titan	\$	31,428	169,000	14,239	11.87
Toyota	Tundra	\$	30,664	191,000	12,859	14.85
Dodge	Ram pickup	\$	38,622	231,000	13,459	17.16
Chevrolet	Silverado	\$	32,741	239,000	12,947	18.46
GMC	Sierra	\$	35,226	232,000	13,067	17.75
Ford	F Series	\$	37,627	268,000	12,782	20.97
Ttl Full Size Pickup		\$	34,385	221,667	13,226	16.84
GMC	Savana/G Van	\$	26,372	272,000	21,038	12.93
Ford	Econoline/Club Wagon	\$	30,042	258,000	20,148	12.81
GMC	Express/G Van	\$	27,617	253,000	20,231	12.51
Dodge	Sprinter Van	\$	34,638	381,000	19,420	19.62
Dodge	Ram Van	\$	25,622	227,000	19,315	11.75
Ford	Econoline van	\$	28,625	281,000	19,069	14.74
Full Size Van		\$	28,819	278,667	19,870	14.06
Honda	Accord Hybrid	\$	30,216	117,000	10,462	11.18
Toyota	Prius	\$	23,142	109,000	9,146	11.92
Honda	Civic Hybrid	\$	23,627	113,000	11,837	9.55

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Ford	Escape Hybrid	\$	26,472	141,000	11,238	12.55
Mercury	Mariner Hybrid	\$	28,229	138,000	11,942	11.56
Honda	Insight	\$	20,234	109,000	8,241	13.23
Lexus	RX 400h	\$	46,217	192,000	12,627	15.21
Toyota	Highlander Hybrid	\$	36,424	140,000	12,069	11.60
	Ttl Hybrids	\$	29,320	132,375	10,945	12.10
Volkswagen	Phaeton	\$	99,424	241,000	9,342	25.80
Audi	allroad quattro	\$	45,547	202,000	9,791	20.63
Audi	A6	\$	51,391	189,000	12,841	14.72
Lexus	LS 430	\$	55,728	223,000	12,092	18.44
Lexus	GS 430	\$	50,342	181,000	11,792	15.35
Infiniti	Q45	\$	56,824	201,000	13,087	15.36
Jaguar	S-Type	\$	45,637	165,000	11,910	13.85
Infiniti	M45	\$	45,639	126,000	11,662	10.80
Lexus	GS 300	\$	44,405	131,000	12,700	10.31
Cadillac	DTS	\$	46,537	190,000	13,080	14.53
Cadillac	DeVille	\$	41,371	203,000	13,101	15.50
M-Benz	E class	\$	61,868	256,000	12,894	19.85
Cadillac	Seville	\$	41,231	162,000	13,168	12.30
Volvo	80 series	\$	38,195	202,000	12,552	16.09
Cadillac	STS	\$	46,824	216,000	11,910	18.14
BMW	5 Series	\$	40,206	207,000	12,677	16.33
Acura	RL	\$	51,357	164,000	12,574	13.04
Lincoln	Town Car	\$	45,283	219,000	11,910	18.39
BMW	M3	\$	46,895	143,000	11,837	12.08
	Total Luxury Car	\$	50,248	190,579	12,154	15.87
Volkswagen	Golf	\$	21,648	151,000	11,114	13.59
Volkswagen	Golf GTI	\$	24,813	144,000	10,869	13.25
Saturn	L series	\$	19,469	164,000	10,974	14.94
Honda	Civic	\$	22,319	178,000	11,536	15.43
Chevrolet	HHR	\$	17,914	169,000	11,573	14.60
Pontiac	G6	\$	20,303	159,000	10,754	14.79
Chevrolet	Classic	\$	19,633	229,000	11,318	20.23
Subaru	Impreza	\$	23,618	137,000	11,228	12.20
Pontiac	Grand Am	\$	21,946	192,000	10,700	17.94
Ford	Fusion	\$	20,234	192,000	11,923	16.10
Mercury	Milan	\$	21,553	189,000	11,408	16.57
Dodge	Stratus	\$	19,424	201,000	11,855	16.95
Kia	Optima	\$	17,556	161,000	10,901	14.77
Hyundai	Sonata	\$	19,742	162,000	12,031	13.47
Suzuki	Verona	\$	18,742	152,000	10,663	14.25
Volkswagen	Beetle	\$	19,894	171,000	11,188	15.28
Pontiac	Vibe	\$	18,456	161,000	11,523	13.97
Chevrolet	Malibu	\$	22,443	163,000	11,758	13.86
Chrysler	PT Cruiser	\$	23,131	192,000	11,008	17.44
Chrysler	Sebring	\$	18,494	164,000	11,987	13.68
	Ttl Lower Mid-Range Cars	\$	20,567	171,550	11,316	15.17

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Nissan	Pathfinder	\$	32,914	158,000	10,661	14.82
Toyota	4Runner	\$	36,876	176,000	11,577	15.20
Mitsubishi	Montero	\$	34,223	157,000	10,850	14.47
Mitsubishi	Montero Sport	\$	29,416	142,000	11,207	12.67
Isuzu	Axiom	\$	28,772	142,000	10,436	13.61
Land Rover	Freelander	\$	25,372	158,000	11,283	14.00
Isuzu	Ascender	\$	26,533	161,000	11,177	14.40
Jeep	Commander	\$	36,781	208,000	11,197	18.58
Jeep	Grand Cherokee	\$	40,028	209,000	10,736	19.47
Jeep	Grand Cherokee SRT-8	\$	41,919	182,000	11,079	16.43
Dodge	Durango	\$	31,627	184,000	10,815	17.01
Ford	Explorer	\$	31,416	203,000	10,630	19.10
Chevrolet	TrailBlazer	\$	27,226	187,000	11,581	16.15
	Ttl Lower Mid-Range SUV	\$	32,546	174,385	11,018	15.84
Toyota	Sequoia	\$	41,915	175,000	13,101	13.36
Nissan	Armada	\$	39,737	162,000	13,533	11.97
Ford	Excursion	\$	48,333	269,000	14,790	18.19
Chevrolet	Suburban	\$	41,086	272,000	14,542	18.70
GMC	Yukon XL	\$	49,867	271,000	12,802	21.17
Ford	Expedition	\$	44,540	284,000	14,736	19.27
Chevrolet	Tahoe	\$	38,719	268,000	14,228	18.84
GMC	Yukon	\$	42,097	265,000	14,484	18.30
	Total Large SUV	\$	43,287	245,750	14,027	17.47
Chrysler	Pacifica	\$	30,216	183,000	14,492	12.63
Nissan	Murano	\$	30,229	178,000	13,551	13.14
Toyota	Highlander	\$	29,473	156,000	12,822	12.17
Ford	Freestyle/Windstar	\$	27,111	206,000	12,251	16.81
Buick	Rendezvous	\$	27,637	168,000	12,683	13.25
Honda	Pilot	\$	31,946	156,000	14,469	10.78
Mitsubishi	Endeavor	\$	31,742	153,000	12,867	11.89
	Total Mid-Range Sportwagons	\$	29,765	171,429	13,305	12.95
Volkswagen	EuroVan/T4	\$	36,728	159,000	12,266	12.96
Honda	Odyssey	\$	34,668	192,000	12,584	15.26
Pontiac	Montana SV6	\$	25,711	166,000	12,495	13.29
Chrysler	Town & Country	\$	34,423	171,000	12,511	13.67
Buick	Terraza	\$	32,451	179,000	12,497	14.32
Dodge	Caravan/Grand Caravan	\$	26,182	164,000	12,369	13.26
Toyota	Sienna	\$	34,762	158,000	12,247	12.90
Chevrolet	Venture	\$	24,317	173,000	12,401	13.95
Saturn	Relay	\$	27,348	162,000	12,880	12.58
Pontiac	Montana	\$	25,415	166,000	12,017	13.81
Nissan	Quest	\$	31,467	160,000	12,969	12.34
Chevrolet	Uplander	\$	32,411	156,000	12,238	12.75
Ford	Freestar	\$	22,234	161,000	12,723	12.65

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Mercury	Monterey	\$	27,276	159,000	13,098	12.14
Kia	Sedona	\$	24,868	138,000	12,344	11.18
Mazda	MPV	\$	27,129	156,000	12,549	12.43
GMC	Safari	\$	23,142	202,000	12,760	15.83
Chevrolet	Astro	\$	24,773	205,000	12,550	16.33
				\$		
	Total Minivans	\$	28,628	168,167	12,528	13.43
Volvo	70 series	\$	37,915	185,000	12,509	14.79
Volvo	60 series	\$	35,562	161,000	13,423	11.99
Mercury	Zephyr	\$	28,756	179,000	12,239	14.63
Acura	TL	\$	34,151	171,000	12,691	13.47
Acura	CL	\$	32,627	182,000	13,068	13.93
Lincoln	LS	\$	35,718	156,000	12,962	12.04
Jaguar	X-Type	\$	33,114	169,000	12,346	13.69
Lexus	ES 330	\$	31,528	172,000	12,326	13.95
Lexus	IS 300	\$	34,721	162,000	12,356	13.11
Infiniti	G35	\$	32,756	172,000	13,165	13.06
M-Benz	C class	\$	38,550	171,000	12,723	13.44
Cadillac	CTS	\$	31,759	160,000	13,080	12.23
BMW	330	\$	35,281	176,000	12,416	14.18
Buick	Park Avenue	\$	38,375	179,000	13,343	13.42
BMW	325	\$	36,881	171,000	12,845	13.31
Saab	9-5	\$	35,447	162,000	13,443	12.05
				\$		
	Total Near Luxury Cars	\$	34,571	170,500	\$ 12,808	13.33
Audi	A8	\$	89,726	214,000	11,193	19.12
M-Benz	S class	\$	124,347	251,000	11,438	21.94
Maserati	Maserati	\$	114,913	162,000	11,695	13.85
BMW	7 Series	\$	107,372	201,000	11,522	17.44
Jaguar	XJ	\$	77,575	162,000	11,667	13.89
				\$		
	Total Premium Cars	\$	102,787	198,000	\$ 11,503	17.25
Mercury	Montego	\$	27,537	152,000	13,388	11.35
Buick	LaCrosse	\$	27,924	165,000	13,631	12.10
Volkswagen	Passat	\$	30,065	192,000	13,426	14.30
Dodge	Magnum	\$	28,334	183,000	12,251	14.94
Ford	Five Hundred	\$	23,192	172,000	13,966	12.32
Dodge	Charger	\$	24,698	172,000	13,033	13.20
Nissan	Maxima	\$	28,111	193,000	12,825	15.05
Chrysler	300/300M	\$	30,741	192,000	13,911	13.80
Mitsubishi	Diamante	\$	26,513	151,000	12,192	12.39
Volvo	40 series	\$	25,413	162,000	12,596	12.86
Infiniti	I30/I35	\$	29,842	188,000	12,112	15.52
Mazda	Millenia	\$	27,627	136,000	13,601	10.00
Audi	A4/S4	\$	36,493	169,000	13,971	12.10
Audi	S4	\$	56,371	171,000	13,402	12.76
Acura	TSX	\$	28,735	169,000	12,414	13.61
Saab	9-3	\$	30,137	182,000	12,673	14.36

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Saab	9-2	\$	25,766	171,000	13,566	12.61
Buick	Regal	\$	23,516	152,000	12,230	12.43
Total Premium Mid-Range Cars		\$	29,501	170,667	13,066	13.09
M-Benz	SLK class	\$	44,888	159,000	11,975	13.28
M-Benz	CLS class	\$	62,731	237,000	10,815	21.91
M-Benz	CLK class	\$	53,438	191,000	11,333	16.85
Porsche	Boxster	\$	52,619	157,000	11,847	13.25
Chevrolet	Corvette	\$	60,238	162,000	11,694	13.85
Audi	TT	\$	41,427	141,000	11,398	12.37
BMW	Z8	\$	50,274	177,000	11,481	15.42
BMW	Z4	\$	38,622	147,000	10,864	13.53
Ford	Thunderbird	\$	36,279	171,000	10,164	16.82
Chrysler	Crossfire	\$	31,208	131,000	11,918	10.99
Total Premium Sporty Cars		\$	47,172	167,300	11,349	14.83
Porsche	Cayenne	\$	101,347	193,000	10,638	18.14
Volkswagen	Touareg	\$	40,669	186,000	9,825	18.93
Land Rover	Range Rover	\$	88,543	206,000	10,735	19.19
M-Benz	G class	\$	92,317	237,000	10,381	22.83
Hummer	H1	\$	136,552	379,000	10,841	34.96
Lexus	LX 470	\$	66,193	213,000	10,919	19.51
Cadillac	Escalade ESV	\$	70,361	234,000	10,252	22.82
Toyota	Land Cruiser	\$	54,372	301,000	10,709	28.11
Hummer	H2	\$	54,789	197,000	10,684	18.44
Cadillac	Escalade	\$	58,731	239,000	10,324	23.15
Lincoln	Navigator	\$	52,006	201,000	11,166	18.00
Total Premium SUV		\$	74,171	235,091	10,589	22.19
Volvo	XC90	\$	46,283	229,000	14,477	15.82
Lexus	RX330	\$	37,215	192,000	13,609	14.11
Infiniti	FX35	\$	39,217	173,000	13,884	12.46
Infiniti	FX45	\$	49,292	177,000	12,752	13.88
M-Benz	R class	\$	51,366	164,000	13,074	12.54
Volvo	50 series	\$	28,555	156,000	13,797	11.31
Acura	MDX	\$	42,518	195,000	12,874	15.15
Cadillac	SRX	\$	43,914	171,000	14,882	11.49
M-Benz	M class	\$	45,737	215,000	14,938	14.39
BMW	X5	\$	67,912	166,000	13,183	12.59
BMW	X3	\$	33,225	167,000	13,621	12.26
Total Premium Sportwagons		\$	44,112	182,273	13,736	13.27
Honda	Accord	\$	29,167	209,000	12,938	16.15
Volkswagen	Jetta wagon	\$	21,723	136,000	13,931	9.76
Volkswagen	Jetta	\$	23,539	132,000	13,109	10.07
Toyota	Camry	\$	26,432	198,000	13,518	14.65
Subaru	Baja	\$	23,817	157,000	13,799	11.38

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Subaru	Legacy	\$	29,415	156,000	14,048	11.10
Subaru	Forester	\$	26,336	165,000	13,199	12.50
Subaru	Outback	\$	31,123	158,000	13,638	11.59
Mazda	Mazda6	\$	25,573	162,000	13,824	11.72
Dodge	Intrepid	\$	19,624	178,000	13,971	12.74
Chevrolet	Monte Carlo	\$	26,861	189,000	13,262	14.25
Mitsubishi	Galant	\$	24,483	153,000	13,538	11.30
Pontiac	Grand Prix	\$	26,538	161,000	14,227	11.32
Buick	Century	\$	19,684	174,000	13,104	13.28
Mercury	Sable	\$	19,866	201,000	14,193	14.16
Ford	Taurus	\$	19,735	206,000	14,001	14.71
Mazda	626	\$	20,041	171,000	14,245	12.00
Nissan	Altima	\$	25,295	153,000	13,982	10.94
Chevrolet	Impala	\$	25,404	174,000	13,159	13.22
Hyundai	XG350	\$	23,117	151,000	14,028	10.76
Kia	Amanti	\$	22,868	162,000	13,512	11.99
Total Small Mid-Range Cars		\$	24,316	168,857	13,677	12.36
Chevrolet	SSR	\$	32,318	143,000	12,672	11.28
Honda	Ridgeline	\$	30,147	163,000	12,624	12.91
GMC	Canyon	\$	21,374	188,000	12,953	14.51
GMC	Sonoma	\$	22,069	187,000	12,104	15.45
Nissan	Frontier	\$	23,743	171,000	12,963	13.19
Toyota	Tacoma	\$	16,890	173,000	13,036	13.27
Chevrolet	Colorado	\$	22,314	184,000	12,107	15.20
Mitsubishi	Raider	\$	29,642	175,000	11,962	14.63
Mazda	B-Series	\$	21,747	193,000	12,912	14.95
Dodge	Dakota	\$	24,768	172,000	11,949	14.39
Ford	Ranger	\$	19,347	188,000	12,751	14.74
Chevrolet	S10	\$	18,294	172,000	12,840	13.40
Total Small Pickup		\$	23,554	175,750	12,573	13.99
Cadillac	Escalade EXT	\$	56,914	221,000	11,986	18.44
Chevrolet	Avalanche	\$	32,553	234,000	11,451	20.43
Lincoln	Mark LT	\$	40,420	192,000	11,836	16.22
Total Specialty Utility Pickup		\$	43,296	215,667	11,758	18.36
Mazda	RX8	\$	27,351	139,000	10,000	13.90
Nissan	350Z	\$	36,228	156,000	10,729	14.54
Audi	A3	\$	30,304	139,000	10,804	12.87
Mitsubishi	Eclipse Spyder	\$	31,142	119,000	10,934	10.88
Mitsubishi	Eclipse	\$	21,164	144,000	10,643	13.53
Pontiac	GTO	\$	27,527	146,000	10,641	13.72
Toyota	Celica	\$	21,629	139,000	10,777	12.90
Mini	Mini Cooper S	\$	21,343	161,000	10,446	15.41
Acura	RSX	\$	22,555	159,000	10,407	15.28
Pontiac	Solstice	\$	21,367	153,000	10,567	14.48
Mini	Mini Cooper	\$	21,693	169,000	10,936	15.45

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Ford	Mustang	\$	27,756	181,000	10,475	17.28
Toyota	MR2 Spyder	\$	23,067	162,000	10,832	14.96
Mazda	MX-5 Miata	\$	24,448	182,000	10,812	16.83
Honda	S2000	\$	30,837	162,000	10,997	14.73
Hyundai	Tiburon	\$	17,639	192,000	10,610	18.10
Pontiac	Firebird	\$	24,831	173,000	10,141	17.06
Chevrolet	Camaro	\$	25,639	179,000	10,262	17.44
Total Touring		\$	25,362	158,611	10,612	14.96
Toyota	Avalon	\$	30,346	201,000	13,880	14.48
Buick	Lucerne	\$	32,994	177,000	15,041	11.77
Pontiac	Bonneville	\$	28,615	183,000	14,686	12.46
Chrysler	Concorde	\$	26,578	183,000	14,239	12.85
Mercury	Grand Marquis	\$	25,739	207,000	14,429	14.35
Ford	Crown Victoria	\$	23,253	212,000	14,123	15.01
Buick	LeSabre	\$	24,914	183,000	14,711	12.44
Total Traditional Car		\$	27,491	192,286	14,444	13.34
Maybach	Maybach	\$	379,428	257,000	11,155	23.04
Rolls-Royce	Rolls-Royce	\$	329,192	273,000	11,268	24.23
Bentley	Bentley	\$	172,538	271,000	11,094	24.43
Porsche	Carrera GT	\$	461,724	186,000	11,391	16.33
Lamborghini	Lamborghini	\$	201,064	121,000	11,061	10.94
Ferrari	Ferrari	\$	255,229	119,000	11,237	10.59
Ford	GT	\$	136,777	116,000	11,252	10.31
Aston Martin	Aston Martin	\$	241,308	156,000	11,251	13.87
Total Ultra Luxury		\$	272,158	187,375	11,214	16.72
Lexus	GX 470	\$	44,221	177,000	14,127	12.53
Land Rover	Discovery	\$	44,348	203,000	13,805	14.70
Land Rover	LR3	\$	47,365	222,000	13,564	16.37
Infiniti	QX4	\$	42,710	151,000	14,278	10.58
Land Rover	Range Rover Sport	\$	65,409	206,000	13,428	15.34
Lincoln	Aviator	\$	38,893	191,000	14,386	13.28
Mercury	Mountaineer	\$	32,163	171,000	13,919	12.29
Subaru	B9 Tribeca	\$	32,179	147,000	14,111	10.42
GMC	Envoy	\$	35,491	202,000	14,108	14.32
Buick	Rainier	\$	30,606	176,000	13,984	12.59
Saab	9-7X	\$	39,217	143,000	13,234	10.81
Hummer	H3	\$	32,107	207,000	13,543	15.28
Total Upper Mid-Range SUV		\$	40,392	183,000	13,874	13.21
Acura	NSX	\$	91,263	192,000	10,269	18.70
M-Benz	SC 430	\$	64,001	165,000	10,607	15.56
Cadillac	XLR	\$	76,224	164,000	10,209	16.06
Jaguar	XK	\$	78,437	188,000	10,871	17.29

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Porsche	911 Carrera 4	\$	86,472	151,000	11,382	13.27
Porsche	911 Carrera	\$	70,214	164,000	10,505	15.61
M-Benz	SL Coupe/Roadster	\$	165,819	169,000	11,145	15.16
M-Benz	CL class	\$	117,225	188,000	9,618	19.55
BMW	6 Series	\$	68,912	173,000	10,936	15.82
Lotus	Lotus	\$	48,693	121,000	10,518	11.50
Dodge	Viper	\$	84,573	118,000	11,321	10.42
	Total Upper Premium Sportscars	\$	86,530	163,000	10,671	15.36
Industry Straight Average		\$	44,269	193,204	13,423	15.66

One thing is clear. The typical hybrid small vehicle such as the Prius is driven far fewer miles each year than a comparably sized budget car. And for good reason. Like Upper Premium Sports cars, these are generally secondary vehicles in a household OR they are driven in restricted or short range environments such as college campuses or retirement neighborhoods. Clearly both of those are generalizations and there are exceptions, but nonetheless this is a reality of automotive use.

Based on the average mileage and life expectancy, there is a wide range of years that certain models will be on the road before being scrapped. This ranges from a low of 10 years to as much as 20-plus years. As segments, the lowest number of years are Hybrid models as a group (12.1 years) while the highest segment is Premium SUVs such as the Range Rover and Hummer H2 (22.2 years).

There are reasons for this within the context of this study. (Again, we are discussing calendar year 2005 only.)

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First, and foremost, many of the hybrid models – such as the Insight and Prius – are early renditions of the technology that are being or soon will be replaced by more efficient and less complicated versions effectively making the current versions obsolete within a few short years.

Second, early-generation new technology loses maintenance support quicker than old technology and makes repair financially unacceptable. In-home laser printers are a good example of this. It is currently nonsensical to perform significant repairs on a Minolta QMS laser printer since the replacement cost would likely be less than the repair cost.

Nor does it make sense to repair a HP Laser Jet printer for precisely the same reason: One can replace it with a smaller, faster, lighter version for less financial outlay.

Instead, both of these laser printers are relegated to the scrap heap. The energy expended to make these printers doesn't have the benefit of being passed along to a second, third or fourth market down stream where it would be amortized in the grand scheme of energy usage. Instead, the disposal cost becomes higher than the original energy necessary to manufacture either.

The same is true with early hybrids. As we'll see later, repair costs – and thus energy expenditures -- are extremely high for current hybrid models. That in turn will mean a shorter overall life cycle before being sent to the recycling and/or scrap industries.

As the following table shows, based on historic ownership patterns as tracked by CNW, the typical first owner retains a model in the household for an average of 6 years. During this time,

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the car or truck is likely to move from a primary vehicle in that household to secondary or third status; from the head-of-household's vehicle to transportation for some other member.

Regardless of the movement within a household, the vehicle tends to spend only a third of its entire lifetime in the hands of the originally buyer.

Some vehicles have significantly higher first-owner retention while others have less.

This is an important component in the Dust to Dust study because the movement of a vehicle through the marketplace adds to the overall energy costs. Put simply, the longer a vehicle remains in the hands of the first buyer, the less impact it has on global or social energy consumption.

(Note: We've adjusted the "overall average" to reflect pass-along sales to family members who no longer are in the household.)

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Segment	Division	Model	First Owner Share of Ttl Veh Life (Yrs)	Subsequent Owners Shr Ttl Life	First Owner Share as % of Life
b	Kia	Rio	5.49	9.25	37.2%
b	Hyundai	Accent	5.85	8.50	40.8%
b	Chevrolet	Aveo	5.45	5.07	51.8%
b	Toyota	Echo	5.63	6.66	45.8%
		Total Budget Cars	5.60	7.37	43.2%
e	Chevrolet	Cobalt	5.44	10.84	33.4%
e	Toyota	Matrix **	5.47	9.24	37.2%
e	Mazda	Mazda3	5.56	10.46	34.7%
e	Nissan	Sentra	5.96	9.62	38.3%
e	Suzuki	Aerio	5.69	7.21	44.1%
e	Mitsubishi	Lancer	5.86	6.11	48.9%
e	Kia	Spectra	5.62	6.07	48.1%
e	Scion	tC	5.96	5.08	54.0%
e	Suzuki	Forenza	5.59	7.25	43.5%
e	Ford	Focus	5.47	9.52	36.5%
e	Mazda	Protégé	5.76	9.38	38.0%
e	Pontiac	Sunfire	5.87	6.56	47.2%
e	Chevrolet	Cavalier	5.83	5.74	50.4%
e	Scion	xA	5.89	7.97	42.5%
e	Toyota	Corolla	5.91	6.85	46.3%
e	Dodge	Neon	5.68	8.25	40.8%
e	Hyundai	Elantra	5.65	7.39	43.3%
e	Saturn	Ion	5.62	6.53	46.2%
e	Ford	Escort	5.48	9.82	35.8%
e	Scion	xB	5.61	9.52	37.1%
		Total Economy Cars	5.70	7.97	41.7%
elsuv	Nissan	Xterra	5.90	8.57	40.8%
elsuv	Isuzu	Trooper	5.55	9.58	36.7%
elsuv	Mazda	Mazda5	5.87	6.97	45.7%
elsuv	Isuzu	Rodeo	5.94	7.89	42.9%
elsuv	Suzuki	XL-7	5.87	7.40	44.3%
elsuv	Suzuki	Grand Vitara	5.56	6.74	45.2%
elsuv	Kia	Sorento	5.79	6.14	48.5%
elsuv	Chevrolet	Blazer	5.56	9.64	36.6%
elsuv	Suzuki	Vitara	5.83	6.19	48.5%
elsuv	Isuzu	Rodeo Sport	5.98	7.34	44.9%
elsuv	Kia	Sportage	5.65	6.50	46.5%
elsuv	Jeep	Liberty	5.58	10.34	35.1%
elsuv	Chevrolet	Tracker	5.45	7.57	41.9%
elsuv	Jeep	Wrangler	5.75	10.15	36.2%
		Ttl Entry Level SUVs	5.73	7.93	42.0%

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elsw	Mitsubishi	Outlander	6.01	7.54	44.3%
elsw	Hyundai	Tucson	5.84	5.05	53.6%
elsw	Mazda	Tribute	5.93	7.37	44.6%
elsw	Hyundai	Santa Fe	5.57	6.08	47.8%
elsw	Pontiac	Torrent	5.87	6.70	46.7%
elsw	Ford	Escape	5.49	6.07	47.5%
elsw	Mercury	Mariner	5.70	6.39	47.1%
elsw	Toyota	RAV4	5.82	7.60	43.4%
elsw	Saturn	Vue	5.47	7.69	41.6%
elsw	Chevrolet	Equinox	5.52	9.52	36.7%
elsw	Honda	Element	5.61	4.69	54.5%
elsw	Pontiac	Aztek	5.93	8.41	41.4%
elsw	Honda	CR-V	5.68	7.94	41.7%
		Ttl Entry Level Sportwagons	5.73	7.00	45.0%
fspu	Nissan	Titan	5.82	6.05	49.0%
fspu	Toyota	Tundra	5.69	9.16	38.3%
fspu	Dodge	Ram pickup	5.70	11.46	33.2%
fspu	Chevrolet	Silverado	5.95	12.51	32.2%
fspu	GMC	Sierra	5.94	11.81	33.5%
fspu	Ford	F Series	5.45	15.52	26.0%
		Ttl Full Size Pickup	5.76	11.09	34.2%
fsv	GMC	Savana/G Van	5.88	7.05	45.4%
fsv	Ford	Econoline/Club Wagon	5.81	6.99	45.4%
fsv	GMC	Express/G Van	5.48	7.03	43.8%
fsv	Dodge	Sprinter Van	5.82	13.80	29.7%
fsv	Dodge	Ram Van	5.77	5.99	49.1%
fsv	Ford	Econoline van	5.78	8.96	39.2%
		Full Size Van	5.75	8.30	40.9%
hy	Honda	Accord Hybrid	5.53	5.65	49.4%
hy	Toyota	Prius	5.60	6.32	47.0%
hy	Honda	Civic Hybrid	5.45	4.09	57.1%
hy	Ford	Escape Hybrid	5.50	7.05	43.8%
hy	Mercury	Mariner Hybrid	5.74	5.82	49.6%
hy	Honda	Insight	5.77	7.46	43.6%
hy	Lexus	RX 400h	5.73	9.48	37.7%
hy	Toyota	Highlander Hybrid	5.69	5.91	49.0%
		Ttl Hybrids	5.62	6.47	46.5%
l	Volkswagen	Phaeton	5.55	20.25	21.5%
l	Audi	allroad quattro	5.97	14.66	28.9%
l	Audi	A6	5.73	8.99	38.9%
l	Lexus	LS 430	5.71	12.73	31.0%
l	Lexus	GS 430	6.01	9.34	39.1%
l	Infiniti	Q45	5.59	9.77	36.4%
l	Jaguar	S-Type	5.79	8.07	41.8%
l	Infiniti	M45	5.44	5.36	50.4%
l	Lexus	GS 300	5.55	4.76	53.8%

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I	Cadillac	DTS	6.01	8.52	41.4%
I	Cadillac	DeVille	5.49	10.01	35.4%
I	M-Benz	E class	5.84	14.01	29.4%
I	Cadillac	Seville	5.58	6.72	45.4%
I	Volvo	80 series	5.75	10.34	35.7%
I	Cadillac	STS	5.63	12.51	31.0%
I	BMW	5 Series	5.80	10.53	35.5%
I	Acura	RL	5.60	7.44	42.9%
I	Lincoln	Town Car	5.69	12.70	30.9%
I	BMW	M3	5.54	6.54	45.8%
		Total Luxury Car	5.70	10.17	35.9%
Imr	Volkswagen	Golf	5.93	7.66	43.6%
Imr	Volkswagen	Golf GTI	5.71	7.54	43.1%
Imr	Saturn	L series	5.79	9.15	38.8%
Imr	Honda	Civic	5.60	9.83	36.3%
Imr	Chevrolet	HHR	5.58	9.03	38.2%
Imr	Pontiac	G6	5.92	8.86	40.1%
Imr	Chevrolet	Classic	5.86	14.37	29.0%
Imr	Subaru	Impreza	6.00	6.21	49.1%
Imr	Pontiac	Grand Am	5.49	12.46	30.6%
Imr	Ford	Fusion	5.54	10.56	34.4%
Imr	Mercury	Milan	6.01	10.56	36.3%
Imr	Dodge	Stratus	5.81	11.14	34.3%
Imr	Kia	Optima	5.71	9.06	38.7%
Imr	Hyundai	Sonata	5.81	7.66	43.1%
Imr	Suzuki	Verona	5.92	8.33	41.6%
Imr	Volkswagen	Beetle	5.46	9.83	35.7%
Imr	Pontiac	Vibe	5.91	8.06	42.3%
Imr	Chevrolet	Malibu	5.72	8.14	41.3%
Imr	Chrysler	PT Cruiser	5.55	11.89	31.8%
Imr	Chrysler	Sebring	5.80	7.88	42.4%
		Ttl Lower Mid-Range Cars	5.76	9.41	38.0%
Imr suv	Nissan	Pathfinder	5.73	9.09	38.6%
Imr suv	Toyota	4Runner	5.68	9.52	37.4%
Imr suv	Mitsubishi	Montero	5.67	8.80	39.2%
Imr suv	Mitsubishi	Montero Sport	5.48	7.19	43.2%
Imr suv	Isuzu	Axiom	5.99	7.62	44.0%
Imr suv	Land Rover	Freelander	5.57	8.43	39.8%
Imr suv	Isuzu	Ascender	5.84	8.56	40.6%
Imr suv	Jeep	Commander	5.84	12.73	31.5%
Imr suv	Jeep	Grand Cherokee	5.88	13.58	30.2%
Imr suv	Jeep	Grand Cherokee SRT-8	5.71	10.71	34.8%
Imr suv	Dodge	Durango	5.49	11.53	32.3%
Imr suv	Ford	Explorer	6.00	13.10	31.4%
Imr suv	Chevrolet	TrailBlazer	5.89	10.26	36.5%
		Ttl Lower Mid-Range SUV	5.75	10.09	36.3%
Isuv	Toyota	Sequoia	5.51	7.85	41.2%

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lsuv	Nissan	Armada	6.01	5.96	50.2%
lsuv	Ford	Excursion	5.91	12.28	32.5%
lsuv	Chevrolet	Suburban	5.58	13.12	29.8%
lsuv	GMC	Yukon XL	5.90	15.27	27.9%
lsuv	Ford	Expedition	5.59	13.69	29.0%
lsuv	Chevrolet	Tahoe	5.90	12.94	31.3%
lsuv	GMC	Yukon	5.71	12.59	31.2%
		Total Large SUV	5.76	11.71	33.0%
mrs					
mrs	Chrysler	Pacifica	5.98	6.65	47.4%
mrs	Nissan	Murano	5.68	7.45	43.3%
mrs	Toyota	Highlander	5.97	6.20	49.1%
mrs	Ford	Freestyle/Windstar	5.89	10.92	35.0%
mrs	Buick	Rendezvous	5.97	7.28	45.1%
mrs	Honda	Pilot	5.82	4.96	54.0%
mrs	Mitsubishi	Endeavor	5.62	6.27	47.3%
		Total Mid-Range Sportwagons	5.85	7.10	45.2%
mv					
mv	Volkswagen	EuroVan/T4	5.67	7.29	43.7%
mv	Honda	Odyssey	5.87	9.39	38.4%
mv	Pontiac	Montana SV6	5.55	7.73	41.8%
mv	Chrysler	Town & Country	5.52	8.15	40.4%
mv	Buick	Terraza	5.60	8.72	39.1%
mv	Dodge	Caravan/Grand Caravan	5.78	7.48	43.6%
mv	Toyota	Sienna	5.70	7.20	44.2%
mv	Chevrolet	Venture	5.75	8.20	41.2%
mv	Saturn	Relay	5.90	6.67	46.9%
mv	Pontiac	Montana	5.72	8.10	41.4%
mv	Nissan	Quest	5.86	6.48	47.5%
mv	Chevrolet	Uplander	5.75	7.00	45.1%
mv	Ford	Freestar	5.63	7.02	44.5%
mv	Mercury	Monterey	5.56	6.58	45.8%
mv	Kia	Sedona	5.56	5.62	49.7%
mv	Mazda	MPV	5.95	6.48	47.9%
mv	GMC	Safari	5.73	10.11	36.2%
mv	Chevrolet	Astro	5.72	10.61	35.0%
		Total Minivans	5.71	7.71	42.5%
nl					
nl	Volvo	70 series	5.54	9.25	37.4%
nl	Volvo	60 series	5.75	6.24	48.0%
nl	Mercury	Zephyr	5.50	9.13	37.6%
nl	Acura	TL	5.65	7.82	41.9%
nl	Acura	CL	5.87	8.06	42.1%
nl	Lincoln	LS	5.58	6.46	46.4%
nl	Jaguar	X-Type	5.53	8.16	40.4%
nl	Lexus	ES 330	5.71	8.25	40.9%
nl	Lexus	IS 300	5.54	7.57	42.2%
nl	Infiniti	G35	5.45	7.62	41.7%
nl	M-Benz	C class	5.96	7.48	44.4%
nl	Cadillac	CTS	5.90	6.33	48.3%

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nl	BMW	330	5.85	8.33	41.3%
nl	Buick	Park Avenue	5.64	7.77	42.1%
nl	BMW	325	5.75	7.57	43.2%
nl	Saab	9-5	5.55	6.50	46.0%
		Total Near Luxury Cars	5.67	7.66	42.5%
p	Audi	A8	5.61	13.51	29.4%
p	M-Benz	S class	5.93	16.02	27.0%
p	Maserati	Maserati	5.46	8.39	39.4%
p	BMW	7 Series	5.90	11.54	33.8%
p	Jaguar	XJ	5.71	8.18	41.1%
		Total Premium Cars	5.72	11.53	33.2%
pmr	Mercury	Montego	5.54	5.81	48.8%
pmr	Buick	LaCrosse	5.78	6.33	47.7%
pmr	Volkswagen	Passat	5.55	8.75	38.8%
pmr	Dodge	Magnum	5.48	9.46	36.7%
pmr	Ford	Five Hundred	5.66	6.66	46.0%
pmr	Dodge	Charger	5.67	7.52	43.0%
pmr	Nissan	Maxima	5.59	9.46	37.1%
pmr	Chrysler	300/300M	5.81	8.00	42.1%
pmr	Mitsubishi	Diamante	5.95	6.44	48.0%
pmr	Volvo	40 series	5.56	7.30	43.2%
pmr	Infiniti	I30/I35	5.61	9.92	36.1%
pmr	Mazda	Millenia	5.62	4.38	56.2%
pmr	Audi	A4/S4	5.80	6.30	47.9%
pmr	Audi	S4	5.72	7.04	44.8%
pmr	Acura	TSX	5.59	8.03	41.0%
pmr	Saab	9-3	6.00	8.36	41.8%
pmr	Saab	9-2	5.52	7.09	43.8%
pmr	Buick	Regal	5.81	6.62	46.7%
		Total Premium Mid-Range Cars	5.68	7.41	43.4%
ps	M-Benz	SLK class	5.54	7.74	41.7%
ps	M-Benz	CLS class	5.84	16.08	26.6%
ps	M-Benz	CLK class	5.99	10.86	35.5%
ps	Porsche	Boxster	5.51	7.74	41.6%
ps	Chevrolet	Corvette	5.71	8.14	41.2%
ps	Audi	TT	5.74	6.63	46.4%
ps	BMW	Z8	5.95	9.46	38.6%
ps	BMW	Z4	6.01	7.52	44.4%
ps	Ford	Thunderbird	5.50	11.32	32.7%
ps	Chrysler	Crossfire	5.59	5.40	50.9%
		Total Premium Sporty Cars	5.74	9.09	38.7%
psuv	Porsche	Cayenne	5.65	12.49	31.1%
psuv	Volkswagen	Touareg	5.57	13.36	29.4%
psuv	Land Rover	Range Rover	5.82	13.37	30.3%
psuv	M-Benz	G class	5.89	16.94	25.8%
psuv	Hummer	H1	5.64	29.32	16.1%

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psuv	Lexus	LX 470	5.52	13.99	28.3%
psuv	Cadillac	Escalade ESV	5.89	16.93	25.8%
psuv	Toyota	Land Cruiser	5.56	22.55	19.8%
psuv	Hummer	H2	5.67	12.77	30.7%
psuv	Cadillac	Escalade	5.74	17.41	24.8%
psuv	Lincoln	Navigator	5.66	12.34	31.4%
		Total Premium SUV	5.69	16.50	25.6%
psw	Volvo	XC90	5.63	10.19	35.6%
psw	Lexus	RX330	5.82	8.29	41.3%
psw	Infiniti	FX35	5.68	6.78	45.6%
psw	Infiniti	FX45	5.52	8.36	39.8%
psw	M-Benz	R class	6.00	6.54	47.9%
psw	Volvo	50 series	5.55	5.76	49.1%
psw	Acura	MDX	5.71	9.44	37.7%
psw	Cadillac	SRX	5.99	5.50	52.1%
psw	M-Benz	M class	5.94	8.45	41.3%
psw	BMW	X5	5.45	7.15	43.2%
psw	BMW	X3	5.87	6.39	47.9%
		Total Premium Sportwagons	5.74	7.53	43.3%
smr	Honda	Accord	5.65	10.50	35.0%
smr	Volkswagen	Jetta wagon	5.85	3.92	59.9%
smr	Volkswagen	Jetta	5.59	4.48	55.6%
smr	Toyota	Camry	5.66	8.99	38.6%
smr	Subaru	Baja	5.63	5.75	49.5%
smr	Subaru	Legacy	5.85	5.26	52.7%
smr	Subaru	Forester	5.57	6.93	44.5%
smr	Subaru	Outback	5.85	5.74	50.5%
smr	Mazda	Mazda6	5.83	5.89	49.7%
smr	Dodge	Intrepid	5.77	6.97	45.3%
smr	Chevrolet	Monte Carlo	5.50	8.75	38.6%
smr	Mitsubishi	Galant	5.53	5.77	48.9%
smr	Pontiac	Grand Prix	5.44	5.87	48.1%
smr	Buick	Century	5.49	7.79	41.4%
smr	Mercury	Sable	5.53	8.63	39.0%
smr	Ford	Taurus	5.75	8.96	39.1%
smr	Mazda	626	5.83	6.18	48.5%
smr	Nissan	Altima	5.96	4.99	54.4%
smr	Chevrolet	Impala	5.55	7.67	42.0%
smr	Hyundai	XG350	5.75	5.02	53.4%
smr	Kia	Amanti	5.66	6.33	47.2%
		Total Small Rid-Range Cars	5.68	6.69	45.9%
spu	Chevrolet	SSR	5.79	5.50	51.3%
spu	Honda	Ridgeline	5.65	7.26	43.8%
spu	GMC	Canyon	5.89	8.62	40.6%
spu	GMC	Sonoma	5.46	9.99	35.3%
spu	Nissan	Frontier	5.59	7.61	42.3%
spu	Toyota	Tacoma	5.47	7.80	41.2%

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spu	Chevrolet	Colorado	5.92	9.28	39.0%
spu	Mitsubishi	Raider	5.90	8.73	40.3%
spu	Mazda	B-Series	5.67	9.28	37.9%
spu	Dodge	Dakota	5.77	8.63	40.0%
spu	Ford	Ranger	6.01	8.73	40.8%
spu	Chevrolet	S10	5.55	7.84	41.4%
		Total Small Pickup	5.72	8.27	40.9%
sup	Cadillac	Escalade EXT	5.61	12.83	30.4%
sup	Chevrolet	Avalanche	5.47	14.96	26.8%
sup	Lincoln	Mark LT	5.60	10.62	34.5%
		Total Specialty Utility Pickup	5.56	12.81	30.3%
t	Mazda	RX8	5.52	8.38	39.7%
t	Nissan	350Z	5.84	8.70	40.2%
t	Audi	A3	5.65	7.22	43.9%
t	Mitsubishi	Eclipse Spyder	5.55	5.33	51.0%
t	Mitsubishi	Eclipse	5.93	7.60	43.8%
t	Pontiac	GTO	5.45	8.27	39.7%
t	Toyota	Celica	5.90	7.00	45.7%
t	Mini	Mini Cooper S	5.64	9.77	36.6%
t	Acura	RSX	5.83	9.45	38.1%
t	Pontiac	Solstice	5.50	8.98	38.0%
t	Mini	Mini Cooper	5.78	9.68	37.4%
t	Ford	Mustang	5.61	11.67	32.5%
t	Toyota	MR2 Spyder	5.60	9.35	37.5%
t	Mazda	MX-5 Miata	5.53	11.30	32.9%
t	Honda	S2000	5.59	9.14	37.9%
t	Hyundai	Tiburon	5.45	12.65	30.1%
t	Pontiac	Firebird	5.98	11.08	35.1%
t	Chevrolet	Camaro	5.52	11.93	31.6%
		Total Touring	5.66	9.31	37.8%
tr	Toyota	Avalon	5.82	8.66	40.2%
tr	Buick	Lucerne	5.52	6.25	46.9%
tr	Pontiac	Bonneville	5.97	6.49	47.9%
tr	Chrysler	Concorde	5.92	6.94	46.0%
tr	Mercury	Grand Marquis	5.47	8.88	38.1%
tr	Ford	Crown Victoria	5.73	9.28	38.2%
tr	Buick	LeSabre	5.49	6.95	44.2%
		Total Traditional Car	5.70	7.63	42.8%
u	Maybach	Maybach	5.57	17.47	24.2%
u	Rolls-Royce	Rolls-Royce	5.46	18.77	22.5%
ul	Bentley	Bentley	5.96	18.47	24.4%
ul	Porsche	Carrera GT	5.64	10.69	34.5%
ul	Lamborghini	Lamborghini	5.51	5.43	50.4%
ul	Ferrari	Ferrari	5.89	4.70	55.6%
ul	Ford	GT	5.55	4.76	53.9%
ul	Aston Martin	Aston Martin	5.94	7.93	42.8%

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		Total Ultra Luxury	5.69	11.03	34.0%
umr suv	Lexus	GX 470	5.86	6.67	46.7%
umr suv	Land Rover	Discovery	5.47	9.24	37.2%
umr suv	Land Rover	LR3	5.53	10.83	33.8%
umr suv	Infiniti	QX4	5.83	4.74	55.1%
umr suv	Land Rover	Range Rover Sport	5.85	9.49	38.2%
umr suv	Lincoln	Aviator	5.60	7.67	42.2%
umr suv	Mercury	Mountaineer	5.47	6.81	44.5%
umr suv	Subaru	B9 Tribeca	5.97	4.45	57.3%
umr suv	GMC	Envoy	6.01	8.31	41.9%
umr suv	Buick	Rainier	5.49	7.10	43.6%
umr suv	Saab	9-7X	5.92	4.89	54.7%
umr suv	Hummer	H3	5.65	9.64	36.9%
		Total Upper Mid-Range SUV	5.72	7.49	43.3%
ups	Acura	NSX	5.74	12.96	30.7%
ups	M-Benz	SC 430	5.85	9.70	37.6%
ups	Cadillac	XLR	5.93	10.13	36.9%
ups	Jaguar	XK	5.76	11.54	33.3%
ups	Porsche	911 Carrera 4	5.94	7.33	44.7%
ups	Porsche	911 Carrera	5.67	9.94	36.3%
ups	M-Benz	SL Coupe/Roadster	6.00	9.16	39.6%
ups	M-Benz	CL class	5.84	13.71	29.9%
ups	BMW	6 Series	5.76	10.06	36.4%
ups	Lotus	Lotus	5.83	5.67	50.7%
ups	Dodge	Viper	5.74	4.69	55.0%
		Total Upper Premium Sportscars	5.82	9.54	37.9%
		Industry Average Adjusted	6.16	9.50	39.3%

What's interesting about the U.S. market is that consumers tend to keep a vehicle within the household for approximately the same length of time regardless of the original cost of that vehicle or its market segment. All of the segments fall in the 5.0 to 5.9 range.

What varies is how the car or truck is treated within the household fleet. How long it is used as a primary vehicle vs. being relegated to occasional duty for specific purposes.

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Luxury vehicles, for example, continue to be a primary vehicle for much of the first-owner's possession while budget and economy cars are frequently passed down within three years.

To get a handle on that issue and to equate the energy costs over the lifetime of individual models, we looked at historic and cy2005 as well as projections for the expected share of travel devoted to short, medium and long mileage trips.

			1-7 miles	8-30 miles	31+ miles
			Short	Medium	Long
Segment	Division	Model	Trips	Trips	Trips
b	Kia	Rio	51.81%	33.05%	15.14%
b	Hyundai	Accent	53.02%	33.68%	13.30%
b	Chevrolet	Aveo	53.45%	34.03%	12.52%
b	Toyota	Echo	53.81%	31.92%	14.27%
		Total Budget Cars	53.02%	33.17%	13.81%
e	Chevrolet	Cobalt	47.28%	28.56%	24.16%
e	Toyota	Matrix **	45.90%	28.40%	25.70%
e	Mazda	Mazda3	45.76%	29.35%	24.89%
e	Nissan	Sentra	44.52%	27.40%	28.08%
e	Suzuki	Aerio	45.63%	29.97%	24.40%
e	Mitsubishi	Lancer	44.65%	27.83%	27.52%
e	Kia	Spectra	44.07%	30.89%	25.04%
e	Scion	tC	47.20%	30.05%	22.75%
e	Suzuki	Forenza	44.52%	27.64%	27.84%
e	Ford	Focus	43.66%	30.04%	26.30%
e	Mazda	Protégé	47.81%	28.73%	23.46%
e	Pontiac	Sunfire	46.13%	29.78%	24.09%
e	Chevrolet	Cavalier	45.48%	27.85%	26.67%
e	Scion	xA	46.20%	30.86%	22.94%
e	Toyota	Corolla	47.11%	30.41%	22.48%
e	Dodge	Neon	43.64%	29.30%	27.06%
e	Hyundai	Elantra	46.78%	30.54%	22.68%
e	Saturn	Ion	44.73%	30.39%	24.88%
e	Ford	Escort	47.73%	27.42%	24.85%
e	Scion	xB	47.81%	30.31%	21.88%
		Total Economy Cars	45.83%	29.29%	24.88%
elsuv	Nissan	Xterra	51.16%	29.97%	18.87%
elsuv	Isuzu	Trooper	52.96%	31.21%	15.83%
elsuv	Mazda	Mazda5	53.92%	32.37%	13.71%

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elsuv	Isuzu	Rodeo	50.20%	30.50%	19.30%
elsuv	Suzuki	XL-7	50.08%	31.07%	18.85%
elsuv	Suzuki	Grand Vitara	52.05%	33.32%	14.63%
elsuv	Kia	Sorento	50.54%	30.97%	18.49%
elsuv	Chevrolet	Blazer	50.54%	33.94%	15.52%
elsuv	Suzuki	Vitara	49.36%	29.98%	20.66%
elsuv	Isuzu	Rodeo Sport	51.98%	33.68%	14.34%
elsuv	Kia	Sportage	52.14%	34.11%	13.75%
elsuv	Jeep	Liberty	53.33%	34.90%	11.77%
elsuv	Chevrolet	Tracker	52.47%	29.90%	17.63%
elsuv	Jeep	Wrangler	51.01%	31.95%	17.04%
		Ttl Entry Level SUVs	51.55%	31.99%	16.46%
elsw	Mitsubishi	Outlander	46.27%	34.58%	19.15%
elsw	Hyundai	Tucson	48.25%	33.85%	17.90%
elsw	Mazda	Tribute	49.21%	32.14%	18.65%
elsw	Hyundai	Santa Fe	49.19%	31.16%	19.65%
elsw	Pontiac	Torrent	47.26%	30.39%	22.35%
elsw	Ford	Escape	48.11%	31.09%	20.80%
elsw	Mercury	Mariner	45.11%	34.38%	20.51%
elsw	Toyota	RAV4	47.09%	30.46%	22.45%
elsw	Saturn	Vue	46.27%	33.51%	20.22%
elsw	Chevrolet	Equinox	47.91%	32.75%	19.34%
elsw	Honda	Element	49.44%	31.14%	19.42%
elsw	Pontiac	Aztek	48.15%	34.72%	17.13%
elsw	Honda	CR-V	46.57%	33.66%	19.77%
		Ttl Entry Level Sportwagons	47.60%	32.60%	19.80%
fspu	Nissan	Titan	55.30%	26.17%	18.53%
fspu	Toyota	Tundra	53.96%	30.80%	15.24%
fspu	Dodge	Ram pickup	53.88%	26.19%	19.93%
fspu	Chevrolet	Silverado	54.03%	24.39%	21.58%
fspu	GMC	Sierra	54.42%	29.31%	16.27%
fspu	Ford	F Series	54.26%	27.72%	18.02%
		Ttl Full Size Pickup	54.31%	27.43%	18.26%
fsv	GMC	Savana/G Van	62.35%	29.33%	8.32%
fsv	Ford	Econoline/Club Wagon	61.19%	28.29%	10.52%
fsv	GMC	Express/G Van	62.06%	27.51%	10.43%
fsv	Dodge	Sprinter Van	61.74%	29.52%	8.74%
fsv	Dodge	Ram Van	60.11%	27.77%	12.12%
fsv	Ford	Econoline van	61.02%	28.61%	10.37%
		Full Size Van	61.41%	28.51%	10.08%
hy	Honda	Accord Hybrid	59.03%	30.19%	10.78%
hy	Toyota	Prius	63.45%	32.36%	4.19%
hy	Honda	Civic Hybrid	54.19%	27.29%	18.52%
hy	Ford	Escape Hybrid	55.72%	29.41%	14.87%
hy	Mercury	Mariner Hybrid	56.18%	28.62%	15.20%
hy	Honda	Insight	73.46%	21.12%	5.42%

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hy	Lexus	RX 400h	51.36%	26.91%	21.73%
hy	Toyota	Highlander Hybrid	55.37%	28.93%	15.70%
		Ttl Hybrids	58.60%	28.10%	13.30%
I	Volkswagen	Phaeton	34.46%	39.24%	26.30%
I	Audi	allroad quattro	38.74%	32.20%	29.06%
I	Audi	A6	39.72%	29.45%	30.83%
I	Lexus	LS 430	39.69%	31.21%	29.10%
I	Lexus	GS 430	39.34%	31.28%	29.38%
I	Infiniti	Q45	38.07%	30.61%	31.32%
I	Jaguar	S-Type	40.09%	29.96%	29.95%
I	Infiniti	M45	38.69%	29.73%	31.58%
I	Lexus	GS 300	39.02%	32.54%	28.44%
I	Cadillac	DTS	39.31%	31.56%	29.13%
I	Cadillac	DeVille	40.24%	32.40%	27.36%
I	M-Benz	E class	37.38%	31.96%	30.66%
I	Cadillac	Seville	39.27%	32.92%	27.81%
I	Volvo	80 series	37.70%	32.58%	29.72%
I	Cadillac	STS	37.34%	31.18%	31.48%
I	BMW	5 Series	40.20%	31.17%	28.63%
I	Acura	RL	38.68%	31.47%	29.85%
I	Lincoln	Town Car	39.25%	30.45%	30.30%
I	BMW	M3	39.67%	30.05%	30.28%
		Total Luxury Car	38.78%	31.68%	29.54%
lmr	Volkswagen	Golf	43.55%	31.87%	24.58%
lmr	Volkswagen	Golf GTI	44.16%	31.96%	23.88%
lmr	Saturn	L series	43.24%	33.50%	23.26%
lmr	Honda	Civic	45.18%	32.09%	22.73%
lmr	Chevrolet	HHR	40.16%	42.76%	17.08%
lmr	Pontiac	G6	45.11%	31.66%	23.23%
lmr	Chevrolet	Classic	41.91%	33.71%	24.38%
lmr	Subaru	Impreza	44.17%	31.04%	24.79%
lmr	Pontiac	Grand Am	43.27%	34.41%	22.32%
lmr	Ford	Fusion	43.61%	31.97%	24.42%
lmr	Mercury	Milan	43.44%	31.65%	24.91%
lmr	Dodge	Stratus	41.52%	34.31%	24.17%
lmr	Kia	Optima	41.73%	33.97%	24.30%
lmr	Hyundai	Sonata	43.27%	31.03%	25.70%
lmr	Suzuki	Verona	43.02%	30.86%	26.12%
lmr	Volkswagen	Beetle	45.15%	33.20%	21.65%
lmr	Pontiac	Vibe	44.71%	31.20%	24.09%
lmr	Chevrolet	Malibu	44.82%	30.43%	24.75%
lmr	Chrysler	PT Cruiser	43.05%	30.81%	26.14%
lmr	Chrysler	Sebring	44.17%	34.84%	20.99%
		Ttl Lower Mid-Range Cars	43.46%	32.86%	23.67%
lmr suv	Nissan	Pathfinder	34.08%	36.71%	29.21%
lmr suv	Toyota	4Runner	32.23%	35.46%	32.31%
lmr suv	Mitsubishi	Montero	32.05%	36.62%	31.33%

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lmr suv	Mitsubishi	Montero Sport	35.34%	36.44%	28.22%
lmr suv	Isuzu	Axiom	32.22%	38.07%	29.71%
lmr suv	Land Rover	Freelander	33.22%	38.84%	27.94%
lmr suv	Isuzu	Ascender	33.33%	35.56%	31.11%
lmr suv	Jeep	Commander	35.10%	37.08%	27.82%
lmr suv	Jeep	Grand Cherokee	33.18%	36.19%	30.63%
lmr suv	Jeep	Grand Cherokee SRT-8	32.18%	36.42%	31.40%
lmr suv	Dodge	Durango	33.20%	38.62%	28.18%
lmr suv	Ford	Explorer	31.48%	38.54%	29.98%
lmr suv	Chevrolet	TrailBlazer	34.29%	37.23%	28.48%
		Ttl Lower Mid-Range SUV	33.22%	37.06%	29.72%
lsuv	Toyota	Sequoia	35.02%	37.24%	27.74%
lsuv	Nissan	Armada	35.64%	37.62%	26.74%
lsuv	Ford	Excursion	34.36%	36.79%	28.85%
lsuv	Chevrolet	Suburban	37.72%	38.44%	23.84%
lsuv	GMC	Yukon XL	34.35%	39.48%	26.17%
lsuv	Ford	Expedition	35.74%	39.40%	24.86%
lsuv	Chevrolet	Tahoe	38.47%	37.79%	23.74%
lsuv	GMC	Yukon	35.63%	36.76%	27.61%
		Total Large SUV	35.87%	37.94%	26.19%
mrs w	Chrysler	Pacifica	32.10%	37.12%	30.78%
mrs w	Nissan	Murano	33.85%	34.48%	31.67%
mrs w	Toyota	Highlander	34.38%	36.94%	28.68%
mrs w	Ford	Freestyle/Windstar	33.16%	37.15%	29.69%
mrs w	Buick	Rendezvous	33.88%	35.90%	30.22%
mrs w	Honda	Pilot	33.33%	38.26%	28.41%
mrs w	Mitsubishi	Endeavor	31.43%	35.00%	33.57%
		Total Mid-Range Sportwagons	33.16%	36.41%	30.43%
mv	Volkswagen	EuroVan/T4	38.61%	32.85%	28.54%
mv	Honda	Odyssey	37.70%	33.56%	28.74%
mv	Pontiac	Montana SV6	37.80%	35.19%	27.01%
mv	Chrysler	Town & Country	39.33%	35.11%	25.56%
mv	Buick	Terraza	39.59%	33.52%	26.89%
mv	Dodge	Caravan/Grand Caravan	37.47%	34.93%	27.60%
mv	Toyota	Sienna	38.11%	35.25%	26.64%
mv	Chevrolet	Venture	40.20%	33.56%	26.24%
mv	Saturn	Relay	37.65%	35.16%	27.19%
mv	Pontiac	Montana	37.57%	33.92%	28.51%
mv	Nissan	Quest	37.58%	34.84%	27.58%
mv	Chevrolet	Uplander	38.55%	34.22%	27.23%
mv	Ford	Freestar	37.51%	35.65%	26.84%
mv	Mercury	Monterey	40.16%	34.45%	25.39%
mv	Kia	Sedona	37.92%	34.88%	27.20%
mv	Mazda	MPV	38.42%	35.04%	26.54%
mv	GMC	Safari	37.69%	33.82%	28.49%
mv	Chevrolet	Astro	38.32%	32.63%	29.05%
		Total Minivans	38.34%	34.37%	27.29%

Dust to Dust Energy Report -- Automotive

nl	Volvo	70 series	33.23%	35.38%	31.39%
nl	Volvo	60 series	34.08%	33.38%	32.54%
nl	Mercury	Zephyr	35.02%	36.58%	28.40%
nl	Acura	TL	32.86%	34.98%	32.16%
nl	Acura	CL	33.46%	33.47%	33.07%
nl	Lincoln	LS	34.10%	34.53%	31.37%
nl	Jaguar	X-Type	33.41%	33.74%	32.85%
nl	Lexus	ES 330	32.44%	33.77%	33.79%
nl	Lexus	IS 300	35.04%	36.40%	28.56%
nl	Infiniti	G35	35.37%	35.38%	29.25%
nl	M-Benz	C class	34.11%	34.77%	31.12%
nl	Cadillac	CTS	35.47%	33.56%	30.97%
nl	BMW	330	34.93%	35.31%	29.76%
nl	Buick	Park Avenue	32.35%	33.99%	33.66%
nl	BMW	325	32.84%	34.38%	32.78%
nl	Saab	9-5	34.66%	34.19%	31.15%
		Total Near Luxury Cars	33.96%	34.61%	31.43%
p	Audi	A8	30.39%	39.03%	30.58%
p	M-Benz	S class	27.46%	39.34%	33.20%
p	Maserati	Maserati	29.68%	44.68%	25.64%
p	BMW	7 Series	30.47%	39.59%	29.94%
p	Jaguar	XJ	27.25%	38.39%	34.36%
		Total Premium Cars	29.05%	40.21%	30.74%
pmr	Mercury	Montego	28.01%	40.82%	31.17%
pmr	Buick	LaCrosse	26.20%	40.72%	33.08%
pmr	Volkswagen	Passat	25.56%	42.49%	31.95%
pmr	Dodge	Magnum	28.02%	43.95%	28.03%
pmr	Ford	Five Hundred	26.43%	40.35%	33.22%
pmr	Dodge	Charger	24.86%	40.95%	34.19%
pmr	Nissan	Maxima	25.81%	42.28%	31.91%
pmr	Chrysler	300/300M	27.70%	43.16%	29.14%
pmr	Mitsubishi	Diamante	26.28%	43.15%	30.57%
pmr	Volvo	40 series	27.68%	42.73%	29.59%
pmr	Infiniti	I30/I35	24.02%	41.62%	34.36%
pmr	Mazda	Millenia	28.57%	44.02%	27.41%
pmr	Audi	A4/S4	24.99%	42.56%	32.45%
pmr	Audi	S4	26.24%	44.71%	29.05%
pmr	Acura	TSX	26.19%	40.77%	33.04%
pmr	Saab	9-3	23.49%	40.52%	35.99%
pmr	Saab	9-2	24.96%	43.16%	31.88%
pmr	Buick	Regal	27.30%	42.97%	29.73%
		Total Premium Mid-Range Cars	26.24%	42.27%	31.49%
ps	M-Benz	SLK class	38.42%	41.09%	20.49%
ps	M-Benz	CLS class	37.82%	44.68%	17.50%
ps	M-Benz	CLK class	40.92%	43.77%	15.31%
ps	Porsche	Boxster	39.29%	41.99%	18.72%

Dust to Dust Energy Report -- Automotive

ps	Chevrolet	Corvette	37.75%	42.46%	19.79%
ps	Audi	TT	36.68%	42.00%	21.32%
ps	BMW	Z8	38.60%	43.30%	18.10%
ps	BMW	Z4	40.33%	40.86%	18.81%
ps	Ford	Thunderbird	41.15%	44.46%	14.39%
ps	Chrysler	Crossfire	41.30%	43.78%	14.92%
		Total Premium Sporty Cars	39.23%	42.84%	17.94%
psuv	Porsche	Cayenne	34.36%	46.94%	18.70%
psuv	Volkswagen	Touareg	32.44%	47.53%	20.03%
psuv	Land Rover	Range Rover	32.48%	46.30%	21.22%
psuv	M-Benz	G class	35.92%	45.61%	18.47%
psuv	Hummer	H1	32.75%	46.59%	20.66%
psuv	Lexus	LX 470	36.04%	45.76%	18.20%
psuv	Cadillac	Escalade ESV	33.09%	48.60%	18.31%
psuv	Toyota	Land Cruiser	33.59%	49.23%	17.18%
psuv	Hummer	H2	32.47%	46.34%	21.19%
psuv	Cadillac	Escalade	34.88%	46.88%	18.24%
psuv	Lincoln	Navigator	34.19%	49.31%	16.50%
		Total Premium SUV	33.84%	47.19%	18.97%
psw	Volvo	XC90	32.46%	42.32%	25.22%
psw	Lexus	RX330	33.42%	42.96%	23.62%
psw	Infiniti	FX35	30.68%	41.36%	27.96%
psw	Infiniti	FX45	32.61%	43.32%	24.07%
psw	M-Benz	R class	32.47%	44.51%	23.02%
psw	Volvo	50 series	30.62%	44.36%	25.02%
psw	Acura	MDX	33.00%	42.44%	24.56%
psw	Cadillac	SRX	31.53%	42.93%	25.54%
psw	M-Benz	M class	30.50%	43.91%	25.59%
psw	BMW	X5	33.56%	43.95%	22.49%
psw	BMW	X3	31.96%	43.88%	24.16%
		Total Premium Sportwagons	32.07%	43.27%	24.66%
smr	Honda	Accord	37.61%	42.22%	20.17%
smr	Volkswagen	Jetta wagon	37.07%	43.71%	19.22%
smr	Volkswagen	Jetta	35.60%	43.85%	20.55%
smr	Toyota	Camry	34.92%	40.40%	24.68%
smr	Subaru	Baja	37.64%	40.67%	21.69%
smr	Subaru	Legacy	36.56%	43.83%	19.61%
smr	Subaru	Forester	36.84%	42.06%	21.10%
smr	Subaru	Outback	34.67%	41.50%	23.83%
smr	Mazda	Mazda6	34.42%	43.19%	22.39%
smr	Dodge	Intrepid	38.13%	43.12%	18.75%
smr	Chevrolet	Monte Carlo	38.01%	43.42%	18.57%
smr	Mitsubishi	Galant	36.81%	43.35%	19.84%
smr	Pontiac	Grand Prix	36.34%	43.24%	20.42%
smr	Buick	Century	37.65%	42.54%	19.81%
smr	Mercury	Sable	34.89%	43.91%	21.20%
smr	Ford	Taurus	36.46%	41.10%	22.44%

Dust to Dust Energy Report -- Automotive

smr	Mazda	626	36.43%	43.48%	20.09%
smr	Nissan	Altima	37.21%	41.37%	21.42%
smr	Chevrolet	Impala	36.82%	42.73%	20.45%
smr	Hyundai	XG350	35.38%	41.67%	22.95%
smr	Kia	Amanti	34.67%	41.72%	23.61%
		Total Small Rid-Range Cars	36.39%	42.53%	21.09%
spu	Chevrolet	SSR	28.44%	60.09%	11.47%
spu	Honda	Ridgeline	38.50%	42.61%	18.89%
spu	GMC	Canyon	37.34%	42.42%	20.24%
spu	GMC	Sonoma	39.09%	42.27%	18.64%
spu	Nissan	Frontier	41.10%	43.36%	15.54%
spu	Toyota	Tacoma	39.47%	43.89%	16.64%
spu	Chevrolet	Colorado	37.45%	41.73%	20.82%
spu	Mitsubishi	Raider	41.60%	43.49%	14.91%
spu	Mazda	B-Series	40.63%	42.17%	17.20%
spu	Dodge	Dakota	42.10%	42.13%	15.77%
spu	Ford	Ranger	40.92%	42.94%	16.14%
spu	Chevrolet	S10	42.18%	43.92%	13.90%
		Total Small Pickup	39.07%	44.25%	16.68%
sup	Cadillac	Escalade EXT	20.23%	57.45%	22.32%
sup	Chevrolet	Avalanche	19.08%	58.55%	22.37%
sup	Lincoln	Mark LT	20.73%	57.07%	22.20%
		Total Specialty Utility Pickup	20.01%	57.69%	22.30%
t	Mazda	RX8	24.57%	58.81%	16.62%
t	Nissan	350Z	20.74%	60.11%	19.15%
t	Audi	A3	23.53%	59.57%	16.90%
t	Mitsubishi	Eclipse Spyder	24.31%	58.55%	17.14%
t	Mitsubishi	Eclipse	21.27%	57.96%	20.77%
t	Pontiac	GTO	20.43%	58.60%	20.97%
t	Toyota	Celica	24.15%	57.73%	18.12%
t	Mini	Mini Cooper S	22.53%	61.59%	15.88%
t	Acura	RSX	22.13%	60.21%	17.66%
t	Pontiac	Solstice	21.27%	61.74%	16.99%
t	Mini	Mini Cooper	21.18%	59.55%	19.27%
t	Ford	Mustang	24.18%	62.58%	13.24%
t	Toyota	MR2 Spyder	23.53%	57.94%	18.53%
t	Mazda	MX-5 Miata	22.23%	58.03%	19.74%
t	Honda	S2000	23.45%	62.77%	13.78%
t	Hyundai	Tiburon	21.77%	60.83%	17.40%
t	Pontiac	Firebird	20.73%	60.36%	18.91%
t	Chevrolet	Camaro	20.34%	59.74%	19.92%
		Total Touring	22.35%	59.82%	17.83%
tr	Toyota	Avalon	32.29%	52.88%	14.83%
tr	Buick	Lucerne	31.54%	50.77%	17.69%
tr	Pontiac	Bonneville	31.67%	51.84%	16.49%
tr	Chrysler	Concorde	34.14%	52.77%	13.09%

Dust to Dust Energy Report -- Automotive

tr	Mercury	Grand Marquis	33.68%	52.57%	13.75%
tr	Ford	Crown Victoria	33.75%	48.88%	17.37%
tr	Buick	LeSabre	32.59%	50.34%	17.07%
		Total Traditional Car	32.81%	51.44%	15.76%
u	Maybach	Maybach	14.58%	68.64%	16.78%
u	Rolls-Royce	Rolls-Royce	13.81%	71.01%	15.18%
ul	Bentley	Bentley	12.73%	68.98%	18.29%
ul	Porsche	Carrera GT	15.46%	70.99%	13.55%
ul	Lamborghini	Lamborghini	15.47%	70.63%	13.90%
ul	Ferrari	Ferrari	14.02%	73.88%	12.10%
ul	Ford	GT	11.20%	69.24%	19.56%
ul	Aston Martin	Aston Martin	10.83%	67.62%	21.55%
		Total Ultra Luxury	13.51%	70.12%	16.36%
umr suv	Lexus	GX 470	22.86%	51.56%	25.58%
umr suv	Land Rover	Discovery	21.62%	48.61%	29.77%
umr suv	Land Rover	LR3	23.44%	51.64%	24.92%
umr suv	Infiniti	QX4	24.84%	49.77%	25.39%
umr suv	Land Rover	Range Rover Sport	20.32%	53.10%	26.58%
umr suv	Lincoln	Aviator	22.49%	53.47%	24.04%
umr suv	Mercury	Mountaineer	23.49%	52.45%	24.06%
umr suv	Subaru	B9 Tribeca	23.77%	53.58%	22.65%
umr suv	GMC	Envoy	25.09%	48.82%	26.09%
umr suv	Buick	Rainier	22.13%	51.65%	26.22%
umr suv	Saab	9-7X	21.57%	49.22%	29.21%
umr suv	Hummer	H3	20.54%	51.32%	28.14%
		Total Upper Mid-Range SUV	22.68%	51.27%	26.05%
ups	Acura	NSX	14.47%	82.62%	2.91%
ups	M-Benz	SC 430	15.47%	82.69%	1.84%
ups	Cadillac	XLR	10.68%	83.44%	5.88%
ups	Jaguar	XK	12.75%	78.18%	9.07%
ups	Porsche	911 Carrera 4	13.38%	82.45%	4.17%
ups	Porsche	911 Carrera	12.76%	81.68%	5.56%
ups	M-Benz	SL Coupe/Roadster	10.95%	82.64%	6.41%
ups	M-Benz	CL class	11.14%	83.31%	5.55%
ups	BMW	6 Series	13.17%	81.97%	4.86%
ups	Lotus	Lotus	13.02%	77.95%	9.03%
ups	Dodge	Viper	14.34%	82.96%	2.70%
		Total Upper Premium Sportscars	12.92%	81.81%	5.27%
Industry Straight Average			39.32%	44.27%	24.22%

Dust to Dust Energy Report -- Automotive

In general, the vast majority of travel on an industry-wide basis is for trips of fewer than 30 miles with those from one to seven miles representing nearly 40 percent. As we'll see, this plays into the energy story over time because fuel economy deteriorates as a vehicle ages and the necessary support industries – tire repair/replacement, as an example – flourish.

We should step back for a second and look at those attributes considered important by new-vehicle shoppers. All of the current conversation is on fuel economy, but is that really as important to consumers as the headlines might suggest?

Each month, CNW measures the vehicle attributes considered “extremely” or “very” important to those folks who are planning to make a car or truck purchase within six months. We've only included three years and the first quarter of 2006, but the trend is clear.

Fuel economy was significantly less of a concern in 1995 and 2000 than it became in 2005 and the first quarter of 2006. A decade ago, barely a quarter of new-vehicle shoppers said gas mileage was important in their purchase decision. In the first quarter of this year, it represented a significant vehicle attribute for better than 60 percent of new-car shoppers.

Dust to Dust Energy Report -- Automotive

Attributes	cy1995	cy2000	cy2005	Q1 '06	% Change cy 05 v 04	% Chng Q1 06 vs cy05
	Average	Average	Average	Average		
Overall exterior styling	88.4%	88.1%	92.7%	93.2%	1.3%	0.53%
Overall Quality	90.4%	90.4%	92.5%	93.0%	-1.2%	0.63%
Visibility	95.5%	95.2%	92.2%	92.5%	-0.6%	0.27%
Overall status the vehicle projects	74.5%	79.3%	89.4%	91.2%	8.7%	2.09%
Low monthly payments	85.2%	81.6%	91.7%	90.4%	1.6%	-1.38%
Low price compared to competition	78.9%	74.3%	89.5%	88.8%	8.0%	-0.76%
Manufacturer's reputation	81.1%	88.6%	87.5%	87.3%	-5.7%	-0.17%
Ergonomics (driver)	83.7%	86.1%	85.2%	86.3%	-1.2%	1.35%
Passenger protection	68.8%	75.2%	82.7%	83.7%	3.2%	1.19%
Air bags -- front	77.9%	81.9%	81.2%	81.4%	1.0%	0.17%
Seating capacity	86.5%	87.3%	80.2%	81.3%	-3.8%	1.33%
Low sticker price or MSRP	79.5%	73.4%	81.1%	80.5%	10.0%	-0.72%
Sound system	54.9%	52.4%	72.3%	74.6%	15.7%	3.24%
Interior conveniences (e.g. cupholders)	58.8%	63.5%	71.4%	72.6%	4.0%	1.57%
Ergonomics (passenger)	63.9%	73.4%	68.2%	68.3%	-6.3%	0.19%
Low APR	43.1%	47.0%	67.2%	67.4%	-8.4%	0.22%
Overall comfort and convenience	36.4%	39.6%	63.9%	64.2%	13.7%	0.45%
Overall fuel economy	27.2%	22.2%	61.3%	63.9%	60.4%	4.31%
Simplicity of or usefulness of controls	55.6%	56.1%	58.3%	59.9%	2.8%	2.73%
Cupholders	32.4%	50.2%	57.6%	58.3%	2.3%	1.20%
Overall interior appearance	36.9%	46.9%	56.5%	57.3%	1.9%	1.41%
Overall safety	37.3%	42.9%	55.8%	56.2%	4.2%	0.72%
Luggage capacity	55.4%	56.1%	57.5%	55.9%	-3.8%	-2.82%
Anti-lock brakes	NA	56.1%	56.3%	54.2%	-1.9%	-3.73%
Low downpayment	37.1%	34.8%	50.1%	51.5%	0.1%	2.67%
Handling and Performance	41.9%	41.5%	47.6%	49.6%	14.4%	4.14%
Cast alloy or special wheels	22.2%	28.1%	46.8%	48.2%	21.9%	2.97%
Engine design	35.5%	35.8%	46.4%	47.6%	27.9%	2.54%
Extended warranty	36.3%	34.8%	44.4%	44.3%	7.3%	-0.29%
Air bags -- side	NA	NA	41.3%	43.9%	25.4%	6.42%
Tilt steering wheel	29.4%	39.4%	41.1%	41.1%	2.2%	0.17%
Power seats	26.4%	32.1%	39.6%	40.6%	10.5%	2.58%
Higher Horsepower	42.5%	37.6%	35.8%	37.4%	-6.4%	4.56%
Sport or handling suspension	23.4%	25.3%	34.3%	35.3%	19.4%	2.92%
Rural reception of audio (radio)	25.1%	23.7%	32.2%	34.2%	25.4%	6.17%
Disc Brakes	35.5%	38.0%	34.1%	34.1%	4.4%	-0.06%
Remote outside mirror	26.8%	36.4%	31.7%	31.7%	3.8%	0.06%
Child-seat attachments	NA	23.6%	29.9%	30.5%	12.3%	2.14%
enviornmental design/engineering	2.2%	7.2%	24.5%	26.4%	60.9%	7.73%
Low cargo-loading height	30.9%	29.4%	25.2%	25.3%	-0.6%	0.20%
Leather seating	30.7%	14.8%	22.8%	24.7%	17.1%	8.01%
Entertainment Center	NA	9.6%	22.3%	24.4%	30.2%	9.52%
Clear coat exterior paint	21.2%	30.7%	24.1%	24.0%	-3.1%	-0.50%
Four or all-wheel-drive	16.2%	23.6%	23.7%	23.9%	-6.4%	0.84%
Adjustable pedals	NA	10.6%	24.7%	23.8%	11.0%	-3.41%

Dust to Dust Energy Report -- Automotive

Remote door locks	18.3%	18.6%	21.5%	21.9%	14.8%	2.10%
Sunroof/moonroof	8.2%	12.1%	21.1%	21.4%	12.3%	1.14%
Roadside Assistance insurance	10.2%	14.4%	18.2%	18.4%	8.1%	1.43%
Stain-resistant seating surfaces	14.1%	12.8%	14.7%	14.7%	5.6%	0.20%
Chrome exterior trim/accents	14.4%	15.9%	11.9%	13.8%	-4.7%	15.95%
Trailer towing capabilities	10.4%	10.8%	11.9%	11.7%	1.4%	-1.18%
Cellular phone / On Star or Similar**	18.7%	10.7%	8.3%	10.4%	97.4%	24.97%
Hybrid gas-electric powerplant	NA	NA	7.6%	8.7%	77.4%	13.50%
Spoiler	6.8%	6.4%	4.9%	4.3%	-14.7%	-12.14%
Wood or woodlike trim (interior)	14.7%	8.0%	5.1%	4.2%	-8.8%	-17.22%
Body cladding	16.1%	9.5%	1.9%	1.6%	-51.5%	-17.99%

Simultaneously, having more horsepower is less important today than in 1995.

But more power is hardly insignificant with a higher percentage of shoppers saying it is more critical than entertainment centers or “environmental design or engineering.”

The point is this: Because vehicles are now part of a household fleet rather than a family’s all-purpose and sole transportation, specific models can have specific purposes requiring specific content. A commuter car doesn’t necessarily have to lug the family’s pontoon boat to the lake because there is a new or used SUV or pickup in the garage to perform that duty.

Dust to Dust Energy Report -- Automotive

CHAPTER THREE – The Fuel Economy Component

Much of the focus of energy usage, dependence on fossil fuels and emissions revolves around discussions of fuel economy. And while this is not the largest component in the overall “Dust to Dust” analysis, it deserves central mention simply **because it is the most visible area to the public.**

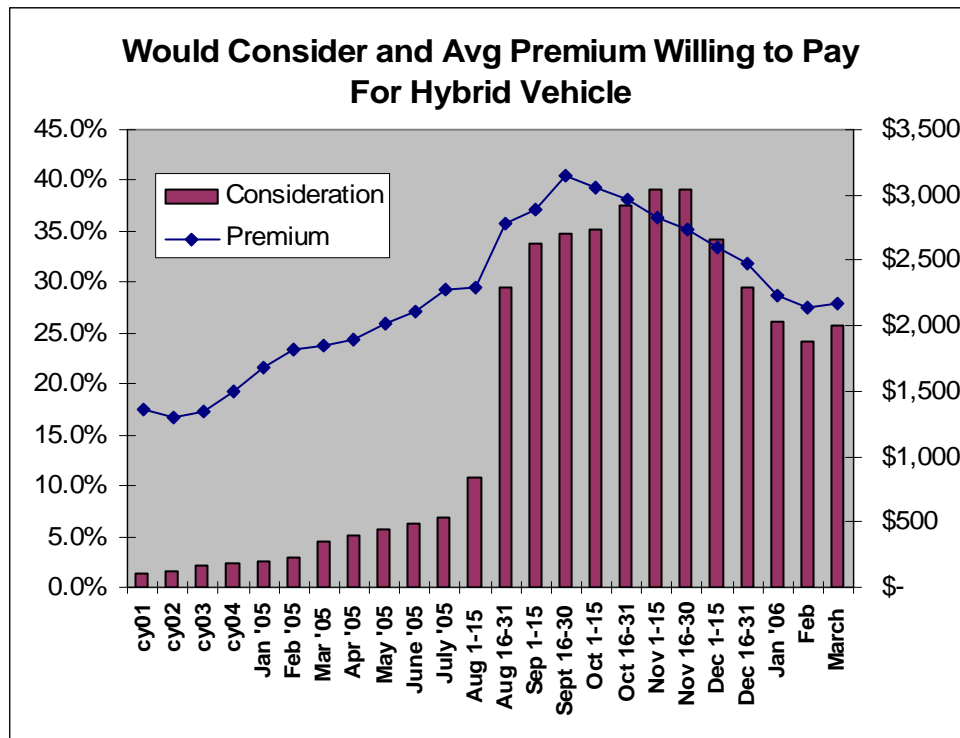
When the attributes table is looked at in terms of First Quarter '06 vs. '05 growth, both fuel economy and higher horsepower have increased about the same – 4.5-plus percent.

The demand for higher fuel economy has actually shrunk in that comparison having grown more than 60 percent in cy05 vs. cy04 while seeing a smaller 4.3 percent increase in the first quarter of '06 compared to cy05.

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Horsepower, on the other hand, has increased from a negative 4 percent to an increase of 6+ percent in the same respective time frames.

Let's add another layer to this and look at what consumers say they are willing to spend for a hybrid model, since that type of vehicle is currently most associated with both environmental and oil discussions.



We asked new-vehicle intenders if they were considering a hybrid among their shopping list of possible automotive acquisitions. (CNW has the largest new-vehicle and used-vehicle intender data bases in the country.)

While consideration of a hybrid reached 40 percent in the Fall of 2005, it steadily declined through February of 2006 and rose only when new hybrid models were introduced (such as the

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Highlander, Lexus RXh and others). Note that the April and May figures show a flattening of the consideration with the premium folks are willing to pay shrinking. (To view this Power Point analysis, go to www.PurchasePathOnline.com and click on the Power Point tab and the "Hybrid" sub-tab. If you do not have access to this site, request a guest pass at mailroom@cnwmr.com.)

So if consideration is so high, why are Honda Accord Hybrid sales struggling and Ford Escape Hybrids finding a better audience among police and taxi companies than among consumers?

The average American new-car buyer is only willing to spend so much for the environmental, oil and fuel economy positives of hybrids.

When asked about the premium they would be willing to spend for a hybrid over a comparable non-hybrid model, the peak in 2005 was about \$3,500. That quickly evaporated and by March had fallen to \$2,000. This is after receiving any government incentives.

One last item on hybrids and family fleets that should enter the discussion: How are different vehicles in a household used?

As mentioned, most hybrids are used for short trips. At least those that provide the highest fuel economy. But the family fleet is a flexible animal.

For example, the fuel economy within the family fleet of vehicles varies only slightly when a hybrid is added to the mix.

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As an example, we looked at more than 6,500 households that had a mix of vehicles used regularly and measured the average mileage for each of those vehicles, the real-world fuel economy (not EPA figures) for each vehicle and calculated the entire family fleets miles per gallon.

Family Fleet Fuel Economy Based on All Vehicles in Family

	% Primary Vehicle in HH	% Secondary Vehicle in HH	No. Vehicles in HH	Family Fleet Actual MPG* Avg. (Combined Hwy- City)
Toyota Prius	16.3%	83.7%	3.2	29.6
Ford Escape Hybrid	28.9%	71.1%	3.6	27.2
Honda Accord Hybrid	49.6%	50.4%	2.7	28.1
Dodge Ram Hemi	38.2%	61.8%	3.1	27.6
Ford Explorer	55.2%	44.8%	3.4	29.1
Chevrolet Suburban	27.4%	72.6%	3.1	26.9
VW Jetta	83.1%	16.9%	2.6	28.3
BMW 3 Series	61.2%	38.8%	3.5	25.2
Ford Crown Victoria	52.3%	47.7%	3.1	28.8

*Actual indicates respondent reported MPG actually received, not EPA numbers

Source: CNW Marketing Research, Inc.

Note in the data above we found that the percentage of Prius's used as the household's primary vehicle was about 16 percent compared to a Ford Explorer's 55 percent. Prius owners also tended to have slightly more vehicles in the household than most of the other households measured.

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When we measured miles drive for each vehicle and actual mpg for each, we found that the household with a Prius among the fleet had an overall 29.6 mpg.

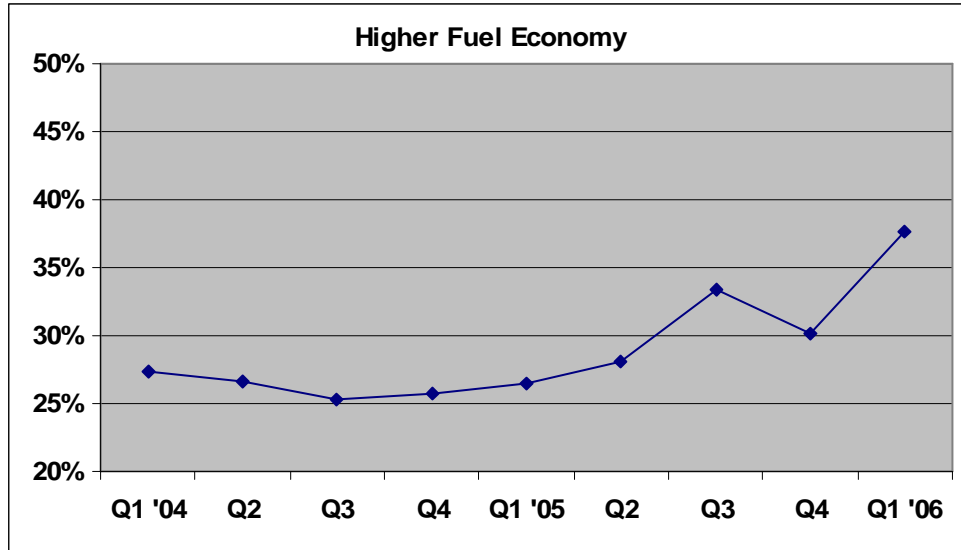
At the other extreme, the family that had a high-horsepower Dodge Ram Hemi pickup truck had a family fleet mpg of 27.6. It can be argued that even the two-miles-per-gallon difference is significant because every little bit of fuel economy reduces reliance on fossil fuels. At least in the hypothetical sense, that is true, but not quite so when all energy demands are taken into account such as previously discussed life expectancies and disposal.

Additionally, if consumer found it necessary to have only one or two vehicles in the household, that car or truck would have to meet the extreme use rather than the lightest use. That is, if the choice is between a small car *and* a small SUV and one of the requirements is to tow a boat, the consumer is highly likely to select the SUV.

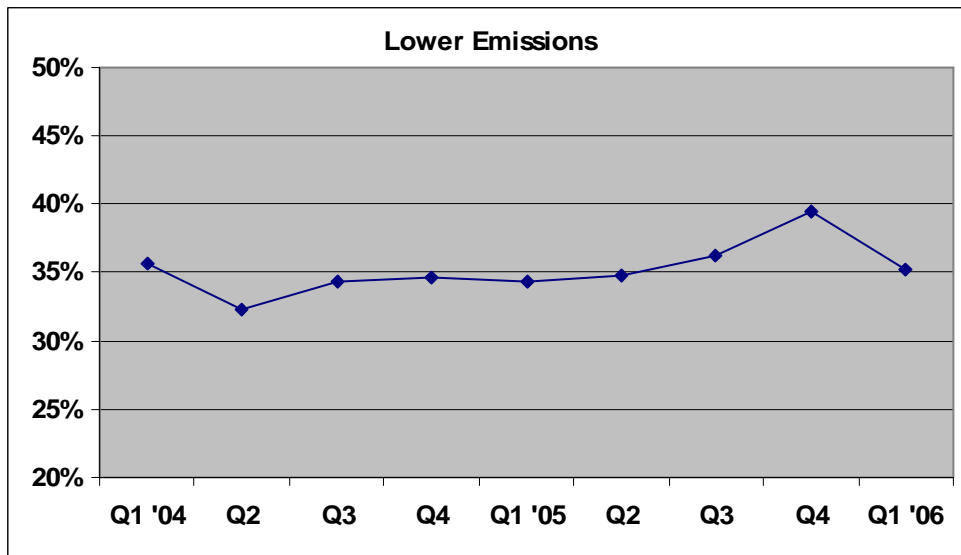
CNW tracks quarterly the reasons hybrid (and other segment types) owners give for having selected a particular model. What is the KEY motivator for buying a hybrid?

While fuel economy would be the primary “guess,” the reality is something quite different. Since the third quarter of 2005, this reason has been growing and is now listed as the primary or secondary reason for about 37 percent of buyers. (We ask owners to identify the two most important so the total adds to 200 percent.)

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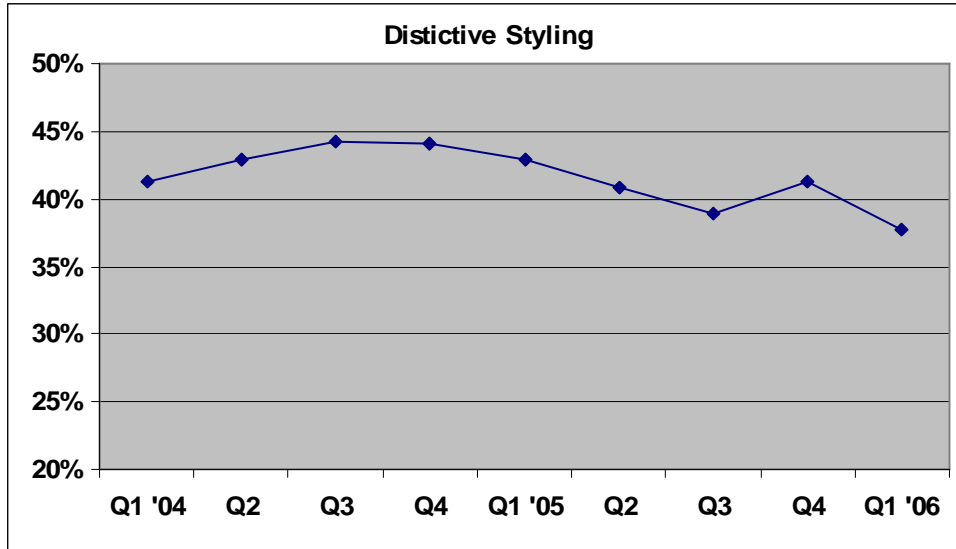
“Lower emissions” and pollution concerns ranked higher until the most current quarter when it dipped below fuel economy.



But a strong reason for selecting a hybrid is the “distinctive styling” or styling cues it projects or has. Insight buyers and Prius owners list this as a highly critical reason for making the particular

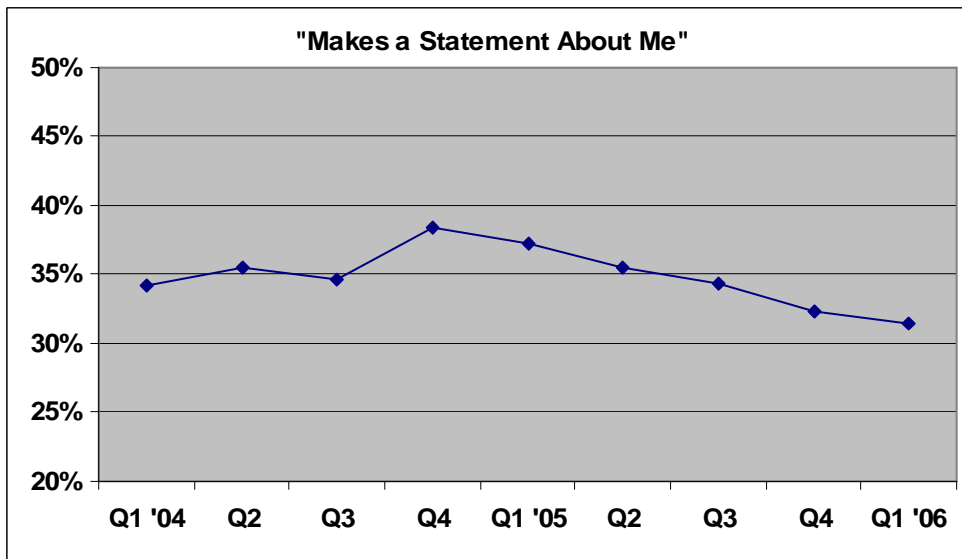
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selection. This also a likely reason the Ford Escape and Honda hybrids seem to be languishing. It simply can't be identified easily as a hybrid and for the premium paid it lacks instant recognition.



If that sounds somewhat cynical, consider the following graph.

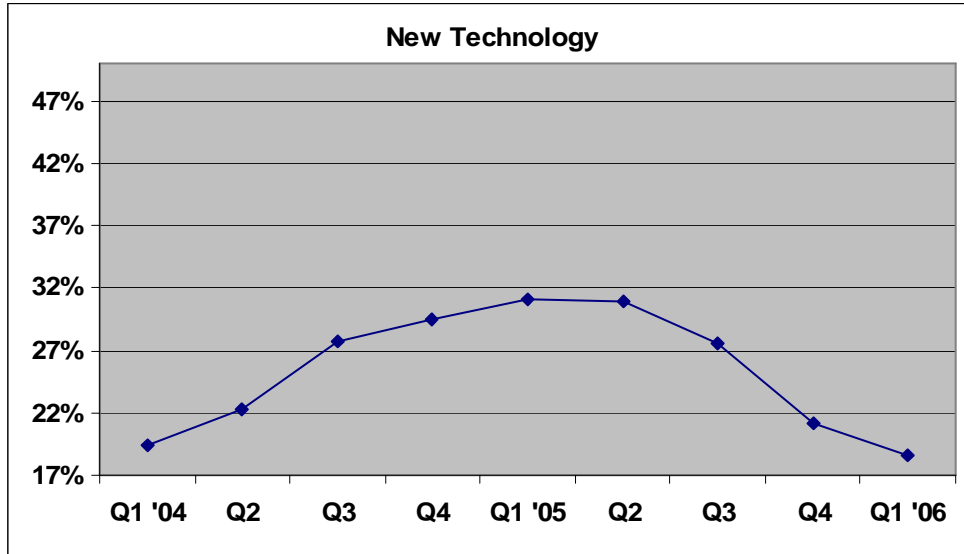
Among the choices given to hybrid owners was "Makes a statement about me."



Fully a third of owners give this as their first or second reason for making a hybrid acquisition.

And without the styling cues, the statement is less than clear at first glance.

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Not surprising, there is a significant part of the population that loves technology and especially advancements in same. They bought Beta instead of VHS, Macs instead of Windows PCs and hover around the Samsung web site waiting for the latest invention to come to market.

But the techies market is limited and quickly runs out of steam so it isn't surprising that among the latest owners of hybrids, new technology is fading as a key motivator.

One last point about hybrids: The vast majority of owners received 60 to 70 percent of the EPA fuel economy and dealers report a high incidence of customers coming back to find out "what's wrong."

Clearly the EPA static drive cycle test is not realistic when evaluating hybrids. While that may change in the future, it clearly is the case currently.

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On a model-by-model basis, the next pages show the real-world fuel economies reported by more than half a million owners with the top and bottom 2 percent removed as either unrealistically high or uncharacteristically low.

Clearly every vehicle suffers a deterioration of fuel efficiency as parts age and replacement components are from aftermarket suppliers rather than “factory spec.” Engines become less efficient in general as internal parts wear. This has always been the case and there was no reason to doubt it would be the likelihood in the future.

From a technical standpoint, CNW looked at the historic fuel economies within categories and adjusted for real-world and current technologies, fuel types and blends and non-fossil fuel additives which generally produce lower mpgs.

Based on California standards and future anticipated requirements, we also evaluated the current engine technology’s response to those future fuels. Again, we found that it was likely to result in declining mpg over and above age deterioration.

We have rounded the first five years’ average fuel economy (FE) to the nearest tenth for computational reasons.

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			FE	FE	FE
			Yrs 1-5	Yrs 6-10	Yrs 10-Plus
Segment	Division	Model			
b	Kia	Rio	31.40	27.92	24.00
b	Hyundai	Accent	31.20	27.70	23.97
b	Chevrolet	Aveo	32.70	28.92	24.88
b	Toyota	Echo	34.80	32.10	27.06
		Total Budget Cars	32.53	29.16	24.98
e	Chevrolet	Cobalt	29.20	26.90	21.79
e	Toyota	Matrix **	29.30	25.95	21.83
e	Mazda	Mazda3	28.20	25.83	21.29
e	Nissan	Sentra	27.60	24.43	21.12
e	Suzuki	Aerio	28.70	25.65	22.39
e	Mitsubishi	Lancer	25.60	23.51	19.22
e	Kia	Spectra	28.80	26.48	21.63
e	Scion	tC	25.10	22.45	19.44
e	Suzuki	Forenza	25.50	23.17	19.38
e	Ford	Focus	28.30	25.37	21.02
e	Mazda	Protégé	27.20	24.33	21.02
e	Pontiac	Sunfire	29.20	26.85	22.00
e	Chevrolet	Cavalier	29.70	26.83	23.17
e	Scion	xA	34.70	30.80	27.10
e	Toyota	Corolla	33.60	30.92	25.49
e	Dodge	Neon	28.20	25.04	21.94
e	Hyundai	Elantra	29.10	26.36	22.61
e	Saturn	Ion	30.20	27.77	22.60
e	Ford	Escort	29.40	26.57	21.91
e	Scion	xB	32.10	28.49	24.55
		Total Economy Cars	28.99	26.18	22.08
elsuv	Nissan	Xterra	16.50	15.15	12.36
elsuv	Isuzu	Trooper	19.90	18.17	14.88
elsuv	Mazda	Mazda5	23.60	21.44	17.92
elsuv	Isuzu	Rodeo	18.70	16.78	13.99
elsuv	Suzuki	XL-7	18.10	16.39	13.64
elsuv	Suzuki	Grand Vitara	18.80	17.28	14.70
elsuv	Kia	Sorento	17.90	16.51	13.60
elsuv	Chevrolet	Blazer	16.40	15.14	12.77
elsuv	Suzuki	Vitara	18.90	17.23	14.52
elsuv	Isuzu	Rodeo Sport	18.60	16.93	13.85
elsuv	Kia	Sportage	20.70	18.74	15.61
elsuv	Jeep	Liberty	22.30	20.55	17.27
elsuv	Chevrolet	Tracker	21.80	19.93	16.20
elsuv	Jeep	Wrangler	16.80	15.02	13.09
		Ttl Entry Level SUVs	19.21	17.52	14.60

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elsw	Mitsubishi	Outlander	21.90	19.72	16.94
elsw	Hyundai	Tucson	21.10	19.27	16.45
elsw	Mazda	Tribute	21.60	19.27	16.79
elsw	Hyundai	Santa Fe	18.30	16.74	13.96
elsw	Pontiac	Torrent	19.60	17.44	15.18
elsw	Ford	Escape	21.10	19.46	16.32
elsw	Mercury	Mariner	21.80	19.84	16.20
elsw	Toyota	RAV4	22.30	19.84	16.82
elsw	Saturn	Vue	23.60	21.69	18.27
elsw	Chevrolet	Equinox	22.20	19.77	17.18
elsw	Honda	Element	23.40	21.25	17.53
elsw	Pontiac	Aztek	20.50	18.38	15.22
elsw	Honda	CR-V	23.40	21.46	18.28
		Ttl Entry Level Sportwagons	21.60	19.55	16.55

fspu	Nissan	Titan	14.60	13.18	10.92
fspu	Toyota	Tundra	15.40	14.21	11.99
fspu	Dodge	Ram pickup	17.10	15.34	13.11
fspu	Chevrolet	Silverado	16.70	15.17	12.47
fspu	GMC	Sierra	16.50	15.03	12.49
fspu	Ford	F Series	13.60	12.58	10.56
		Ttl Full Size Pickup	15.65	14.25	11.93

fsv	GMC	Savana/G Van	14.10	12.66	10.62
fsv	Ford	Econoline/Club Wagon	13.70	12.47	10.32
fsv	GMC	Express/G Van	15.20	13.60	11.52
fsv	Dodge	Sprinter Van	16.50	14.78	12.88
fsv	Dodge	Ram Van	13.60	12.13	10.23
fsv	Ford	Econoline van	14.20	12.98	10.95
		Full Size Van	14.55	13.10	11.09

hy	Honda	Accord Hybrid	30.80	27.88	23.70
hy	Toyota	Prius	45.20	40.45	34.71
hy	Honda	Civic Hybrid	44.10	40.11	34.02
hy	Ford	Escape Hybrid	32.70	29.03	24.84
hy	Mercury	Mariner Hybrid	30.90	28.10	23.45
hy	Honda	Insight	52.30	47.03	40.73
hy	Lexus	RX 400h	27.10	23.92	20.62
hy	Toyota	Highlander Hybrid	28.20	25.85	21.12
		Ttl Hybrids	36.41	32.80	27.90

l	Volkswagen	Phaeton	12.70	11.51	9.80
l	Audi	allroad quattro	16.70	15.18	12.85
l	Audi	A6	19.40	17.22	14.63
l	Lexus	LS 430	19.80	17.75	14.97
l	Lexus	GS 430	18.90	17.41	14.12
l	Infiniti	Q45	18.30	16.83	13.86
l	Jaguar	S-Type	18.40	16.34	13.64
l	Infiniti	M45	18.60	16.67	14.25
l	Lexus	GS 300	18.60	16.59	14.15

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I	Cadillac	DTS	19.70	18.01	14.91
I	Cadillac	DeVille	18.40	16.95	13.73
I	M-Benz	E class	17.10	15.42	12.85
I	Cadillac	Seville	14.70	13.39	11.49
I	Volvo	80 series	18.20	16.15	14.06
I	Cadillac	STS	19.80	18.13	15.14
I	BMW	5 Series	21.10	18.83	16.46
I	Acura	RL	20.20	17.89	15.45
I	Lincoln	Town Car	17.20	15.24	12.91
I	BMW	M3	17.60	15.65	13.72
		Total Luxury Car	18.18	16.38	13.84
lmr	Volkswagen	Golf	41.00	37.50	31.92
lmr	Volkswagen	Golf GTI	22.30	20.28	16.93
lmr	Saturn	L series	23.20	21.15	18.01
lmr	Honda	Civic	26.60	23.59	19.90
lmr	Chevrolet	HHR	22.70	20.14	17.07
lmr	Pontiac	G6	26.10	23.11	19.47
lmr	Chevrolet	Classic	28.40	25.94	21.31
lmr	Subaru	Impreza	21.60	19.77	16.14
lmr	Pontiac	Grand Am	23.10	20.56	17.66
lmr	Ford	Fusion	26.30	24.14	20.05
lmr	Mercury	Milan	25.90	23.72	19.95
lmr	Dodge	Stratus	25.70	23.25	19.83
lmr	Kia	Optima	28.60	26.38	22.06
lmr	Hyundai	Sonata	26.90	24.57	20.71
lmr	Suzuki	Verona	24.30	21.87	18.43
lmr	Volkswagen	Beetle	25.80	23.45	19.98
lmr	Pontiac	Vibe	30.60	28.27	22.73
lmr	Chevrolet	Malibu	27.50	25.41	21.26
lmr	Chrysler	PT Cruiser	23.10	20.88	17.65
lmr	Chrysler	Sebring	24.40	22.05	18.40
		Ttl Lower Mid-Range Cars	26.21	23.80	19.97
lmr suv	Nissan	Pathfinder	17.10	15.32	13.04
lmr suv	Toyota	4Runner	17.90	16.36	13.34
lmr suv	Mitsubishi	Montero	15.80	13.98	12.26
lmr suv	Mitsubishi	Montero Sport	16.20	14.80	12.40
lmr suv	Isuzu	Axiom	18.20	16.40	13.53
lmr suv	Land Rover	Freelander	18.70	17.03	14.31
lmr suv	Isuzu	Ascender	16.10	14.57	12.51
lmr suv	Jeep	Commander	17.20	15.18	12.80
lmr suv	Jeep	Grand Cherokee	16.30	14.58	12.10
lmr suv	Jeep	Grand Cherokee SRT-8	12.90	11.68	10.06
lmr suv	Dodge	Durango	15.80	14.62	12.03
lmr suv	Ford	Explorer	16.10	14.87	12.06
lmr suv	Chevrolet	TrailBlazer	17.60	15.90	13.49
		Ttl Lower Mid-Range SUV	16.61	15.02	12.61
lsuv	Toyota	Sequoia	14.90	13.64	11.11

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lsuv	Nissan	Armada	13.10	11.63	9.89
lsuv	Ford	Excursion	13.20	11.92	10.19
lsuv	Chevrolet	Suburban	16.20	14.48	12.21
lsuv	GMC	Yukon XL	15.80	14.20	11.94
lsuv	Ford	Expedition	14.30	12.97	11.16
lsuv	Chevrolet	Tahoe	17.80	15.80	13.22
lsuv	GMC	Yukon	17.60	15.62	13.30
		Total Large SUV	15.36	13.78	11.63
mrs	Chrysler	Pacifica	20.30	18.39	15.44
mrs	Nissan	Murano	23.50	21.35	17.54
mrs	Toyota	Highlander	23.30	21.04	18.18
mrs	Ford	Freestyle/Windstar	19.40	17.15	15.01
mrs	Buick	Rendezvous	24.70	22.45	19.25
mrs	Honda	Pilot	20.20	17.85	15.79
mrs	Mitsubishi	Endeavor	22.60	20.10	17.59
		Total Mid-Range Sportwagons	22.00	19.76	16.97
mv	Volkswagen	EuroVan/T4	19.70	18.22	15.27
mv	Honda	Odyssey	21.40	19.06	16.33
mv	Pontiac	Montana SV6	19.10	17.69	14.75
mv	Chrysler	Town & Country	22.30	19.70	17.12
mv	Buick	Terraza	18.80	17.28	14.14
mv	Dodge	Caravan/Grand Caravan	21.80	20.02	16.25
mv	Toyota	Sienna	24.30	21.98	18.42
mv	Chevrolet	Venture	17.60	16.05	13.21
mv	Saturn	Relay	20.90	18.62	16.25
mv	Pontiac	Montana	23.20	21.19	17.29
mv	Nissan	Quest	24.30	21.80	18.65
mv	Chevrolet	Uplander	18.10	16.30	13.93
mv	Ford	Freestar	19.40	17.14	15.09
mv	Mercury	Monterey	20.20	17.83	15.71
mv	Kia	Sedona	17.60	15.96	13.23
mv	Mazda	MPV	20.80	19.15	15.98
mv	GMC	Safari	18.80	16.87	14.41
mv	Chevrolet	Astro	17.60	15.57	13.53
		Total Minivans	20.33	18.36	15.53
nl	Volvo	70 series	18.10	16.37	13.64
nl	Volvo	60 series	17.90	16.57	13.66
nl	Mercury	Zephyr	22.50	20.72	17.18
nl	Acura	TL	25.60	22.86	19.10
nl	Acura	CL	25.90	23.44	19.25
nl	Lincoln	LS	22.30	20.01	16.67
nl	Jaguar	X-Type	22.50	20.24	17.05
nl	Lexus	ES 330	22.10	19.89	16.84
nl	Lexus	IS 300	24.60	22.28	19.06
nl	Infiniti	G35	24.30	21.63	18.79
nl	M-Benz	C class	22.90	20.97	17.51
nl	Cadillac	CTS	23.40	20.68	17.78

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nl	BMW	330	22.20	20.04	16.58
nl	Buick	Park Avenue	22.90	20.25	17.26
nl	BMW	325	21.30	19.44	16.18
nl	Saab	9-5	23.20	20.59	17.68
		Total Near Luxury Cars	22.61	20.37	17.14
p	Audi	A8	18.50	16.90	14.32
p	M-Benz	S class	16.30	14.46	12.38
p	Maserati	Maserati	12.20	11.25	9.36
p	BMW	7 Series	21.70	19.18	16.70
p	Jaguar	XJ	23.90	21.39	17.77
		Total Premium Cars	18.52	16.64	14.11
pmr	Mercury	Montego	22.20	19.74	17.11
pmr	Buick	LaCrosse	24.30	21.78	18.43
pmr	Volkswagen	Passat	26.60	24.39	20.15
pmr	Dodge	Magnum	22.40	20.59	17.24
pmr	Ford	Five Hundred	22.10	19.69	17.28
pmr	Dodge	Charger	23.60	21.81	17.86
pmr	Nissan	Maxima	26.40	23.44	19.67
pmr	Chrysler	300/300M	19.90	17.71	15.26
pmr	Mitsubishi	Diamante	23.40	20.66	17.54
pmr	Volvo	40 series	25.30	23.24	19.30
pmr	Infiniti	I30/I35	25.70	23.50	19.79
pmr	Mazda	Millenia	24.10	22.18	18.25
pmr	Audi	A4/S4	18.30	16.40	13.78
pmr	Audi	S4	18.60	17.04	14.33
pmr	Acura	TSX	27.60	24.39	21.40
pmr	Saab	9-3	24.40	21.53	18.84
pmr	Saab	9-2	22.20	20.47	16.69
pmr	Buick	Regal	23.70	21.39	17.72
		Total Premium Mid-Range Cars	23.38	21.11	17.81
ps	M-Benz	SLK class	20.30	18.11	15.11
ps	M-Benz	CLS class	22.20	20.46	16.81
ps	M-Benz	CLK class	19.10	17.21	14.32
ps	Porsche	Boxster	21.10	18.97	16.10
ps	Chevrolet	Corvette	22.60	20.57	17.54
ps	Audi	TT	25.90	23.96	19.66
ps	BMW	Z8	19.60	18.01	14.88
ps	BMW	Z4	26.70	24.41	20.28
ps	Ford	Thunderbird	20.30	18.62	15.86
ps	Chrysler	Crossfire	19.60	17.77	14.59
		Total Premium Sporty Cars	21.74	19.81	16.51
psuv	Porsche	Cayenne	16.20	14.61	12.66
psuv	Volkswagen	Touareg	17.80	16.17	13.79
psuv	Land Rover	Range Rover	13.70	12.57	10.46
psuv	M-Benz	G class	12.50	11.32	9.39
psuv	Hummer	H1	13.60	12.29	10.22

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psuv	Lexus	LX 470	14.20	12.89	10.61
psuv	Cadillac	Escalade ESV	17.10	15.68	13.33
psuv	Toyota	Land Cruiser	14.30	12.88	10.76
psuv	Hummer	H2	16.90	14.91	12.92
psuv	Cadillac	Escalade	17.60	16.04	13.61
psuv	Lincoln	Navigator	14.30	12.64	10.89
		Total Premium SUV	15.29	13.82	11.69
psw	Volvo	XC90	20.80	18.42	16.07
psw	Lexus	RX330	21.80	19.72	16.66
psw	Infiniti	FX35	17.30	15.45	13.32
psw	Infiniti	FX45	15.20	13.89	11.77
psw	M-Benz	R class	17.40	15.55	13.11
psw	Volvo	50 series	25.60	23.56	19.32
psw	Acura	MDX	21.10	19.25	16.04
psw	Cadillac	SRX	18.40	16.79	14.13
psw	M-Benz	M class	15.50	13.84	11.77
psw	BMW	X5	17.60	15.92	13.59
psw	BMW	X3	20.60	18.40	15.76
		Total Premium Sportwagons	19.21	17.34	14.69
smr	Honda	Accord	25.40	22.80	19.28
smr	Volkswagen	Jetta wagon	24.30	21.90	18.95
smr	Volkswagen	Jetta	28.70	26.40	21.35
smr	Toyota	Camry	28.20	25.08	21.10
smr	Subaru	Baja	23.10	21.38	17.61
smr	Subaru	Legacy	26.60	23.55	20.30
smr	Subaru	Forester	22.10	19.55	16.96
smr	Subaru	Outback	23.70	20.97	17.69
smr	Mazda	Mazda6	27.60	25.04	21.13
smr	Dodge	Intrepid	19.90	17.60	15.08
smr	Chevrolet	Monte Carlo	23.40	21.00	18.10
smr	Mitsubishi	Galant	25.60	23.44	19.18
smr	Pontiac	Grand Prix	23.60	21.17	17.63
smr	Buick	Century	24.10	22.07	18.56
smr	Mercury	Sable	24.20	21.92	18.82
smr	Ford	Taurus	23.20	21.35	17.42
smr	Mazda	626	21.40	19.39	16.55
smr	Nissan	Altima	26.20	23.36	20.11
smr	Chevrolet	Impala	23.40	21.47	17.74
smr	Hyundai	XG350	25.20	22.29	18.75
smr	Kia	Amanti	21.60	19.50	16.51
		Total Small Rid-Range Cars	24.36	21.96	18.52
spu	Chevrolet	SSR	14.10	12.59	10.48
spu	Honda	Ridgeline	16.80	14.88	12.80
spu	GMC	Canyon	19.80	17.73	14.97
spu	GMC	Sonoma	19.40	17.19	15.14
spu	Nissan	Frontier	18.30	16.64	13.86
spu	Toyota	Tacoma	23.40	21.04	17.74

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spu	Chevrolet	Colorado	18.70	16.94	14.04
spu	Mitsubishi	Raider	17.30	15.82	13.45
spu	Mazda	B-Series	15.20	13.49	11.55
spu	Dodge	Dakota	17.80	15.88	13.89
spu	Ford	Ranger	19.40	17.70	14.60
spu	Chevrolet	S10	22.80	20.70	17.21
		Total Small Pickup	18.58	16.72	14.14
sup	Cadillac	Escalade EXT	14.60	12.98	11.09
sup	Chevrolet	Avalanche	13.10	11.84	9.97
sup	Lincoln	Mark LT	14.80	13.12	11.51
		Total Specialty Utility Pickup	14.17	12.64	10.86
t	Mazda	RX8	19.90	18.14	15.21
t	Nissan	350Z	23.80	21.01	18.33
t	Audi	A3	27.20	24.12	20.50
t	Mitsubishi	Eclipse Spyder	24.50	22.66	18.94
t	Mitsubishi	Eclipse	24.80	22.67	18.59
t	Pontiac	GTO	18.70	17.25	14.54
t	Toyota	Celica	28.80	25.64	22.08
t	Mini	Mini Cooper S	27.10	24.27	20.18
t	Acura	RSX	28.20	25.20	21.42
t	Pontiac	Solstice	24.60	21.83	19.05
t	Mini	Mini Cooper	30.30	27.37	23.20
t	Ford	Mustang	22.50	20.36	16.70
t	Toyota	MR2 Spyder	27.40	24.26	21.17
t	Mazda	MX-5 Miata	23.80	21.77	17.65
t	Honda	S2000	20.60	18.61	15.59
t	Hyundai	Tiburon	25.30	22.78	19.68
t	Pontiac	Firebird	19.20	17.61	14.35
t	Chevrolet	Camaro	18.70	17.05	13.87
		Total Touring	24.19	21.81	18.39
tr	Toyota	Avalon	26.50	23.66	20.62
tr	Buick	Lucerne	24.80	22.18	18.71
tr	Pontiac	Bonneville	19.10	17.43	14.54
tr	Chrysler	Concorde	20.40	18.15	15.87
tr	Mercury	Grand Marquis	24.30	22.16	18.74
tr	Ford	Crown Victoria	23.10	21.09	17.34
tr	Buick	LeSabre	23.20	20.85	17.89
		Total Traditional Car	23.06	20.79	17.67
u	Maybach	Maybach	11.30	10.43	8.73
u	Rolls-Royce	Rolls-Royce	11.80	10.93	8.82
ul	Bentley	Bentley	12.60	11.19	9.72
ul	Porsche	Carrera GT	11.20	10.05	8.46
ul	Lamborghini	Lamborghini	10.10	8.98	7.79
ul	Ferrari	Ferrari	9.80	8.88	7.54
ul	Ford	GT	14.20	12.82	10.69
ul	Aston Martin	Aston Martin	14.10	12.77	10.67

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		Total Ultra Luxury	11.89	10.76	9.05
umr suv	Lexus	GX 470	16.30	15.09	12.63
umr suv	Land Rover	Discovery	16.70	15.22	12.52
umr suv	Land Rover	LR3	14.80	13.38	11.43
umr suv	Infiniti	QX4	16.10	14.44	12.33
umr suv	Land Rover	Range Rover Sport	15.70	14.24	11.97
umr suv	Lincoln	Aviator	14.10	12.57	10.64
umr suv	Mercury	Mountaineer	15.60	14.40	12.16
umr suv	Subaru	B9 Tribeca	18.20	16.23	13.67
umr suv	GMC	Envoy	16.40	14.70	12.20
umr suv	Buick	Rainier	20.40	18.58	15.17
umr suv	Saab	9-7X	17.80	16.02	13.69
umr suv	Hummer	H3	18.10	16.08	13.86
		Total Upper Mid-Range SUV	16.68	15.08	12.69
ups	Acura	NSX	18.20	16.58	13.56
ups	M-Benz	SC 430	20.10	18.10	14.91
ups	Cadillac	XLR	18.40	16.40	14.12
ups	Jaguar	XK	18.70	16.65	14.30
ups	Porsche	911 Carrera 4	14.60	13.51	11.17
ups	Porsche	911 Carrera	12.20	11.19	9.41
ups	M-Benz	SL Coupe/Roadster	15.30	13.79	11.49
ups	M-Benz	CL class	22.50	20.74	17.38
ups	BMW	6 Series	17.90	16.52	13.57
ups	Lotus	Lotus	24.20	22.16	17.99
ups	Dodge	Viper	13.70	12.15	10.19
		Total Upper Premium Sportscars	17.80	16.16	13.46
		Industry Straight Average	22.93	20.72	17.48

Interestingly, the variance between models and segments is small when looked at in a share of original fuel economy deterioration over the life of a vehicle. That is, the normal fuel economy loss for years 10-plus vs. original fuel economy is in the 76 to 79 percent range regardless of engine technology or fuel management sophistication. This applies to hybrids as well.

Mechanics and physics are at work here, not simple extrapolations. For example, the same deterioration pattern was seen with V8 diesel engines tracked by CNW in the '80s and gasoline four-cylinder engines between 1985 and 1995. Both were tracked as part of a project to

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determine the life-cycle fuel economy of various engine types for an internal project related to warranty work expectations.

		FE % of New	FE % of New
		Yrs 6-10	Yrs 10-Plus
Division	Model		
Kia	Rio	88.92%	76.43%
Hyundai	Accent	88.78%	76.84%
Chevrolet	Aveo	88.45%	76.08%
Toyota	Echo	92.23%	77.75%
	Total Budget Cars	89.60%	76.78%
Chevrolet	Cobalt	92.11%	74.63%
Toyota	Matrix **	88.57%	74.50%
Mazda	Mazda3	91.61%	75.51%
Nissan	Sentra	88.53%	76.53%
Suzuki	Aerio	89.38%	78.01%
Mitsubishi	Lancer	91.82%	75.06%
Kia	Spectra	91.93%	75.10%
Scion	tC	89.46%	77.47%
Suzuki	Forenza	90.87%	76.01%
Ford	Focus	89.66%	74.28%
Mazda	Protégé	89.44%	77.29%
Pontiac	Sunfire	91.95%	75.34%
Chevrolet	Cavalier	90.32%	78.00%
Scion	xA	88.76%	78.10%
Toyota	Corolla	92.02%	75.87%
Dodge	Neon	88.81%	77.80%
Hyundai	Elantra	90.57%	77.71%
Saturn	Ion	91.97%	74.83%
Ford	Escort	90.37%	74.52%
Scion	xB	88.74%	76.47%
	Total Economy Cars	90.34%	76.15%
Nissan	Xterra	91.81%	74.92%
Isuzu	Trooper	91.30%	74.77%
Mazda	Mazda5	90.83%	75.95%
Isuzu	Rodeo	89.72%	74.80%
Suzuki	XL-7	90.56%	75.37%
Suzuki	Grand Vitara	91.89%	78.17%
Kia	Sorento	92.23%	76.00%
Chevrolet	Blazer	92.31%	77.85%
Suzuki	Vitara	91.15%	76.85%
Isuzu	Rodeo Sport	91.00%	74.45%
Kia	Sportage	90.54%	75.43%
Jeep	Liberty	92.16%	77.46%

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Chevrolet	Tracker	91.40%	74.30%
Jeep	Wrangler	89.38%	77.89%
	Ttl Entry Level SUVs	91.16%	76.02%
Mitsubishi	Outlander	90.06%	77.34%
Hyundai	Tucson	91.35%	77.96%
Mazda	Tribute	89.20%	77.74%
Hyundai	Santa Fe	91.49%	76.27%
Pontiac	Torrent	89.00%	77.45%
Ford	Escape	92.24%	77.34%
Mercury	Mariner	90.99%	74.29%
Toyota	RAV4	88.97%	75.44%
Saturn	Vue	91.89%	77.43%
Chevrolet	Equinox	89.06%	77.38%
Honda	Element	90.80%	74.90%
Pontiac	Aztek	89.67%	74.25%
Honda	CR-V	91.69%	78.13%
	Ttl Entry Level Sportwagons	90.49%	76.61%
Nissan	Titan	90.27%	74.82%
Toyota	Tundra	92.28%	77.88%
Dodge	Ram pickup	89.69%	76.67%
Chevrolet	Silverado	90.85%	74.70%
GMC	Sierra	91.09%	75.72%
Ford	F Series	92.50%	77.64%
	Ttl Full Size Pickup	91.11%	76.24%
GMC	Savana/G Van	89.79%	75.32%
Ford	Econoline/Club Wagon	91.00%	75.32%
GMC	Express/G Van	89.45%	75.80%
Dodge	Sprinter Van	89.58%	78.05%
Dodge	Ram Van	89.19%	75.23%
Ford	Econoline van	91.41%	77.13%
	Full Size Van	90.07%	76.14%
Honda	Accord Hybrid	90.53%	76.96%
Toyota	Prius	89.49%	76.80%
Honda	Civic Hybrid	90.95%	77.15%
Ford	Escape Hybrid	88.77%	75.97%
Mercury	Mariner Hybrid	90.95%	75.88%
Honda	Insight	89.92%	77.87%
Lexus	RX 400h	88.26%	76.08%
Toyota	Highlander Hybrid	91.68%	74.88%
	Ttl Hybrids	90.07%	76.45%
Volkswagen	Phaeton	90.60%	77.17%
Audi	allroad quattro	90.90%	76.93%
Audi	A6	88.74%	75.41%
Lexus	LS 430	89.66%	75.62%
Lexus	GS 430	92.09%	74.69%

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Infiniti	Q45	91.95%	75.76%
Jaguar	S-Type	88.80%	74.15%
Infiniti	M45	89.64%	76.61%
Lexus	GS 300	89.18%	76.06%
Cadillac	DTS	91.44%	75.68%
Cadillac	DeVille	92.10%	74.61%
M-Benz	E class	90.20%	75.12%
Cadillac	Seville	91.10%	78.15%
Volvo	80 series	88.73%	77.23%
Cadillac	STS	91.55%	76.47%
BMW	5 Series	89.25%	78.02%
Acura	RL	88.55%	76.48%
Lincoln	Town Car	88.58%	75.06%
BMW	M3	88.92%	77.94%
	Total Luxury Car	90.10%	76.17%
Volkswagen	Golf	91.46%	77.86%
Volkswagen	Golf GTI	90.95%	75.90%
Saturn	L series	91.17%	77.61%
Honda	Civic	88.69%	74.82%
Chevrolet	HHR	88.74%	75.19%
Pontiac	G6	88.55%	74.59%
Chevrolet	Classic	91.35%	75.05%
Subaru	Impreza	91.53%	74.71%
Pontiac	Grand Am	89.00%	76.45%
Ford	Fusion	91.78%	76.24%
Mercury	Milan	91.57%	77.01%
Dodge	Stratus	90.48%	77.17%
Kia	Optima	92.24%	77.13%
Hyundai	Sonata	91.32%	77.00%
Suzuki	Verona	90.02%	75.84%
Volkswagen	Beetle	90.89%	77.46%
Pontiac	Vibe	92.39%	74.29%
Chevrolet	Malibu	92.39%	77.32%
Chrysler	PT Cruiser	90.40%	76.41%
Chrysler	Sebring	90.38%	75.39%
	Ttl Lower Mid-Range Cars	90.77%	76.17%
Nissan	Pathfinder	89.57%	76.27%
Toyota	4Runner	91.41%	74.53%
Mitsubishi	Montero	88.46%	77.61%
Mitsubishi	Montero Sport	91.37%	76.56%
Isuzu	Axiom	90.11%	74.34%
Land Rover	Freelander	91.09%	76.55%
Isuzu	Ascender	90.51%	77.69%
Jeep	Commander	88.26%	74.40%
Jeep	Grand Cherokee	89.43%	74.22%
Jeep	Grand Cherokee SRT-8	90.56%	77.99%
Dodge	Durango	92.52%	76.12%
Ford	Explorer	92.37%	74.91%

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Chevrolet	TrailBlazer	90.35%	76.66%
	Ttl Lower Mid-Range SUV	90.46%	75.99%
Toyota	Sequoia	91.54%	74.55%
Nissan	Armada	88.81%	75.51%
Ford	Excursion	90.31%	77.22%
Chevrolet	Suburban	89.38%	75.37%
GMC	Yukon XL	89.89%	75.60%
Ford	Expedition	90.68%	78.03%
Chevrolet	Tahoe	88.75%	74.27%
GMC	Yukon	88.75%	75.57%
	Total Large SUV	89.76%	75.77%
Chrysler	Pacifica	90.57%	76.08%
Nissan	Murano	90.87%	74.62%
Toyota	Highlander	90.32%	78.03%
Ford	Freestyle/Windstar	88.42%	77.38%
Buick	Rendezvous	90.88%	77.93%
Honda	Pilot	88.36%	78.15%
Mitsubishi	Endeavor	88.95%	77.85%
	Total Mid-Range Sportwagons	89.77%	77.15%
Volkswagen	EuroVan/T4	92.48%	77.53%
Honda	Odyssey	89.08%	76.32%
Pontiac	Montana SV6	92.60%	77.20%
Chrysler	Town & Country	88.36%	76.78%
Buick	Terraza	91.93%	75.21%
Dodge	Caravan/Grand Caravan	91.85%	74.52%
Toyota	Sienna	90.44%	75.80%
Chevrolet	Venture	91.20%	75.07%
Saturn	Relay	89.10%	77.73%
Pontiac	Montana	91.33%	74.51%
Nissan	Quest	89.72%	76.75%
Chevrolet	Uplander	90.03%	76.94%
Ford	Freestar	88.33%	77.80%
Mercury	Monterey	88.26%	77.77%
Kia	Sedona	90.69%	75.17%
Mazda	MPV	92.09%	76.82%
GMC	Safari	89.74%	76.65%
Chevrolet	Astro	88.49%	76.87%
	Total Minivans	90.32%	76.41%
Volvo	70 series	90.46%	75.34%
Volvo	60 series	92.59%	76.33%
Mercury	Zephyr	92.07%	76.37%
Acura	TL	89.31%	74.62%
Acura	CL	90.51%	74.33%
Lincoln	LS	89.74%	74.77%
Jaguar	X-Type	89.96%	75.76%
Lexus	ES 330	89.99%	76.20%

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Lexus	IS 300	90.56%	77.49%
Infiniti	G35	89.03%	77.32%
M-Benz	C class	91.57%	76.48%
Cadillac	CTS	88.38%	76.00%
BMW	330	90.29%	74.68%
Buick	Park Avenue	88.43%	75.38%
BMW	325	91.25%	75.98%
Saab	9-5	88.74%	76.21%
	Total Near Luxury Cars	90.18%	75.83%
Audi	A8	91.37%	77.39%
M-Benz	S class	88.71%	75.98%
Maserati	Maserati	92.22%	76.70%
BMW	7 Series	88.38%	76.96%
Jaguar	XJ	89.50%	74.35%
	Total Premium Cars	90.04%	76.28%
Mercury	Montego	88.93%	77.08%
Buick	LaCrosse	89.62%	75.83%
Volkswagen	Passat	91.70%	75.74%
Dodge	Magnum	91.93%	76.96%
Ford	Five Hundred	89.10%	78.17%
Dodge	Charger	92.41%	75.69%
Nissan	Maxima	88.79%	74.49%
Chrysler	300/300M	88.98%	76.69%
Mitsubishi	Diamante	88.30%	74.95%
Volvo	40 series	91.84%	76.27%
Infiniti	I30/I35	91.43%	77.00%
Mazda	Millenia	92.05%	75.72%
Audi	A4/S4	89.63%	75.32%
Audi	S4	91.60%	77.02%
Acura	TSX	88.37%	77.53%
Saab	9-3	88.22%	77.21%
Saab	9-2	92.22%	75.19%
Buick	Regal	90.27%	74.78%
	Total Premium Mid-Range Cars	90.30%	76.20%
M-Benz	SLK class	89.23%	74.42%
M-Benz	CLS class	92.15%	75.73%
M-Benz	CLK class	90.10%	74.95%
Porsche	Boxster	89.89%	76.30%
Chevrolet	Corvette	91.00%	77.60%
Audi	TT	92.50%	75.91%
BMW	Z8	91.90%	75.94%
BMW	Z4	91.44%	75.94%
Ford	Thunderbird	91.73%	78.11%
Chrysler	Crossfire	90.65%	74.42%
	Total Premium Sporty Cars	91.06%	75.93%
Porsche	Cayenne	90.19%	78.12%

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Volkswagen	Touareg	90.82%	77.49%
Land Rover	Range Rover	91.76%	76.34%
M-Benz	G class	90.53%	75.13%
Hummer	H1	90.36%	75.13%
Lexus	LX 470	90.79%	74.74%
Cadillac	Escalade ESV	91.72%	77.95%
Toyota	Land Cruiser	90.04%	75.23%
Hummer	H2	88.23%	76.47%
Cadillac	Escalade	91.15%	77.33%
Lincoln	Navigator	88.37%	76.18%
	Total Premium SUV	90.36%	76.37%
Volvo	XC90	88.56%	77.25%
Lexus	RX330	90.46%	76.40%
Infiniti	FX35	89.30%	77.00%
Infiniti	FX45	91.38%	77.42%
M-Benz	R class	89.34%	75.37%
Volvo	50 series	92.02%	75.48%
Acura	MDX	91.24%	76.01%
Cadillac	SRX	91.25%	76.78%
M-Benz	M class	89.26%	75.96%
BMW	X5	90.45%	77.21%
BMW	X3	89.33%	76.51%
	Total Premium Sportwagons	90.24%	76.49%
Honda	Accord	89.75%	75.91%
Volkswagen	Jetta wagon	90.14%	77.97%
Volkswagen	Jetta	91.97%	74.38%
Toyota	Camry	88.95%	74.84%
Subaru	Baja	92.55%	76.25%
Subaru	Legacy	88.55%	76.32%
Subaru	Forester	88.46%	76.73%
Subaru	Outback	88.50%	74.66%
Mazda	Mazda6	90.71%	76.57%
Dodge	Intrepid	88.43%	75.79%
Chevrolet	Monte Carlo	89.73%	77.36%
Mitsubishi	Galant	91.56%	74.94%
Pontiac	Grand Prix	89.70%	74.69%
Buick	Century	91.58%	77.03%
Mercury	Sable	90.59%	77.75%
Ford	Taurus	92.04%	75.09%
Mazda	626	90.63%	77.32%
Nissan	Altima	89.15%	76.75%
Chevrolet	Impala	91.75%	75.82%
Hyundai	XG350	88.46%	74.41%
Kia	Amanti	90.30%	76.45%
	Total Small Rid-Range Cars	90.17%	76.05%
Chevrolet	SSR	89.31%	74.35%
Honda	Ridgeline	88.60%	76.18%

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GMC	Canyon	89.53%	75.62%
GMC	Sonoma	88.63%	78.05%
Nissan	Frontier	90.94%	75.72%
Toyota	Tacoma	89.93%	75.83%
Chevrolet	Colorado	90.59%	75.09%
Mitsubishi	Raider	91.46%	77.77%
Mazda	B-Series	88.73%	75.98%
Dodge	Dakota	89.20%	78.04%
Ford	Ranger	91.22%	75.24%
Chevrolet	S10	90.78%	75.47%
	Total Small Pickup	89.91%	76.11%
Cadillac	Escalade EXT	88.87%	75.94%
Chevrolet	Avalanche	90.35%	76.14%
Lincoln	Mark LT	88.66%	77.77%
	Total Specialty Utility Pickup	89.29%	76.62%
Mazda	RX8	91.15%	76.43%
Nissan	350Z	88.29%	77.00%
Audi	A3	88.69%	75.37%
Mitsubishi	Eclipse Spyder	92.50%	77.31%
Mitsubishi	Eclipse	91.41%	74.97%
Pontiac	GTO	92.24%	77.77%
Toyota	Celica	89.02%	76.68%
Mini	Mini Cooper S	89.57%	74.46%
Acura	RSX	89.35%	75.94%
Pontiac	Solstice	88.75%	77.43%
Mini	Mini Cooper	90.33%	76.58%
Ford	Mustang	90.48%	74.24%
Toyota	MR2 Spyder	88.55%	77.26%
Mazda	MX-5 Miata	91.45%	74.14%
Honda	S2000	90.36%	75.69%
Hyundai	Tiburon	90.02%	77.77%
Pontiac	Firebird	91.71%	74.74%
Chevrolet	Camaro	91.16%	74.18%
	Total Touring	90.28%	76.00%
Toyota	Avalon	89.29%	77.81%
Buick	Lucerne	89.43%	75.43%
Pontiac	Bonneville	91.25%	76.10%
Chrysler	Concorde	88.96%	77.77%
Mercury	Grand Marquis	91.19%	77.12%
Ford	Crown Victoria	91.28%	75.05%
Buick	LeSabre	89.87%	77.11%
	Total Traditional Car	90.18%	76.63%
Maybach	Maybach	92.26%	77.24%
Rolls-Royce	Rolls-Royce	92.60%	74.74%
Bentley	Bentley	88.84%	77.15%
Porsche	Carrera GT	89.73%	75.57%

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Lamborghini	Lamborghini	88.92%	77.10%
Ferrari	Ferrari	90.63%	76.93%
Ford	GT	90.26%	75.29%
Aston Martin	Aston Martin	90.55%	75.70%
	Total Ultra Luxury	90.47%	76.22%
Lexus	GX 470	92.56%	77.47%
Land Rover	Discovery	91.13%	74.97%
Land Rover	LR3	90.38%	77.23%
Infiniti	QX4	89.67%	76.57%
Land Rover	Range Rover Sport	90.69%	76.27%
Lincoln	Aviator	89.14%	75.47%
Mercury	Mountaineer	92.28%	77.97%
Subaru	B9 Tribeca	89.18%	75.12%
GMC	Envoy	89.61%	74.41%
Buick	Rainier	91.06%	74.34%
Saab	9-7X	90.02%	76.91%
Hummer	H3	88.84%	76.58%
	Total Upper Mid-Range SUV	90.38%	76.11%
Acura	NSX	91.11%	74.52%
M-Benz	SC 430	90.03%	74.20%
Cadillac	XLR	89.13%	76.73%
Jaguar	XK	89.06%	76.45%
Porsche	911 Carrera 4	92.52%	76.49%
Porsche	911 Carrera	91.74%	77.10%
M-Benz	SL Coupe/Roadster	90.13%	75.13%
M-Benz	CL class	92.17%	77.24%
BMW	6 Series	92.28%	75.81%
Lotus	Lotus	91.57%	74.33%
Dodge	Viper	88.70%	74.41%
	Total Upper Premium Sportscars	90.77%	75.67%
Weighted Average		97.40%	82.14%

We've weighted the averages to balance to the high side to eliminate those vehicles with the lowest maintenance and technological advances in engine management.

When looking at the fuel cost over the lifetime of the individual models, an issue we had to contend with was how to treat gasoline taxes. In all there were more than 100 data points that needed to be considered ranging from tanker transport of oil to deep and shallow well

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maintenance (pro-rated for automotive use), infrastructure costs to the public for support industries including such items as refineries, gas stations and shipping transport vehicles mandatory inspections. This included the necessary infrastructure to perform such inspections that otherwise would not occur if it weren't for personal-use cars and trucks.

To help digest all of these considerations and data points, and to adjust for future oil and gasoline prices over the coming decades of life for individual models, we elected to show those data points as a single \$3 per gallon cost in 2005 dollars. It is purely by happenstance that it reflects the current cost of a gallon of gasoline. Note that this too is an "industry" that generates and is the recipient of tax-based funding and has a potential to produce profits that are similarly outside of the auto industry, per se.

Example, the repair industry for over-the-road tanker trucks was included in the calculations as were government tax-based inspectors to assure safety and emission compliance for those trucks and the related repair industries.

Of today's \$3 per gallon, about 41 cents goes to energy. Assuming gasoline rises on the back of limited supplies and inflation, \$9.50 per gallon gasoline in 10 years is not out of the realm of possibilities. Under that scenario, it would require more than \$3.70 per gallon in energy to drill, transport, refine and distribute gasoline. And those figures will continue to climb over the lifetime of existing vehicles of approximately 20 years.

Thus the use of \$3 per gallon for the sake of this report.

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		Lifetime	Gallons	TTI E Cost
Division	Model	Blend FE	Used	Fuel \$/ga
Kia	Rio	27.77	5,832.94	\$ 17,498.82
Hyundai	Accent	27.62	5,466.17	\$ 16,398.50
Chevrolet	Aveo	28.83	4,924.78	\$ 14,774.34
Toyota	Echo	31.32	5,013.14	\$ 15,039.43
	Total Budget Cars	28.89	5,309.26	\$ 15,927.77
Chevrolet	Cobalt	25.96	6,509.34	\$ 19,528.02
Toyota	Matrix **	25.69	6,305.18	\$ 18,915.53
Mazda	Mazda3	25.11	6,531.45	\$ 19,594.35
Nissan	Sentra	24.39	6,725.30	\$ 20,175.91
Suzuki	Aerio	25.58	6,215.72	\$ 18,647.15
Mitsubishi	Lancer	22.77	6,762.17	\$ 20,286.51
Kia	Spectra	25.63	6,163.48	\$ 18,490.43
Scion	tC	22.33	6,223.93	\$ 18,671.80
Suzuki	Forenza	22.68	6,303.78	\$ 18,911.34
Ford	Focus	24.90	6,787.60	\$ 20,362.80
Mazda	Protégé	24.18	6,657.43	\$ 19,972.28
Pontiac	Sunfire	26.02	6,034.70	\$ 18,104.09
Chevrolet	Cavalier	26.56	5,722.10	\$ 17,166.30
Scion	xA	30.87	5,053.97	\$ 15,161.92
Toyota	Corolla	30.00	5,632.64	\$ 16,897.93
Dodge	Neon	25.06	5,905.51	\$ 17,716.53
Hyundai	Elantra	26.02	6,225.22	\$ 18,675.67
Saturn	Ion	26.86	5,994.52	\$ 17,983.56
Ford	Escort	25.96	7,396.22	\$ 22,188.65
Scion	xB	28.38	6,660.21	\$ 19,980.64
	Total Economy Cars	25.75	6,290.52	\$ 18,871.57
Nissan	Xterra	14.67	13,019.64	\$ 39,058.91
Isuzu	Trooper	17.65	11,841.82	\$ 35,525.47
Mazda	Mazda5	20.99	8,148.02	\$ 24,444.06
Isuzu	Rodeo	16.49	11,159.35	\$ 33,478.05
Suzuki	XL-7	16.04	10,283.93	\$ 30,851.80
Suzuki	Grand Vitara	16.92	10,104.14	\$ 30,312.41
Kia	Sorento	16.00	8,935.05	\$ 26,805.15
Chevrolet	Blazer	14.77	14,151.51	\$ 42,454.52
Suzuki	Vitara	16.88	9,357.97	\$ 28,073.92
Isuzu	Rodeo Sport	16.46	9,843.30	\$ 29,529.89
Kia	Sportage	18.35	8,663.94	\$ 25,991.82
Jeep	Liberty	20.04	9,430.31	\$ 28,290.94
Chevrolet	Tracker	19.31	7,924.37	\$ 23,773.10
Jeep	Wrangler	14.97	13,830.32	\$ 41,490.95
	Ttl Entry Level SUVs	17.11	10,478.12	\$ 31,434.36
Mitsubishi	Outlander	19.52	9,374.90	\$ 28,124.71

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Hyundai	Tucson	18.94	7,707.96	\$ 23,123.87
Mazda	Tribute	19.22	7,960.59	\$ 23,881.77
Hyundai	Santa Fe	16.33	9,244.88	\$ 27,734.65
Pontiac	Torrent	17.41	9,306.03	\$ 27,918.09
Ford	Escape	18.96	8,491.36	\$ 25,474.07
Mercury	Mariner	19.28	7,833.16	\$ 23,499.49
Toyota	RAV4	19.65	8,242.40	\$ 24,727.19
Saturn	Vue	21.19	7,599.18	\$ 22,797.53
Chevrolet	Equinox	19.72	9,585.85	\$ 28,757.55
Honda	Element	20.72	6,851.76	\$ 20,555.28
Pontiac	Aztek	18.03	9,315.46	\$ 27,946.38
Honda	CR-V	21.05	7,412.35	\$ 22,237.05
	Ttl Entry Level Sportwagons	19.23	8,378.91	\$ 25,136.74
Nissan	Titan	12.90	13,099.71	\$ 39,299.14
Toyota	Tundra	13.87	13,772.50	\$ 41,317.51
Dodge	Ram pickup	15.18	15,214.87	\$ 45,644.60
Chevrolet	Silverado	14.78	16,168.00	\$ 48,504.01
GMC	Sierra	14.67	15,809.68	\$ 47,429.05
Ford	F Series	12.25	21,884.08	\$ 65,652.23
	Ttl Full Size Pickup	13.94	15,991.47	\$ 47,974.42
GMC	Savana/G Van	12.46	21,829.56	\$ 65,488.67
Ford	Econoline/Club Wagon	12.16	21,213.71	\$ 63,641.13
GMC	Express/G Van	13.44	18,825.34	\$ 56,476.02
Dodge	Sprinter Van	14.72	25,883.77	\$ 77,651.30
Dodge	Ram Van	11.99	18,937.12	\$ 56,811.36
Ford	Econoline van	12.71	22,107.02	\$ 66,321.07
	Full Size Van	12.91	21,466.09	\$ 64,398.26
Honda	Accord Hybrid	27.46	4,260.39	\$ 12,781.16
Toyota	Prius	40.12	2,716.78	\$ 8,150.34
Honda	Civic Hybrid	39.41	2,867.24	\$ 8,601.72
Ford	Escape Hybrid	28.86	4,886.22	\$ 14,658.66
Mercury	Mariner Hybrid	27.48	5,021.20	\$ 15,063.59
Honda	Insight	46.68	2,334.81	\$ 7,004.43
Lexus	RX 400h	23.88	8,040.63	\$ 24,121.90
Toyota	Highlander Hybrid	25.06	5,587.34	\$ 16,762.02
	Ttl Hybrids	32.37	4,464.33	\$ 13,392.98
Volkswagen	Phaeton	11.34	21,260.46	\$ 63,781.38
Audi	allroad quattro	14.91	13,548.68	\$ 40,646.03
Audi	A6	17.08	11,064.47	\$ 33,193.42
Lexus	LS 430	17.51	12,736.69	\$ 38,210.06
Lexus	GS 430	16.81	10,769.23	\$ 32,307.70
Infiniti	Q45	16.33	12,308.40	\$ 36,925.20
Jaguar	S-Type	16.13	10,230.91	\$ 30,692.73
Infiniti	M45	16.51	7,632.89	\$ 22,898.68
Lexus	GS 300	16.44	7,966.01	\$ 23,898.02
Cadillac	DTS	17.54	10,831.84	\$ 32,495.52

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Cadillac	DeVille	16.36	12,409.67	\$	37,229.00
M-Benz	E class	15.12	16,927.59	\$	50,782.77
Cadillac	Seville	13.19	12,279.01	\$	36,837.02
Volvo	80 series	16.13	12,519.44	\$	37,558.32
Cadillac	STS	17.69	12,210.76	\$	36,632.27
BMW	5 Series	18.80	11,011.82	\$	33,035.45
Acura	RL	17.85	9,190.07	\$	27,570.20
Lincoln	Town Car	15.12	14,488.57	\$	43,465.72
BMW	M3	15.66	9,134.00	\$	27,402.01
	Total Luxury Car	16.13	12,027.39	\$	36,082.18
Volkswagen	Golf	36.81	4,102.47	\$	12,307.42
Volkswagen	Golf GTI	19.84	7,259.58	\$	21,778.75
Saturn	L series	20.79	7,890.06	\$	23,670.17
Honda	Civic	23.36	7,618.38	\$	22,855.13
Chevrolet	HHR	19.97	8,462.40	\$	25,387.19
Pontiac	G6	22.89	6,945.30	\$	20,835.90
Chevrolet	Classic	25.22	9,080.38	\$	27,241.15
Subaru	Impreza	19.17	7,146.85	\$	21,440.55
Pontiac	Grand Am	20.44	9,393.51	\$	28,180.52
Ford	Fusion	23.50	8,171.46	\$	24,514.37
Mercury	Milan	23.19	8,150.98	\$	24,452.93
Dodge	Stratus	22.93	8,766.31	\$	26,298.94
Kia	Optima	25.68	6,269.49	\$	18,808.46
Hyundai	Sonata	24.06	6,733.35	\$	20,200.04
Suzuki	Verona	21.53	7,058.39	\$	21,175.17
Volkswagen	Beetle	23.08	7,409.62	\$	22,228.87
Pontiac	Vibe	27.20	5,918.82	\$	17,756.47
Chevrolet	Malibu	24.72	6,592.94	\$	19,778.82
Chrysler	PT Cruiser	20.54	9,345.63	\$	28,036.88
Chrysler	Sebring	21.62	7,586.99	\$	22,760.96
	Ttl Lower Mid-Range Cars	23.33	7,495.14	\$	22,485.43
Nissan	Pathfinder	15.15	10,427.06	\$	31,281.18
Toyota	4Runner	15.87	11,091.68	\$	33,275.03
Mitsubishi	Montero	14.01	11,203.87	\$	33,611.60
Mitsubishi	Montero Sport	14.47	9,814.61	\$	29,443.84
Isuzu	Axiom	16.04	8,851.05	\$	26,553.14
Land Rover	Freelander	16.68	9,470.78	\$	28,412.34
Isuzu	Ascender	14.39	11,185.68	\$	33,557.05
Jeep	Commander	15.06	13,812.18	\$	41,436.54
Jeep	Grand Cherokee	14.32	14,589.89	\$	43,769.68
Jeep	Grand Cherokee SRT-8	11.55	15,760.78	\$	47,282.35
Dodge	Durango	14.15	13,005.03	\$	39,015.09
Ford	Explorer	14.34	14,152.23	\$	42,456.70
Chevrolet	TrailBlazer	15.66	11,937.76	\$	35,813.27
	Ttl Lower Mid-Range SUV	14.75	11,946.35	\$	35,839.06
Toyota	Sequoia	13.22	13,241.72	\$	39,725.17
Nissan	Armada	11.54	14,035.73	\$	42,107.18

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Ford	Excursion	11.77	22,852.15	\$	68,556.46
Chevrolet	Suburban	14.30	19,025.64	\$	57,076.91
GMC	Yukon XL	13.98	19,381.41	\$	58,144.22
Ford	Expedition	12.81	22,172.76	\$	66,518.28
Chevrolet	Tahoe	15.61	17,173.04	\$	51,519.13
GMC	Yukon	15.51	17,089.31	\$	51,267.92
	Total Large SUV	13.59	18,121.47	\$	54,364.41
Chrysler	Pacifica	18.04	10,142.26	\$	30,426.78
Nissan	Murano	20.80	8,559.04	\$	25,677.13
Toyota	Highlander	20.84	7,484.94	\$	22,454.82
Ford	Freestyle/Windstar	17.19	11,984.83	\$	35,954.48
Buick	Rendezvous	22.13	7,590.81	\$	22,772.43
Honda	Pilot	17.95	8,693.23	\$	26,079.68
Mitsubishi	Endeavor	20.10	7,612.34	\$	22,837.03
	Total Mid-Range Sportwagons	19.58	8,866.78	\$	26,600.34
Volkswagen	EuroVan/T4	17.73	8,967.52	\$	26,902.56
Honda	Odyssey	18.93	10,141.63	\$	30,424.89
Pontiac	Montana SV6	17.18	9,663.94	\$	28,991.81
Chrysler	Town & Country	19.71	8,676.35	\$	26,029.06
Buick	Terraza	16.74	10,692.46	\$	32,077.37
Dodge	Caravan/Grand Caravan	19.36	8,472.73	\$	25,418.19
Toyota	Sienna	21.57	7,326.54	\$	21,979.61
Chevrolet	Venture	15.62	11,074.71	\$	33,224.14
Saturn	Relay	18.59	8,714.76	\$	26,144.27
Pontiac	Montana	20.56	8,074.60	\$	24,223.80
Nissan	Quest	21.58	7,412.87	\$	22,238.62
Chevrolet	Uplander	16.11	9,685.12	\$	29,055.35
Ford	Freestar	17.21	9,355.17	\$	28,065.50
Mercury	Monterey	17.91	8,876.39	\$	26,629.17
Kia	Sedona	15.60	8,847.79	\$	26,543.36
Mazda	MPV	18.64	8,367.11	\$	25,101.34
GMC	Safari	16.69	12,100.32	\$	36,300.96
Chevrolet	Astro	15.57	13,168.22	\$	39,504.65
	Total Minivans	18.07	9,423.23	\$	28,269.70
Volvo	70 series	16.04	11,536.11	\$	34,608.33
Volvo	60 series	16.05	10,033.93	\$	30,101.79
Mercury	Zephyr	20.13	8,890.88	\$	26,672.63
Acura	TL	22.52	7,592.57	\$	22,777.70
Acura	CL	22.86	7,959.93	\$	23,879.79
Lincoln	LS	19.66	7,934.12	\$	23,802.37
Jaguar	X-Type	19.93	8,480.10	\$	25,440.31
Lexus	ES 330	19.61	8,771.33	\$	26,314.00
Lexus	IS 300	21.98	7,370.30	\$	22,110.91
Infiniti	G35	21.57	7,972.43	\$	23,917.29
M-Benz	C class	20.46	8,357.30	\$	25,071.90
Cadillac	CTS	20.62	7,758.84	\$	23,276.52
BMW	330.00	19.61	8,976.03	\$	26,928.09

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Buick	Park Avenue	20.14	8,888.89	\$ 26,666.67
BMW	325.00	18.97	9,012.65	\$ 27,037.95
Saab	9-5	20.49	7,906.50	\$ 23,719.50
	Total Near Luxury Cars	20.04	8,590.12	\$ 25,770.36
Audi	A8	16.57	12,912.15	\$ 38,736.46
M-Benz	S class	14.38	17,452.99	\$ 52,358.97
Maserati	Maserati	10.94	14,813.35	\$ 44,440.06
BMW	7 Series	19.19	10,472.61	\$ 31,417.82
Jaguar	XJ	21.02	7,706.93	\$ 23,120.78
	Total Premium Cars	16.42	12,671.61	\$ 38,014.82
Mercury	Montego	19.68	7,721.72	\$ 23,165.15
Buick	LaCrosse	21.50	7,673.90	\$ 23,021.70
Volkswagen	Passat	23.71	8,096.82	\$ 24,290.46
Dodge	Magnum	20.08	9,114.85	\$ 27,344.56
Ford	Five Hundred	19.69	8,735.89	\$ 26,207.67
Dodge	Charger	21.09	8,155.32	\$ 24,465.95
Nissan	Maxima	23.17	8,330.23	\$ 24,990.68
Chrysler	300/300M	17.62	10,894.99	\$ 32,684.97
Mitsubishi	Diamante	20.53	7,353.84	\$ 22,061.51
Volvo	40 series	22.61	7,164.78	\$ 21,494.33
Infiniti	I30/I35	23.00	8,175.51	\$ 24,526.53
Mazda	Millenia	21.51	6,322.39	\$ 18,967.17
Audi	A4/S4	16.16	10,456.66	\$ 31,369.98
Audi	S4	16.65	10,267.53	\$ 30,802.60
Acura	TSX	24.46	6,908.45	\$ 20,725.35
Saab	9-3	21.59	8,430.49	\$ 25,291.47
Saab	9-2	19.79	8,641.45	\$ 25,924.36
Buick	Regal	20.94	7,259.20	\$ 21,777.60
	Total Premium Mid-Range Cars	20.77	8,316.89	\$ 24,950.67
M-Benz	SLK class	17.84	8,912.40	\$ 26,737.19
M-Benz	CLS class	19.82	11,955.74	\$ 35,867.21
M-Benz	CLK class	16.87	11,318.62	\$ 33,955.86
Porsche	Boxster	18.72	8,385.84	\$ 25,157.53
Chevrolet	Corvette	20.23	8,006.11	\$ 24,018.34
Audi	TT	23.17	6,084.74	\$ 18,254.22
BMW	Z8	17.50	10,114.93	\$ 30,344.80
BMW	Z4	23.80	6,177.30	\$ 18,531.89
Ford	Thunderbird	18.26	9,365.16	\$ 28,095.47
Chrysler	Crossfire	17.32	7,564.42	\$ 22,693.27
	Total Premium Sporty Cars	19.35	8,788.53	\$ 26,365.58
Porsche	Cayenne	14.49	13,320.69	\$ 39,962.07
Volkswagen	Touareg	15.92	11,683.62	\$ 35,050.85
Land Rover	Range Rover	12.24	16,825.62	\$ 50,476.86
M-Benz	G class	11.07	21,410.83	\$ 64,232.48
Hummer	H1	12.04	31,490.05	\$ 94,470.16
Lexus	LX 470	12.57	16,947.24	\$ 50,841.71

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Cadillac	Escalade ESV	15.37	15,223.28	\$ 45,669.85
Toyota	Land Cruiser	12.64	23,804.75	\$ 71,414.24
Hummer	H2	14.91	13,211.34	\$ 39,634.02
Cadillac	Escalade	15.75	15,173.81	\$ 45,521.42
Lincoln	Navigator	12.61	15,939.46	\$ 47,818.37
	Total Premium SUV	13.60	17,730.06	\$ 53,190.18
Volvo	XC90	18.43	12,425.73	\$ 37,277.20
Lexus	RX330	19.39	9,901.08	\$ 29,703.24
Infiniti	FX35	15.36	11,265.49	\$ 33,796.47
Infiniti	FX45	13.62	12,996.36	\$ 38,989.07
M-Benz	R class	15.35	10,681.83	\$ 32,045.48
Volvo	50 series	22.83	6,834.11	\$ 20,502.34
Acura	MDX	18.80	10,374.23	\$ 31,122.68
Cadillac	SRX	16.44	10,401.98	\$ 31,205.95
M-Benz	M class	13.70	15,689.96	\$ 47,069.87
BMW	X5	15.70	10,571.42	\$ 31,714.25
BMW	X3	18.25	9,148.51	\$ 27,445.52
	Total Premium Sportwagons	17.08	10,935.52	\$ 32,806.55
Honda	Accord	22.49	9,291.97	\$ 27,875.90
Volkswagen	Jetta wagon	21.72	6,262.40	\$ 18,787.20
Volkswagen	Jetta	25.48	5,180.37	\$ 15,541.10
Toyota	Camry	24.80	7,985.08	\$ 23,955.23
Subaru	Baja	20.70	7,585.42	\$ 22,756.26
Subaru	Legacy	23.49	6,642.50	\$ 19,927.49
Subaru	Forester	19.54	8,446.09	\$ 25,338.27
Subaru	Outback	20.79	7,599.94	\$ 22,799.82
Mazda	Mazda6	24.59	6,588.11	\$ 19,764.32
Dodge	Intrepid	17.53	10,156.00	\$ 30,467.99
Chevrolet	Monte Carlo	20.83	9,072.14	\$ 27,216.41
Mitsubishi	Galant	22.74	6,727.84	\$ 20,183.51
Pontiac	Grand Prix	20.80	7,740.88	\$ 23,222.63
Buick	Century	21.58	8,063.64	\$ 24,190.93
Mercury	Sable	21.65	9,285.74	\$ 27,857.22
Ford	Taurus	20.66	9,971.90	\$ 29,915.69
Mazda	626.00	19.11	8,946.43	\$ 26,839.29
Nissan	Altima	23.22	6,588.60	\$ 19,765.80
Chevrolet	Impala	20.87	8,337.14	\$ 25,011.43
Hyundai	XG350	22.08	6,838.43	\$ 20,515.30
Kia	Amanti	19.21	8,434.86	\$ 25,304.59
	Total Small Rid-Range Cars	21.61	7,892.64	\$ 23,677.92
Chevrolet	SSR	12.39	11,539.68	\$ 34,619.05
Honda	Ridgeline	14.83	10,992.95	\$ 32,978.86
GMC	Canyon	17.50	10,742.92	\$ 32,228.76
GMC	Sonoma	17.25	10,843.53	\$ 32,530.59
Nissan	Frontier	16.27	10,512.56	\$ 31,537.67
Toyota	Tacoma	20.73	8,345.68	\$ 25,037.05
Chevrolet	Colorado	16.56	11,110.63	\$ 33,331.88

Dust to Dust Energy Report -- Automotive

Mitsubishi	Raider	15.53	11,271.71	\$	33,815.13
Mazda	B-Series	13.41	14,390.13	\$	43,170.38
Dodge	Dakota	15.86	10,847.46	\$	32,542.39
Ford	Ranger	17.23	10,910.52	\$	32,731.55
Chevrolet	S10	20.24	8,500.12	\$	25,500.37
	Total Small Pickup	16.48	10,833.99	\$	32,501.97
Cadillac	Escalade EXT	12.89	17,148.51	\$	51,445.52
Chevrolet	Avalanche	11.64	20,108.74	\$	60,326.23
Lincoln	Mark LT	13.14	14,607.56	\$	43,822.68
	Total Specialty Utility Pickup	12.56	17,288.27	\$	51,864.81
Mazda	RX8	17.75	7,831.22	\$	23,493.65
Nissan	350Z	21.05	7,412.22	\$	22,236.65
Audi	A3	23.94	5,805.83	\$	17,417.50
Mitsubishi	Eclipse Spyder	22.03	5,400.63	\$	16,201.88
Mitsubishi	Eclipse	22.02	6,539.29	\$	19,617.86
Pontiac	GTO	16.83	8,674.66	\$	26,023.99
Toyota	Celica	25.51	5,449.44	\$	16,348.33
Mini	Mini Cooper S	23.85	6,750.32	\$	20,250.97
Acura	RSX	24.94	6,376.00	\$	19,128.00
Pontiac	Solstice	21.83	7,009.74	\$	21,029.23
Mini	Mini Cooper	26.96	6,269.03	\$	18,807.10
Ford	Mustang	19.85	9,116.55	\$	27,349.65
Toyota	MR2 Spyder	24.28	6,672.90	\$	20,018.69
Mazda	MX-5 Miata	21.07	8,637.82	\$	25,913.45
Honda	S2000	18.27	8,867.59	\$	26,602.78
Hyundai	Tiburon	22.58	8,501.74	\$	25,505.21
Pontiac	Firebird	17.05	10,144.96	\$	30,434.88
Chevrolet	Camaro	16.54	10,822.56	\$	32,467.68
	Total Touring	21.46	7,571.25	\$	22,713.75
Toyota	Avalon	23.59	8,519.18	\$	25,557.53
Buick	Lucerne	21.90	8,084.00	\$	24,252.01
Pontiac	Bonneville	17.02	10,751.25	\$	32,253.74
Chrysler	Concorde	18.14	10,089.52	\$	30,268.55
Mercury	Grand Marquis	21.73	9,524.64	\$	28,573.91
Ford	Crown Victoria	20.51	10,337.73	\$	31,013.18
Buick	LeSabre	20.65	8,863.51	\$	26,590.52
	Total Traditional Car	20.50	9,452.83	\$	28,358.49
Maybach	Maybach	10.15	25,317.29	\$	75,951.86
Rolls-Royce	Rolls-Royce	10.52	25,961.99	\$	77,885.97
Bentley	Bentley	11.17	24,257.98	\$	72,773.95
Porsche	Carrera GT	9.90	18,779.28	\$	56,337.84
Lamborghini	Lamborghini	8.96	13,510.49	\$	40,531.46
Ferrari	Ferrari	8.74	13,615.10	\$	40,845.31
Ford	GT	12.57	9,228.79	\$	27,686.36
Aston Martin	Aston Martin	12.51	12,466.29	\$	37,398.86
	Total Ultra Luxury	10.57	17,892.15	\$	53,676.45

Dust to Dust Energy Report -- Automotive

Lexus	GX 470	14.67	12,064.10	\$ 36,192.30
Land Rover	Discovery	14.81	13,704.27	\$ 41,112.81
Land Rover	LR3	13.20	16,815.52	\$ 50,446.55
Infiniti	QX4	14.29	10,568.15	\$ 31,704.45
Land Rover	Range Rover Sport	13.97	14,744.93	\$ 44,234.78
Lincoln	Aviator	12.44	15,357.81	\$ 46,073.43
Mercury	Mountaineer	14.05	12,168.22	\$ 36,504.66
Subaru	B9 Tribeca	16.03	9,167.90	\$ 27,503.71
GMC	Envoy	14.43	13,995.61	\$ 41,986.84
Buick	Rainier	18.05	9,752.21	\$ 29,256.62
Saab	9-7X	15.84	9,029.01	\$ 27,087.02
Hummer	H3	16.01	12,926.45	\$ 38,779.36
	Total Upper Mid-Range SUV	14.82	12,524.51	\$ 37,573.54
Acura	NSX	16.11	11,914.45	\$ 35,743.35
M-Benz	SC 430	17.70	9,320.24	\$ 27,960.71
Cadillac	XLR	16.31	10,057.60	\$ 30,172.79
Jaguar	XK	16.55	11,359.43	\$ 34,078.30
Porsche	911 Carrera 4	13.09	11,533.92	\$ 34,601.76
Porsche	911 Carrera	10.93	15,000.70	\$ 45,002.09
M-Benz	SL Coupe/Roadster	13.53	12,492.37	\$ 37,477.10
M-Benz	CL class	20.21	9,304.28	\$ 27,912.85
BMW	6 Series	16.00	10,815.18	\$ 32,445.54
Lotus	Lotus	21.45	5,641.22	\$ 16,923.66
Dodge	Viper	12.02	9,820.77	\$ 29,462.30
	Total Upper Premium Sportscars	15.81	10,660.01	\$ 31,980.04
Industry Weighted Average		20.37	11,183.53	\$ 33,550.60

NOTE: We are NOT talking about the cost of gasoline to the driver. We are discussing the lifetime energy cost to produce and maintain the infrastructure for a gasoline-based power plant that happens to be in a car or truck.

Clearly this is the point where hybrids are most efficient. For example, the lifetime fuel-related energy cost for a Prius is barely \$8,000 while the most economical Budget Segment car – Kia Rio – is more than twice that amount.

Dust to Dust Energy Report -- Automotive

With that higher fuel economy comes less pollution both from the tailpipe and gasoline manufacturing/blending facilities as well as the necessary support industries. **Regulatory agencies still must maintain facilities and technicians and equipment whether the vehicle gets 50 mpg or 10 mpg.**

When taken on a lifetime-energy cost for fuel basis broken down by miles of probably life, however, there are some interesting dynamics that come into play.

For example, the fueling energy support and gasoline-used matrix shows budget cars at roughly 10.4 cents per mile of life. (Again, this is not the cost of gasoline. It is the energy needed to support that gasoline.)

Hybrids, which currently have a somewhat lower life expectancy than conventional models for reasons already stated, have an energy cost per mile of 10.1 cent per mile over their lifetimes.

The Prius is the lowest at 7.5 cents and the Lexus RX400h highest at 12 cents.

Below is a table sorted from lowest to highest lifetime fuel energy requirements. It unquestionably shows that the current crop of hybrids have a lower impact on society's energy demands once in the hands of consumers. But, again, this is only a small part of the overall picture.

Dust to Dust Energy Report -- Automotive

		TTL
		Fuel E
Division	Model	Per Mile
Kia	Rio	\$ 0.108
Hyundai	Accent	\$ 0.109
Chevrolet	Aveo	\$ 0.104
Toyota	Echo	\$ 0.096
	Total Budget Cars	\$ 0.104
Chevrolet	Cobalt	\$ 0.116
Toyota	Matrix **	\$ 0.117
Mazda	Mazda3	\$ 0.119
Nissan	Sentra	\$ 0.123
Suzuki	Aerio	\$ 0.117
Mitsubishi	Lancer	\$ 0.132
Kia	Spectra	\$ 0.117
Scion	tC	\$ 0.134
Suzuki	Forenza	\$ 0.132
Ford	Focus	\$ 0.120
Mazda	Protégé	\$ 0.124
Pontiac	Sunfire	\$ 0.115
Chevrolet	Cavalier	\$ 0.113
Scion	xA	\$ 0.097
Toyota	Corolla	\$ 0.100
Dodge	Neon	\$ 0.120
Hyundai	Elantra	\$ 0.115
Saturn	Ion	\$ 0.112
Ford	Escort	\$ 0.116
Scion	xB	\$ 0.106
	Total Economy Cars	\$ 0.117
Nissan	Xterra	\$ 0.204
Isuzu	Trooper	\$ 0.170
Mazda	Mazda5	\$ 0.143
Isuzu	Rodeo	\$ 0.182
Suzuki	XL-7	\$ 0.187
Suzuki	Grand Vitara	\$ 0.177
Kia	Sorento	\$ 0.187
Chevrolet	Blazer	\$ 0.203
Suzuki	Vitara	\$ 0.178
Isuzu	Rodeo Sport	\$ 0.182
Kia	Sportage	\$ 0.163
Jeep	Liberty	\$ 0.150
Chevrolet	Tracker	\$ 0.155
Jeep	Wrangler	\$ 0.200
	Ttl Entry Level SUVs	\$ 0.178
Mitsubishi	Outlander	\$ 0.154

Dust to Dust Energy Report -- Automotive

Hyundai	Tucson	\$ 0.158
Mazda	Tribute	\$ 0.156
Hyundai	Santa Fe	\$ 0.184
Pontiac	Torrent	\$ 0.172
Ford	Escape	\$ 0.158
Mercury	Mariner	\$ 0.156
Toyota	RAV4	\$ 0.153
Saturn	Vue	\$ 0.142
Chevrolet	Equinox	\$ 0.152
Honda	Element	\$ 0.145
Pontiac	Aztek	\$ 0.166
Honda	CR-V	\$ 0.143

Ttl Entry Level Sportwagons \$ 0.157

Nissan	Titan	\$ 0.233
Toyota	Tundra	\$ 0.216
Dodge	Ram pickup	\$ 0.198
Chevrolet	Silverado	\$ 0.203
GMC	Sierra	\$ 0.204
Ford	F Series	\$ 0.245

Ttl Full Size Pickup \$ 0.216

GMC	Savana/G Van	\$ 0.241
Ford	Econoline/Club Wagon	\$ 0.247
GMC	Express/G Van	\$ 0.223
Dodge	Sprinter Van	\$ 0.204
Dodge	Ram Van	\$ 0.250
Ford	Econoline van	\$ 0.236

Full Size Van \$ 0.231

Honda	Accord Hybrid	\$ 0.109
Toyota	Prius	\$ 0.075
Honda	Civic Hybrid	\$ 0.076
Ford	Escape Hybrid	\$ 0.104
Mercury	Mariner Hybrid	\$ 0.109
Honda	Insight	\$ 0.064
Lexus	RX 400h	\$ 0.126
Toyota	Highlander Hybrid	\$ 0.120

Ttl Hybrids \$ 0.101

Volkswagen	Phaeton	\$ 0.265
Audi	allroad quattro	\$ 0.201
Audi	A6	\$ 0.176
Lexus	LS 430	\$ 0.171
Lexus	GS 430	\$ 0.178
Infiniti	Q45	\$ 0.184
Jaguar	S-Type	\$ 0.186
Infiniti	M45	\$ 0.182
Lexus	GS 300	\$ 0.182
Cadillac	DTS	\$ 0.171

Dust to Dust Energy Report -- Automotive

Cadillac	DeVille	\$ 0.183
M-Benz	E class	\$ 0.198
Cadillac	Seville	\$ 0.227
Volvo	80 series	\$ 0.186
Cadillac	STS	\$ 0.170
BMW	5 Series	\$ 0.160
Acura	RL	\$ 0.168
Lincoln	Town Car	\$ 0.198
BMW	M3	\$ 0.192
	Total Luxury Car	\$ 0.189

Volkswagen	Golf	\$ 0.082
Volkswagen	Golf GTI	\$ 0.151
Saturn	L series	\$ 0.144
Honda	Civic	\$ 0.128
Chevrolet	HHR	\$ 0.150
Pontiac	G6	\$ 0.131
Chevrolet	Classic	\$ 0.119
Subaru	Impreza	\$ 0.157
Pontiac	Grand Am	\$ 0.147
Ford	Fusion	\$ 0.128
Mercury	Milan	\$ 0.129
Dodge	Stratus	\$ 0.131
Kia	Optima	\$ 0.117
Hyundai	Sonata	\$ 0.125
Suzuki	Verona	\$ 0.139
Volkswagen	Beetle	\$ 0.130
Pontiac	Vibe	\$ 0.110
Chevrolet	Malibu	\$ 0.121
Chrysler	PT Cruiser	\$ 0.146
Chrysler	Sebring	\$ 0.139
	Ttl Lower Mid-Range Cars	\$ 0.131

Nissan	Pathfinder	\$ 0.198
Toyota	4Runner	\$ 0.189
Mitsubishi	Montero	\$ 0.214
Mitsubishi	Montero Sport	\$ 0.207
Isuzu	Axiom	\$ 0.187
Land Rover	Freelander	\$ 0.180
Isuzu	Ascender	\$ 0.208
Jeep	Commander	\$ 0.199
Jeep	Grand Cherokee	\$ 0.209
Jeep	Grand Cherokee SRT-8	\$ 0.260
Dodge	Durango	\$ 0.212
Ford	Explorer	\$ 0.209
Chevrolet	TrailBlazer	\$ 0.192
	Ttl Lower Mid-Range SUV	\$ 0.206

Toyota	Sequoia	\$ 0.227
Nissan	Armada	\$ 0.260

Dust to Dust Energy Report -- Automotive

Ford	Excursion	\$ 0.255
Chevrolet	Suburban	\$ 0.210
GMC	Yukon XL	\$ 0.215
Ford	Expedition	\$ 0.234
Chevrolet	Tahoe	\$ 0.192
GMC	Yukon	\$ 0.193
	Total Large SUV	\$ 0.221
Chrysler	Pacifica	\$ 0.166
Nissan	Murano	\$ 0.144
Toyota	Highlander	\$ 0.144
Ford	Freestyle/Windstar	\$ 0.175
Buick	Rendezvous	\$ 0.136
Honda	Pilot	\$ 0.167
Mitsubishi	Endeavor	\$ 0.149
	Total Mid-Range Sportwagons	\$ 0.155
Volkswagen	EuroVan/T4	\$ 0.169
Honda	Odyssey	\$ 0.158
Pontiac	Montana SV6	\$ 0.175
Chrysler	Town & Country	\$ 0.152
Buick	Terraza	\$ 0.179
Dodge	Caravan/Grand Caravan	\$ 0.155
Toyota	Sienna	\$ 0.139
Chevrolet	Venture	\$ 0.192
Saturn	Relay	\$ 0.161
Pontiac	Montana	\$ 0.146
Nissan	Quest	\$ 0.139
Chevrolet	Uplander	\$ 0.186
Ford	Freestar	\$ 0.174
Mercury	Monterey	\$ 0.167
Kia	Sedona	\$ 0.192
Mazda	MPV	\$ 0.161
GMC	Safari	\$ 0.180
Chevrolet	Astro	\$ 0.193
	Total Minivans	\$ 0.168
Volvo	70 series	\$ 0.187
Volvo	60 series	\$ 0.187
Mercury	Zephyr	\$ 0.149
Acura	TL	\$ 0.133
Acura	CL	\$ 0.131
Lincoln	LS	\$ 0.153
Jaguar	X-Type	\$ 0.151
Lexus	ES 330	\$ 0.153
Lexus	IS 300	\$ 0.136
Infiniti	G35	\$ 0.139
M-Benz	C class	\$ 0.147
Cadillac	CTS	\$ 0.145
BMW	330	\$ 0.153

Dust to Dust Energy Report -- Automotive

Buick	Park Avenue	\$ 0.149
BMW	325	\$ 0.158
Saab	9-5	\$ 0.146
	Total Near Luxury Cars	\$ 0.151

Audi	A8	\$ 0.181
M-Benz	S class	\$ 0.209
Maserati	Maserati	\$ 0.274
BMW	7 Series	\$ 0.156
Jaguar	XJ	\$ 0.143
	Total Premium Cars	\$ 0.192

Mercury	Montego	\$ 0.152
Buick	LaCrosse	\$ 0.140
Volkswagen	Passat	\$ 0.127
Dodge	Magnum	\$ 0.149
Ford	Five Hundred	\$ 0.152
Dodge	Charger	\$ 0.142
Nissan	Maxima	\$ 0.129
Chrysler	300/300M	\$ 0.170
Mitsubishi	Diamante	\$ 0.146
Volvo	40 series	\$ 0.133
Infiniti	I30/I35	\$ 0.130
Mazda	Millenia	\$ 0.139
Audi	A4/S4	\$ 0.186
Audi	S4	\$ 0.180
Acura	TSX	\$ 0.123
Saab	9-3	\$ 0.139
Saab	9-2	\$ 0.152
Buick	Regal	\$ 0.143
	Total Premium Mid-Range Cars	\$ 0.146

M-Benz	SLK class	\$ 0.168
M-Benz	CLS class	\$ 0.151
M-Benz	CLK class	\$ 0.178
Porsche	Boxster	\$ 0.160
Chevrolet	Corvette	\$ 0.148
Audi	TT	\$ 0.129
BMW	Z8	\$ 0.171
BMW	Z4	\$ 0.126
Ford	Thunderbird	\$ 0.164
Chrysler	Crossfire	\$ 0.173
	Total Premium Sporty Cars	\$ 0.158

Porsche	Cayenne	\$ 0.207
Volkswagen	Touareg	\$ 0.188
Land Rover	Range Rover	\$ 0.245
M-Benz	G class	\$ 0.271
Hummer	H1	\$ 0.249
Lexus	LX 470	\$ 0.239

Dust to Dust Energy Report -- Automotive

Cadillac	Escalade ESV	\$ 0.195
Toyota	Land Cruiser	\$ 0.237
Hummer	H2	\$ 0.201
Cadillac	Escalade	\$ 0.190
Lincoln	Navigator	\$ 0.238
	Total Premium SUV	\$ 0.226

Volvo	XC90	\$ 0.163
Lexus	RX330	\$ 0.155
Infiniti	FX35	\$ 0.195
Infiniti	FX45	\$ 0.220
M-Benz	R class	\$ 0.195
Volvo	50 series	\$ 0.131
Acura	MDX	\$ 0.160
Cadillac	SRX	\$ 0.182
M-Benz	M class	\$ 0.219
BMW	X5	\$ 0.191
BMW	X3	\$ 0.164
	Total Premium Sportwagons	\$ 0.180

Honda	Accord	\$ 0.133
Volkswagen	Jetta wagon	\$ 0.138
Volkswagen	Jetta	\$ 0.118
Toyota	Camry	\$ 0.121
Subaru	Baja	\$ 0.145
Subaru	Legacy	\$ 0.128
Subaru	Forester	\$ 0.154
Subaru	Outback	\$ 0.144
Mazda	Mazda6	\$ 0.122
Dodge	Intrepid	\$ 0.171
Chevrolet	Monte Carlo	\$ 0.144
Mitsubishi	Galant	\$ 0.132
Pontiac	Grand Prix	\$ 0.144
Buick	Century	\$ 0.139
Mercury	Sable	\$ 0.139
Ford	Taurus	\$ 0.145
Mazda	626	\$ 0.157
Nissan	Altima	\$ 0.129
Chevrolet	Impala	\$ 0.144
Hyundai	XG350	\$ 0.136
Kia	Amanti	\$ 0.156
	Total Small Rid-Range Cars	\$ 0.140

Chevrolet	SSR	\$ 0.242
Honda	Ridgeline	\$ 0.202
GMC	Canyon	\$ 0.171
GMC	Sonoma	\$ 0.174
Nissan	Frontier	\$ 0.184
Toyota	Tacoma	\$ 0.145
Chevrolet	Colorado	\$ 0.181

Dust to Dust Energy Report -- Automotive

Mitsubishi	Raider	\$ 0.193
Mazda	B-Series	\$ 0.224
Dodge	Dakota	\$ 0.189
Ford	Ranger	\$ 0.174
Chevrolet	S10	\$ 0.148
	Total Small Pickup	\$ 0.185

Cadillac	Escalade EXT	\$ 0.233
Chevrolet	Avalanche	\$ 0.258
Lincoln	Mark LT	\$ 0.228
	Total Specialty Utility Pickup	\$ 0.240

Mazda	RX8	\$ 0.169
Nissan	350Z	\$ 0.143
Audi	A3	\$ 0.125
Mitsubishi	Eclipse Spyder	\$ 0.136
Mitsubishi	Eclipse	\$ 0.136
Pontiac	GTO	\$ 0.178
Toyota	Celica	\$ 0.118
Mini	Mini Cooper S	\$ 0.126
Acura	RSX	\$ 0.120
Pontiac	Solstice	\$ 0.137
Mini	Mini Cooper	\$ 0.111
Ford	Mustang	\$ 0.151
Toyota	MR2 Spyder	\$ 0.124
Mazda	MX-5 Miata	\$ 0.142
Honda	S2000	\$ 0.164
Hyundai	Tiburon	\$ 0.133
Pontiac	Firebird	\$ 0.176
Chevrolet	Camaro	\$ 0.181
	Total Touring	\$ 0.143

Toyota	Avalon	\$ 0.127
Buick	Lucerne	\$ 0.137
Pontiac	Bonneville	\$ 0.176
Chrysler	Concorde	\$ 0.165
Mercury	Grand Marquis	\$ 0.138
Ford	Crown Victoria	\$ 0.146
Buick	LeSabre	\$ 0.145
	Total Traditional Car	\$ 0.147

Maybach	Maybach	\$ 0.296
Rolls-Royce	Rolls-Royce	\$ 0.285
Bentley	Bentley	\$ 0.269
Porsche	Carrera GT	\$ 0.303
Lamborghini	Lamborghini	\$ 0.335
Ferrari	Ferrari	\$ 0.343
Ford	GT	\$ 0.239
Aston Martin	Aston Martin	\$ 0.240
	Total Ultra Luxury	\$ 0.286

Dust to Dust Energy Report -- Automotive

Lexus	GX 470	\$ 0.204
Land Rover	Discovery	\$ 0.203
Land Rover	LR3	\$ 0.227
Infiniti	QX4	\$ 0.210
Land Rover	Range Rover Sport	\$ 0.215
Lincoln	Aviator	\$ 0.241
Mercury	Mountaineer	\$ 0.213
Subaru	B9 Tribeca	\$ 0.187
GMC	Envoy	\$ 0.208
Buick	Rainier	\$ 0.166
Saab	9-7X	\$ 0.189
Hummer	H3	\$ 0.187
	Total Upper Mid-Range SUV	\$ 0.205
Acura	NSX	\$ 0.186
M-Benz	SC 430	\$ 0.169
Cadillac	XLR	\$ 0.184
Jaguar	XK	\$ 0.181
Porsche	911 Carrera 4	\$ 0.229
Porsche	911 Carrera	\$ 0.274
M-Benz	SL Coupe/Roadster	\$ 0.222
M-Benz	CL class	\$ 0.148
BMW	6 Series	\$ 0.188
Lotus	Lotus	\$ 0.140
Dodge	Viper	\$ 0.250
	Total Upper Premium Sportscars	\$ 0.196

Dust to Dust Energy Report -- Automotive

The following table shows the total fuel-related energy cost on a per mile basis. We've kept the segment data within the table for the sake of positioning and comparison. These "Total (segment)" lines have no relationship to the models listed above or below the specific segment sum other than as a place holder.

Dust to Dust Energy Report -- Automotive

		TTL
		Fuel E
Division	Model	Per Mile
Honda	Insight	\$0.0643
Toyota	Prius	\$0.0748
Honda	Civic Hybrid	\$0.0761
Volkswagen	Golf	\$0.0815
Toyota	Echo	\$0.0958
Scion	xA	\$0.0972
Toyota	Corolla	\$0.1000
	Ttl Hybrids	\$0.1012
Ford	Escape Hybrid	\$0.1040
Chevrolet	Aveo	\$0.1040
	Total Budget Cars	\$0.1041
Scion	xB	\$0.1057
Kia	Rio	\$0.1080
Hyundai	Accent	\$0.1086
Mercury	Mariner Hybrid	\$0.1092
Honda	Accord Hybrid	\$0.1092
Pontiac	Vibe	\$0.1103
Mini	Mini Cooper	\$0.1113
Saturn	Ion	\$0.1117
Chevrolet	Cavalier	\$0.1129
Hyundai	Elantra	\$0.1153
Pontiac	Sunfire	\$0.1153
Chevrolet	Cobalt	\$0.1156
Ford	Escort	\$0.1156
Toyota	Matrix **	\$0.1168
Kia	Optima	\$0.1168
	Total Economy Cars	\$0.1169
Kia	Spectra	\$0.1170
Suzuki	Aerio	\$0.1173
Toyota	Celica	\$0.1176
Volkswagen	Jetta	\$0.1177
Chevrolet	Classic	\$0.1190
Mazda	Mazda3	\$0.1195
Dodge	Neon	\$0.1197
Toyota	Highlander Hybrid	\$0.1197
Acura	RSX	\$0.1203
Ford	Focus	\$0.1205
Toyota	Camry	\$0.1210
Chevrolet	Malibu	\$0.1213
Mazda	Mazda6	\$0.1220
Acura	TSX	\$0.1226
Nissan	Sentra	\$0.1230
Toyota	MR2 Spyder	\$0.1236
Mazda	Protégé	\$0.1241
Hyundai	Sonata	\$0.1247

Dust to Dust Energy Report -- Automotive

Audi	A3	\$0.1253
Lexus	RX 400h	\$0.1256
Mini	Mini Cooper S	\$0.1258
BMW	Z4	\$0.1261
Volkswagen	Passat	\$0.1265
Toyota	Avalon	\$0.1272
Ford	Fusion	\$0.1277
Subaru	Legacy	\$0.1277
Honda	Civic	\$0.1284
Nissan	Altima	\$0.1292
Mercury	Milan	\$0.1294
Audi	TT	\$0.1295
Nissan	Maxima	\$0.1295
Volkswagen	Beetle	\$0.1300
Infiniti	I30/I35	\$0.1305
Dodge	Stratus	\$0.1308
Pontiac	G6	\$0.1310
	Ttl Lower Mid-Range Cars	\$0.1311
Acura	CL	\$0.1312
Volvo	50 series	\$0.1314
Mitsubishi	Lancer	\$0.1317
Mitsubishi	Galant	\$0.1319
Suzuki	Forenza	\$0.1322
Volvo	40 series	\$0.1327
Hyundai	Tiburon	\$0.1328
Acura	TL	\$0.1332
Honda	Accord	\$0.1334
Scion	tC	\$0.1343
Buick	Rendezvous	\$0.1356
Hyundai	XG350	\$0.1359
Mitsubishi	Eclipse Spyder	\$0.1362
Mitsubishi	Eclipse	\$0.1362
Lexus	IS 300	\$0.1365
Buick	Lucerne	\$0.1370
Pontiac	Solstice	\$0.1374
Mercury	Grand Marquis	\$0.1380
Volkswagen	Jetta wagon	\$0.1381
Mercury	Sable	\$0.1386
Chrysler	Sebring	\$0.1388
Saab	9-3	\$0.1390
Nissan	Quest	\$0.1390
Buick	Century	\$0.1390
Infiniti	G35	\$0.1391
Toyota	Sienna	\$0.1391
Suzuki	Verona	\$0.1393
Mazda	Millenia	\$0.1395
Buick	LaCrosse	\$0.1395
Lotus	Lotus	\$0.1399
	Total Small Rid-Range Cars	\$0.1402
Saturn	Vue	\$0.1416

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Dodge	Charger	\$0.1422
Mazda	MX-5 Miata	\$0.1424
Nissan	350Z	\$0.1425
Honda	CR-V	\$0.1425
Jaguar	XJ	\$0.1427
Mazda	Mazda5	\$0.1429
	Total Touring	\$0.1432
Buick	Regal	\$0.1433
Chevrolet	Impala	\$0.1437
Toyota	Highlander	\$0.1439
Chevrolet	Monte Carlo	\$0.1440
Pontiac	Grand Prix	\$0.1442
Nissan	Murano	\$0.1443
Subaru	Outback	\$0.1443
Saturn	L series	\$0.1443
Toyota	Tacoma	\$0.1447
Honda	Element	\$0.1448
Subaru	Baja	\$0.1449
Ford	Taurus	\$0.1452
Buick	LeSabre	\$0.1453
Cadillac	CTS	\$0.1455
Pontiac	Montana	\$0.1459
Chrysler	PT Cruiser	\$0.1460
Mitsubishi	Diamante	\$0.1461
	Total Premium Mid-Range Cars	\$0.1462
Ford	Crown Victoria	\$0.1463
Saab	9-5	\$0.1464
M-Benz	C class	\$0.1466
Pontiac	Grand Am	\$0.1468
	Total Traditional Car	\$0.1475
Chevrolet	S10	\$0.1483
Chevrolet	Corvette	\$0.1483
M-Benz	CL class	\$0.1485
Buick	Park Avenue	\$0.1490
Mercury	Zephyr	\$0.1490
Mitsubishi	Endeavor	\$0.1493
Dodge	Magnum	\$0.1494
Jeep	Liberty	\$0.1497
Chevrolet	HHR	\$0.1502
Jaguar	X-Type	\$0.1505
Ford	Mustang	\$0.1511
	Total Near Luxury Cars	\$0.1511
Volkswagen	Golf GTI	\$0.1512
M-Benz	CLS class	\$0.1513
Saab	9-2	\$0.1516
Chevrolet	Equinox	\$0.1522
Chrysler	Town & Country	\$0.1522
Ford	Five Hundred	\$0.1524
Mercury	Montego	\$0.1524
Lincoln	LS	\$0.1526

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Toyota	RAV4	\$0.1526
Lexus	ES 330	\$0.1530
BMW	330	\$0.1530
Subaru	Forester	\$0.1536
Mitsubishi	Outlander	\$0.1537
Lexus	RX330	\$0.1547
Dodge	Caravan/Grand Caravan	\$0.1550
	Total Mid-Range Sportwagons	\$0.1552
Chevrolet	Tracker	\$0.1554
Mercury	Mariner	\$0.1556
Mazda	Tribute	\$0.1561
Kia	Amanti	\$0.1562
BMW	7 Series	\$0.1563
Subaru	Impreza	\$0.1565
	Ttl Entry Level Sportwagons	\$0.1567
Mazda	626	\$0.1570
	Total Premium Sporty Cars	\$0.1576
BMW	325	\$0.1581
Ford	Escape	\$0.1582
Hyundai	Tucson	\$0.1584
Honda	Odyssey	\$0.1585
BMW	5 Series	\$0.1596
Acura	MDX	\$0.1596
Porsche	Boxster	\$0.1602
Mazda	MPV	\$0.1609
Saturn	Relay	\$0.1614
Volvo	XC90	\$0.1628
Kia	Sportage	\$0.1635
Honda	S2000	\$0.1642
Ford	Thunderbird	\$0.1643
BMW	X3	\$0.1643
Chrysler	Concorde	\$0.1654
Buick	Rainier	\$0.1662
Chrysler	Pacifica	\$0.1663
Pontiac	Aztek	\$0.1663
Honda	Pilot	\$0.1672
Mercury	Monterey	\$0.1675
	Total Minivans	\$0.1681
Acura	RL	\$0.1681
M-Benz	SLK class	\$0.1682
Mazda	RX8	\$0.1690
Volkswagen	EuroVan/T4	\$0.1692
M-Benz	SC 430	\$0.1695
Cadillac	STS	\$0.1696
Isuzu	Trooper	\$0.1700
Chrysler	300/300M	\$0.1702
Cadillac	DTS	\$0.1710
Dodge	Intrepid	\$0.1712
Lexus	LS 430	\$0.1713
GMC	Canyon	\$0.1714

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BMW	Z8	\$0.1714
Pontiac	Torrent	\$0.1723
Chrysler	Crossfire	\$0.1732
GMC	Sonoma	\$0.1740
Ford	Ranger	\$0.1741
Ford	Freestar	\$0.1743
Ford	Freestyle/Windstar	\$0.1745
Pontiac	Montana SV6	\$0.1746
Audi	A6	\$0.1756
Pontiac	Firebird	\$0.1759
Pontiac	Bonneville	\$0.1762
Suzuki	Grand Vitara	\$0.1773
Suzuki	Vitara	\$0.1777
M-Benz	CLK class	\$0.1778
	Ttl Entry Level SUVs	\$0.1781
Pontiac	GTO	\$0.1782
Lexus	GS 430	\$0.1785
Buick	Terraza	\$0.1792
GMC	Safari	\$0.1797
Land Rover	Freelander	\$0.1798
	Total Premium Sportwagons	\$0.1800
Audi	S4	\$0.1801
Audi	A8	\$0.1810
Chevrolet	Colorado	\$0.1812
Jaguar	XK	\$0.1813
Chevrolet	Camaro	\$0.1814
Infiniti	M45	\$0.1817
Isuzu	Rodeo	\$0.1819
Isuzu	Rodeo Sport	\$0.1823
Lexus	GS 300	\$0.1824
Cadillac	SRX	\$0.1825
Cadillac	DeVille	\$0.1834
Hyundai	Santa Fe	\$0.1837
Infiniti	Q45	\$0.1837
Cadillac	XLR	\$0.1840
Nissan	Frontier	\$0.1844
	Total Small Pickup	\$0.1849
Audi	A4/S4	\$0.1856
Volvo	80 series	\$0.1859
Jaguar	S-Type	\$0.1860
Acura	NSX	\$0.1862
Chevrolet	Uplander	\$0.1863
Volvo	60 series	\$0.1870
Suzuki	XL-7	\$0.1870
Isuzu	Axiom	\$0.1870
Volvo	70 series	\$0.1871
Subaru	B9 Tribeca	\$0.1871
Hummer	H3	\$0.1873
Kia	Sorento	\$0.1874
BMW	6 Series	\$0.1875

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Volkswagen	Touareg	\$0.1884
Toyota	4Runner	\$0.1891
Dodge	Dakota	\$0.1892
	Total Luxury Car	\$0.1893
Saab	9-7X	\$0.1894
Cadillac	Escalade	\$0.1905
BMW	X5	\$0.1910
Chevrolet	TrailBlazer	\$0.1915
BMW	M3	\$0.1916
	Total Premium Cars	\$0.1920
Chevrolet	Venture	\$0.1920
Chevrolet	Tahoe	\$0.1922
Kia	Sedona	\$0.1923
Chevrolet	Astro	\$0.1927
Mitsubishi	Raider	\$0.1932
GMC	Yukon	\$0.1935
Cadillac	Escalade ESV	\$0.1952
Infiniti	FX35	\$0.1954
M-Benz	R class	\$0.1954
	Total Upper Premium	
	Sportscars	\$0.1962
Dodge	Ram pickup	\$0.1976
Nissan	Pathfinder	\$0.1980
M-Benz	E class	\$0.1984
Lincoln	Town Car	\$0.1985
Jeep	Commander	\$0.1992
Jeep	Wrangler	\$0.2004
Hummer	H2	\$0.2012
Audi	allroad quattro	\$0.2012
Honda	Ridgeline	\$0.2023
Land Rover	Discovery	\$0.2025
Chevrolet	Silverado	\$0.2029
Chevrolet	Blazer	\$0.2031
Dodge	Sprinter Van	\$0.2038
GMC	Sierra	\$0.2044
Lexus	GX 470	\$0.2045
Nissan	Xterra	\$0.2045
	Total Upper Mid-Range SUV	\$0.2053
	Ttl Lower Mid-Range SUV	\$0.2055
Porsche	Cayenne	\$0.2071
Mitsubishi	Montero Sport	\$0.2074
GMC	Envoy	\$0.2079
Isuzu	Ascender	\$0.2084
M-Benz	S class	\$0.2086
Ford	Explorer	\$0.2091
Jeep	Grand Cherokee	\$0.2094
Chevrolet	Suburban	\$0.2098
Infiniti	QX4	\$0.2100
Dodge	Durango	\$0.2120
Mercury	Mountaineer	\$0.2135
Mitsubishi	Montero	\$0.2141

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GMC	Yukon XL	\$0.2146
Land Rover	Range Rover Sport	\$0.2147
Toyota	Tundra	\$0.2163
	Ttl Full Size Pickup	\$0.2164
M-Benz	M class	\$0.2189
Infiniti	FX45	\$0.2203
	Total Large SUV	\$0.2212
M-Benz	SL Coupe/Roadster	\$0.2218
GMC	Express/G Van	\$0.2232
Mazda	B-Series	\$0.2237
	Total Premium SUV	\$0.2263
Toyota	Sequoia	\$0.2270
Land Rover	LR3	\$0.2272
Cadillac	Seville	\$0.2274
Lincoln	Mark LT	\$0.2282
Porsche	911 Carrera 4	\$0.2292
	Full Size Van	\$0.2311
Nissan	Titan	\$0.2325
Cadillac	Escalade EXT	\$0.2328
Ford	Expedition	\$0.2342
Ford	Econoline van	\$0.2360
Toyota	Land Cruiser	\$0.2373
Lincoln	Navigator	\$0.2379
Ford	GT	\$0.2387
Lexus	LX 470	\$0.2387
Aston Martin	Aston Martin	\$0.2397
	Total Specialty Utility Pickup	\$0.2405
GMC	Savana/G Van	\$0.2408
Lincoln	Aviator	\$0.2412
Chevrolet	SSR	\$0.2421
Ford	F Series	\$0.2450
Land Rover	Range Rover	\$0.2450
Ford	Econoline/Club Wagon	\$0.2467
Hummer	H1	\$0.2493
Dodge	Viper	\$0.2497
Dodge	Ram Van	\$0.2503
Ford	Excursion	\$0.2549
Chevrolet	Avalanche	\$0.2578
Jeep	Grand Cherokee SRT-8	\$0.2598
Nissan	Armada	\$0.2599
Volkswagen	Phaeton	\$0.2647
Bentley	Bentley	\$0.2685
M-Benz	G class	\$0.2710
Maserati	Maserati	\$0.2743
Porsche	911 Carrera	\$0.2744
Rolls-Royce	Rolls-Royce	\$0.2853
	Total Ultra Luxury	\$0.2865
Maybach	Maybach	\$0.2955
Porsche	Carrera GT	\$0.3029
Lamborghini	Lamborghini	\$0.3350

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Ferrari Ferrari \$0.3432

Clearly from the above data the type of vehicle, with the exception of high-line sport cars, offers a consumer a wide variety of choices across many categories if that person is interested in energy efficiency. While certain hybrids are excellent energy savers over their lifetime, there are some ICE models that are better than other hybrids. Scion xB, for example, and Honda Civic ICE are less impactful on society's energy consumption than a Highlander or Accord hybrid. The VW Golf is virtually the same as a Prius.

And again this only measures the fuel efficiency portion of the vehicle's total energy requirements.

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CHAPTER FOUR – Lifetime Repair and Maintenance

Over the course of a vehicle's life, repair and maintenance plays an important role in the overall energy demands for both ownership of that vehicle and society in general.

In the course of investigating the by-model data, we had to look at everything from oil changes to warranty work; from tire replacements to spark-plug manufacturing. In all, more than 700 data points are included just in the repair and maintenance portion of the research.

A simple example: All vehicles eventually need replacement tires. Over the lifetime of each vehicle, the energy cost to produce, transport and support the tire-replacement industry costs in excess of \$72 per tire including disposal and recycling; pollution management at plants to employee commutes. (This is an industry straight average and does not include a sales-weighting. With sales weighting, the cost is closer to \$48. We did not sales weight this data

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because there is no guarantee the same vehicles would be sold in the same proportion over the coming 15 years. Good economic times generates more high-content vehicles and vice versa, for example.)

Considerations for the following data include the typical tire replacement type as well as the original equipment tires fitted; driving habits for the vehicle (such as towing, heavy loads, use on job sites, highway vs. city driving, likelihood of regular tire maintenance, frequent tire rotations, vehicle owners' replacement before worn vs. replacement only after wear bars become visible, etc.); support industries (tire stores and outlets, tire transport to retailers and the like); materials manufacturing (from steel to the dies necessary for embossing); and literally scores of other information.

For simplicities sake we have condensed the data to reflect both current and time-line increases in the costs of these tires (and other information under the repair/maintenance columns).

Note that the tire data below is PART OF the repair/maintenance section as a breakout for example purposes only. It only includes the cost of new and replacement tire production, not disposal which is covered under the recyclable chapter.

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Division	Model	Lifetime	Lifetime	Lifetime	Tire Energy
		Tire Repl.	Tire Repl.	# of Tires	Cost Per
		E Cost Per	Miles to	Required	Tire
		Tire	Repl		
Kia	Rio	\$ 36.62	41,602	16.74	\$ 2.19
Hyundai	Accent	\$ 37.21	42,875	15.14	\$ 2.46
Chevrolet	Aveo	\$ 30.52	43,399	14.07	\$ 2.17
Toyota	Echo	\$ 33.06	44,052	15.33	\$ 2.16
	Total Budget Cars	\$ 34.35	42,982.00	15.32	\$ 2.24
Chevrolet	Cobalt	\$ 39.85	41,647	17.45	\$ 2.28
Toyota	Matrix **	\$ 36.49	42,172	16.52	\$ 2.21
Mazda	Mazda3	\$ 37.20	41,664	16.93	\$ 2.20
Nissan	Sentra	\$ 41.20	42,239	16.70	\$ 2.47
Suzuki	Aerio	\$ 33.57	44,034	15.53	\$ 2.16
Mitsubishi	Lancer	\$ 31.96	44,251	14.96	\$ 2.14
Kia	Spectra	\$ 34.85	43,222	15.72	\$ 2.22
Scion	tC	\$ 30.22	42,499	14.06	\$ 2.15
Suzuki	Forenza	\$ 35.45	41,608	14.78	\$ 2.40
Ford	Focus	\$ 40.68	44,325	16.39	\$ 2.48
Mazda	Protégé	\$ 37.95	41,370	16.73	\$ 2.27
Pontiac	Sunfire	\$ 37.04	44,341	15.23	\$ 2.43
Chevrolet	Cavalier	\$ 34.24	44,060	14.83	\$ 2.31
Scion	xA	\$ 36.55	42,684	15.72	\$ 2.33
Toyota	Corolla	\$ 37.05	43,914	16.55	\$ 2.24
Dodge	Neon	\$ 34.21	43,703	14.56	\$ 2.35
Hyundai	Elantra	\$ 40.52	42,442	16.41	\$ 2.47
Saturn	Ion	\$ 36.24	42,413	16.32	\$ 2.22
Ford	Escort	\$ 43.27	42,474	19.44	\$ 2.23
Scion	xB	\$ 46.08	43,387	18.73	\$ 2.46
	Total Economy Cars	\$ 37.23	42,922.45	16.18	\$ 2.30
Nissan	Xterra	\$ 56.79	47,421	17.32	\$ 3.28
Isuzu	Trooper	\$ 61.84	49,748	18.07	\$ 3.42
Mazda	Mazda5	\$ 46.01	52,142	14.10	\$ 3.26
Isuzu	Rodeo	\$ 55.51	48,407	16.34	\$ 3.40
Suzuki	XL-7	\$ 45.13	51,189	13.86	\$ 3.26
Suzuki	Grand Vitara	\$ 44.65	53,634	13.71	\$ 3.26
Kia	Sorento	\$ 36.09	54,044	11.38	\$ 3.17
Chevrolet	Blazer	\$ 56.51	52,290	17.19	\$ 3.29
Suzuki	Vitara	\$ 43.61	52,282	12.99	\$ 3.36
Isuzu	Rodeo Sport	\$ 47.97	50,371	13.83	\$ 3.47
Kia	Sportage	\$ 46.21	49,207	13.89	\$ 3.33
Jeep	Liberty	\$ 53.74	49,722	16.34	\$ 3.29
Chevrolet	Tracker	\$ 44.88	48,093	13.68	\$ 3.28
Jeep	Wrangler	\$ 64.41	47,181	18.87	\$ 3.41
	Ttl Entry Level SUVs	\$ 50.24	50,409.36	15.11	\$ 3.32

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Mitsubishi	Outlander	\$	57.96	46,700	16.85	\$	3.44
Hyundai	Tucson	\$	40.74	53,949	11.64	\$	3.50
Mazda	Tribute	\$	43.15	54,452	12.08	\$	3.57
Hyundai	Santa Fe	\$	48.68	46,801	13.87	\$	3.51
Pontiac	Torrent	\$	44.64	53,945	12.91	\$	3.46
Ford	Escape	\$	48.92	51,966	13.32	\$	3.67
Mercury	Mariner	\$	50.56	47,841	13.57	\$	3.73
Toyota	RAV4	\$	47.06	53,078	13.12	\$	3.59
Saturn	Vue	\$	47.73	51,697	13.39	\$	3.56
Chevrolet	Equinox	\$	58.92	48,165	16.87	\$	3.49
Honda	Element	\$	47.45	46,685	13.08	\$	3.63
Pontiac	Aztek	\$	51.31	49,927	14.47	\$	3.55
Honda	CR-V	\$	46.04	50,606	13.26	\$	3.47
	Ttl Entry Level Sportwagons	\$	48.70	50,447.08	13.73	\$	3.55
Nissan	Titan	\$	62.30	42,682	17.03	\$	3.66
Toyota	Tundra	\$	69.16	44,043	18.65	\$	3.71
Dodge	Ram pickup	\$	86.09	42,437	23.41	\$	3.68
Chevrolet	Silverado	\$	89.99	43,867	23.43	\$	3.84
GMC	Sierra	\$	86.76	44,026	22.66	\$	3.83
Ford	F Series	\$	109.65	41,660	27.66	\$	3.96
	Ttl Full Size Pickup	\$	83.99	43,119.17	22.14	\$	3.78
GMC	Savana/G Van Econoline/Club	\$	101.96	42,008	27.84	\$	3.66
Ford	Wagon	\$	104.56	41,411	26.79	\$	3.90
GMC	Express/G Van	\$	98.68	43,027	25.28	\$	3.90
Dodge	Sprinter Van	\$	147.21	41,244	39.72	\$	3.71
Dodge	Ram Van	\$	84.79	43,847	22.26	\$	3.81
Ford	Econoline van	\$	111.97	43,069	28.05	\$	3.99
	Full Size Van	\$	108.20	42,434.33	28.33	\$	3.83
Honda	Accord Hybrid	\$	37.07	46,821	10.75	\$	3.45
Toyota	Prius	\$	38.90	44,135	10.62	\$	3.66
Honda	Civic Hybrid	\$	35.81	46,219	10.51	\$	3.41
Ford	Escape Hybrid	\$	56.06	40,134	15.11	\$	3.71
Mercury	Mariner Hybrid	\$	45.40	43,707	13.58	\$	3.34
Honda	Insight	\$	41.84	41,067	11.41	\$	3.67
Lexus	RX 400h	\$	60.24	45,772	18.04	\$	3.34
Toyota	Highlander Hybrid	\$	57.33	39,815	15.12	\$	3.79
	Ttl Hybrids	\$	46.58	43,458.75	13.14	\$	3.55
Volkswagen	Phaeton	\$	119.00	40,791	25.41	\$	4.68
Audi	allroad quattro	\$	94.90	41,335	21.01	\$	4.52
Audi	A6	\$	83.99	42,732	19.02	\$	4.42
Lexus	LS 430	\$	99.45	42,704	22.45	\$	4.43
Lexus	GS 430	\$	81.54	41,590	18.71	\$	4.36
Infiniti	Q45	\$	88.41	43,886	19.69	\$	4.49
Jaguar	S-Type	\$	76.80	41,935	16.92	\$	4.54
Infiniti	M45	\$	58.04	44,170	12.27	\$	4.73

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Lexus	GS 300	\$	59.28	42,117	13.37	\$	4.43
Cadillac	DTS	\$	90.67	42,575	19.19	\$	4.73
Cadillac	DeVille	\$	88.26	43,271	20.17	\$	4.38
M-Benz	E class	\$	113.29	44,114	24.95	\$	4.54
Cadillac	Seville	\$	72.86	42,651	16.33	\$	4.46
Volvo	80 series	\$	93.93	43,483	19.98	\$	4.70
Cadillac	STS	\$	99.46	40,547	22.91	\$	4.34
BMW	5 Series	\$	101.42	41,010	21.70	\$	4.67
Acura	RL	\$	80.09	41,922	16.82	\$	4.76
Lincoln	Town Car	\$	103.41	40,962	22.99	\$	4.50
BMW	M3	\$	65.74	42,288	14.54	\$	4.52
	Total Luxury Car	\$	87.92	42,320.16	19.39	\$	4.54
Volkswagen	Golf	\$	57.61	36,936	17.58	\$	3.28
Volkswagen	Golf GTI	\$	53.53	37,476	16.52	\$	3.24
Saturn	L series	\$	67.35	33,161	21.27	\$	3.17
Honda	Civic	\$	78.38	32,527	23.53	\$	3.33
Chevrolet	HHR	\$	68.71	35,125	20.69	\$	3.32
Pontiac	G6	\$	56.69	38,373	17.82	\$	3.18
Chevrolet	Classic	\$	76.39	39,587	24.87	\$	3.07
Subaru	Impreza	\$	57.72	32,260	18.26	\$	3.16
Pontiac	Grand Am	\$	86.08	32,282	25.57	\$	3.37
Ford	Fusion	\$	80.75	31,430	26.27	\$	3.07
Mercury	Milan	\$	72.85	35,552	22.86	\$	3.19
Dodge	Stratus	\$	75.74	35,876	24.09	\$	3.14
Kia	Optima	\$	74.32	31,394	22.05	\$	3.37
Hyundai	Sonata	\$	58.34	36,597	19.03	\$	3.07
Suzuki	Verona	\$	53.02	39,647	16.49	\$	3.22
Volkswagen	Beetle	\$	62.21	39,729	18.51	\$	3.36
Pontiac	Vibe	\$	64.46	34,002	20.36	\$	3.17
Chevrolet	Malibu	\$	60.72	36,961	18.96	\$	3.20
Chrysler	PT Cruiser	\$	73.49	35,951	22.96	\$	3.20
Chrysler	Sebring	\$	61.26	35,583	19.82	\$	3.09
	Ttl Lower Mid-Range Cars	\$	66.98	35,522.45	20.88	\$	3.21
Nissan	Pathfinder	\$	58.30	38,354	17.71	\$	3.29
Toyota	4Runner	\$	60.81	39,191	19.31	\$	3.15
Mitsubishi	Montero	\$	63.00	36,584	18.45	\$	3.41
Mitsubishi	Montero Sport	\$	57.09	36,442	16.76	\$	3.41
Isuzu	Axiom	\$	53.09	37,758	16.17	\$	3.28
Land Rover	Freelander	\$	59.70	36,713	18.51	\$	3.23
Isuzu	Ascender	\$	60.33	37,017	18.70	\$	3.23
Jeep	Commander	\$	79.95	36,065	24.80	\$	3.22
Jeep	Grand Cherokee	\$	82.59	37,902	23.71	\$	3.48
Jeep	Grand Cherokee	\$	69.28	36,757	21.29	\$	3.25
Dodge	Durango	\$	72.31	35,690	22.17	\$	3.26
Ford	Explorer	\$	75.54	38,712	22.55	\$	3.35
Chevrolet	TrailBlazer	\$	72.64	38,480	20.90	\$	3.48
	Ttl Lower Mid-Range	\$	66.51	37,358.85	20.08	\$	3.31

Dust to Dust Energy Report -- Automotive

SUV						
Toyota	Sequoia	\$	53.29	52,272	14.40	\$ 3.70
Nissan	Armada	\$	54.18	50,286	13.85	\$ 3.91
Ford	Excursion	\$	99.18	42,489	27.22	\$ 3.64
Chevrolet	Suburban	\$	87.22	47,834	24.45	\$ 3.57
GMC	Yukon XL	\$	109.41	41,739	27.92	\$ 3.92
Ford	Expedition	\$	94.01	46,726	26.14	\$ 3.60
Chevrolet	Tahoe	\$	85.30	49,825	23.13	\$ 3.69
GMC	Yukon	\$	104.85	42,233	26.98	\$ 3.89
	Total Large SUV	\$	85.93	46,675.50	23.01	\$ 3.74
Chrysler	Pacifica	\$	67.97	41,514	18.96	\$ 3.59
Nissan	Murano	\$	64.41	42,828	17.87	\$ 3.60
Toyota	Highlander	\$	53.64	42,895	15.64	\$ 3.43
Ford	Freestyle/Windstar	\$	75.79	41,711	21.24	\$ 3.57
Buick	Rendezvous	\$	62.76	40,842	17.69	\$ 3.55
Honda	Pilot	\$	62.18	38,861	17.26	\$ 3.60
Mitsubishi	Endeavor	\$	55.32	43,372	15.17	\$ 3.65
	Total Mid-Range Sportswagons	\$	63.15	41,717.57	17.69	\$ 3.57
Volkswagen	EuroVan/T4	\$	55.40	41,574	16.45	\$ 3.37
Honda	Odyssey	\$	63.85	43,444	19.00	\$ 3.36
Pontiac	Montana SV6	\$	61.11	40,216	17.75	\$ 3.44
Chrysler	Town & Country	\$	67.13	38,261	19.22	\$ 3.49
Buick	Terraza	\$	66.72	38,983	19.74	\$ 3.38
	Caravan/Grand					
Dodge	Caravan	\$	60.38	40,046	17.61	\$ 3.43
Toyota	Sienna	\$	53.84	42,908	15.83	\$ 3.40
Chevrolet	Venture	\$	65.49	38,949	19.10	\$ 3.43
Saturn	Relay	\$	59.19	40,088	17.38	\$ 3.41
Pontiac	Montana	\$	59.70	41,165	17.34	\$ 3.44
Nissan	Quest	\$	54.27	41,202	16.70	\$ 3.25
Chevrolet	Uplander	\$	53.12	43,323	15.48	\$ 3.43
Ford	Freestar	\$	56.91	41,021	16.88	\$ 3.37
Mercury	Monterey	\$	58.14	38,162	17.92	\$ 3.25
Kia	Sedona	\$	51.44	39,799	14.91	\$ 3.45
Mazda	MPV	\$	56.34	39,183	17.12	\$ 3.29
GMC	Safari	\$	66.65	43,110	20.15	\$ 3.31
Chevrolet	Astro	\$	68.61	43,991	20.04	\$ 3.42
	Total Minivans	\$	59.91	40,856.94	17.70	\$ 3.38
Volvo	70 series	\$	76.43	42,589	18.68	\$ 4.09
Volvo	60 series	\$	63.33	45,802	15.12	\$ 4.19
Mercury	Zephyr	\$	70.27	42,469	18.12	\$ 3.88
Acura	TL	\$	70.45	41,271	17.82	\$ 3.95
Acura	CL	\$	63.02	47,988	16.31	\$ 3.86
Lincoln	LS	\$	63.71	42,903	15.64	\$ 4.08
Jaguar	X-Type	\$	61.55	45,823	15.86	\$ 3.88
Lexus	ES 330	\$	64.99	45,887	16.12	\$ 4.03

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Lexus	IS 300	\$	56.73	49,395	14.10	\$	4.02
Infiniti	G35	\$	60.08	50,524	14.64	\$	4.10
M-Benz	C class	\$	63.91	47,461	15.49	\$	4.13
Cadillac	CTS	\$	54.50	51,589	13.34	\$	4.09
BMW	330	\$	63.83	44,757	16.91	\$	3.78
Buick	Park Avenue	\$	64.35	45,272	17.00	\$	3.79
BMW	325	\$	62.00	44,532	16.51	\$	3.76
Saab	9-5	\$	59.17	44,681	15.59	\$	3.80
	Total Near Luxury Cars	\$	67.39	48,362.50	17.18	\$	4.17
Audi	A8	\$	93.55	49,213	18.70	\$	5.00
M-Benz	S class	\$	108.68	51,107	21.12	\$	5.15
Maserati	Maserati	\$	61.35	54,596	12.76	\$	4.81
BMW	7 Series	\$	75.51	54,441	15.88	\$	4.76
Jaguar	XJ	\$	74.81	49,997	13.93	\$	5.37
	Total Premium Cars	\$	82.78	51,870.80	16.48	\$	5.02
Mercury	Montego	\$	54.00	51,735	12.63	\$	4.27
Buick	LaCrosse	\$	60.21	49,811	14.24	\$	4.23
Volkswagen	Passat	\$	75.07	45,300	18.23	\$	4.12
Dodge	Magnum	\$	63.06	48,903	16.09	\$	3.92
Ford	Five Hundred	\$	64.42	49,368	14.98	\$	4.30
Dodge	Charger	\$	61.51	50,022	14.79	\$	4.16
Nissan	Maxima	\$	73.12	44,230	18.76	\$	3.90
Chrysler	300/300M	\$	74.66	42,407	19.47	\$	3.84
Mitsubishi	Diamante	\$	57.72	49,781	13.04	\$	4.43
Volvo	40 series	\$	60.63	45,427	15.33	\$	3.95
Infiniti	I30/I35	\$	63.79	51,440	15.72	\$	4.06
Mazda	Millenia	\$	44.85	52,303	11.18	\$	4.01
Audi	A4/S4	\$	70.95	44,009	16.51	\$	4.30
Audi	S4	\$	72.32	42,256	17.40	\$	4.16
Acura	TSX	\$	60.30	48,157	15.09	\$	4.00
Saab	9-3	\$	75.49	41,551	18.83	\$	4.01
Saab	9-2	\$	66.56	43,173	17.03	\$	3.91
Buick	Regal	\$	54.79	46,498	14.06	\$	3.90
	Total Premium Mid-Range Cars	\$	64.08	47,020.61	15.74	\$	4.08
M-Benz	SLK class	\$	67.59	51,416	13.30	\$	5.08
M-Benz	CLS class	\$	103.44	50,017	20.38	\$	5.08
M-Benz	CLK class	\$	88.37	47,722	17.21	\$	5.14
Porsche	Boxster	\$	71.57	46,161	14.62	\$	4.89
Chevrolet	Corvette	\$	70.10	51,513	13.52	\$	5.18
Audi	TT	\$	65.75	48,318	12.55	\$	5.24
BMW	Z8	\$	84.91	47,425	16.05	\$	5.29
BMW	Z4	\$	59.58	53,290	11.86	\$	5.02
Ford	Thunderbird	\$	78.21	51,410	14.30	\$	5.47
Chrysler	Crossfire	\$	56.38	47,799	11.78	\$	4.78
	Total Premium Sporty Cars	\$	74.59	49,507.10	14.56	\$	5.12

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Porsche	Cayenne	\$	93.18	44,800	18.52	\$	5.03
Volkswagen	Touareg	\$	98.60	41,839	19.12	\$	5.16
Land Rover	Range Rover	\$	111.27	41,549	21.32	\$	5.22
M-Benz	G class	\$	125.29	44,421	22.94	\$	5.46
Hummer	H1	\$	222.89	41,216	39.54	\$	5.64
Lexus	LX 470	\$	112.26	41,415	22.12	\$	5.08
Cadillac	Escalade ESV	\$	121.74	41,152	24.45	\$	4.98
Toyota	Land Cruiser	\$	155.00	44,055	29.38	\$	5.28
Hummer	H2	\$	105.49	41,918	20.21	\$	5.22
Cadillac	Escalade	\$	120.40	44,710	22.99	\$	5.24
Lincoln	Navigator	\$	102.60	43,823	19.72	\$	5.20
	Total Premium SUV	\$	9.10	44,971	1.62	\$	5.63
		\$	114.82	42,989.08	21.83	\$	5.26
Volvo	XC90	\$	101.69	46,381	21.23	\$	4.79
Lexus	RX330	\$	95.65	43,106	19.15	\$	4.99
Infiniti	FX35	\$	77.18	45,088	16.50	\$	4.68
Infiniti	FX45	\$	84.40	44,186	17.22	\$	4.90
M-Benz	R class	\$	78.94	44,312	15.91	\$	4.96
Volvo	50 series	\$	77.45	43,843	15.30	\$	5.06
Acura	MDX	\$	87.38	44,323	18.92	\$	4.62
Cadillac	SRX	\$	88.60	43,296	16.98	\$	5.22
M-Benz	M class	\$	94.27	44,495	20.78	\$	4.54
BMW	X5	\$	68.50	47,349	15.08	\$	4.54
BMW	X3	\$	78.24	43,073	16.67	\$	4.69
	Total Premium Sportwagons	\$	84.76	44,495.64	17.61	\$	4.82
Honda	Accord	\$	73.24	52,099	17.25	\$	4.25
Volkswagen	Jetta wagon	\$	51.84	48,710	12.01	\$	4.32
Volkswagen	Jetta	\$	44.99	49,048	11.57	\$	3.89
Toyota	Camry	\$	70.07	49,442	17.22	\$	4.07
Subaru	Baja	\$	63.69	43,364	15.57	\$	4.09
Subaru	Legacy	\$	56.75	51,798	12.95	\$	4.38
Subaru	Forester	\$	66.86	44,527	15.93	\$	4.20
Subaru	Outback	\$	60.95	45,213	15.03	\$	4.06
Mazda	Mazda6	\$	68.37	42,174	16.52	\$	4.14
Dodge	Intrepid	\$	78.74	41,566	18.41	\$	4.28
Chevrolet	Monte Carlo	\$	66.13	48,085	16.90	\$	3.91
Mitsubishi	Galant	\$	62.04	42,194	15.59	\$	3.98
Pontiac	Grand Prix	\$	55.00	49,389	14.02	\$	3.92
Buick	Century	\$	60.00	51,847	14.43	\$	4.16
Mercury	Sable	\$	66.27	51,541	16.77	\$	3.95
Ford	Taurus	\$	87.55	43,485	20.37	\$	4.30
Mazda	626	\$	56.33	52,361	14.04	\$	4.01
Nissan	Altima	\$	54.02	47,827	13.76	\$	3.93
Chevrolet	Impala	\$	64.22	47,114	15.88	\$	4.04
Hyundai	XG350	\$	51.91	52,083	12.47	\$	4.16
Kia	Amanti	\$	54.50	51,029	13.65	\$	3.99
	Total Small Rid-	\$	62.55	47,852.19	15.25	\$	4.10

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Range Cars

Chevrolet	SSR	\$	75.99	40,135	15.32	\$	4.96
Honda	Ridgeline	\$	70.25	40,595	17.27	\$	4.07
GMC	Canyon	\$	81.83	38,874	20.80	\$	3.94
GMC	Sonoma	\$	81.27	40,219	19.99	\$	4.07
Nissan	Frontier	\$	74.83	36,436	20.18	\$	3.71
Toyota	Tacoma	\$	71.16	38,043	19.55	\$	3.64
Chevrolet	Colorado	\$	75.53	40,024	19.77	\$	3.82
Mitsubishi	Raider	\$	72.73	40,753	18.46	\$	3.94
Mazda	B-Series	\$	88.83	37,755	21.98	\$	4.04
Dodge	Dakota	\$	71.89	37,499	19.72	\$	3.65
Ford	Ranger	\$	73.92	40,157	20.13	\$	3.67
Chevrolet	S10	\$	73.52	37,835	19.55	\$	3.76
	Total Small Pickup	\$	75.98	39,027.08	19.39	\$	3.94
Cadillac	Escalade EXT	\$	107.37	49,274	19.29	\$	5.57
Chevrolet	Avalanche	\$	110.26	47,133	21.35	\$	5.17
Lincoln	Mark LT	\$	93.50	45,941	17.97	\$	5.20
	Total Specialty Utility Pickup	\$	103.71	47,449.33	19.54	\$	5.31
Mazda	RX8	\$	69.41	49,524	12.07	\$	5.75
Nissan	350Z	\$	107.50	34,850	19.25	\$	5.59
Audi	A3	\$	89.11	37,341	16.01	\$	5.57
Mitsubishi	Eclipse Spyder	\$	78.40	37,870	13.51	\$	5.80
Mitsubishi	Eclipse	\$	95.70	35,264	17.56	\$	5.45
Pontiac	GTO	\$	93.14	37,186	16.88	\$	5.52
Toyota	Celica	\$	87.33	37,935	15.76	\$	5.54
Mini	Mini Cooper S	\$	118.90	34,062	20.32	\$	5.85
Acura	RSX	\$	99.60	38,154	17.92	\$	5.56
Pontiac	Solstice	\$	101.88	36,823	17.87	\$	5.70
Mini	Mini Cooper	\$	109.79	36,981	19.65	\$	5.59
Ford	Mustang	\$	117.34	36,042	21.59	\$	5.43
Toyota	MR2 Spyder	\$	106.54	37,177	18.74	\$	5.69
Mazda	MX-5 Miata	\$	123.72	36,955	21.18	\$	5.84
Honda	S2000	\$	106.38	36,303	19.19	\$	5.54
Hyundai	Tiburon	\$	123.59	37,790	21.85	\$	5.66
Pontiac	Firebird	\$	108.50	37,619	19.77	\$	5.49
Chevrolet	Camaro	\$	117.30	37,468	20.54	\$	5.71
	Total Touring	\$	103.01	37,519.11	18.31	\$	5.63
Toyota	Avalon	\$	58.29	51,792	16.69	\$	3.49
Buick	Lucerne	\$	55.97	48,020	15.85	\$	3.53
Pontiac	Bonneville	\$	54.06	49,823	15.79	\$	3.42
Chrysler	Concorde	\$	58.42	45,176	17.42	\$	3.35
Mercury	Grand Marquis	\$	72.58	42,822	20.79	\$	3.49
Ford	Crown Victoria	\$	72.42	43,492	20.96	\$	3.46
Buick	LeSabre	\$	62.83	43,107	18.25	\$	3.44
	Total Traditional Car	\$	62.08	46,318.86	17.96	\$	3.46

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Maybach	Maybach	\$	164.85	43,809	25.23	\$	6.54
Rolls-Royce	Rolls-Royce	\$	160.29	45,288	25.92	\$	6.18
Bentley	Bentley	\$	237.44	31,719	36.74	\$	6.46
Porsche	Carrera GT	\$	144.79	36,159	22.12	\$	6.55
Lamborghini	Lamborghini	\$	87.11	37,099	14.02	\$	6.21
Ferrari	Ferrari	\$	96.62	32,714	15.64	\$	6.18
Ford	GT	\$	98.49	31,365	15.90	\$	6.19
Aston Martin	Aston Martin	\$	126.75	33,750	19.88	\$	6.38
	Total Ultra Luxury	\$	139.54	36,487.88	21.93	\$	6.34
Lexus	GX 470	\$	79.39	45,722	16.65	\$	4.77
Land Rover	Discovery	\$	70.57	51,335	17.00	\$	4.15
Land Rover	LR3	\$	89.87	47,290	20.19	\$	4.45
Infiniti	QX4	\$	69.06	43,975	14.77	\$	4.68
Land Rover	Range Rover Sport	\$	78.48	51,906	17.07	\$	4.60
Lincoln	Aviator	\$	79.95	50,584	16.24	\$	4.92
Mercury	Mountaineer	\$	90.17	41,419	17.75	\$	5.08
Subaru	B9 Tribeca	\$	59.55	46,120	13.71	\$	4.35
GMC	Envoy	\$	88.74	42,117	20.62	\$	4.30
Buick	Rainier	\$	79.34	47,910	15.80	\$	5.02
Saab	9-7X	\$	53.82	47,527	12.94	\$	4.16
Hummer	H3	\$	95.83	42,364	21.01	\$	4.56
	Total Upper Mid-Range SUV	\$	77.90	46,522.42	16.98	\$	4.59
Acura	NSX	\$	129.92	32,237	25.61	\$	5.07
M-Benz	SC 430	\$	114.44	32,406	21.89	\$	5.23
Cadillac	XLR	\$	101.30	33,958	20.77	\$	4.88
Jaguar	XK	\$	119.15	32,941	24.54	\$	4.86
Porsche	911 Carrera 4	\$	108.20	31,090	20.88	\$	5.18
Porsche	911 Carrera	\$	107.76	33,775	20.88	\$	5.16
M-Benz	SL Coupe/Roadster	\$	108.14	34,104	21.31	\$	5.08
M-Benz	CL class	\$	130.10	32,592	24.80	\$	5.25
BMW	6 Series	\$	108.33	33,922	21.93	\$	4.94
Lotus	Lotus	\$	78.56	32,936	15.80	\$	4.97
Dodge	Viper	\$	81.46	31,476	16.12	\$	5.05
	Total Upper Premium Sportscars	\$	107.94	32,857.91	21.32	\$	5.06
	Industry Straight Average	\$	73.54	43,187	18.00	\$	4.05

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In terms of the overall repair/maintenance story, the industry as a whole sees figures ranging from 169 percent to 121.5 percent of the original Transaction Price.

The Toyota Prius is highest followed by the Toyota Highlander. All other hybrids are above the industry average of 135.78 percent of TP except Lexus LX400h.

In the last case, it is a testament to Toyota's research and development that has put the latest hybrid technology in a more easily repairable and logical package as well as designing the equipment and components in a way that allows the repair and maintenance industries to simplify the requirements (and thus the energy needed) to repair and maintain the overall vehicle.

The following tables are a by-segment breakdown with a following sort for each model from highest to lowest in terms of share of transaction price.

Again, projections are based on demographics of current buyers and likely second-market buyers; their historic repair and maintenance practices as well as the use of dealer vs. aftermarket services (such as Quick Lubes).

These are **energy costs as a share of Transaction Price** and do not include the cost of the repair or maintenance. Such items included everything from lights for support industries to mandated

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pollution control and disposal requirements for toxic and non-toxic fluids as well as the energy needed to produce and distribute and stock the required parts.

The dollar figures are for the entire life of the vehicle in 2005 dollars.

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		E Cost General	Lifetime
		Repair/	R/M Share
Division	Model	Maintenance	Of Trans Prc
Kia	Rio	\$ 5,625.29	143.21%
Hyundai	Accent	\$ 4,234.28	121.92%
Chevrolet	Aveo	\$ 4,277.64	137.28%
Toyota	Echo	\$ 3,824.01	133.52%
	Total Budget Cars	\$ 4,490.31	133.98%
Chevrolet	Cobalt	\$ 5,586.42	135.33%
Toyota	Matrix **	\$ 5,414.58	131.39%
Mazda	Mazda3	\$ 4,870.64	122.01%
Nissan	Sentra	\$ 5,761.13	146.93%
Suzuki	Aerio	\$ 5,299.30	146.43%
Mitsubishi	Lancer	\$ 5,235.45	147.27%
Kia	Spectra	\$ 5,203.33	147.78%
Scion	tC	\$ 4,319.83	125.54%
Suzuki	Forenza	\$ 4,280.36	125.12%
Ford	Focus	\$ 4,457.39	136.27%
Mazda	Protégé	\$ 4,586.44	145.74%
Pontiac	Sunfire	\$ 4,327.97	140.20%
Chevrolet	Cavalier	\$ 3,886.82	125.95%
Scion	xA	\$ 4,007.89	133.73%
Toyota	Corolla	\$ 3,819.13	128.03%
Dodge	Neon	\$ 4,215.58	142.13%
Hyundai	Elantra	\$ 4,208.02	142.79%
Saturn	Ion	\$ 4,015.19	139.03%
Ford	Escort	\$ 2,936.81	126.86%
Scion	xB	\$ 2,758.70	141.69%
	Total Economy Cars	\$ 4,459.55	136.51%
Nissan	Xterra	\$ 12,168.52	147.73%
Isuzu	Trooper	\$ 9,962.34	128.10%
Mazda	Mazda5	\$ 9,689.69	141.60%
Isuzu	Rodeo	\$ 8,694.16	138.42%
Suzuki	XL-7	\$ 8,588.89	142.72%
Suzuki	Grand Vitara	\$ 7,889.33	136.92%
Kia	Sorento	\$ 7,915.48	147.21%
Chevrolet	Blazer	\$ 6,981.74	132.28%
Suzuki	Vitara	\$ 7,278.99	142.14%
Isuzu	Rodeo Sport	\$ 6,183.35	123.89%
Kia	Sportage	\$ 5,847.46	122.82%
Jeep	Liberty	\$ 6,598.91	147.33%
Chevrolet	Tracker	\$ 3,947.32	139.58%
Jeep	Wrangler	\$ 3,258.36	132.40%
	Ttl Entry Level SUVs	\$ 7,500.32	137.37%
Mitsubishi	Outlander	\$ 12,683.82	137.36%

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Hyundai	Tucson	\$ 12,933.36	143.29%
Mazda	Tribute	\$ 11,315.11	125.57%
Hyundai	Santa Fe	\$ 10,105.22	122.83%
Pontiac	Torrent	\$ 10,637.67	132.26%
Ford	Escape	\$ 11,868.84	149.35%
Mercury	Mariner	\$ 10,725.83	135.12%
Toyota	RAV4	\$ 11,158.63	140.59%
Saturn	Vue	\$ 9,628.54	127.92%
Chevrolet	Equinox	\$ 9,016.52	121.50%
Honda	Element	\$ 10,224.43	138.90%
Pontiac	Aztek	\$ 8,461.85	134.70%
Honda	CR-V	\$ 8,709.98	144.66%
	Ttl Entry Level Sportwagons	\$ 10,574.60	134.93%
Nissan	Titan	\$ 15,537.08	141.71%
Toyota	Tundra	\$ 13,429.96	131.37%
Dodge	Ram pickup	\$ 12,618.86	124.68%
Chevrolet	Silverado	\$ 13,629.79	136.53%
GMC	Sierra	\$ 12,253.13	122.74%
Ford	F Series	\$ 14,233.06	146.04%
	Ttl Full Size Pickup	\$ 13,616.98	133.85%
GMC	Savana/G Van	\$ 15,953.69	145.47%
Ford	Econoline/Club Wagon	\$ 14,701.57	134.31%
GMC	Express/G Van	\$ 13,349.47	131.99%
Dodge	Sprinter Van	\$ 14,044.04	142.42%
Dodge	Ram Van	\$ 13,540.52	146.59%
Ford	Econoline van	\$ 11,577.61	129.46%
	Full Size Van	\$ 13,861.15	138.37%
Honda	Accord Hybrid	\$ 18,587.14	138.46%
Toyota	Prius	\$ 22,430.86	169.44%
Honda	Civic Hybrid	\$ 18,801.11	142.52%
Ford	Escape Hybrid	\$ 18,236.78	141.78%
Mercury	Mariner Hybrid	\$ 17,982.43	139.95%
Honda	Insight	\$ 17,688.71	147.73%
Lexus	RX 400h	\$ 41,571.79	131.44%
Toyota	Highlander Hybrid	\$ 30,322.07	149.78%
	Ttl Hybrids	\$ 23,202.61	145.14%
Volkswagen	Phaeton	\$ 61,392.85	134.38%
Audi	allroad quattro	\$ 30,259.79	132.73%
Audi	A6	\$ 25,064.39	123.94%
Lexus	LS 430	\$ 27,372.11	141.92%
Lexus	GS 430	\$ 21,956.86	122.03%
Infiniti	Q45	\$ 24,113.30	139.48%
Jaguar	S-Type	\$ 22,656.22	139.38%
Infiniti	M45	\$ 20,199.25	127.90%
Lexus	GS 300	\$ 20,731.37	131.77%
Cadillac	DTS	\$ 17,286.99	122.23%

Dust to Dust Energy Report -- Automotive

Cadillac	DeVille	\$ 19,410.86	140.74%
M-Benz	E class	\$ 19,520.71	144.63%
Cadillac	Seville	\$ 18,021.53	133.81%
Volvo	80 series	\$ 16,793.77	124.87%
Cadillac	STS	\$ 16,291.56	125.93%
BMW	5 Series	\$ 15,926.01	124.49%
Acura	RL	\$ 15,955.92	141.78%
Lincoln	Town Car	\$ 14,142.08	125.92%
BMW	M3	\$ 16,216.50	145.95%
	Total Luxury Car	\$ 22,279.58	132.84%
Volkswagen	Golf	\$ 15,306.58	139.29%
Volkswagen	Golf GTI	\$ 14,142.97	125.76%
Saturn	L series	\$ 13,697.88	132.68%
Honda	Civic	\$ 13,356.72	135.45%
Chevrolet	HHR	\$ 21,272.26	121.96%
Pontiac	G6	\$ 14,150.36	148.28%
Chevrolet	Classic	\$ 12,632.37	136.64%
Subaru	Impreza	\$ 13,352.18	147.31%
Pontiac	Grand Am	\$ 11,681.82	128.91%
Ford	Fusion	\$ 12,612.45	140.56%
Mercury	Milan	\$ 12,525.41	139.59%
Dodge	Stratus	\$ 12,268.25	139.08%
Kia	Optima	\$ 9,916.97	122.07%
Hyundai	Sonata	\$ 11,388.99	141.18%
Suzuki	Verona	\$ 10,994.91	141.45%
Volkswagen	Beetle	\$ 10,045.86	134.88%
Pontiac	Vibe	\$ 5,321.04	129.12%
Chevrolet	Malibu	\$ 9,608.77	122.89%
Chrysler	PT Cruiser	\$ 8,051.71	122.59%
Chrysler	Sebring	\$ 7,155.36	136.84%
	Ttl Lower Mid-Range Cars	\$ 11,974.14	134.33%
Nissan	Pathfinder	\$ 11,391.63	125.93%
Toyota	4Runner	\$ 13,092.71	146.50%
Mitsubishi	Montero	\$ 12,041.44	135.77%
Mitsubishi	Montero Sport	\$ 11,133.84	128.70%
Isuzu	Axiom	\$ 10,184.31	144.07%
Land Rover	Freelander	\$ 9,890.45	145.00%
Isuzu	Ascender	\$ 8,291.55	132.92%
Jeep	Commander	\$ 9,210.80	147.68%
Jeep	Grand Cherokee	\$ 7,853.13	128.93%
Jeep	Grand Cherokee SRT-8	\$ 9,884.75	142.37%
Dodge	Durango	\$ 7,313.50	125.64%
Ford	Explorer	\$ 7,348.34	128.49%
Chevrolet	TrailBlazer	\$ 6,840.86	123.17%
	Ttl Lower Mid-Range SUV	\$ 9,575.18	135.01%
Toyota	Sequoia	\$ 18,639.41	124.57%
Nissan	Armada	\$ 19,090.86	135.82%

Dust to Dust Energy Report -- Automotive

Ford	Excursion	\$ 20,086.65	149.21%
Chevrolet	Suburban	\$ 16,967.40	132.89%
GMC	Yukon XL	\$ 17,852.76	139.89%
Ford	Expedition	\$ 18,033.56	144.72%
Chevrolet	Tahoe	\$ 16,109.98	134.62%
GMC	Yukon	\$ 16,780.29	140.28%
	Total Large SUV	\$ 17,945.11	137.75%
Chrysler	Pacifica	\$ 14,508.75	128.09%
Nissan	Murano	\$ 14,274.47	139.59%
Toyota	Highlander	\$ 12,531.90	123.54%
Ford	Freestyle/Windstar	\$ 14,941.57	147.79%
Buick	Rendezvous	\$ 11,877.69	121.86%
Honda	Pilot	\$ 11,217.21	125.29%
Mitsubishi	Endeavor	\$ 10,615.96	131.99%
	Total Mid-Range Sportwagons	\$ 12,852.51	131.16%
Volkswagen	EuroVan/T4	\$ 11,783.76	126.07%
Honda	Odyssey	\$ 12,076.07	130.75%
Pontiac	Montana SV6	\$ 11,795.51	129.28%
Chrysler	Town & Country	\$ 12,408.27	137.29%
Buick	Terraza	\$ 11,516.96	127.81%
Dodge	Caravan/Grand Caravan	\$ 12,852.71	144.64%
Toyota	Sienna	\$ 12,794.18	144.03%
Chevrolet	Venture	\$ 12,288.74	140.70%
Saturn	Relay	\$ 11,801.30	135.15%
Pontiac	Montana	\$ 12,346.30	141.44%
Nissan	Quest	\$ 11,989.13	138.94%
Chevrolet	Uplander	\$ 12,773.14	148.06%
Ford	Freestar	\$ 12,239.75	145.21%
Mercury	Monterey	\$ 11,943.89	141.70%
Kia	Sedona	\$ 10,259.80	126.29%
Mazda	MPV	\$ 11,057.25	138.98%
GMC	Safari	\$ 9,489.91	135.03%
Chevrolet	Astro	\$ 9,602.40	136.65%
	Total Minivans	\$ 11,723.28	137.11%
Volvo	70 series	\$ 13,569.95	134.17%
Volvo	60 series	\$ 11,291.55	122.15%
Mercury	Zephyr	\$ 12,405.02	138.65%
Acura	TL	\$ 11,293.85	130.61%
Acura	CL	\$ 10,138.51	123.07%
Lincoln	LS	\$ 11,403.04	138.74%
Jaguar	X-Type	\$ 9,771.32	125.66%
Lexus	ES 330	\$ 10,630.05	140.87%
Lexus	IS 300	\$ 9,760.68	130.70%
Infiniti	G35	\$ 9,894.10	136.64%
M-Benz	C class	\$ 9,129.99	131.86%
Cadillac	CTS	\$ 8,797.03	128.48%
BMW	330	\$ 9,339.61	141.81%

Dust to Dust Energy Report -- Automotive

Buick	Park Avenue	\$ 8,659.90	136.57%
BMW	325	\$ 8,792.92	140.98%
Saab	9-5	\$ 8,220.56	131.93%
	Total Near Luxury Cars	\$ 10,193.63	133.31%
Audi	A8	\$ 28,841.68	142.59%
M-Benz	S class	\$ 21,650.64	144.83%
Maserati	Maserati	\$ 16,822.01	135.16%
BMW	7 Series	\$ 16,771.92	140.21%
Jaguar	XJ	\$ 14,579.76	128.49%
	Total Premium Cars	\$ 19,733.20	138.26%
Mercury	Montego	\$ 11,720.59	127.08%
Buick	LaCrosse	\$ 12,381.38	135.36%
Volkswagen	Passat	\$ 11,243.04	134.47%
Dodge	Magnum	\$ 11,703.73	142.26%
Ford	Five Hundred	\$ 10,057.55	122.31%
Dodge	Charger	\$ 11,133.34	138.44%
Nissan	Maxima	\$ 10,563.07	131.89%
Chrysler	300/300M	\$ 11,712.28	146.55%
Mitsubishi	Diamante	\$ 10,441.42	132.64%
Volvo	40 series	\$ 11,138.37	144.13%
Infiniti	I30/I35	\$ 9,277.69	123.03%
Mazda	Millenia	\$ 10,883.78	148.24%
Audi	A4/S4	\$ 8,844.90	122.37%
Audi	S4		123.29%
Acura	TSX	\$ 9,334.51	132.80%
Saab	9-3	\$ 9,801.02	147.03%
Saab	9-2	\$ 8,317.42	131.48%
Buick	Regal	\$ 6,523.02	137.24%
	Total Premium Mid-Range Cars	\$ 9,726.51	134.48%
M-Benz	SLK class	\$ 22,765.74	140.33%
M-Benz	CLS class	\$ 19,395.82	129.79%
M-Benz	CLK class	\$ 17,549.00	123.35%
Porsche	Boxster	\$ 17,405.19	132.51%
Chevrolet	Corvette	\$ 15,751.72	122.41%
Audi	TT	\$ 14,431.48	127.95%
BMW	Z8	\$ 13,964.54	125.40%
BMW	Z4	\$ 14,751.60	145.81%
Ford	Thunderbird	\$ 8,015.25	133.21%
Chrysler	Crossfire	\$ 7,895.66	146.46%
	Total Premium Sporty Cars	15,192.60	132.72%
Porsche	Cayenne	\$ 13,347.99	147.28%
Volkswagen	Touareg	\$ 23,635.50	140.32%
Land Rover	Range Rover	\$ 22,551.48	146.60%
M-Benz	G class	\$ 20,345.64	134.57%
Hummer	H1	\$ 19,170.81	134.24%
Lexus	LX 470	\$ 17,879.05	135.89%

Dust to Dust Energy Report -- Automotive

Cadillac	Escalade ESV	\$ 18,838.06	144.63%
Toyota	Land Cruiser	\$ 17,667.93	136.19%
Hummer	H2	\$ 16,058.73	130.22%
Cadillac	Escalade	\$ 16,268.81	145.05%
Lincoln	Navigator	\$ 15,434.31	144.76%
	Total Premium SUV	\$ 18,290.75	139.98%
Volvo	XC90	\$ 16,676.48	123.11%
Lexus	RX330	\$ 19,992.31	148.41%
Infiniti	FX35	\$ 17,556.68	142.24%
Infiniti	FX45	\$ 18,895.28	144.36%
M-Benz	R class	\$ 14,894.16	123.48%
Volvo	50 series	\$ 17,153.50	143.34%
Acura	MDX	\$ 14,553.76	125.55%
Cadillac	SRX	\$ 16,884.19	148.93%
M-Benz	M class	\$ 12,794.46	126.54%
BMW	X5	\$ 13,710.77	142.11%
BMW	X3	\$ 11,898.77	128.97%
	Total Premium Sportwagons	\$ 15,910.03	136.09%
Honda	Accord	\$ 11,257.94	126.75%
Volkswagen	Jetta wagon	\$ 11,035.69	132.37%
Volkswagen	Jetta	\$ 10,226.43	124.50%
Toyota	Camry	\$ 10,026.08	125.94%
Subaru	Baja	\$ 10,087.03	129.67%
Subaru	Legacy	\$ 9,951.66	132.09%
Subaru	Forester	\$ 9,281.14	124.78%
Subaru	Outback	\$ 8,953.83	123.74%
Mazda	Mazda6	\$ 10,100.95	138.01%
Dodge	Intrepid	\$ 10,123.84	140.20%
Chevrolet	Monte Carlo	\$ 8,649.49	140.94%
Mitsubishi	Galant	\$ 7,941.75	133.05%
Pontiac	Grand Prix	\$ 8,595.71	144.03%
Buick	Century	\$ 8,501.94	143.42%
Mercury	Sable	\$ 8,200.96	139.07%
Ford	Taurus	\$ 8,088.14	137.25%
Mazda	626	\$ 7,972.52	140.09%
Nissan	Altima	\$ 7,328.22	130.21%
Chevrolet	Impala	\$ 7,400.01	133.84%
Hyundai	XG350	\$ 7,481.05	142.85%
Kia	Amanti	\$ 7,212.63	140.16%
	Total Small Rid-Range Cars	\$ 8,972.24	134.43%
Chevrolet	SSR	\$ 14,436.99	145.11%
Honda	Ridgeline	\$ 9,470.29	128.62%
GMC	Canyon	\$ 7,266.74	138.97%
GMC	Sonoma	\$ 6,871.43	131.41%
Nissan	Frontier	\$ 6,030.85	127.61%
Toyota	Tacoma	\$ 6,532.85	139.80%
Chevrolet	Colorado	\$ 5,955.15	129.94%

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Mitsubishi	Raider	\$ 5,857.27	127.86%
Mazda	B-Series	\$ 5,780.16	130.36%
Dodge	Dakota	\$ 5,811.08	140.67%
Ford	Ranger	\$ 4,910.80	124.45%
Chevrolet	S10	\$ 4,543.43	143.10%
	Total Small Pickup	\$ 6,955.59	133.99%
Cadillac	Escalade EXT	\$ 10,872.23	130.30%
Chevrolet	Avalanche	\$ 11,336.99	140.64%
Lincoln	Mark LT	\$ 10,438.03	131.81%
	Total Specialty Utility Pickup	\$ 10,882.42	134.25%
Mazda	RX8	\$ 14,639.00	144.74%
Nissan	350Z	\$ 12,693.43	142.08%
Audi	A3	\$ 12,320.39	144.25%
Mitsubishi	Eclipse Spyder	\$ 10,297.35	121.56%
Mitsubishi	Eclipse	\$ 11,472.69	139.35%
Pontiac	GTO	\$ 10,573.23	130.10%
Toyota	Celica	\$ 11,382.60	141.91%
Mini	Mini Cooper S	\$ 9,888.03	127.21%
Acura	RSX	\$ 9,725.58	125.12%
Pontiac	Solstice	\$ 11,086.23	144.71%
Mini	Mini Cooper	\$ 10,791.82	147.53%
Ford	Mustang	\$ 9,373.50	130.86%
Toyota	MR2 Spyder	\$ 9,734.15	141.98%
Mazda	MX-5 Miata	\$ 7,485.21	124.92%
Honda	S2000	\$ 8,678.59	146.40%
Hyundai	Tiburon	\$ 7,147.54	121.93%
Pontiac	Firebird	\$ 6,409.22	122.22%
Chevrolet	Camaro	\$ 7,756.95	148.09%
	Total Touring	\$ 10,080.86	135.83%
Toyota	Avalon	\$ 11,949.45	149.07%
Buick	Lucerne	\$ 10,036.51	136.70%
Pontiac	Bonneville	\$ 8,838.82	121.73%
Chrysler	Concorde	\$ 9,284.88	148.82%
Mercury	Grand Marquis	\$ 7,272.09	125.88%
Ford	Crown Victoria	\$ 8,600.62	148.98%
Buick	LeSabre	\$ 6,813.75	121.87%
	Total Traditional Car	\$ 8,970.87	136.15%
Maybach	Maybach	\$ 62,699.29	132.86%
Rolls-Royce	Rolls-Royce	\$ 56,409.03	129.87%
Bentley	Bentley	\$ 54,134.17	125.87%
Porsche	Carrera GT	\$ 24,235.14	131.37%
Lamborghini	Lamborghini	\$ 22,464.41	137.54%
Ferrari	Ferrari	\$ 23,764.11	147.21%
Ford	GT	\$ 22,996.83	146.57%
Aston Martin	Aston Martin	\$ 16,978.32	137.61%
	Total Ultra Luxury	\$ 35,460.16	136.11%

Dust to Dust Energy Report -- Automotive

Lexus	GX 470	\$ 14,328.31	130.90%
Land Rover	Discovery	\$ 14,209.79	138.12%
Land Rover	LR3	\$ 12,681.79	125.03%
Infiniti	QX4	\$ 13,410.08	132.55%
Land Rover	Range Rover Sport	\$ 14,718.05	149.24%
Lincoln	Aviator	\$ 12,223.43	127.82%
Mercury	Mountaineer	\$ 12,701.39	133.46%
Subaru	B9 Tribeca	\$ 13,098.68	143.50%
GMC	Envoy	\$ 12,206.82	136.45%
Buick	Rainier	\$ 10,884.00	122.54%
Saab	9-7X	\$ 12,200.36	138.06%
Hummer	H3	\$ 11,310.83	142.40%
	Total Upper Mid-Range SUV	\$ 12,831.13	135.01%
Acura	NSX	\$ 24,181.47	133.29%
M-Benz	SC 430	\$ 18,825.41	135.62%
Cadillac	XLR	\$ 16,251.07	121.74%
Jaguar	XK	\$ 16,286.53	130.70%
Porsche	911 Carrera 4	\$ 14,839.38	128.68%
Porsche	911 Carrera	\$ 14,231.55	127.58%
M-Benz	SL Coupe/Roadster	\$ 15,547.05	142.06%
M-Benz	CL class	\$ 14,701.48	142.47%
BMW	6 Series	\$ 11,841.83	128.20%
Lotus	Lotus	\$ 12,172.52	131.78%
Dodge	Viper	\$ 11,459.71	129.24%
	Total Upper Premium Sportscars	\$ 15,485.27	131.94%
Industry Straight Average		\$ 12,671.46	136.78%

Once again, this is testament or a complaint about automakers. On one hand, they are able to develop vehicles that have a fairly consistent lifetime repair rate against transaction price. On the other hand, one would think repair of more expensive vehicles would be less of a share of transaction price because more “quality” has been built into the vehicle.

Unfortunately, the repair industry sees things differently. The energy cost to maintain a facility for the repair of a Maybach is not significantly higher than the energy cost to maintain a facility to repair a Rio. The dollar figure differences are a reflection of the energy needed to produce repair and maintenance parts, however.

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The Dodge Viper vs. the Lotus data above shows a \$700 difference in large part because the latter is more specialized, how lower volume and requires more “one off” or limited production repair/maintenance components.

In the Honda Accord Hybrid vs. the Toyota Prius, the same is true. There is a repair/maintenance difference of thousands of dollars primarily because the Honda can leverage many of the repair-maintenance items against ICE versions. The Prius, as a specialty vehicle that is effectively unique to the lineup, does and will continue to demand repair and maintenance components that are produced in lower volume with a resulting higher-per unit energy cost.

Also, since the current Prius will become “obsolete” sooner the number of cross-year components will be limited. Example: About a third of all components in a 1985 Ford F Series pickup can be used on nearly a decade’s worth of F Series trucks because of long-time consistent use of those components in manufacturing. It is highly unlikely the low-volume Prius will have such a history.

The following table shows the life-time energy costs for repair and maintenance from highest to lowest of the vehicles researched. Again, this is a share of original transaction price (not MSRP).

Dust to Dust Energy Report -- Automotive

Segment	Division	Model	E Cost for General Repair/ Maintenance	Lifetime R/M Share of Trans Prc
hy	Toyota	Prius	\$ 22,430.86	169.44%
hy	Toyota	Highlander Hybrid	\$ 30,322.07	149.78%
elsw	Ford	Escape	\$ 11,868.84	149.35%
umr suv	Land Rover	Range Rover Sport	\$ 14,718.05	149.24%
lsuv	Ford	Excursion	\$ 20,086.65	149.21%
tr	Toyota	Avalon	\$ 11,949.45	149.07%
tr	Ford	Crown Victoria	\$ 8,600.62	148.98%
psw	Cadillac	SRX	\$ 16,884.19	148.93%
tr	Chrysler	Concorde	\$ 9,284.88	148.82%
psw	Lexus	RX330	\$ 19,992.31	148.41%
lmr	Pontiac	G6	\$ 14,150.36	148.28%
pmr	Mazda	Millenia	\$ 10,883.78	148.24%
t	Chevrolet	Camaro	\$ 7,756.95	148.09%
mv	Chevrolet	Uplander	\$ 12,773.14	148.06%
mrs w	Ford	Freestyle/Windstar	\$ 14,941.57	147.79%
e	Kia	Spectra	\$ 5,203.33	147.78%
elsuv	Nissan	Xterra	\$ 12,168.52	147.73%
hy	Honda	Insight	\$ 17,688.71	147.73%
lmr suv	Jeep	Commander	\$ 9,210.80	147.68%
t	Mini	Mini Cooper	\$ 10,791.82	147.53%
elsuv	Jeep	Liberty	\$ 6,598.91	147.33%
lmr	Subaru	Impreza	\$ 13,352.18	147.31%
psuv	Porsche	Cayenne	\$ 13,347.99	147.28%
e	Mitsubishi	Lancer	\$ 5,235.45	147.27%
elsuv	Kia	Sorento	\$ 7,915.48	147.21%
ul	Ferrari	Ferrari	\$ 23,764.11	147.21%
pmr	Saab	9-3	\$ 9,801.02	147.03%
e	Nissan	Sentra	\$ 5,761.13	146.93%
psuv	Land Rover	Range Rover	\$ 22,551.48	146.60%
fsv	Dodge	Ram Van	\$ 13,540.52	146.59%
ul	Ford	GT	\$ 22,996.83	146.57%
pmr	Chrysler	300/300M	\$ 11,712.28	146.55%
lmr suv	Toyota	4Runner	\$ 13,092.71	146.50%
ps	Chrysler	Crossfire	\$ 7,895.66	146.46%
e	Suzuki	Aerio	\$ 5,299.30	146.43%
t	Honda	S2000	\$ 8,678.59	146.40%
fspu	Ford	F Series	\$ 14,233.06	146.04%
l	BMW	M3	\$ 16,216.50	145.95%
ps	BMW	Z4	\$ 14,751.60	145.81%
e	Mazda	Protégé	\$ 4,586.44	145.74%
fsv	GMC	Savana/G Van	\$ 15,953.69	145.47%
mv	Ford	Freestar	\$ 12,239.75	145.21%
spu	Chevrolet	SSR	\$ 14,436.99	145.11%
psuv	Cadillac	Escalade	\$ 16,268.81	145.05%

Dust to Dust Energy Report -- Automotive

lmr suv	Land Rover	Freelander	\$ 9,890.45	145.00%
p	M-Benz	S class	\$ 21,650.64	144.83%
psuv	Lincoln	Navigator	\$ 15,434.31	144.76%
t	Mazda	RX8	\$ 14,639.00	144.74%
lsuv	Ford	Expedition	\$ 18,033.56	144.72%
t	Pontiac	Solstice	\$ 11,086.23	144.71%
elsw	Honda	CR-V	\$ 8,709.98	144.66%
mv	Dodge	Caravan/Grand Caravan	\$ 12,852.71	144.64%
l	M-Benz	E class	\$ 19,520.71	144.63%
psuv	Cadillac	Escalade ESV	\$ 18,838.06	144.63%
psw	Infiniti	FX45	\$ 18,895.28	144.36%
t	Audi	A3	\$ 12,320.39	144.25%
pmr	Volvo	40 series	\$ 11,138.37	144.13%
lmr suv	Isuzu	Axiom	\$ 10,184.31	144.07%
mv	Toyota	Sienna	\$ 12,794.18	144.03%
smr	Pontiac	Grand Prix	\$ 8,595.71	144.03%
umr suv	Subaru	B9 Tribeca	\$ 13,098.68	143.50%
smr	Buick	Century	\$ 8,501.94	143.42%
psw	Volvo	50 series	\$ 17,153.50	143.34%
elsw	Hyundai	Tucson	\$ 12,933.36	143.29%
b	Kia	Rio	\$ 5,625.29	143.21%
spu	Chevrolet	S10	\$ 4,543.43	143.10%
smr	Hyundai	XG350	\$ 7,481.05	142.85%
e	Hyundai	Elantra	\$ 4,208.02	142.79%
elsuv	Suzuki	XL-7	\$ 8,588.89	142.72%
p	Audi	A8	\$ 28,841.68	142.59%
hy	Honda	Civic Hybrid	\$ 18,801.11	142.52%
ups	M-Benz	CL class	\$ 14,701.48	142.47%
fsv	Dodge	Sprinter Van	\$ 14,044.04	142.42%
umr suv	Hummer	H3	\$ 11,310.83	142.40%
lmr suv	Jeep	Grand Cherokee SRT-8	\$ 9,884.75	142.37%
pmr	Dodge	Magnum	\$ 11,703.73	142.26%
psw	Infiniti	FX35	\$ 17,556.68	142.24%
elsuv	Suzuki	Vitara	\$ 7,278.99	142.14%
e	Dodge	Neon	\$ 4,215.58	142.13%
psw	BMW	X5	\$ 13,710.77	142.11%
t	Nissan	350Z	\$ 12,693.43	142.08%
ups	M-Benz	SL Coupe/Roadster	\$ 15,547.05	142.06%
t	Toyota	MR2 Spyder	\$ 9,734.15	141.98%
l	Lexus	LS 430	\$ 27,372.11	141.92%
t	Toyota	Celica	\$ 11,382.60	141.91%
nl	BMW	330	\$ 9,339.61	141.81%
l	Acura	RL	\$ 15,955.92	141.78%
hy	Ford	Escape Hybrid	\$ 18,236.78	141.78%
fpu	Nissan	Titan	\$ 15,537.08	141.71%
mv	Mercury	Monterey	\$ 11,943.89	141.70%
e	Scion	xB	\$ 2,758.70	141.69%
elsuv	Mazda	Mazda5	\$ 9,689.69	141.60%
lmr	Suzuki	Verona	\$ 10,994.91	141.45%
mv	Pontiac	Montana	\$ 12,346.30	141.44%

Dust to Dust Energy Report -- Automotive

lmr	Hyundai	Sonata	\$ 11,388.99	141.18%
nl	BMW	325	\$ 8,792.92	140.98%
smr	Chevrolet	Monte Carlo	\$ 8,649.49	140.94%
nl	Lexus	ES 330	\$ 10,630.05	140.87%
l	Cadillac	DeVille	\$ 19,410.86	140.74%
mv	Chevrolet	Venture	\$ 12,288.74	140.70%
spu	Dodge	Dakota	\$ 5,811.08	140.67%
sup	Chevrolet	Avalanche	\$ 11,336.99	140.64%
elstw	Toyota	RAV4	\$ 11,158.63	140.59%
lmr	Ford	Fusion	\$ 12,612.45	140.56%
ps	M-Benz	SLK class	\$ 22,765.74	140.33%
psuv	Volkswagen	Touareg	\$ 23,635.50	140.32%
lsuv	GMC	Yukon	\$ 16,780.29	140.28%
p	BMW	7 Series	\$ 16,771.92	140.21%
e	Pontiac	Sunfire	\$ 4,327.97	140.20%
smr	Dodge	Intrepid	\$ 10,123.84	140.20%
smr	Kia	Amanti	\$ 7,212.63	140.16%
smr	Mazda	626	\$ 7,972.52	140.09%
hy	Mercury	Mariner Hybrid	\$ 17,982.43	139.95%
lsuv	GMC	Yukon XL	\$ 17,852.76	139.89%
spu	Toyota	Tacoma	\$ 6,532.85	139.80%
lmr	Mercury	Milan	\$ 12,525.41	139.59%
mrs	Nissan	Murano	\$ 14,274.47	139.59%
elsuv	Chevrolet	Tracker	\$ 3,947.32	139.58%
l	Infiniti	Q45	\$ 24,113.30	139.48%
l	Jaguar	S-Type	\$ 22,656.22	139.38%
t	Mitsubishi	Eclipse	\$ 11,472.69	139.35%
lmr	Volkswagen	Golf	\$ 15,306.58	139.29%
lmr	Dodge	Stratus	\$ 12,268.25	139.08%
smr	Mercury	Sable	\$ 8,200.96	139.07%
e	Saturn	Ion	\$ 4,015.19	139.03%
mv	Mazda	MPV	\$ 11,057.25	138.98%
spu	GMC	Canyon	\$ 7,266.74	138.97%
mv	Nissan	Quest	\$ 11,989.13	138.94%
elstw	Honda	Element	\$ 10,224.43	138.90%
nl	Lincoln	LS	\$ 11,403.04	138.74%
nl	Mercury	Zephyr	\$ 12,405.02	138.65%
hy	Honda	Accord Hybrid	\$ 18,587.14	138.46%
pmr	Dodge	Charger	\$ 11,133.34	138.44%
elsuv	Isuzu	Rodeo	\$ 8,694.16	138.42%
umr suv	Land Rover	Discovery	\$ 14,209.79	138.12%
umr suv	Saab	9-7X	\$ 12,200.36	138.06%
smr	Mazda	Mazda6	\$ 10,100.95	138.01%
ul	Aston Martin	Aston Martin	\$ 16,978.32	137.61%
ul	Lamborghini	Lamborghini	\$ 22,464.41	137.54%
elstw	Mitsubishi	Outlander	\$ 12,683.82	137.36%
mv	Chrysler	Town & Country	\$ 12,408.27	137.29%
b	Chevrolet	Aveo	\$ 4,277.64	137.28%
smr	Ford	Taurus	\$ 8,088.14	137.25%
pmr	Buick	Regal	\$ 6,523.02	137.24%

Dust to Dust Energy Report -- Automotive

elsuv	Suzuki	Grand Vitara	\$ 7,889.33	136.92%
lmr	Chrysler	Sebring	\$ 7,155.36	136.84%
tr	Buick	Lucerne	\$ 10,036.51	136.70%
mv	Chevrolet	Astro	\$ 9,602.40	136.65%
lmr	Chevrolet	Classic	\$ 12,632.37	136.64%
nl	Infiniti	G35	\$ 9,894.10	136.64%
nl	Buick	Park Avenue	\$ 8,659.90	136.57%
fspu	Chevrolet	Silverado	\$ 13,629.79	136.53%
umr suv	GMC	Envoy	\$ 12,206.82	136.45%
e	Ford	Focus	\$ 4,457.39	136.27%
psuv	Toyota	Land Cruiser	\$ 17,667.93	136.19%
psuv	Lexus	LX 470	\$ 17,879.05	135.89%
lsuv	Nissan	Armada	\$ 19,090.86	135.82%
Industry Straight Average			\$ 12,671.46	135.78%
lmr suv	Mitsubishi	Montero	\$ 12,041.44	135.77%
ups	M-Benz	SC 430	\$ 18,825.41	135.62%
lmr	Honda	Civic	\$ 13,356.72	135.45%
pmr	Buick	LaCrosse	\$ 12,381.38	135.36%
e	Chevrolet	Cobalt	\$ 5,586.42	135.33%
p	Maserati	Maserati	\$ 16,822.01	135.16%
mv	Saturn	Relay	\$ 11,801.30	135.15%
elsw	Mercury	Mariner	\$ 10,725.83	135.12%
mv	GMC	Safari	\$ 9,489.91	135.03%
lmr	Volkswagen	Beetle	\$ 10,045.86	134.88%
elsw	Pontiac	Aztek	\$ 8,461.85	134.70%
lsuv	Chevrolet	Tahoe	\$ 16,109.98	134.62%
psuv	M-Benz	G class	\$ 20,345.64	134.57%
pmr	Volkswagen	Passat	\$ 11,243.04	134.47%
l	Volkswagen	Phaeton	\$ 61,392.85	134.38%
fsv	Ford	Econoline/Club Wagon	\$ 14,701.57	134.31%
psuv	Hummer	H1	\$ 19,170.81	134.24%
nl	Volvo	70 series	\$ 13,569.95	134.17%
smr	Chevrolet	Impala	\$ 7,400.01	133.84%
l	Cadillac	Seville	\$ 18,021.53	133.81%
e	Scion	xA	\$ 4,007.89	133.73%
b	Toyota	Echo	\$ 3,824.01	133.52%
umr suv	Mercury	Mountaineer	\$ 12,701.39	133.46%
ups	Acura	NSX	\$ 24,181.47	133.29%
ps	Ford	Thunderbird	\$ 8,015.25	133.21%
smr	Mitsubishi	Galant	\$ 7,941.75	133.05%
lmr suv	Isuzu	Ascender	\$ 8,291.55	132.92%
lsuv	Chevrolet	Suburban	\$ 16,967.40	132.89%
u	Maybach	Maybach	\$ 62,699.29	132.86%
pmr	Acura	TSX	\$ 9,334.51	132.80%
l	Audi	allroad quattro	\$ 30,259.79	132.73%
lmr	Saturn	L series	\$ 13,697.88	132.68%
pmr	Mitsubishi	Diamante	\$ 10,441.42	132.64%
umr suv	Infiniti	QX4	\$ 13,410.08	132.55%
ps	Porsche	Boxster	\$ 17,405.19	132.51%
elsuv	Jeep	Wrangler	\$ 3,258.36	132.40%

Dust to Dust Energy Report -- Automotive

<i>smr</i>	Volkswagen	Jetta wagon	\$ 11,035.69	132.37%
<i>elsuv</i>	Chevrolet	Blazer	\$ 6,981.74	132.28%
<i>elsw</i>	Pontiac	Torrent	\$ 10,637.67	132.26%
<i>smr</i>	Subaru	Legacy	\$ 9,951.66	132.09%
<i>fsv</i>	GMC	Express/G Van	\$ 13,349.47	131.99%
<i>mrs</i>	Mitsubishi	Endeavor	\$ 10,615.96	131.99%
<i>nl</i>	Saab	9-5	\$ 8,220.56	131.93%
<i>pmr</i>	Nissan	Maxima	\$ 10,563.07	131.89%
<i>nl</i>	M-Benz	C class	\$ 9,129.99	131.86%
<i>sup</i>	Lincoln	Mark LT	\$ 10,438.03	131.81%
<i>ups</i>	Lotus	Lotus	\$ 12,172.52	131.78%
<i>l</i>	Lexus	GS 300	\$ 20,731.37	131.77%
<i>pmr</i>	Saab	9-2	\$ 8,317.42	131.48%
hy	Lexus	RX 400h	\$ 41,571.79	131.44%
<i>spu</i>	GMC	Sonoma	\$ 6,871.43	131.41%
<i>e</i>	Toyota	Matrix **	\$ 5,414.58	131.39%
<i>fspu</i>	Toyota	Tundra	\$ 13,429.96	131.37%
<i>ul</i>	Porsche	Carrera GT	\$ 24,235.14	131.37%
<i>umr suv</i>	Lexus	GX 470	\$ 14,328.31	130.90%
<i>t</i>	Ford	Mustang	\$ 9,373.50	130.86%
<i>mv</i>	Honda	Odyssey	\$ 12,076.07	130.75%
<i>nl</i>	Lexus	IS 300	\$ 9,760.68	130.70%
<i>ups</i>	Jaguar	XK	\$ 16,286.53	130.70%
<i>nl</i>	Acura	TL	\$ 11,293.85	130.61%
<i>spu</i>	Mazda	B-Series	\$ 5,780.16	130.36%
<i>sup</i>	Cadillac	Escalade EXT	\$ 10,872.23	130.30%
<i>psuv</i>	Hummer	H2	\$ 16,058.73	130.22%
<i>smr</i>	Nissan	Altima	\$ 7,328.22	130.21%
<i>t</i>	Pontiac	GTO	\$ 10,573.23	130.10%
<i>spu</i>	Chevrolet	Colorado	\$ 5,955.15	129.94%
<i>u</i>	Rolls-Royce	Rolls-Royce	\$ 56,409.03	129.87%
<i>ps</i>	M-Benz	CLS class	\$ 19,395.82	129.79%
<i>smr</i>	Subaru	Baja	\$ 10,087.03	129.67%
<i>fsv</i>	Ford	Econoline van	\$ 11,577.61	129.46%
<i>mv</i>	Pontiac	Montana SV6	\$ 11,795.51	129.28%
<i>ups</i>	Dodge	Viper	\$ 11,459.71	129.24%
<i>lmr</i>	Pontiac	Vibe	\$ 5,321.04	129.12%
<i>psw</i>	BMW	X3	\$ 11,898.77	128.97%
<i>lmr suv</i>	Jeep	Grand Cherokee	\$ 7,853.13	128.93%
<i>lmr</i>	Pontiac	Grand Am	\$ 11,681.82	128.91%
<i>lmr suv</i>	Mitsubishi	Montero Sport	\$ 11,133.84	128.70%
<i>ups</i>	Porsche	911 Carrera 4	\$ 14,839.38	128.68%
<i>spu</i>	Honda	Ridgeline	\$ 9,470.29	128.62%
<i>lmr suv</i>	Ford	Explorer	\$ 7,348.34	128.49%
<i>p</i>	Jaguar	XJ	\$ 14,579.76	128.49%
<i>nl</i>	Cadillac	CTS	\$ 8,797.03	128.48%
<i>ups</i>	BMW	6 Series	\$ 11,841.83	128.20%
<i>elsuv</i>	Isuzu	Trooper	\$ 9,962.34	128.10%
<i>mrs</i>	Chrysler	Pacifica	\$ 14,508.75	128.09%
<i>e</i>	Toyota	Corolla	\$ 3,819.13	128.03%

Dust to Dust Energy Report -- Automotive

ps	Audi	TT	\$ 14,431.48	127.95%
elstw	Saturn	Vue	\$ 9,628.54	127.92%
l	Infiniti	M45	\$ 20,199.25	127.90%
spu	Mitsubishi	Raider	\$ 5,857.27	127.86%
umr suv	Lincoln	Aviator	\$ 12,223.43	127.82%
mv	Buick	Terraza	\$ 11,516.96	127.81%
spu	Nissan	Frontier	\$ 6,030.85	127.61%
ups	Porsche	911 Carrera	\$ 14,231.55	127.58%
t	Mini	Mini Cooper S	\$ 9,888.03	127.21%
pmr	Mercury	Montego	\$ 11,720.59	127.08%
e	Ford	Escort	\$ 2,936.81	126.86%
smr	Honda	Accord	\$ 11,257.94	126.75%
psw	M-Benz	M class	\$ 12,794.46	126.54%
mv	Kia	Sedona	\$ 10,259.80	126.29%
mv	Volkswagen	EuroVan/T4	\$ 11,783.76	126.07%
e	Chevrolet	Cavalier	\$ 3,886.82	125.95%
smr	Toyota	Camry	\$ 10,026.08	125.94%
l	Cadillac	STS	\$ 16,291.56	125.93%
lmr suv	Nissan	Pathfinder	\$ 11,391.63	125.93%
l	Lincoln	Town Car	\$ 14,142.08	125.92%
tr	Mercury	Grand Marquis	\$ 7,272.09	125.88%
ul	Bentley	Bentley	\$ 54,134.17	125.87%
lmr	Volkswagen	Golf GTI	\$ 14,142.97	125.76%
nl	Jaguar	X-Type	\$ 9,771.32	125.66%
lmr suv	Dodge	Durango	\$ 7,313.50	125.64%
elstw	Mazda	Tribute	\$ 11,315.11	125.57%
psw	Acura	MDX	\$ 14,553.76	125.55%
e	Scion	tC	\$ 4,319.83	125.54%
ps	BMW	Z8	\$ 13,964.54	125.40%
mrswe	Honda	Pilot	\$ 11,217.21	125.29%
t	Suzuki	Forenza	\$ 4,280.36	125.12%
	Acura	RSX	\$ 9,725.58	125.12%
umr suv	Land Rover	LR3	\$ 12,681.79	125.03%
t	Mazda	MX-5 Miata	\$ 7,485.21	124.92%
l	Volvo	80 series	\$ 16,793.77	124.87%
smr	Subaru	Forester	\$ 9,281.14	124.78%
fspu	Dodge	Ram pickup	\$ 12,618.86	124.68%
lsuv	Toyota	Sequoia	\$ 18,639.41	124.57%
smr	Volkswagen	Jetta	\$ 10,226.43	124.50%
l	BMW	5 Series	\$ 15,926.01	124.49%
spu	Ford	Ranger	\$ 4,910.80	124.45%
l	Audi	A6	\$ 25,064.39	123.94%
elsuv	Isuzu	Rodeo Sport	\$ 6,183.35	123.89%
smr	Subaru	Outback	\$ 8,953.83	123.74%
mrswe	Toyota	Highlander	\$ 12,531.90	123.54%
psw	M-Benz	R class	\$ 14,894.16	123.48%
ps	M-Benz	CLK class	\$ 17,549.00	123.35%
pmr	Audi	S4		123.29%
lmr suv	Chevrolet	TrailBlazer	\$ 6,840.86	123.17%
psw	Volvo	XC90	\$ 16,676.48	123.11%

Dust to Dust Energy Report -- Automotive

nl	Acura	CL	\$ 10,138.51	123.07%
pmr	Infiniti	I30/I35	\$ 9,277.69	123.03%
lmr	Chevrolet	Malibu	\$ 9,608.77	122.89%
elsw	Hyundai	Santa Fe	\$ 10,105.22	122.83%
elsuv	Kia	Sportage	\$ 5,847.46	122.82%
fspu	GMC	Sierra	\$ 12,253.13	122.74%
lmr	Chrysler	PT Cruiser	\$ 8,051.71	122.59%
umr suv	Buick	Rainier	\$ 10,884.00	122.54%
ps	Chevrolet	Corvette	\$ 15,751.72	122.41%
pmr	Audi	A4/S4	\$ 8,844.90	122.37%
pmr	Ford	Five Hundred	\$ 10,057.55	122.31%
l	Cadillac	DTS	\$ 17,286.99	122.23%
t	Pontiac	Firebird	\$ 6,409.22	122.22%
nl	Volvo	60 series	\$ 11,291.55	122.15%
lmr	Kia	Optima	\$ 9,916.97	122.07%
l	Lexus	GS 430	\$ 21,956.86	122.03%
e	Mazda	Mazda3	\$ 4,870.64	122.01%
lmr	Chevrolet	HHR	\$ 21,272.26	121.96%
t	Hyundai	Tiburon	\$ 7,147.54	121.93%
b	Hyundai	Accent	\$ 4,234.28	121.92%
tr	Buick	LeSabre	\$ 6,813.75	121.87%
mrs	Buick	Rendezvous	\$ 11,877.69	121.86%
ups	Cadillac	XLR	\$ 16,251.07	121.74%
tr	Pontiac	Bonneville	\$ 8,838.82	121.73%
t	Mitsubishi	Eclipse Spyder	\$ 10,297.35	121.56%
elsw	Chevrolet	Equinox	\$ 9,016.52	121.50%

It should be pointed out that government expenditures are similarly put into play here. That is, the use of taxes for road construction, highway maintenance, pollution enforcement, etc.. Auto-related law enforcement is part of the Fuel Economy data since that portion relates to the consumer's use of vehicles.

Dust to Dust Energy Report -- Automotive

CHAPTER FIVE – Accident Repair

Another key ingredient in the total Dust to Dust Energy use can be found in accident repair and the support industries. It is here that high-end, high-tech sports cars, premium passenger cars and hybrids have a high cost vs. the industry as a whole.

As the following data shows, for many vehicles the share of total lifetime energy usage for accident repairs is fairly stable across many market segments and vehicle prices. Generally the share is about 1.8 to 2.2 percent with an industry average of approximately 2.1 percent.

The primary reason for this relatively consistent energy cost for accident repair is the technology that has been brought to the body shop industry ranging from laser alignments to low-energy production of replacement parts. In effect, the accident repair industry has introduced technology that lowers the once-dominant cost of labor to an extremely manageable level.

Dust to Dust Energy Report -- Automotive

Additionally, there has been significant consolidation in the repair industry as large, well equipped and modern facilities transitioned from body-on-frame vehicles to unibody and expertise in making such repairs has reached extraordinarily high levels.

So when looking at the data, we see that most segment averages are close in terms of energy cost over the lifetime of the vehicle (See **Yellow highlighted column.**) as a share of that model's **Dust to Dust energy cost.**

The **Lifetime Expense** for accident repair is shown in the first column. This has been adjusted for inflation and uses 2005 dollars.

In some instances you will note that the percentages for vehicles that are considered to be “identical” are moderately to even significantly different. The calculations have included general use, demographics of both the first and likely subsequent owners and the repair industry's access to specific brand repair parts. For example, while the Chevrolet Silverado and GMC Sierra are virtually the same vehicles, the latter is typically upgraded and has slightly higher content than the Chevrolet version. In addition, some minor parts that are exclusive to GMC cost slightly more than the Chevrolet component. In addition, their use environments are different.

In those cases where the prices are dramatically different, much can be attributed to the types of drivers and frequency of accidents within those demographics. The Dollar figures are for Energy needed for repair, not the entire cost of the repairs.

Dust to Dust Energy Report -- Automotive

Division	Model	Lifetime Accident Repair	Lifetime Accident Repair	Accident Repair as % Tran Prc
Kia	Rio	\$ 2,654.96	1.70%	20.51%
Hyundai	Accent	\$ 2,587.02	2.01%	20.42%
Chevrolet	Aveo	\$ 1,987.28	1.83%	15.74%
Toyota	Echo	\$ 1,865.01	1.69%	16.63%
	Total Budget Cars	\$ 2,273.57	1.81%	18.39%
Chevrolet	Cobalt	\$ 3,236.02	1.89%	19.27%
Toyota	Matrix **	\$ 3,113.11	1.90%	17.87%
Mazda	Mazda3	\$ 3,197.50	1.99%	19.53%
Nissan	Sentra	\$ 2,714.51	1.72%	17.00%
Suzuki	Aerio	\$ 2,584.40	1.83%	17.10%
Mitsubishi	Lancer	\$ 2,499.17	1.86%	14.93%
Kia	Spectra	\$ 2,252.84	1.65%	14.40%
Scion	tC	\$ 2,066.02	1.76%	12.19%
Suzuki	Forenza	\$ 2,089.11	1.74%	12.96%
Ford	Focus	\$ 2,387.83	1.76%	14.58%
Mazda	Protégé	\$ 2,487.00	2.00%	17.00%
Pontiac	Sunfire	\$ 2,152.97	1.81%	13.52%
Chevrolet	Cavalier	\$ 2,175.82	1.89%	13.88%
Scion	xA	\$ 2,180.16	1.90%	16.58%
Toyota	Corolla	\$ 2,189.96	1.77%	13.80%
Dodge	Neon	\$ 1,960.77	1.82%	12.71%
Hyundai	Elantra	\$ 2,355.12	2.01%	15.36%
Saturn	Ion	\$ 1,905.73	1.67%	12.70%
Ford	Escort	\$ 1,996.30	1.83%	13.75%
Scion	xB	\$ 1,589.51	1.76%	10.62%
	Total Economy Cars	\$ 2,356.69	1.83%	15.01%
Nissan	Xterra	\$ 7,336.33	1.90%	29.91%
Isuzu	Trooper	\$ 6,781.56	1.70%	25.57%
Mazda	Mazda5	\$ 5,284.25	1.84%	28.19%

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Isuzu	Rodeo	\$ 5,105.54	1.80%	26.22%
Suzuki	XL-7	\$ 4,825.30	1.98%	19.09%
Suzuki	Grand Vitara	\$ 4,497.85	1.86%	19.02%
Kia	Sorento	\$ 3,302.45	1.75%	13.52%
Chevrolet	Blazer	\$ 4,954.38	1.83%	24.44%
Suzuki	Vitara	\$ 3,594.29	1.81%	18.98%
Isuzu	Rodeo Sport	\$ 3,512.36	1.77%	17.96%
Kia	Sportage	\$ 3,362.76	1.81%	15.93%
Jeep	Liberty	\$ 4,092.91	1.97%	15.69%
Chevrolet	Tracker	\$ 1,794.65	1.69%	9.67%
Jeep	Wrangler	\$ 2,175.47	1.74%	8.57%
	Ttl Entry Level SUVs	\$ 4,330.01	1.82%	19.40%
Mitsubishi	Outlander	\$ 8,253.09	1.99%	36.42%
Hyundai	Tucson	\$ 5,756.93	1.78%	25.67%
Mazda	Tribute	\$ 6,428.96	1.90%	27.76%
Hyundai	Santa Fe	\$ 5,975.81	1.96%	24.02%
Pontiac	Torrent	\$ 6,395.66	2.00%	27.77%
Ford	Escape	\$ 5,966.30	1.90%	25.25%
Mercury	Mariner	\$ 5,471.72	1.86%	22.85%
Toyota	RAV4	\$ 5,964.25	1.89%	25.22%
Saturn	Vue	\$ 5,413.05	1.82%	24.37%
Chevrolet	Equinox	\$ 6,781.30	1.97%	27.94%
Honda	Element	\$ 4,309.80	1.68%	21.83%
Pontiac	Aztek	\$ 4,869.54	1.88%	21.93%
Honda	CR-V	\$ 4,541.32	1.97%	18.53%
	Ttl Entry Level Sportwagons	\$ 5,855.98	1.89%	25.35%
Nissan	Titan	\$ 7,776.33	1.71%	24.74%
Toyota	Tundra	\$ 8,482.18	1.77%	27.66%
Dodge	Ram pickup	\$ 10,959.52	1.91%	28.38%
Chevrolet	Silverado	\$ 10,306.10	1.76%	31.48%
GMC	Sierra	\$ 10,288.46	1.81%	29.21%
Ford	F Series	\$ 11,987.41	1.87%	31.86%
	Ttl Full Size Pickup	\$ 9,966.67	1.81%	28.99%

Dust to Dust Energy Report -- Automotive

GMC	Savana/G Van	\$ 12,592.38	1.72%	47.75%
Ford	Econoline/Club Wagon	\$ 13,099.65	1.89%	43.60%
GMC	Express/G Van	\$ 11,492.57	1.83%	41.61%
Dodge	Sprinter Van	\$ 16,966.27	1.84%	48.98%
Dodge	Ram Van	\$ 9,263.01	1.80%	36.15%
Ford	Econoline van	\$ 11,903.36	1.93%	41.58%
	Full Size Van	\$ 12,552.87	1.84%	43.56%
Honda	Accord Hybrid	\$ 10,446.23	2.71%	34.57%
Toyota	Prius	\$ 15,192.48	4.29%	65.65%
Honda	Civic Hybrid	\$ 9,439.12	2.58%	39.95%
Ford	Escape Hybrid	\$ 12,235.25	2.73%	46.22%
Mercury	Mariner Hybrid	\$ 12,261.44	2.81%	43.44%
Honda	Insight	\$ 12,076.18	3.77%	59.68%
Lexus	RX 400h	\$ 36,200.15	4.77%	78.33%
Toyota	Highlander Hybrid	\$ 15,056.71	3.92%	41.34%
	Ttl Hybrids	\$ 15,363.45	3.45%	52.40%
Volkswagen	Phaeton	\$ 73,770.96	2.73%	74.20%
Audi	allroad quattro	\$ 32,550.92	2.88%	71.47%
Audi	A6	\$ 20,262.07	2.16%	39.43%
Lexus	LS 430	\$ 20,794.97	1.97%	37.32%
Lexus	GS 430	\$ 15,426.31	1.93%	30.64%
Infiniti	Q45	\$ 19,359.28	2.27%	34.07%
Jaguar	S-Type	\$ 20,142.57	3.06%	44.14%
Infiniti	M45	\$ 9,718.76	1.99%	21.29%
Lexus	GS 300	\$ 8,953.21	1.77%	20.16%
Cadillac	DTS	\$ 10,947.77	1.66%	23.52%
Cadillac	DeVille	\$ 12,505.97	1.82%	30.23%
M-Benz	E class	\$ 20,945.79	2.47%	33.86%
Cadillac	Seville	\$ 10,227.61	1.91%	24.81%
Volvo	80 series	\$ 12,734.95	1.91%	33.34%
Cadillac	STS	\$ 11,864.68	1.73%	25.34%
BMW	5 Series	\$ 12,608.61	1.94%	31.36%
Acura	RL	\$ 7,745.86	1.71%	15.08%
Lincoln	Town Car	\$ 11,107.16	1.84%	24.53%

Dust to Dust Energy Report -- Automotive

BMW	M3	\$ 7,721.06	1.98%	16.46%
	Total Luxury Car	\$ 17,862.55	2.09%	35.55%
Volkswagen	Golf	\$ 6,882.47	1.69%	31.79%
Volkswagen	Golf GTI	\$ 7,796.93	1.96%	31.42%
Saturn	L series	\$ 7,895.29	1.90%	40.55%
Honda	Civic	\$ 7,366.47	1.71%	33.01%
Chevrolet	HHR	\$ 7,939.82	1.96%	44.32%
Pontiac	G6	\$ 6,554.16	1.76%	32.28%
Chevrolet	Classic	\$ 9,820.35	1.89%	50.02%
Subaru	Impreza	\$ 5,120.03	1.68%	21.68%
Pontiac	Grand Am	\$ 7,857.16	1.84%	35.80%
Ford	Fusion	\$ 7,484.02	1.77%	36.99%
Mercury	Milan	\$ 7,783.30	1.87%	36.11%
Dodge	Stratus	\$ 8,572.41	1.97%	44.13%
Kia	Optima	\$ 5,778.18	1.80%	32.91%
Hyundai	Sonata	\$ 5,516.68	1.72%	27.94%
Suzuki	Verona	\$ 5,190.48	1.79%	27.69%
Volkswagen	Beetle	\$ 5,501.37	1.76%	27.65%
Pontiac	Vibe	\$ 3,207.87	1.97%	17.38%
Chevrolet	Malibu	\$ 5,692.89	1.82%	25.37%
Chrysler	PT Cruiser	\$ 5,292.41	1.71%	22.88%
Chrysler	Sebring	\$ 3,872.60	1.84%	20.94%
	Ttl Lower Mid-Range Cars	\$ 6,556.25	1.82%	31.88%
Nissan	Pathfinder	\$ 6,489.45	1.85%	19.72%
Toyota	4Runner	\$ 7,103.05	1.84%	19.26%
Mitsubishi	Montero	\$ 6,561.42	1.92%	19.17%
Mitsubishi	Montero Sport	\$ 5,788.67	1.92%	19.68%
Isuzu	Axiom	\$ 4,237.38	1.72%	14.73%
Land Rover	Freelander	\$ 4,893.27	1.85%	19.29%
Isuzu	Ascender	\$ 4,387.47	1.78%	16.54%
Jeep	Commander	\$ 5,667.37	1.78%	15.41%
Jeep	Grand Cherokee	\$ 5,280.13	1.69%	13.19%
Jeep	Grand Cherokee SRT-8	\$ 5,932.88	1.92%	14.15%
Dodge	Durango	\$ 4,941.92	1.88%	15.63%

Dust to Dust Energy Report -- Automotive

Ford	Explorer	\$ 4,843.82	1.70%	15.42%
Chevrolet	TrailBlazer	\$ 5,047.02	1.98%	18.54%
	Ttl Lower Mid-Range SUV	\$ 5,474.91	1.83%	16.82%
Toyota	Sequoia	\$ 11,246.50	1.75%	26.83%
Nissan	Armada	\$ 9,947.62	1.78%	25.03%
Ford	Excursion	\$ 15,731.05	1.77%	32.55%
Chevrolet	Suburban	\$ 17,132.09	2.01%	41.70%
GMC	Yukon XL	\$ 15,108.82	1.78%	30.30%
Ford	Expedition	\$ 15,460.16	1.78%	34.71%
Chevrolet	Tahoe	\$ 14,246.93	1.81%	36.80%
GMC	Yukon	\$ 14,003.76	1.80%	33.27%
	Total Large SUV	\$ 14,109.62	1.81%	32.60%
Chrysler	Pacifica	\$ 8,597.56	1.69%	28.45%
Nissan	Murano	\$ 7,594.47	1.70%	25.12%
Toyota	Highlander	\$ 6,835.48	1.76%	23.19%
Ford	Freestyle/Windstar	\$ 8,842.74	1.73%	32.62%
Buick	Rendezvous	\$ 7,153.57	1.78%	25.88%
Honda	Pilot	\$ 5,758.71	1.68%	18.03%
Mitsubishi	Endeavor	\$ 6,010.15	1.99%	18.93%
	Total Mid-Range Sportwagons	\$ 7,256.10	1.76%	24.38%
Volkswagen	EuroVan/T4	\$ 7,294.94	2.00%	19.86%
Honda	Odyssey	\$ 7,746.90	1.78%	22.35%
Pontiac	Montana SV6	\$ 7,397.23	1.99%	28.77%
Chrysler	Town & Country	\$ 6,637.88	1.75%	19.28%
Buick	Terraza	\$ 7,283.94	1.84%	22.45%
Dodge	Caravan/Grand Caravan	\$ 6,223.32	1.74%	23.77%
Toyota	Sienna	\$ 5,786.94	1.68%	16.65%
Chevrolet	Venture	\$ 6,860.47	1.85%	28.21%
Saturn	Relay	\$ 6,388.06	1.84%	23.36%
Pontiac	Montana	\$ 5,938.98	1.67%	23.37%
Nissan	Quest	\$ 6,268.66	1.85%	19.92%
Chevrolet	Uplander	\$ 5,945.38	1.80%	18.34%

Dust to Dust Energy Report -- Automotive

Ford	Freestar	\$ 6,194.95	1.86%	27.86%
Mercury	Monterey	\$ 6,019.31	1.83%	22.07%
Kia	Sedona	\$ 4,622.54	1.68%	18.59%
Mazda	MPV	\$ 5,635.26	1.85%	20.77%
GMC	Safari	\$ 6,620.02	1.90%	28.61%
Chevrolet	Astro	\$ 6,964.86	1.97%	28.11%
	Total Minivans	\$ 6,434.98	1.83%	22.48%
Volvo	70 series	\$ 7,577.07	1.65%	19.98%
Volvo	60 series	\$ 6,282.56	1.72%	17.67%
Mercury	Zephyr	\$ 7,232.21	1.84%	25.15%
Acura	TL	\$ 6,749.90	1.86%	19.76%
Acura	CL	\$ 7,359.46	2.00%	22.56%
Lincoln	LS	\$ 5,380.99	1.71%	15.07%
Jaguar	X-Type	\$ 5,902.24	1.83%	17.82%
Lexus	ES 330	\$ 5,670.06	1.78%	17.98%
Lexus	IS 300	\$ 5,611.82	1.89%	16.16%
Infiniti	G35	\$ 5,624.29	1.84%	17.17%
M-Benz	C class	\$ 5,521.15	1.90%	14.32%
Cadillac	CTS	\$ 5,000.99	1.86%	15.75%
BMW	330	\$ 5,206.05	1.83%	14.76%
Buick	Park Avenue	\$ 4,847.11	1.74%	12.63%
BMW	325	\$ 5,078.04	1.94%	13.77%
Saab	9-5	\$ 4,310.67	1.74%	12.16%
	Total Near Luxury Cars	\$ 5,834.66	1.82%	16.88%
Audi	A8	\$ 43,131.43	4.06%	48.07%
M-Benz	S class	\$ 32,139.11	3.49%	25.85%
Maserati	Maserati	\$ 29,146.25	5.89%	25.36%
BMW	7 Series	\$ 19,237.12	3.26%	17.92%
Jaguar	XJ	\$ 9,068.07	2.01%	11.69%
	Total Premium Cars	\$ 26,544.40	3.74%	25.82%
Mercury	Montego	\$ 6,227.55	1.81%	22.62%
Buick	LaCrosse	\$ 7,371.20	1.99%	26.40%
Volkswagen	Passat	\$ 7,091.77	1.80%	23.59%

Dust to Dust Energy Report -- Automotive

Dodge	Magnum	\$ 7,279.16	1.97%	25.69%
Ford	Five Hundred	\$ 6,525.88	1.88%	28.14%
Dodge	Charger	\$ 5,601.43	1.65%	22.68%
Nissan	Maxima	\$ 6,259.54	1.65%	22.27%
Chrysler	300/300M	\$ 7,268.36	1.93%	23.64%
Mitsubishi	Diamante	\$ 5,455.40	1.87%	20.58%
Volvo	40 series	\$ 5,346.31	1.74%	21.04%
Infiniti	I30/I35	\$ 6,610.94	1.90%	22.15%
Mazda	Millenia	\$ 4,092.53	1.67%	14.81%
Audi	A4/S4	\$ 5,426.33	1.81%	14.87%
Audi	S4	\$ 7,029.06	2.17%	12.47%
Acura	TSX	\$ 5,685.09	1.95%	19.78%
Saab	9-3	\$ 5,627.57	1.89%	18.67%
Saab	9-2	\$ 5,150.50	1.94%	19.99%
Buick	Regal	\$ 3,262.51	1.84%	13.87%
	Total Premium Mid-Range Cars	\$ 5,961.73	1.86%	20.21%
M-Benz	SLK class	\$ 13,990.82	2.21%	31.17%
M-Benz	CLS class	\$ 21,470.14	2.47%	34.23%
M-Benz	CLK class	\$ 17,539.82	2.63%	32.82%
Porsche	Boxster	\$ 10,679.10	2.11%	20.30%
Chevrolet	Corvette	\$ 14,274.24	2.79%	23.70%
Audi	TT	\$ 7,142.72	1.83%	17.24%
BMW	Z8	\$ 10,110.47	2.09%	20.11%
BMW	Z4	\$ 7,774.48	2.13%	20.13%
Ford	Thunderbird	\$ 5,075.69	2.01%	13.99%
Chrysler	Crossfire	\$ 3,362.52	1.94%	10.77%
	Total Premium Sporty Cars	\$ 11,142.00	2.22%	23.62%
Porsche	Cayenne	\$ 14,403.20	1.80%	14.21%
Volkswagen	Touareg	\$ 13,609.87	1.77%	33.46%
Land Rover	Range Rover	\$ 18,510.06	2.38%	20.91%
M-Benz	G class	\$ 23,128.62	2.63%	25.05%
Hummer	H1	\$ 24,973.44	1.88%	18.29%
Lexus	LX 470	\$ 14,512.48	2.11%	21.92%

Dust to Dust Energy Report -- Automotive

Cadillac	Escalade ESV	\$ 14,736.10	1.97%	20.94%
Toyota	Land Cruiser	\$ 14,071.30	2.36%	25.88%
Hummer	H2	\$ 10,314.98	1.73%	18.83%
Cadillac	Escalade	\$ 10,986.90	1.67%	18.71%
Lincoln	Navigator	\$ 10,256.33	1.95%	19.72%
	Total Premium SUV	\$ 15,409.39	2.02%	20.78%
Volvo	XC90	\$ 14,541.28	1.91%	31.42%
Lexus	RX330	\$ 11,616.49	1.83%	31.21%
Infiniti	FX35	\$ 9,747.71	1.86%	24.86%
Infiniti	FX45	\$ 11,168.86	1.93%	22.66%
M-Benz	R class	\$ 8,156.34	1.68%	15.88%
Volvo	50 series	\$ 8,567.89	1.87%	30.00%
Acura	MDX	\$ 10,984.51	1.98%	25.83%
Cadillac	SRX	\$ 9,087.62	1.91%	20.69%
M-Benz	M class	\$ 10,190.34	1.91%	22.28%
BMW	X5	\$ 7,114.54	1.81%	10.48%
BMW	X3	\$ 7,071.22	1.87%	21.28%
	Total Premium Sportwagons	\$ 9,840.62	1.87%	22.31%
Honda	Accord	\$ 8,246.28	1.81%	28.27%
Volkswagen	Jetta wagon	\$ 5,120.23	1.84%	23.57%
Volkswagen	Jetta	\$ 4,470.55	1.68%	18.99%
Toyota	Camry	\$ 7,040.88	1.82%	26.64%
Subaru	Baja	\$ 5,515.23	1.84%	23.16%
Subaru	Legacy	\$ 5,769.03	2.00%	19.61%
Subaru	Forester	\$ 5,632.54	1.87%	21.39%
Subaru	Outback	\$ 5,413.84	1.92%	17.39%
Mazda	Mazda6	\$ 5,092.46	1.75%	19.91%
Dodge	Intrepid	\$ 6,340.68	2.01%	32.31%
Chevrolet	Monte Carlo	\$ 5,266.38	1.85%	19.61%
Mitsubishi	Galant	\$ 4,213.80	1.88%	17.21%
Pontiac	Grand Prix	\$ 4,173.98	1.77%	15.73%
Buick	Century	\$ 4,303.57	1.70%	21.86%
Mercury	Sable	\$ 5,614.45	1.93%	28.26%
Ford	Taurus	\$ 5,780.00	1.94%	29.29%

Dust to Dust Energy Report -- Automotive

Mazda	626	\$ 4,705.15	1.97%	23.48%
Nissan	Altima	\$ 3,846.27	1.82%	15.21%
Chevrolet	Impala	\$ 3,966.69	1.68%	15.61%
Hyundai	XG350	\$ 3,629.31	1.87%	15.70%
Kia	Amanti	\$ 3,437.29	1.68%	15.03%
	Total Small Rid-Range Cars	\$ 5,122.79	1.84%	21.07%
Chevrolet	SSR	\$ 5,761.32	1.65%	17.83%
Honda	Ridgeline	\$ 4,860.14	1.65%	16.12%
GMC	Canyon	\$ 4,222.18	1.75%	19.75%
GMC	Sonoma	\$ 4,079.73	1.70%	18.49%
Nissan	Frontier	\$ 3,609.81	1.82%	15.20%
Toyota	Tacoma	\$ 3,908.69	1.97%	23.14%
Chevrolet	Colorado	\$ 3,911.58	1.89%	17.53%
Mitsubishi	Raider	\$ 3,836.68	1.95%	12.94%
Mazda	B-Series	\$ 3,486.45	1.66%	16.03%
Dodge	Dakota	\$ 3,348.17	1.92%	13.52%
Ford	Ranger	\$ 3,623.19	1.99%	18.73%
Chevrolet	S10	\$ 2,372.29	1.77%	12.97%
	Total Small Pickup	\$ 3,918.35	1.81%	16.64%
Cadillac	Escalade EXT	\$ 10,454.45	2.31%	18.37%
Chevrolet	Avalanche	\$ 11,851.34	2.56%	36.41%
Lincoln	Mark LT	\$ 7,127.34	1.91%	17.63%
	Total Specialty Utility Pickup	\$ 9,811.04	2.26%	22.66%
Mazda	RX8	\$ 5,762.05	1.67%	21.07%
Nissan	350Z	\$ 5,712.28	1.67%	15.77%
Audi	A3	\$ 4,836.76	1.66%	15.96%
Mitsubishi	Eclipse Spyder	\$ 4,304.81	1.74%	13.82%
Mitsubishi	Eclipse	\$ 4,888.24	1.68%	23.10%
Pontiac	GTO	\$ 5,241.77	1.80%	19.04%
Toyota	Celica	\$ 5,007.45	1.83%	23.15%
Mini	Mini Cooper S	\$ 5,436.39	1.77%	25.47%
Acura	RSX	\$ 5,156.53	1.70%	22.86%
Pontiac	Solstice	\$ 5,782.23	2.01%	27.06%

Dust to Dust Energy Report -- Automotive

Mini	Mini Cooper	\$ 5,400.62	1.78%	24.90%
Ford	Mustang	\$ 5,663.91	1.78%	20.41%
Toyota	MR2 Spyder	\$ 4,797.57	1.76%	20.80%
Mazda	MX-5 Miata	\$ 4,576.80	1.71%	18.72%
Honda	S2000	\$ 4,501.73	1.91%	14.60%
Hyundai	Tiburon	\$ 4,944.50	1.79%	28.03%
Pontiac	Firebird	\$ 4,319.50	1.94%	17.40%
Chevrolet	Camaro	\$ 4,326.12	1.88%	16.87%
	Total Touring	\$ 5,036.63	1.78%	19.86%
Toyota	Avalon	\$ 6,524.70	1.65%	21.50%
Buick	Lucerne	\$ 5,836.62	1.83%	17.69%
Pontiac	Bonneville	\$ 5,902.67	1.81%	20.63%
Chrysler	Concorde	\$ 5,155.92	1.84%	19.40%
Mercury	Grand Marquis	\$ 4,960.00	1.69%	19.27%
Ford	Crown Victoria	\$ 4,986.18	1.66%	21.44%
Buick	LeSabre	\$ 4,645.53	1.85%	18.65%
	Total Traditional Car	\$ 5,430.23	1.76%	19.75%
Maybach	Maybach	\$ 65,783.41	2.21%	17.34%
Rolls-Royce	Rolls-Royce	\$ 49,764.68	1.71%	15.12%
Bentley	Bentley	\$ 55,779.65	1.95%	32.33%
Porsche	Carrera GT	\$ 29,138.08	3.46%	6.31%
Lamborghini	Lamborghini	\$ 28,229.09	5.82%	14.04%
Ferrari	Ferrari	\$ 34,983.05	7.42%	13.71%
Ford	GT	\$ 38,638.45	8.65%	28.25%
Aston Martin	Aston Martin	\$ 17,100.17	3.62%	7.09%
	Total Ultra Luxury	\$ 39,927.07	4.36%	14.67%
Lexus	GX 470	\$ 8,891.87	1.87%	20.11%
Land Rover	Discovery	\$ 9,226.18	1.80%	20.80%
Land Rover	LR3	\$ 10,776.47	1.95%	22.75%
Infiniti	QX4	\$ 6,561.29	1.75%	15.36%
Land Rover	Range Rover Sport	\$ 9,722.76	1.95%	14.86%
Lincoln	Aviator	\$ 8,248.37	1.84%	21.21%

Dust to Dust Energy Report -- Automotive

Mercury	Mountaineer	\$ 6,590.26	1.65%	20.49%
Subaru	B9 Tribeca	\$ 5,466.68	1.66%	16.99%
GMC	Envoy	\$ 8,604.08	1.94%	24.24%
Buick	Rainier	\$ 7,174.43	1.87%	23.44%
Saab	9-7X	\$ 5,272.45	1.70%	13.44%
Hummer	H3	\$ 7,868.87	1.95%	24.51%
	Total Upper Mid-Range SUV	\$ 7,866.98	1.83%	19.48%
Acura	NSX	\$ 20,175.35	2.36%	22.11%
M-Benz	SC 430	\$ 12,197.96	2.17%	19.06%
Cadillac	XLR	\$ 13,378.72	2.49%	17.55%
Jaguar	XK	\$ 17,651.10	3.07%	22.50%
Porsche	911 Carrera 4	\$ 26,582.42	6.22%	30.74%
Porsche	911 Carrera	\$ 29,498.60	6.57%	42.01%
M-Benz	SL Coupe/Roadster	\$ 24,103.49	5.31%	14.54%
M-Benz	CL class	\$ 24,567.89	5.16%	20.96%
BMW	6 Series	\$ 19,295.89	4.92%	28.00%
Lotus	Lotus	\$ 18,954.70	6.91%	38.93%
Dodge	Viper	\$ 17,102.34	6.66%	20.22%
	Total Upper Premium Sportscars	\$ 20,318.95	4.71%	23.48%
	Industry Average	\$ 9,527.02	1.99%	22.63%

Dust to Dust Energy Report -- Automotive

To put the data into **highest-to-lowest Lifetime Accident Repair** energy cost, we find expensive and limited production vehicles have a higher repair cost than lower tech models. That may not be surprising, but it is informative when discussing society's energy outlay to support particular vehicles compared to even somewhat less elaborate models.

Division	Model	Lifetime Accident Repair	Lifetime Accident Repair	Accident Repair as % Tran Prc
Volkswagen	Phaeton	\$ 73,770.96	2.73%	74.20%
Maybach	Maybach	\$ 65,783.41	2.21%	17.34%
Bentley	Bentley	\$ 55,779.65	1.95%	32.33%
Rolls-Royce	Rolls-Royce	\$ 49,764.68	1.71%	15.12%
Audi	A8	\$ 43,131.43	4.06%	48.07%
Ford	GT	\$ 38,638.45	8.65%	28.25%
Lexus	RX 400h	\$ 36,200.15	4.77%	78.33%
Ferrari	Ferrari	\$ 34,983.05	7.42%	13.71%
Audi	allroad quattro	\$ 32,550.92	2.88%	71.47%
M-Benz	S class	\$ 32,139.11	3.49%	25.85%
Porsche	911 Carrera	\$ 29,498.60	6.57%	42.01%
Maserati	Maserati	\$ 29,146.25	5.89%	25.36%
Porsche	Carrera GT	\$ 29,138.08	3.46%	6.31%
Lamborghini	Lamborghini	\$ 28,229.09	5.82%	14.04%
Porsche	911 Carrera 4	\$ 26,582.42	6.22%	30.74%
Hummer	H1	\$ 24,973.44	1.88%	18.29%
M-Benz	CL class	\$ 24,567.89	5.16%	20.96%
M-Benz	SL Coupe/Roadster	\$ 24,103.49	5.31%	14.54%
M-Benz	G class	\$ 23,128.62	2.63%	25.05%
M-Benz	CLS class	\$ 21,470.14	2.47%	34.23%
M-Benz	E class	\$ 20,945.79	2.47%	33.86%
Lexus	LS 430	\$ 20,794.97	1.97%	37.32%
Audi	A6	\$ 20,262.07	2.16%	39.43%
Acura	NSX	\$ 20,175.35	2.36%	22.11%
Jaguar	S-Type	\$ 20,142.57	3.06%	44.14%
Infiniti	Q45	\$ 19,359.28	2.27%	34.07%
BMW	6 Series	\$ 19,295.89	4.92%	28.00%
BMW	7 Series	\$ 19,237.12	3.26%	17.92%
Lotus	Lotus	\$ 18,954.70	6.91%	38.93%
Land Rover	Range Rover	\$ 18,510.06	2.38%	20.91%
Jaguar	XK	\$ 17,651.10	3.07%	22.50%
M-Benz	CLK class	\$ 17,539.82	2.63%	32.82%
Chevrolet	Suburban	\$ 17,132.09	2.01%	41.70%
Dodge	Viper	\$ 17,102.34	6.66%	20.22%
Aston Martin	Aston Martin	\$ 17,100.17	3.62%	7.09%
Dodge	Sprinter Van	\$ 16,966.27	1.84%	48.98%

Dust to Dust Energy Report -- Automotive

Ford	Excursion	\$ 15,731.05	1.77%	32.55%
Ford	Expedition	\$ 15,460.16	1.78%	34.71%
Lexus	GS 430	\$ 15,426.31	1.93%	30.64%
Toyota	Prius	\$ 15,192.48	4.29%	65.65%
GMC	Yukon XL	\$ 15,108.82	1.78%	30.30%
Toyota	Highlander Hybrid	\$ 15,056.71	3.92%	41.34%
Cadillac	Escalade ESV	\$ 14,736.10	1.97%	20.94%
Volvo	XC90	\$ 14,541.28	1.91%	31.42%
Lexus	LX 470	\$ 14,512.48	2.11%	21.92%
Porsche	Cayenne	\$ 14,403.20	1.80%	14.21%
Chevrolet	Corvette	\$ 14,274.24	2.79%	23.70%
Chevrolet	Tahoe	\$ 14,246.93	1.81%	36.80%
Toyota	Land Cruiser	\$ 14,071.30	2.36%	25.88%
GMC	Yukon	\$ 14,003.76	1.80%	33.27%
M-Benz	SLK class	\$ 13,990.82	2.21%	31.17%
Volkswagen	Touareg	\$ 13,609.87	1.77%	33.46%
Cadillac	XLR	\$ 13,378.72	2.49%	17.55%
Ford	Econoline/Club Wagon	\$ 13,099.65	1.89%	43.60%
Volvo	80 series	\$ 12,734.95	1.91%	33.34%
BMW	5 Series	\$ 12,608.61	1.94%	31.36%
GMC	Savana/G Van	\$ 12,592.38	1.72%	47.75%
Cadillac	DeVille	\$ 12,505.97	1.82%	30.23%
Mercury	Mariner Hybrid	\$ 12,261.44	2.81%	43.44%
Ford	Escape Hybrid	\$ 12,235.25	2.73%	46.22%
M-Benz	SC 430	\$ 12,197.96	2.17%	19.06%
Honda	Insight	\$ 12,076.18	3.77%	59.68%
Ford	F Series	\$ 11,987.41	1.87%	31.86%
Ford	Econoline van	\$ 11,903.36	1.93%	41.58%
Cadillac	STS	\$ 11,864.68	1.73%	25.34%
Chevrolet	Avalanche	\$ 11,851.34	2.56%	36.41%
Lexus	RX330	\$ 11,616.49	1.83%	31.21%
GMC	Express/G Van	\$ 11,492.57	1.83%	41.61%
Toyota	Sequoia	\$ 11,246.50	1.75%	26.83%
Infiniti	FX45	\$ 11,168.86	1.93%	22.66%
Lincoln	Town Car	\$ 11,107.16	1.84%	24.53%
Cadillac	Escalade	\$ 10,986.90	1.67%	18.71%
Acura	MDX	\$ 10,984.51	1.98%	25.83%
Dodge	Ram pickup	\$ 10,959.52	1.91%	28.38%
Cadillac	DTS	\$ 10,947.77	1.66%	23.52%
Land Rover	LR3	\$ 10,776.47	1.95%	22.75%
Porsche	Boxster	\$ 10,679.10	2.11%	20.30%
Cadillac	Escalade EXT	\$ 10,454.45	2.31%	18.37%
Honda	Accord Hybrid	\$ 10,446.23	2.71%	34.57%
Hummer	H2	\$ 10,314.98	1.73%	18.83%
Chevrolet	Silverado	\$ 10,306.10	1.76%	31.48%
GMC	Sierra	\$ 10,288.46	1.81%	29.21%
Lincoln	Navigator	\$ 10,256.33	1.95%	19.72%
Cadillac	Seville	\$ 10,227.61	1.91%	24.81%
M-Benz	M class	\$ 10,190.34	1.91%	22.28%
BMW	Z8	\$ 10,110.47	2.09%	20.11%

Dust to Dust Energy Report -- Automotive

Nissan	Armada	\$ 9,947.62	1.78%	25.03%
Chevrolet	Classic	\$ 9,820.35	1.89%	50.02%
Infiniti	FX35	\$ 9,747.71	1.86%	24.86%
Land Rover	Range Rover Sport	\$ 9,722.76	1.95%	14.86%
Infiniti	M45	\$ 9,718.76	1.99%	21.29%
Honda	Civic Hybrid	\$ 9,439.12	2.58%	39.95%
Dodge	Ram Van	\$ 9,263.01	1.80%	36.15%
Industry Average		\$ 9,231.27	2.10%	23.60%
Land Rover	Discovery	\$ 9,226.18	1.80%	20.80%
Cadillac	SRX	\$ 9,087.62	1.91%	20.69%
Jaguar	XJ	\$ 9,068.07	2.01%	11.69%
Lexus	GS 300	\$ 8,953.21	1.77%	20.16%
Lexus	GX 470	\$ 8,891.87	1.87%	20.11%
Ford	Freestyle/Windstar	\$ 8,842.74	1.73%	32.62%
GMC	Envoy	\$ 8,604.08	1.94%	24.24%
Chrysler	Pacifica	\$ 8,597.56	1.69%	28.45%
Dodge	Stratus	\$ 8,572.41	1.97%	44.13%
Volvo	50 series	\$ 8,567.89	1.87%	30.00%
Toyota	Tundra	\$ 8,482.18	1.77%	27.66%
Mitsubishi	Outlander	\$ 8,253.09	1.99%	36.42%
Lincoln	Aviator	\$ 8,248.37	1.84%	21.21%
Honda	Accord	\$ 8,246.28	1.81%	28.27%
M-Benz	R class	\$ 8,156.34	1.68%	15.88%
Chevrolet	HHR	\$ 7,939.82	1.96%	44.32%
Saturn	L series	\$ 7,895.29	1.90%	40.55%
Hummer	H3	\$ 7,868.87	1.95%	24.51%
Pontiac	Grand Am	\$ 7,857.16	1.84%	35.80%
Volkswagen	Golf GTI	\$ 7,796.93	1.96%	31.42%
Mercury	Milan	\$ 7,783.30	1.87%	36.11%
Nissan	Titan	\$ 7,776.33	1.71%	24.74%
BMW	Z4	\$ 7,774.48	2.13%	20.13%
Honda	Odyssey	\$ 7,746.90	1.78%	22.35%
Acura	RL	\$ 7,745.86	1.71%	15.08%
BMW	M3	\$ 7,721.06	1.98%	16.46%
Nissan	Murano	\$ 7,594.47	1.70%	25.12%
Volvo	70 series	\$ 7,577.07	1.65%	19.98%
Ford	Fusion	\$ 7,484.02	1.77%	36.99%
Pontiac	Montana SV6	\$ 7,397.23	1.99%	28.77%
Buick	LaCrosse	\$ 7,371.20	1.99%	26.40%
Honda	Civic	\$ 7,366.47	1.71%	33.01%
Acura	CL	\$ 7,359.46	2.00%	22.56%
Nissan	Xterra	\$ 7,336.33	1.90%	29.91%
Volkswagen	EuroVan/T4	\$ 7,294.94	2.00%	19.86%
Buick	Terraza	\$ 7,283.94	1.84%	22.45%
Dodge	Magnum	\$ 7,279.16	1.97%	25.69%
Chrysler	300/300M	\$ 7,268.36	1.93%	23.64%
Mercury	Zephyr	\$ 7,232.21	1.84%	25.15%
Buick	Rainier	\$ 7,174.43	1.87%	23.44%
Buick	Rendezvous	\$ 7,153.57	1.78%	25.88%
Audi	TT	\$ 7,142.72	1.83%	17.24%

Dust to Dust Energy Report -- Automotive

Lincoln	Mark LT	\$ 7,127.34	1.91%	17.63%
BMW	X5	\$ 7,114.54	1.81%	10.48%
Toyota	4Runner	\$ 7,103.05	1.84%	19.26%
Volkswagen	Passat	\$ 7,091.77	1.80%	23.59%
BMW	X3	\$ 7,071.22	1.87%	21.28%
Toyota	Camry	\$ 7,040.88	1.82%	26.64%
Audi	S4	\$ 7,029.06	2.17%	12.47%
Chevrolet	Astro	\$ 6,964.86	1.97%	28.11%
Volkswagen	Golf	\$ 6,882.47	1.69%	31.79%
Chevrolet	Venture	\$ 6,860.47	1.85%	28.21%
Toyota	Highlander	\$ 6,835.48	1.76%	23.19%
Isuzu	Trooper	\$ 6,781.56	1.70%	25.57%
Chevrolet	Equinox	\$ 6,781.30	1.97%	27.94%
Acura	TL	\$ 6,749.90	1.86%	19.76%
Chrysler	Town & Country	\$ 6,637.88	1.75%	19.28%
GMC	Safari	\$ 6,620.02	1.90%	28.61%
Infiniti	I30/I35	\$ 6,610.94	1.90%	22.15%
Mercury	Mountaineer	\$ 6,590.26	1.65%	20.49%
Mitsubishi	Montero	\$ 6,561.42	1.92%	19.17%
Infiniti	QX4	\$ 6,561.29	1.75%	15.36%
Pontiac	G6	\$ 6,554.16	1.76%	32.28%
Ford	Five Hundred	\$ 6,525.88	1.88%	28.14%
Toyota	Avalon	\$ 6,524.70	1.65%	21.50%
Nissan	Pathfinder	\$ 6,489.45	1.85%	19.72%
Mazda	Tribute	\$ 6,428.96	1.90%	27.76%
Pontiac	Torrent	\$ 6,395.66	2.00%	27.77%
Saturn	Relay	\$ 6,388.06	1.84%	23.36%
Dodge	Intrepid	\$ 6,340.68	2.01%	32.31%
Volvo	60 series	\$ 6,282.56	1.72%	17.67%
Nissan	Quest	\$ 6,268.66	1.85%	19.92%
Nissan	Maxima	\$ 6,259.54	1.65%	22.27%
Mercury	Montego	\$ 6,227.55	1.81%	22.62%
Dodge	Caravan/Grand Caravan	\$ 6,223.32	1.74%	23.77%
Ford	Freestar	\$ 6,194.95	1.86%	27.86%
Mercury	Monterey	\$ 6,019.31	1.83%	22.07%
Mitsubishi	Endeavor	\$ 6,010.15	1.99%	18.93%
Hyundai	Santa Fe	\$ 5,975.81	1.96%	24.02%
Ford	Escape	\$ 5,966.30	1.90%	25.25%
Toyota	RAV4	\$ 5,964.25	1.89%	25.22%
Chevrolet	Uplander	\$ 5,945.38	1.80%	18.34%
Pontiac	Montana	\$ 5,938.98	1.67%	23.37%
Jeep	Grand Cherokee SRT-8	\$ 5,932.88	1.92%	14.15%
Pontiac	Bonneville	\$ 5,902.67	1.81%	20.63%
Jaguar	X-Type	\$ 5,902.24	1.83%	17.82%
Buick	Lucerne	\$ 5,836.62	1.83%	17.69%
Mitsubishi	Montero Sport	\$ 5,788.67	1.92%	19.68%
Toyota	Sienna	\$ 5,786.94	1.68%	16.65%
Pontiac	Solstice	\$ 5,782.23	2.01%	27.06%
Ford	Taurus	\$ 5,780.00	1.94%	29.29%
Kia	Optima	\$ 5,778.18	1.80%	32.91%

Dust to Dust Energy Report -- Automotive

Subaru	Legacy	\$ 5,769.03	2.00%	19.61%
Mazda	RX8	\$ 5,762.05	1.67%	21.07%
Chevrolet	SSR	\$ 5,761.32	1.65%	17.83%
Honda	Pilot	\$ 5,758.71	1.68%	18.03%
Hyundai	Tucson	\$ 5,756.93	1.78%	25.67%
Nissan	350Z	\$ 5,712.28	1.67%	15.77%
Chevrolet	Malibu	\$ 5,692.89	1.82%	25.37%
Acura	TSX	\$ 5,685.09	1.95%	19.78%
Lexus	ES 330	\$ 5,670.06	1.78%	17.98%
Jeep	Commander	\$ 5,667.37	1.78%	15.41%
Ford	Mustang	\$ 5,663.91	1.78%	20.41%
Mazda	MPV	\$ 5,635.26	1.85%	20.77%
Subaru	Forester	\$ 5,632.54	1.87%	21.39%
Saab	9-3	\$ 5,627.57	1.89%	18.67%
Infiniti	G35	\$ 5,624.29	1.84%	17.17%
Mercury	Sable	\$ 5,614.45	1.93%	28.26%
Lexus	IS 300	\$ 5,611.82	1.89%	16.16%
Dodge	Charger	\$ 5,601.43	1.65%	22.68%
M-Benz	C class	\$ 5,521.15	1.90%	14.32%
Hyundai	Sonata	\$ 5,516.68	1.72%	27.94%
Subaru	Baja	\$ 5,515.23	1.84%	23.16%
Volkswagen	Beetle	\$ 5,501.37	1.76%	27.65%
Mercury	Mariner	\$ 5,471.72	1.86%	22.85%
Subaru	B9 Tribeca	\$ 5,466.68	1.66%	16.99%
Mitsubishi	Diamante	\$ 5,455.40	1.87%	20.58%
Mini	Mini Cooper S	\$ 5,436.39	1.77%	25.47%
Audi	A4/S4	\$ 5,426.33	1.81%	14.87%
Subaru	Outback	\$ 5,413.84	1.92%	17.39%
Saturn	Vue	\$ 5,413.05	1.82%	24.37%
Mini	Mini Cooper	\$ 5,400.62	1.78%	24.90%
Lincoln	LS	\$ 5,380.99	1.71%	15.07%
Volvo	40 series	\$ 5,346.31	1.74%	21.04%
Chrysler	PT Cruiser	\$ 5,292.41	1.71%	22.88%
Mazda	Mazda5	\$ 5,284.25	1.84%	28.19%
Jeep	Grand Cherokee	\$ 5,280.13	1.69%	13.19%
Saab	9-7X	\$ 5,272.45	1.70%	13.44%
Chevrolet	Monte Carlo	\$ 5,266.38	1.85%	19.61%
Pontiac	GTO	\$ 5,241.77	1.80%	19.04%
BMW	330	\$ 5,206.05	1.83%	14.76%
Suzuki	Verona	\$ 5,190.48	1.79%	27.69%
Acura	RSX	\$ 5,156.53	1.70%	22.86%
Chrysler	Concorde	\$ 5,155.92	1.84%	19.40%
Saab	9-2	\$ 5,150.50	1.94%	19.99%
Volkswagen	Jetta wagon	\$ 5,120.23	1.84%	23.57%
Subaru	Impreza	\$ 5,120.03	1.68%	21.68%
Isuzu	Rodeo	\$ 5,105.54	1.80%	26.22%
Mazda	Mazda6	\$ 5,092.46	1.75%	19.91%
BMW	325	\$ 5,078.04	1.94%	13.77%
Ford	Thunderbird	\$ 5,075.69	2.01%	13.99%
Chevrolet	TrailBlazer	\$ 5,047.02	1.98%	18.54%

Dust to Dust Energy Report -- Automotive

Toyota	Celica	\$ 5,007.45	1.83%	23.15%
Cadillac	CTS	\$ 5,000.99	1.86%	15.75%
Ford	Crown Victoria	\$ 4,986.18	1.66%	21.44%
Mercury	Grand Marquis	\$ 4,960.00	1.69%	19.27%
Chevrolet	Blazer	\$ 4,954.38	1.83%	24.44%
Hyundai	Tiburon	\$ 4,944.50	1.79%	28.03%
Dodge	Durango	\$ 4,941.92	1.88%	15.63%
Land Rover	Freelander	\$ 4,893.27	1.85%	19.29%
Mitsubishi	Eclipse	\$ 4,888.24	1.68%	23.10%
Pontiac	Aztek	\$ 4,869.54	1.88%	21.93%
Honda	Ridgeline	\$ 4,860.14	1.65%	16.12%
Buick	Park Avenue	\$ 4,847.11	1.74%	12.63%
Ford	Explorer	\$ 4,843.82	1.70%	15.42%
Audi	A3	\$ 4,836.76	1.66%	15.96%
Suzuki	XL-7	\$ 4,825.30	1.98%	19.09%
Toyota	MR2 Spyder	\$ 4,797.57	1.76%	20.80%
Mazda	626	\$ 4,705.15	1.97%	23.48%
Buick	LeSabre	\$ 4,645.53	1.85%	18.65%
Kia	Sedona	\$ 4,622.54	1.68%	18.59%
Mazda	MX-5 Miata	\$ 4,576.80	1.71%	18.72%
Honda	CR-V	\$ 4,541.32	1.97%	18.53%
Honda	S2000	\$ 4,501.73	1.91%	14.60%
Suzuki	Grand Vitara	\$ 4,497.85	1.86%	19.02%
Volkswagen	Jetta	\$ 4,470.55	1.68%	18.99%
Isuzu	Ascender	\$ 4,387.47	1.78%	16.54%
Chevrolet	Camaro	\$ 4,326.12	1.88%	16.87%
Pontiac	Firebird	\$ 4,319.50	1.94%	17.40%
Saab	9-5	\$ 4,310.67	1.74%	12.16%
Honda	Element	\$ 4,309.80	1.68%	21.83%
Mitsubishi	Eclipse Spyder	\$ 4,304.81	1.74%	13.82%
Buick	Century	\$ 4,303.57	1.70%	21.86%
Isuzu	Axiom	\$ 4,237.38	1.72%	14.73%
GMC	Canyon	\$ 4,222.18	1.75%	19.75%
Mitsubishi	Galant	\$ 4,213.80	1.88%	17.21%
Pontiac	Grand Prix	\$ 4,173.98	1.77%	15.73%
Jeep	Liberty	\$ 4,092.91	1.97%	15.69%
Mazda	Millenia	\$ 4,092.53	1.67%	14.81%
GMC	Sonoma	\$ 4,079.73	1.70%	18.49%
Chevrolet	Impala	\$ 3,966.69	1.68%	15.61%
Chevrolet	Colorado	\$ 3,911.58	1.89%	17.53%
Toyota	Tacoma	\$ 3,908.69	1.97%	23.14%
Chrysler	Sebring	\$ 3,872.60	1.84%	20.94%
Nissan	Altima	\$ 3,846.27	1.82%	15.21%
Mitsubishi	Raider	\$ 3,836.68	1.95%	12.94%
Hyundai	XG350	\$ 3,629.31	1.87%	15.70%
Ford	Ranger	\$ 3,623.19	1.99%	18.73%
Nissan	Frontier	\$ 3,609.81	1.82%	15.20%
Suzuki	Vitara	\$ 3,594.29	1.81%	18.98%
Isuzu	Rodeo Sport	\$ 3,512.36	1.77%	17.96%
Mazda	B-Series	\$ 3,486.45	1.66%	16.03%

Dust to Dust Energy Report -- Automotive

Kia	Amanti	\$ 3,437.29	1.68%	15.03%
Kia	Sportage	\$ 3,362.76	1.81%	15.93%
Chrysler	Crossfire	\$ 3,362.52	1.94%	10.77%
Dodge	Dakota	\$ 3,348.17	1.92%	13.52%
Kia	Sorento	\$ 3,302.45	1.75%	13.52%
Buick	Regal	\$ 3,262.51	1.84%	13.87%
Chevrolet	Cobalt	\$ 3,236.02	1.89%	19.27%
Pontiac	Vibe	\$ 3,207.87	1.97%	17.38%
Mazda	Mazda3	\$ 3,197.50	1.99%	19.53%
Toyota	Matrix **	\$ 3,113.11	1.90%	17.87%
Nissan	Sentra	\$ 2,714.51	1.72%	17.00%
Kia	Rio	\$ 2,654.96	1.70%	20.51%
Hyundai	Accent	\$ 2,587.02	2.01%	20.42%
Suzuki	Aerio	\$ 2,584.40	1.83%	17.10%
Mitsubishi	Lancer	\$ 2,499.17	1.86%	14.93%
Mazda	Protégé	\$ 2,487.00	2.00%	17.00%
Ford	Focus	\$ 2,387.83	1.76%	14.58%
Chevrolet	S10	\$ 2,372.29	1.77%	12.97%
Hyundai	Elantra	\$ 2,355.12	2.01%	15.36%
Kia	Spectra	\$ 2,252.84	1.65%	14.40%
Toyota	Corolla	\$ 2,189.96	1.77%	13.80%
Scion	xA	\$ 2,180.16	1.90%	16.58%
Chevrolet	Cavalier	\$ 2,175.82	1.89%	13.88%
Jeep	Wrangler	\$ 2,175.47	1.74%	8.57%
Pontiac	Sunfire	\$ 2,152.97	1.81%	13.52%
Suzuki	Forenza	\$ 2,089.11	1.74%	12.96%
Scion	tC	\$ 2,066.02	1.76%	12.19%
Ford	Escort	\$ 1,996.30	1.83%	13.75%
Chevrolet	Aveo	\$ 1,987.28	1.83%	15.74%
Dodge	Neon	\$ 1,960.77	1.82%	12.71%
Saturn	Ion	\$ 1,905.73	1.67%	12.70%
Toyota	Echo	\$ 1,865.01	1.69%	16.63%
Chevrolet	Tracker	\$ 1,794.65	1.69%	9.67%
Scion	xB	\$ 1,589.51	1.76%	10.62%

Dust to Dust Energy Report -- Automotive

Over the life of a vehicle sold in the U.S. in 2005 and early 2006, the most expensive in terms of share of original Transaction Price is the Lexus RX 400h. That is, the energy cost to fix this model will be equivalent to 78 percent of the original price just in energy requirements related to accident repair.

At the other end of the list, taking up barely 7 percent of original transaction price is the Porsche Carrera GT. Why so little? Look at the original Transaction Price and add into that the fact it is a rare instance when Porsche's of this type are involved in serious accidents.

Dust to Dust Energy Report -- Automotive

		Lifetime Accident	Lifetime Accident	Accident Repair as % Tran
Division	Model	Repair	Repair	Prc
Lexus	RX 400h	\$ 36,200.15	4.77%	78.33%
Volkswagen	Phaeton	\$ 73,770.96	2.73%	74.20%
Audi	allroad quattro	\$ 32,550.92	2.88%	71.47%
Toyota	Prius	\$ 15,192.48	4.29%	65.65%
Honda	Insight	\$ 12,076.18	3.77%	59.68%
Chevrolet	Classic	\$ 9,820.35	1.89%	50.02%
Dodge	Sprinter Van	\$ 16,966.27	1.84%	48.98%
Audi	A8	\$ 43,131.43	4.06%	48.07%
GMC	Savana/G Van	\$ 12,592.38	1.72%	47.75%
Ford	Escape Hybrid	\$ 12,235.25	2.73%	46.22%
Chevrolet	HHR	\$ 7,939.82	1.96%	44.32%
Jaguar	S-Type	\$ 20,142.57	3.06%	44.14%
Dodge	Stratus	\$ 8,572.41	1.97%	44.13%
Ford	Econoline/Club Wagon	\$ 13,099.65	1.89%	43.60%
Mercury	Mariner Hybrid	\$ 12,261.44	2.81%	43.44%
Porsche	911 Carrera	\$ 29,498.60	6.57%	42.01%
Chevrolet	Suburban	\$ 17,132.09	2.01%	41.70%
GMC	Express/G Van	\$ 11,492.57	1.83%	41.61%
Ford	Econoline van	\$ 11,903.36	1.93%	41.58%
Toyota	Highlander Hybrid	\$ 15,056.71	3.92%	41.34%
Saturn	L series	\$ 7,895.29	1.90%	40.55%
Honda	Civic Hybrid	\$ 9,439.12	2.58%	39.95%
Audi	A6	\$ 20,262.07	2.16%	39.43%
Lotus	Lotus	\$ 18,954.70	6.91%	38.93%
Lexus	LS 430	\$ 20,794.97	1.97%	37.32%
Ford	Fusion	\$ 7,484.02	1.77%	36.99%
Chevrolet	Tahoe	\$ 14,246.93	1.81%	36.80%
Mitsubishi	Outlander	\$ 8,253.09	1.99%	36.42%
Chevrolet	Avalanche	\$ 11,851.34	2.56%	36.41%
Dodge	Ram Van	\$ 9,263.01	1.80%	36.15%
Mercury	Milan	\$ 7,783.30	1.87%	36.11%
Pontiac	Grand Am	\$ 7,857.16	1.84%	35.80%
Ford	Expedition	\$ 15,460.16	1.78%	34.71%
Honda	Accord Hybrid	\$ 10,446.23	2.71%	34.57%
M-Benz	CLS class	\$ 21,470.14	2.47%	34.23%
Infiniti	Q45	\$ 19,359.28	2.27%	34.07%
M-Benz	E class	\$ 20,945.79	2.47%	33.86%
Volkswagen	Touareg	\$ 13,609.87	1.77%	33.46%
Volvo	80 series	\$ 12,734.95	1.91%	33.34%
GMC	Yukon	\$ 14,003.76	1.80%	33.27%
Honda	Civic	\$ 7,366.47	1.71%	33.01%
Kia	Optima	\$ 5,778.18	1.80%	32.91%
M-Benz	CLK class	\$ 17,539.82	2.63%	32.82%
Ford	Freestyle/Windstar	\$ 8,842.74	1.73%	32.62%

Dust to Dust Energy Report -- Automotive

Ford	Excursion	\$ 15,731.05	1.77%	32.55%
Bentley	Bentley	\$ 55,779.65	1.95%	32.33%
Dodge	Intrepid	\$ 6,340.68	2.01%	32.31%
Pontiac	G6	\$ 6,554.16	1.76%	32.28%
Ford	F Series	\$ 11,987.41	1.87%	31.86%
Volkswagen	Golf	\$ 6,882.47	1.69%	31.79%
Chevrolet	Silverado	\$ 10,306.10	1.76%	31.48%
Volkswagen	Golf GTI	\$ 7,796.93	1.96%	31.42%
Volvo	XC90	\$ 14,541.28	1.91%	31.42%
BMW	5 Series	\$ 12,608.61	1.94%	31.36%
Lexus	RX330	\$ 11,616.49	1.83%	31.21%
M-Benz	SLK class	\$ 13,990.82	2.21%	31.17%
Porsche	911 Carrera 4	\$ 26,582.42	6.22%	30.74%
Lexus	GS 430	\$ 15,426.31	1.93%	30.64%
GMC	Yukon XL	\$ 15,108.82	1.78%	30.30%
Cadillac	DeVille	\$ 12,505.97	1.82%	30.23%
Volvo	50 series	\$ 8,567.89	1.87%	30.00%
Nissan	Xterra	\$ 7,336.33	1.90%	29.91%
Ford	Taurus	\$ 5,780.00	1.94%	29.29%
GMC	Sierra	\$ 10,288.46	1.81%	29.21%
Pontiac	Montana SV6	\$ 7,397.23	1.99%	28.77%
GMC	Safari	\$ 6,620.02	1.90%	28.61%
Chrysler	Pacifica	\$ 8,597.56	1.69%	28.45%
Dodge	Ram pickup	\$ 10,959.52	1.91%	28.38%
Honda	Accord	\$ 8,246.28	1.81%	28.27%
Mercury	Sable	\$ 5,614.45	1.93%	28.26%
Ford	GT	\$ 38,638.45	8.65%	28.25%
Chevrolet	Venture	\$ 6,860.47	1.85%	28.21%
Mazda	Mazda5	\$ 5,284.25	1.84%	28.19%
Ford	Five Hundred	\$ 6,525.88	1.88%	28.14%
Chevrolet	Astro	\$ 6,964.86	1.97%	28.11%
Hyundai	Tiburon	\$ 4,944.50	1.79%	28.03%
BMW	6 Series	\$ 19,295.89	4.92%	28.00%
Hyundai	Sonata	\$ 5,516.68	1.72%	27.94%
Chevrolet	Equinox	\$ 6,781.30	1.97%	27.94%
Ford	Freestar	\$ 6,194.95	1.86%	27.86%
Pontiac	Torrent	\$ 6,395.66	2.00%	27.77%
Mazda	Tribute	\$ 6,428.96	1.90%	27.76%
Suzuki	Verona	\$ 5,190.48	1.79%	27.69%
Toyota	Tundra	\$ 8,482.18	1.77%	27.66%
Volkswagen	Beetle	\$ 5,501.37	1.76%	27.65%
Pontiac	Solstice	\$ 5,782.23	2.01%	27.06%
Toyota	Sequoia	\$ 11,246.50	1.75%	26.83%
Toyota	Camry	\$ 7,040.88	1.82%	26.64%
Buick	LaCrosse	\$ 7,371.20	1.99%	26.40%
Isuzu	Rodeo	\$ 5,105.54	1.80%	26.22%
Buick	Rendezvous	\$ 7,153.57	1.78%	25.88%
Toyota	Land Cruiser	\$ 14,071.30	2.36%	25.88%
M-Benz	S class	\$ 32,139.11	3.49%	25.85%
Acura	MDX	\$ 10,984.51	1.98%	25.83%

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Dodge	Magnum	\$ 7,279.16	1.97%	25.69%
Hyundai	Tucson	\$ 5,756.93	1.78%	25.67%
Isuzu	Trooper	\$ 6,781.56	1.70%	25.57%
Mini	Mini Cooper S	\$ 5,436.39	1.77%	25.47%
Chevrolet	Malibu	\$ 5,692.89	1.82%	25.37%
Maserati	Maserati	\$ 29,146.25	5.89%	25.36%
Cadillac	STS	\$ 11,864.68	1.73%	25.34%
Ford	Escape	\$ 5,966.30	1.90%	25.25%
Toyota	RAV4	\$ 5,964.25	1.89%	25.22%
Mercury	Zephyr	\$ 7,232.21	1.84%	25.15%
Nissan	Murano	\$ 7,594.47	1.70%	25.12%
M-Benz	G class	\$ 23,128.62	2.63%	25.05%
Nissan	Armada	\$ 9,947.62	1.78%	25.03%
Mini	Mini Cooper	\$ 5,400.62	1.78%	24.90%
Infiniti	FX35	\$ 9,747.71	1.86%	24.86%
Cadillac	Seville	\$ 10,227.61	1.91%	24.81%
Nissan	Titan	\$ 7,776.33	1.71%	24.74%
Lincoln	Town Car	\$ 11,107.16	1.84%	24.53%
Hummer	H3	\$ 7,868.87	1.95%	24.51%
Chevrolet	Blazer	\$ 4,954.38	1.83%	24.44%
Saturn	Vue	\$ 5,413.05	1.82%	24.37%
GMC	Envoy	\$ 8,604.08	1.94%	24.24%
Hyundai	Santa Fe	\$ 5,975.81	1.96%	24.02%
Dodge	Caravan/Grand Caravan	\$ 6,223.32	1.74%	23.77%
Chevrolet	Corvette	\$ 14,274.24	2.79%	23.70%
Chrysler	300/300M	\$ 7,268.36	1.93%	23.64%
Volkswagen	Passat	\$ 7,091.77	1.80%	23.59%
Volkswagen	Jetta wagon	\$ 5,120.23	1.84%	23.57%
Cadillac	DTS	\$ 10,947.77	1.66%	23.52%
Mazda	626	\$ 4,705.15	1.97%	23.48%
Buick	Rainier	\$ 7,174.43	1.87%	23.44%
Pontiac	Montana	\$ 5,938.98	1.67%	23.37%
Saturn	Relay	\$ 6,388.06	1.84%	23.36%
Toyota	Highlander	\$ 6,835.48	1.76%	23.19%
Subaru	Baja	\$ 5,515.23	1.84%	23.16%
Toyota	Celica	\$ 5,007.45	1.83%	23.15%
Toyota	Tacoma	\$ 3,908.69	1.97%	23.14%
Mitsubishi	Eclipse	\$ 4,888.24	1.68%	23.10%
Chrysler	PT Cruiser	\$ 5,292.41	1.71%	22.88%
Acura	RSX	\$ 5,156.53	1.70%	22.86%
Mercury	Mariner	\$ 5,471.72	1.86%	22.85%
Land Rover	LR3	\$ 10,776.47	1.95%	22.75%
Dodge	Charger	\$ 5,601.43	1.65%	22.68%
Infiniti	FX45	\$ 11,168.86	1.93%	22.66%
Mercury	Montego	\$ 6,227.55	1.81%	22.62%
Acura	CL	\$ 7,359.46	2.00%	22.56%
Jaguar	XK	\$ 17,651.10	3.07%	22.50%
Buick	Terraza	\$ 7,283.94	1.84%	22.45%
Honda	Odyssey	\$ 7,746.90	1.78%	22.35%
M-Benz	M class	\$ 10,190.34	1.91%	22.28%

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Nissan	Maxima	\$ 6,259.54	1.65%	22.27%
Infiniti	I30/I35	\$ 6,610.94	1.90%	22.15%
Acura	NSX	\$ 20,175.35	2.36%	22.11%
Mercury	Monterey	\$ 6,019.31	1.83%	22.07%
Pontiac	Aztek	\$ 4,869.54	1.88%	21.93%
Lexus	LX 470	\$ 14,512.48	2.11%	21.92%
Buick	Century	\$ 4,303.57	1.70%	21.86%
Honda	Element	\$ 4,309.80	1.68%	21.83%
Subaru	Impreza	\$ 5,120.03	1.68%	21.68%
Toyota	Avalon	\$ 6,524.70	1.65%	21.50%
Ford	Crown Victoria	\$ 4,986.18	1.66%	21.44%
Subaru	Forester	\$ 5,632.54	1.87%	21.39%
Infiniti	M45	\$ 9,718.76	1.99%	21.29%
BMW	X3	\$ 7,071.22	1.87%	21.28%
Lincoln	Aviator	\$ 8,248.37	1.84%	21.21%
Mazda	RX8	\$ 5,762.05	1.67%	21.07%
Volvo	40 series	\$ 5,346.31	1.74%	21.04%
M-Benz	CL class	\$ 24,567.89	5.16%	20.96%
Cadillac	Escalade ESV	\$ 14,736.10	1.97%	20.94%
Chrysler	Sebring	\$ 3,872.60	1.84%	20.94%
Land Rover	Range Rover	\$ 18,510.06	2.38%	20.91%
Land Rover	Discovery	\$ 9,226.18	1.80%	20.80%
Toyota	MR2 Spyder	\$ 4,797.57	1.76%	20.80%
Mazda	MPV	\$ 5,635.26	1.85%	20.77%
Cadillac	SRX	\$ 9,087.62	1.91%	20.69%
Pontiac	Bonneville	\$ 5,902.67	1.81%	20.63%
Mitsubishi	Diamante	\$ 5,455.40	1.87%	20.58%
Kia	Rio	\$ 2,654.96	1.70%	20.51%
Mercury	Mountaineer	\$ 6,590.26	1.65%	20.49%
Hyundai	Accent	\$ 2,587.02	2.01%	20.42%
Ford	Mustang	\$ 5,663.91	1.78%	20.41%
Porsche	Boxster	\$ 10,679.10	2.11%	20.30%
Dodge	Viper	\$ 17,102.34	6.66%	20.22%
Lexus	GS 300	\$ 8,953.21	1.77%	20.16%
BMW	Z4	\$ 7,774.48	2.13%	20.13%
BMW	Z8	\$ 10,110.47	2.09%	20.11%
Lexus	GX 470	\$ 8,891.87	1.87%	20.11%
Saab	9-2	\$ 5,150.50	1.94%	19.99%
Volvo	70 series	\$ 7,577.07	1.65%	19.98%
Nissan	Quest	\$ 6,268.66	1.85%	19.92%
Mazda	Mazda6	\$ 5,092.46	1.75%	19.91%
Volkswagen	EuroVan/T4	\$ 7,294.94	2.00%	19.86%
Acura	TSX	\$ 5,685.09	1.95%	19.78%
Acura	TL	\$ 6,749.90	1.86%	19.76%
GMC	Canyon	\$ 4,222.18	1.75%	19.75%
Lincoln	Navigator	\$ 10,256.33	1.95%	19.72%
Nissan	Pathfinder	\$ 6,489.45	1.85%	19.72%
Mitsubishi	Montero Sport	\$ 5,788.67	1.92%	19.68%
Subaru	Legacy	\$ 5,769.03	2.00%	19.61%
Chevrolet	Monte Carlo	\$ 5,266.38	1.85%	19.61%

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Mazda	Mazda3	\$ 3,197.50	1.99%	19.53%
Chrysler	Concorde	\$ 5,155.92	1.84%	19.40%
Land Rover	Freelander	\$ 4,893.27	1.85%	19.29%
Chrysler	Town & Country	\$ 6,637.88	1.75%	19.28%
Chevrolet	Cobalt	\$ 3,236.02	1.89%	19.27%
Mercury	Grand Marquis	\$ 4,960.00	1.69%	19.27%
Toyota	4Runner	\$ 7,103.05	1.84%	19.26%
Mitsubishi	Montero	\$ 6,561.42	1.92%	19.17%
Suzuki	XL-7	\$ 4,825.30	1.98%	19.09%
M-Benz	SC 430	\$ 12,197.96	2.17%	19.06%
Pontiac	GTO	\$ 5,241.77	1.80%	19.04%
Suzuki	Grand Vitara	\$ 4,497.85	1.86%	19.02%
Volkswagen	Jetta	\$ 4,470.55	1.68%	18.99%
Suzuki	Vitara	\$ 3,594.29	1.81%	18.98%
Mitsubishi	Endeavor	\$ 6,010.15	1.99%	18.93%
Hummer	H2	\$ 10,314.98	1.73%	18.83%
Ford	Ranger	\$ 3,623.19	1.99%	18.73%
Mazda	MX-5 Miata	\$ 4,576.80	1.71%	18.72%
Cadillac	Escalade	\$ 10,986.90	1.67%	18.71%
Saab	9-3	\$ 5,627.57	1.89%	18.67%
Buick	LeSabre	\$ 4,645.53	1.85%	18.65%
Kia	Sedona	\$ 4,622.54	1.68%	18.59%
Chevrolet	TrailBlazer	\$ 5,047.02	1.98%	18.54%
Honda	CR-V	\$ 4,541.32	1.97%	18.53%
GMC	Sonoma	\$ 4,079.73	1.70%	18.49%
Cadillac	Escalade EXT	\$ 10,454.45	2.31%	18.37%
Chevrolet	Uplander	\$ 5,945.38	1.80%	18.34%
Hummer	H1	\$ 24,973.44	1.88%	18.29%
Honda	Pilot	\$ 5,758.71	1.68%	18.03%
Lexus	ES 330	\$ 5,670.06	1.78%	17.98%
Isuzu	Rodeo Sport	\$ 3,512.36	1.77%	17.96%
BMW	7 Series	\$ 19,237.12	3.26%	17.92%
Toyota	Matrix **	\$ 3,113.11	1.90%	17.87%
Chevrolet	SSR	\$ 5,761.32	1.65%	17.83%
Jaguar	X-Type	\$ 5,902.24	1.83%	17.82%
Buick	Lucerne	\$ 5,836.62	1.83%	17.69%
Volvo	60 series	\$ 6,282.56	1.72%	17.67%
Lincoln	Mark LT	\$ 7,127.34	1.91%	17.63%
Cadillac	XLR	\$ 13,378.72	2.49%	17.55%
Chevrolet	Colorado	\$ 3,911.58	1.89%	17.53%
Pontiac	Firebird	\$ 4,319.50	1.94%	17.40%
Subaru	Outback	\$ 5,413.84	1.92%	17.39%
Pontiac	Vibe	\$ 3,207.87	1.97%	17.38%
Maybach	Maybach	\$ 65,783.41	2.21%	17.34%
Audi	TT	\$ 7,142.72	1.83%	17.24%
Mitsubishi	Galant	\$ 4,213.80	1.88%	17.21%
Infiniti	G35	\$ 5,624.29	1.84%	17.17%
Suzuki	Aerio	\$ 2,584.40	1.83%	17.10%
Mazda	Protégé	\$ 2,487.00	2.00%	17.00%
Nissan	Sentra	\$ 2,714.51	1.72%	17.00%

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Subaru	B9 Tribeca	\$ 5,466.68	1.66%	16.99%
Chevrolet	Camaro	\$ 4,326.12	1.88%	16.87%
Toyota	Sienna	\$ 5,786.94	1.68%	16.65%
Toyota	Echo	\$ 1,865.01	1.69%	16.63%
Scion	xA	\$ 2,180.16	1.90%	16.58%
Isuzu	Ascender	\$ 4,387.47	1.78%	16.54%
BMW	M3	\$ 7,721.06	1.98%	16.46%
Lexus	IS 300	\$ 5,611.82	1.89%	16.16%
Honda	Ridgeline	\$ 4,860.14	1.65%	16.12%
Mazda	B-Series	\$ 3,486.45	1.66%	16.03%
Audi	A3	\$ 4,836.76	1.66%	15.96%
Kia	Sportage	\$ 3,362.76	1.81%	15.93%
M-Benz	R class	\$ 8,156.34	1.68%	15.88%
Nissan	350Z	\$ 5,712.28	1.67%	15.77%
Cadillac	CTS	\$ 5,000.99	1.86%	15.75%
Chevrolet	Aveo	\$ 1,987.28	1.83%	15.74%
Pontiac	Grand Prix	\$ 4,173.98	1.77%	15.73%
Hyundai	XG350	\$ 3,629.31	1.87%	15.70%
Jeep	Liberty	\$ 4,092.91	1.97%	15.69%
Dodge	Durango	\$ 4,941.92	1.88%	15.63%
Chevrolet	Impala	\$ 3,966.69	1.68%	15.61%
Ford	Explorer	\$ 4,843.82	1.70%	15.42%
Jeep	Commander	\$ 5,667.37	1.78%	15.41%
Infiniti	QX4	\$ 6,561.29	1.75%	15.36%
Hyundai	Elantra	\$ 2,355.12	2.01%	15.36%
Nissan	Altima	\$ 3,846.27	1.82%	15.21%
Nissan	Frontier	\$ 3,609.81	1.82%	15.20%
Rolls-Royce	Rolls-Royce	\$ 49,764.68	1.71%	15.12%
Acura	RL	\$ 7,745.86	1.71%	15.08%
Lincoln	LS	\$ 5,380.99	1.71%	15.07%
Kia	Amanti	\$ 3,437.29	1.68%	15.03%
Mitsubishi	Lancer	\$ 2,499.17	1.86%	14.93%
Audi	A4/S4	\$ 5,426.33	1.81%	14.87%
Land Rover	Range Rover Sport	\$ 9,722.76	1.95%	14.86%
Mazda	Millenia	\$ 4,092.53	1.67%	14.81%
BMW	330	\$ 5,206.05	1.83%	14.76%
Isuzu	Axiom	\$ 4,237.38	1.72%	14.73%
Honda	S2000	\$ 4,501.73	1.91%	14.60%
Ford	Focus	\$ 2,387.83	1.76%	14.58%
M-Benz	SL Coupe/Roadster	\$ 24,103.49	5.31%	14.54%
Kia	Spectra	\$ 2,252.84	1.65%	14.40%
M-Benz	C class	\$ 5,521.15	1.90%	14.32%
Porsche	Cayenne	\$ 14,403.20	1.80%	14.21%
Jeep	Grand Cherokee SRT-8	\$ 5,932.88	1.92%	14.15%
Lamborghini	Lamborghini	\$ 28,229.09	5.82%	14.04%
Ford	Thunderbird	\$ 5,075.69	2.01%	13.99%
Chevrolet	Cavalier	\$ 2,175.82	1.89%	13.88%
Buick	Regal	\$ 3,262.51	1.84%	13.87%
Mitsubishi	Eclipse Spyder	\$ 4,304.81	1.74%	13.82%
Toyota	Corolla	\$ 2,189.96	1.77%	13.80%

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BMW	325	\$ 5,078.04	1.94%	13.77%
Ford	Escort	\$ 1,996.30	1.83%	13.75%
Ferrari	Ferrari	\$ 34,983.05	7.42%	13.71%
Kia	Sorento	\$ 3,302.45	1.75%	13.52%
Pontiac	Sunfire	\$ 2,152.97	1.81%	13.52%
Dodge	Dakota	\$ 3,348.17	1.92%	13.52%
Saab	9-7X	\$ 5,272.45	1.70%	13.44%
Jeep	Grand Cherokee	\$ 5,280.13	1.69%	13.19%
Chevrolet	S10	\$ 2,372.29	1.77%	12.97%
Suzuki	Forenza	\$ 2,089.11	1.74%	12.96%
Mitsubishi	Raider	\$ 3,836.68	1.95%	12.94%
Dodge	Neon	\$ 1,960.77	1.82%	12.71%
Saturn	Ion	\$ 1,905.73	1.67%	12.70%
Buick	Park Avenue	\$ 4,847.11	1.74%	12.63%
Audi	S4	\$ 7,029.06	2.17%	12.47%
Scion	tC	\$ 2,066.02	1.76%	12.19%
Saab	9-5	\$ 4,310.67	1.74%	12.16%
Jaguar	XJ	\$ 9,068.07	2.01%	11.69%
Chrysler	Crossfire	\$ 3,362.52	1.94%	10.77%
Scion	xB	\$ 1,589.51	1.76%	10.62%
BMW	X5	\$ 7,114.54	1.81%	10.48%
Chevrolet	Tracker	\$ 1,794.65	1.69%	9.67%
Jeep	Wrangler	\$ 2,175.47	1.74%	8.57%
Aston				
Martin	Aston Martin	\$ 17,100.17	3.62%	7.09%
Porsche	Carrera GT	\$ 29,138.08	3.46%	6.31%
	Industry Average	\$ 9,231.27	2.10%	23.60%

Why do some vehicles have higher accident repair costs than others? In the case of hybrids, the complexity of the '05 (and previous) versions add significantly to the cost. One example, the Prius in a significant accident needs nearly three times more time and two times more parts costing nearly 9 times more than the comparable small car in the identical accident.

Clearly this will change over time. But the complexity of any vehicle plays significantly into the eventual cost of repair and replacement due to accident. This has always been the case and there is nothing in the technological advancements found in the repair industry to indicate it will change in the future.

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The issue rests with manufacturers. If Toyota can reduce the complexity of building hybrids to a simple “plug and play” system whereby major hybrid electrics and electronics can be easily detached and disposed of for simplified replacement, the cost would drop dramatically. That is not the case with most hybrids today, however.

The same can be said for same-segment models. Manufacturing and pre-production engineering can make the difference in time needed and energy expended to fix what an accident has wrought. Many automakers now work with insurance industry specialists to find those areas that can be simplified.

Full-size vans are an example. When Ford restyled its Econoline van some years ago, it had two distinctly different grille-headlight configurations. One was for general consumers, the other for commercial models. One used stylish headlights, the other more conventional flat headlights.

The difference was to ease and lower the cost of repair. Commercial vehicles are in a high-damage work environment and headlights and taillights are often broken. To replace the consumer version costs in excess of \$250 while the commercial version was less than \$50.

Note any Chevrolet full-size van with high taillights located above the “damage line” putting it out harms way. The panel below the lights is a simple plastic piece that is easily replaced if broken and far less costly to repair than a light lens and related hardware.

Dust to Dust Energy Report -- Automotive

Chevrolet also has a w/t (for work truck) version of its popular Silverado. This, too, has simplified work-environment components such as an unpainted grille and flat headlight lenses.

Toyota's Tundra pickup faced a similar issue for many commercial fleets. While the fuel economy was somewhat better than domestic pickups and the reliability was theoretically the same or better, with resale value higher, fleets were asked to select the Toyota over the more popular Ford F series.

The only issue, however, was in repair. The complex Tundra taillight would cost more than \$125 to repair while the F Series taillight was about half that amount.

In addition, the general maintenance costs for the Tundra were as much as 20 percent higher simply because Toyota parts cost more than similar replacement and maintenance Ford parts.

All of this plays into the overall social energy costs because, again, more complexity means more energy needed to design, develop, manufacture and replace components.

CHAPTER SIX – Design and Development

Designing and developing new vehicles and/or updating old ones are among the most energy expensive parts of the new-vehicle production process. It requires years of intense engineering, design, parts development, evaluation, suitability, life-cycle vs. cost analysis, prototyping and vehicle integration. It is not unusual for a new vehicle to cost in excess of \$1.5 billion just to move from concept to launch. And that doesn't guarantee success in a fickle consumer market.

One of the reasons glamorous show vehicles take as much as five years to eventually hit the streets is in this pre-production D&D stage. The Ford Thunderbird, as an example, was shown at major auto shows for three years before being ready for prime time in dealer showrooms. Not because Ford didn't want to build it or consumers weren't enthusiastically awaiting the product, rather converting from "one off" model to mass production is energy intense. Chevrolet is having

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a similar issue with the Camaro show car which, if built, will take at least two years till production.

As an aside, show vehicles can cost upwards of \$3 million each, about 30 percent going to the energy-use component, 40 percent to labor and the rest in administration, authorization processes, design and engineering.

Much of this money for D&D may not result in a product or system that works or meets consumer demand levels originally anticipated. The General Motors Impact electric vehicle, as an example, lasted only a few short years – a smaller time frame than the original design and development stage.

For CNW's Dust to Dust study we had to include some specific technological design and development costs associated with a single product that could be leveraged against other products would not be. The technology gamble for these parts or components may or may not spawn additional products.

Another quick aside: One of the Detroit 3 had a team of engineers looking at how a whole vehicle and components could be recycled into future new vehicles.

Components for the auto industry are designed to a 200,000 mile or 20 year lifespan. (This is a generalization, but one that works for this explanation.) The aircraft industry designs to a higher standard – about a million miles and/or 50 years.

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The auto company asked: “What if we could develop major and minor components to this longer-lifetime standard? Could the parts be “salvaged” and re-used in “new” passenger cars?

For example, if a window winder motor could be designed and built to a million-mile standard, what would the added cost be? The findings were dramatic. Quadrupling the life expectancy of a part costs about 20 percent more. If that part could be re-used through salvaging the window-winder motor and installing it in a new vehicle, a single re-use would cut the cost of that part by 30 percent (adjusting for refurbishing expenses, testing to assure a part is still good, etc.).

Do that with a third of new-vehicle components and the manufacturing cost of the entire vehicle could be slashed as much as 20 percent.

Standing in the way of implementing such a program is the higher cost of the original vehicle and the years it would take before longer-lifecycle components would be available for re-use.

The same is true with new technology such as hybrids or developing E85 or E100 power plants.

The passenger car’s life-environment can be and is dramatically diverse. In the same region of the country, temperature changes can swing 100 degrees in any give year. A simple act of sliding across a fabric seat in a car once generated enough static electricity to fry electrical systems.

Design and development of different seat fabrics and relocation of seat-based electrical systems ended that problem, but the D&D energy cost was significant.

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All of the environmental changes that passenger vehicles contend with would kill even the best in-home or office computer and consumers have zero tolerance for a vehicle failing day-use while they will put up with hours on the phone discussing a crashed computer with a technicians or support person.

That said, D&D is more intense with automobiles than any other consumer product and thus demands significantly higher energy costs for lights, employee transportation, prototype development, environmental testing and the hundreds of other components in making the product suitable for daily use by an often negligent buyer in literally hundreds of often harsh environments.

For these and many other reasons, the D&D cost for a vehicle has risen by a factor of 25 since the middle 1960s, according to CNW data.

Add new technologies such as hybrid power and the need to meet the same end-use environmental demands as a non-hybrid (or full electric as the Impact was) it is no surprise that the D&D cost for a Prius is dramatically different than a comparably sized Toyota Corolla.

As the figures below show, the Prius cost about \$29,000 per vehicle sold in D&D energy while the Corolla was \$2,600.

As time passes and the design and development of the Prius's hybrid technology is leveraged to other vehicles, the cost obviously will diminish on a per-model, per-sale basis. We, however,

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could not make the assumption that any of that technology would be spread across other products at the time of this study. As the GM Impact showed, high-tech products aren't guaranteed a long life.

So we had to include all of the Prius's technology D&D energy consumption into a single product.

One of the questions asked by those who viewed early results of this study was this: "How can Toyota afford to sell a vehicle for less than it cost them to develop?"

Clearly the hybrid design was and remains a gamble. As sales have shown for some hybrids early in 2006, there are no guarantees consumers will continue to pay a premium for such technology if there isn't a compelling reason and many alternatives.

As can be seen in the sales data below, hybrid sales rose by nearly 50 percent in January vs. the previous year's January but fell each month thereafter. For the first four months of the year, hybrid sales have dropped 6.6 percent vs. the first four months of the previous year even though there are more hybrid models being offered.

		cy06 v 05 Mo v Mo Change	cy06 v 05 YTD v YTD Change	cy06 Mkt Share	cy05 Mkt Share
January	Total Hybrid Vehicles	48.8%	48.8%	1.0%	0.7%
February	Total Hybrid Vehicles	-1.4%	21.1%	0.7%	0.7%
March	Total Hybrid Vehicles	-28.1%	-2.1%	0.7%	1.0%
April	Total Hybrid Vehicles	-17.0%	-6.6%	1.1%	1.2%

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As a share of market, hybrids have climbed from 0.7 percent to 1.2 percent, but much of that is on the back of new models. In April, for example, hybrid sales as a share of market slipped by a tenth of a point even though there are a couple of new models in the hybrid mix.

Looking at individual hybrid models, we see a very similar pattern.

	Apr-06	Apr-05	% Chng	Shr Mo. 06	Shr Mo. 05	% Chng
Escape Hybrid	3,039	1,705	78.2%	0.2%	0.1%	85.1%
Mariner Hybrid	381	-	#DIV/0!	0.0%	0.0%	#DIV/0!
Accord Hybrid	614	2,023	-69.6%	0.0%	0.1%	-68.5%
Civic Hybrid	3,087	3,466	-10.9%	0.2%	0.2%	-7.5%
Insight	110	90	22.2%	0.0%	0.0%	26.9%
Prius	8,234	11,345	-27.4%	0.6%	0.8%	-24.6%
Total Hybrid Vehicles	15,465	18,629	-17.0%	1.1%	1.2%	-13.8%
	YTD '06	YTD '05	% Chng	Shr ytd 06	Shr ytd 05	% Chng
Escape Hybrid	6,514	5,274	23.5%	0.1%	0.1%	23.8%
Mariner Hybrid	735	-	#DIV/0!	0.0%	0.0%	#DIV/0!
Accord Hybrid	2,329	5,545	-58.0%	0.0%	0.1%	-57.9%
Civic Hybrid	10,264	8,884	15.5%	0.2%	0.2%	15.8%
Insight	320	175	82.9%	0.0%	0.0%	83.4%
Prius	30,357	34,225	-11.3%	0.6%	0.6%	-11.1%
Total Hybrid Vehicles	50,519	54,103	-6.6%	0.9%	1.0%	-6.4%

While Toyota says the Prius hybrid sales were down because the manufacturing plant needed to make room for other hybrid models including Highlander and RX400h that clearly is not an excuse Honda can make. Accord Hybrid sales are off nearly 70 percent in April and 58 percent for the first four months of the year.

On the “up” side, note that Escape hybrid sales show an increase, but this comes at a time Ford is delivering these vehicles to taxi cab fleets in some major markets.

Back to the cost of design and development.

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Within market segments, there can be significant differences in the social energy cost for individual models based on the aforementioned amount of technology and sophistication at the individual automaker's facilities.

Generally, as a share of overall Dust to Dust Social Energy Consumption, most vehicles have a fairly consistent level of 2 to 3 percent. But the amount of total energy needed by model can be significantly different.

Just in the Budget Car category, for example, the Design and Development energy cost ranges from a low of \$2,325.01 for the Chevrolet Aveo to a high of \$3,563.89 for the Kia Rio.

In the Entry Level Sport Utility Category, the extremely simple, technologically archaic Wrangler requires barely \$2,300 for Design/Development energy while the Isuzu Trooper – from a smaller manufacturer with little leveraging power and a more technologically advanced vehicle than the Wrangler – costs more than \$8,900 in energy to design and develop.

Among Large SUVs, Nissan holds the low-cost leadership role in D&D energy consumption with the Armada while GM's Suburban has the high ground at \$19,400. That figure, by the way, is higher than it was in previous years because of the softening of the large SUV market. For Armada, much of its very basic design is shared by the Nissan full-size Titan pickup truck.

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Division	Model	Design/Development	D/D %
Kia	Rio	\$3,563.89	2.28%
Hyundai	Accent	\$2,656.53	2.06%
Chevrolet	Aveo	\$2,325.01	2.14%
Toyota	Echo	\$2,555.84	2.32%
	Total Budget Cars	\$2,775.32	2.20%
Chevrolet	Cobalt	\$3,571.60	2.09%
Toyota	Matrix **	\$3,727.53	2.28%
Mazda	Mazda3	\$3,563.84	2.22%
Nissan	Sentra	\$3,621.98	2.30%
Suzuki	Aerio	\$2,965.70	2.10%
Mitsubishi	Lancer	\$2,906.29	2.16%
Kia	Spectra	\$3,148.51	2.31%
Scion	tC	\$2,651.79	2.26%
Suzuki	Forenza	\$2,689.43	2.24%
Ford	Focus	\$3,150.30	2.32%
Mazda	Protégé	\$2,653.63	2.13%
Pontiac	Sunfire	\$2,809.56	2.36%
Chevrolet	Cavalier	\$2,545.37	2.21%
Scion	xA	\$2,437.18	2.12%
Toyota	Corolla	\$2,608.15	2.11%
Dodge	Neon	\$2,441.27	2.27%
Hyundai	Elantra	\$2,534.39	2.16%
Saturn	Ion	\$2,579.02	2.26%
Ford	Escort	\$2,297.38	2.11%
Scion	xB	\$2,120.55	2.35%
	Total Economy Cars	\$2,851.17	2.22%
Nissan	Xterra	\$8,320.94	2.16%
Isuzu	Trooper	\$8,393.18	2.10%
Mazda	Mazda5	\$6,717.31	2.34%
Isuzu	Rodeo	\$6,396.11	2.26%
Suzuki	XL-7	\$5,293.20	2.17%
Suzuki	Grand Vitara	\$5,675.51	2.35%
Kia	Sorento	\$3,953.51	2.10%
Chevrolet	Blazer	\$6,308.04	2.33%
Suzuki	Vitara	\$4,462.08	2.25%
Isuzu	Rodeo Sport	\$4,357.70	2.20%
Kia	Sportage	\$4,150.51	2.23%
Jeep	Liberty	\$4,626.85	2.23%
Chevrolet	Tracker	\$2,293.76	2.16%
Jeep	Wrangler	\$2,728.09	2.18%
	Ttl Entry Level SUVs	\$5,262.63	2.22%

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Mitsubishi	Outlander	\$9,567.78	2.31%
Hyundai	Tucson	\$7,564.86	2.34%
Mazda	Tribute	\$7,190.28	2.13%
Hyundai	Santa Fe	\$6,393.51	2.10%
Pontiac	Torrent	\$6,980.87	2.18%
Ford	Escape	\$7,212.95	2.30%
Mercury	Mariner	\$6,380.73	2.17%
Toyota	RAV4	\$7,002.47	2.22%
Saturn	Vue	\$6,462.94	2.17%
Chevrolet	Equinox	\$7,177.16	2.09%
Honda	Element	\$5,471.91	2.13%
Pontiac	Aztek	\$6,076.56	2.35%
Honda	CR-V	\$4,947.04	2.15%
	Ttl Entry Level Sportwagons	\$6,802.24	2.20%

Nissan	Titan	\$10,459.39	2.30%
Toyota	Tundra	\$11,026.84	2.30%
Dodge	Ram pickup	\$12,147.28	2.12%
Chevrolet	Silverado	\$12,220.92	2.09%
GMC	Sierra	\$12,528.04	2.20%
Ford	F Series	\$13,981.04	2.18%
	Ttl Full Size Pickup	\$12,060.58	2.20%

GMC	Savana/G Van	\$16,633.66	2.27%
Ford	Econoline/Club Wagon	\$14,312.58	2.07%
GMC	Express/G Van	\$14,494.46	2.31%
Dodge	Sprinter Van	\$21,530.57	2.34%
Dodge	Ram Van	\$11,393.50	2.21%
Ford	Econoline van	\$14,327.20	2.32%
	Full Size Van	\$15,448.66	2.25%

Honda	Accord Hybrid	\$24,207.51	6.28%
Toyota	Prius	\$29,889.18	8.44%
Honda	Civic Hybrid	\$26,451.48	7.23%
Ford	Escape Hybrid	\$23,932.68	5.34%
Mercury	Mariner Hybrid	\$23,868.35	5.47%
Honda	Insight	\$31,776.06	9.92%
Lexus	RX 400h	\$47,128.50	6.21%
Toyota	Highlander Hybrid	\$21,010.25	5.47%
	Ttl Hybrids	\$28,533.00	6.80%

Volkswagen	Phaeton	\$61,232.60	2.27%
Audi	allroad quattro	\$26,413.71	2.34%
Audi	A6	\$20,534.10	2.19%
Lexus	LS 430	\$21,903.34	2.08%
Lexus	GS 430	\$17,552.42	2.20%
Infiniti	Q45	\$19,700.42	2.31%
Jaguar	S-Type	\$15,166.17	2.30%
Infiniti	M45	\$11,042.27	2.26%

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Lexus	GS 300	\$11,735.28	2.32%
Cadillac	DTS	\$14,027.66	2.13%
Cadillac	DeVille	\$14,636.10	2.13%
M-Benz	E class	\$18,181.29	2.14%
Cadillac	Seville	\$11,127.21	2.08%
Volvo	80 series	\$15,221.94	2.28%
Cadillac	STS	\$15,952.17	2.33%
BMW	5 Series	\$13,810.97	2.13%
Acura	RL	\$10,160.21	2.24%
Lincoln	Town Car	\$13,654.56	2.26%
BMW	M3	\$9,152.19	2.35%
	Total Luxury Car	\$17,958.14	2.23%

Volkswagen	Golf	\$9,289.30	2.28%
Volkswagen	Golf GTI	\$8,751.65	2.20%
Saturn	L series	\$9,532.52	2.29%
Honda	Civic	\$9,205.94	2.14%
Chevrolet	HHR	\$9,142.95	2.26%
Pontiac	G6	\$8,229.95	2.21%
Chevrolet	Classic	\$11,062.18	2.13%
Subaru	Impreza	\$6,835.85	2.24%
Pontiac	Grand Am	\$9,744.59	2.28%
Ford	Fusion	\$9,340.22	2.21%
Mercury	Milan	\$9,106.88	2.19%
Dodge	Stratus	\$9,329.56	2.14%
Kia	Optima	\$7,482.74	2.33%
Hyundai	Sonata	\$6,620.02	2.06%
Suzuki	Verona	\$6,802.72	2.35%
Volkswagen	Beetle	\$7,279.94	2.33%
Pontiac	Vibe	\$3,548.20	2.18%
Chevrolet	Malibu	\$7,053.55	2.26%
Chrysler	PT Cruiser	\$6,505.64	2.10%
Chrysler	Sebring	\$4,920.73	2.34%
	Ttl Lower Mid-Range Cars	\$7,989.26	2.23%

Nissan	Pathfinder	\$7,510.23	2.14%
Toyota	4Runner	\$9,079.55	2.35%
Mitsubishi	Montero	\$7,415.78	2.17%
Mitsubishi	Montero Sport	\$6,518.28	2.16%
Isuzu	Axiom	\$5,809.15	2.36%
Land Rover	Freelander	\$6,263.39	2.37%
Isuzu	Ascender	\$5,454.76	2.21%
Jeep	Commander	\$7,007.80	2.20%
Jeep	Grand Cherokee	\$7,232.83	2.32%
Jeep	Grand Cherokee SRT-8	\$6,591.06	2.13%
Dodge	Durango	\$6,095.91	2.32%
Ford	Explorer	\$6,074.72	2.13%
Chevrolet	TrailBlazer	\$5,386.04	2.11%
	Ttl Lower Mid-Range SUV	\$6,649.19	2.23%

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Toyota	Sequoia	\$14,511.20	2.26%
Nissan	Armada	\$12,216.58	2.19%
Ford	Excursion	\$18,326.23	2.06%
Chevrolet	Suburban	\$19,271.48	2.26%
GMC	Yukon XL	\$19,463.22	2.29%
Ford	Expedition	\$18,022.37	2.08%
Chevrolet	Tahoe	\$17,788.98	2.26%
GMC	Yukon	\$17,271.31	2.22%
	Total Large SUV	\$17,108.92	2.20%
Chrysler	Pacifica	\$10,505.30	2.07%
Nissan	Murano	\$10,315.07	2.31%
Toyota	Highlander	\$9,072.55	2.34%
Ford	Freestyle/Windstar	\$12,052.71	2.36%
Buick	Rendezvous	\$8,359.23	2.08%
Honda	Pilot	\$7,770.83	2.27%
Mitsubishi	Endeavor	\$7,064.19	2.34%
	Total Mid-Range Sportwagons	\$9,305.70	2.25%
Volkswagen	EuroVan/T4	\$8,538.73	2.34%
Honda	Odyssey	\$9,296.28	2.14%
Pontiac	Montana SV6	\$7,739.21	2.08%
Chrysler	Town & Country	\$8,701.31	2.29%
Buick	Terraza	\$8,982.21	2.27%
Dodge	Caravan/Grand Caravan	\$7,725.50	2.16%
Toyota	Sienna	\$7,488.57	2.17%
Chevrolet	Venture	\$8,306.73	2.24%
Saturn	Relay	\$7,603.18	2.19%
Pontiac	Montana	\$7,489.51	2.11%
Nissan	Quest	\$7,051.40	2.08%
Chevrolet	Uplander	\$7,481.27	2.27%
Ford	Freestar	\$7,813.62	2.35%
Mercury	Monterey	\$7,055.42	2.15%
Kia	Sedona	\$6,298.21	2.29%
Mazda	MPV	\$6,384.59	2.10%
GMC	Safari	\$7,839.50	2.25%
Chevrolet	Astro	\$7,601.25	2.15%
	Total Minivans	\$7,744.25	2.20%
Volvo	70 series	\$10,525.24	2.29%
Volvo	60 series	\$7,780.15	2.13%
Mercury	Zephyr	\$8,596.11	2.19%
Acura	TL	\$7,813.19	2.15%
Acura	CL	\$7,734.79	2.10%
Lincoln	LS	\$6,715.23	2.13%
Jaguar	X-Type	\$6,905.30	2.14%
Lexus	ES 330	\$6,813.63	2.14%
Lexus	IS 300	\$6,354.12	2.14%
Infiniti	G35	\$6,605.48	2.16%
M-Benz	C class	\$6,590.51	2.27%

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Cadillac	CTS	\$6,310.39	2.35%
BMW	330	\$6,540.27	2.30%
Buick	Park Avenue	\$5,799.81	2.08%
BMW	325	\$6,059.62	2.32%
Saab	9-5	\$5,299.15	2.14%
	Total Near Luxury Cars	\$7,027.69	2.19%
Audi	A8	\$22,022.53	2.07%
M-Benz	S class	\$20,231.99	2.20%
Maserati	Maserati	\$11,114.17	2.25%
BMW	7 Series	\$13,943.96	2.36%
Jaguar	XJ	\$10,412.49	2.31%
	Total Premium Cars	\$15,545.03	2.24%
Mercury	Montego	\$8,044.20	2.34%
Buick	LaCrosse	\$7,893.48	2.13%
Volkswagen	Passat	\$8,707.12	2.21%
Dodge	Magnum	\$7,726.26	2.09%
Ford	Five Hundred	\$7,317.32	2.11%
Dodge	Charger	\$7,920.09	2.33%
Nissan	Maxima	\$7,993.24	2.11%
Chrysler	300/300M	\$8,522.44	2.26%
Mitsubishi	Diamante	\$6,919.89	2.37%
Volvo	40 series	\$6,593.78	2.15%
Infiniti	I30/I35	\$7,359.02	2.12%
Mazda	Millenia	\$5,080.13	2.07%
Audi	A4/S4	\$6,412.66	2.14%
Audi	S4		2.20%
Acura	TSX	\$6,667.59	2.29%
Saab	9-3	\$6,276.68	2.11%
Saab	9-2	\$5,901.84	2.22%
Buick	Regal	\$3,893.73	2.20%
	Total Premium Mid-Range Cars	\$6,623.86	2.19%
M-Benz	SLK class	\$13,781.91	2.18%
M-Benz	CLS class	\$19,088.43	2.20%
M-Benz	CLK class	\$14,138.56	2.12%
Porsche	Boxster	\$11,569.87	2.29%
Chevrolet	Corvette	\$10,616.14	2.08%
Audi	TT	\$9,129.41	2.34%
BMW	Z8	\$10,066.93	2.08%
BMW	Z4	\$8,679.68	2.38%
Ford	Thunderbird	\$5,421.64	2.15%
Chrysler	Crossfire	\$4,118.22	2.38%
	Total Premium Sporty Cars	\$10,661.08	2.22%
Porsche	Cayenne	\$17,867.97	2.23%
Volkswagen	Touareg	\$17,546.74	2.28%
Land Rover	Range Rover	\$18,105.64	2.33%
M-Benz	G class	\$18,590.84	2.11%

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Hummer	H1	\$28,241.24	2.13%
Lexus	LX 470	\$15,234.66	2.22%
Cadillac	Escalade ESV	\$17,002.61	2.27%
Toyota	Land Cruiser	\$22,569.42	2.36%
Hummer	H2	\$12,377.98	2.08%
Cadillac	Escalade	\$14,940.86	2.27%
Lincoln	Navigator	\$12,102.47	2.30%
	Total Premium SUV	\$17,689.13	2.23%
Volvo	XC90	\$16,010.63	2.10%
Lexus	RX330	\$14,460.30	2.28%
Infiniti	FX35	\$11,864.95	2.26%
Infiniti	FX45	\$12,193.15	2.11%
M-Benz	R class	\$10,292.52	2.12%
Volvo	50 series	\$9,484.25	2.07%
Acura	MDX	\$12,027.49	2.17%
Cadillac	SRX	\$11,290.54	2.37%
M-Benz	M class	\$11,011.97	2.06%
BMW	X5	\$8,109.00	2.06%
BMW	X3	\$8,829.57	2.34%
	Total Premium Sportwagons	\$11,415.85	2.18%
Honda	Accord	\$9,836.31	2.16%
Volkswagen	Jetta wagon	\$6,032.96	2.17%
Volkswagen	Jetta	\$5,665.35	2.13%
Toyota	Camry	\$8,599.93	2.22%
Subaru	Baja	\$6,258.59	2.09%
Subaru	Legacy	\$6,074.79	2.11%
Subaru	Forester	\$6,897.60	2.29%
Subaru	Outback	\$6,375.36	2.26%
Mazda	Mazda6	\$6,428.14	2.21%
Dodge	Intrepid	\$7,425.85	2.35%
Chevrolet	Monte Carlo	\$6,436.37	2.26%
Mitsubishi	Galant	\$4,812.24	2.15%
Pontiac	Grand Prix	\$5,494.56	2.33%
Buick	Century	\$5,865.51	2.32%
Mercury	Sable	\$6,158.44	2.12%
Ford	Taurus	\$6,143.49	2.06%
Mazda	626	\$5,596.02	2.34%
Nissan	Altima	\$4,408.41	2.09%
Chevrolet	Impala	\$5,347.94	2.27%
Hyundai	XG350	\$4,172.73	2.15%
Kia	Amanti	\$4,695.59	2.30%
	Total Small Rid-Range Cars	\$6,129.82	2.21%
Chevrolet	SSR	\$7,625.89	2.18%
Honda	Ridgeline	\$6,919.08	2.35%
GMC	Canyon	\$5,686.68	2.36%
GMC	Sonoma	\$5,013.27	2.09%
Nissan	Frontier	\$4,171.11	2.10%

Dust to Dust Energy Report -- Automotive

Toyota	Tacoma	\$4,624.95	2.33%
Chevrolet	Colorado	\$4,342.06	2.10%
Mitsubishi	Raider	\$4,281.34	2.18%
Mazda	B-Series	\$4,347.56	2.07%
Dodge	Dakota	\$4,063.14	2.33%
Ford	Ranger	\$4,107.49	2.26%
Chevrolet	S10	\$2,897.68	2.16%
	Total Small Pickup	\$4,840.02	2.21%
Cadillac	Escalade EXT	\$10,477.08	2.32%
Chevrolet	Avalanche	\$10,425.47	2.25%
Lincoln	Mark LT	\$8,049.04	2.16%
	Total Specialty Utility Pickup	\$9,650.53	2.24%
Mazda	RX8	\$7,676.98	2.23%
Nissan	350Z	\$7,398.60	2.16%
Audi	A3	\$6,302.35	2.16%
Mitsubishi	Eclipse Spyder	\$5,138.55	2.08%
Mitsubishi	Eclipse	\$6,858.08	2.36%
Pontiac	GTO	\$6,342.55	2.18%
Toyota	Celica	\$6,123.87	2.24%
Mini	Mini Cooper S	\$7,251.59	2.36%
Acura	RSX	\$7,185.77	2.37%
Pontiac	Solstice	\$6,115.93	2.13%
Mini	Mini Cooper	\$6,647.62	2.19%
Ford	Mustang	\$6,831.69	2.15%
Toyota	MR2 Spyder	\$5,838.86	2.14%
Mazda	MX-5 Miata	\$5,802.63	2.17%
Honda	S2000	\$5,387.93	2.29%
Hyundai	Tiburon	\$6,546.63	2.37%
Pontiac	Firebird	\$5,003.05	2.25%
Chevrolet	Camaro	\$5,159.13	2.24%
	Total Touring	\$6,311.77	2.23%
Toyota	Avalon	\$8,956.63	2.27%
Buick	Lucerne	\$6,630.78	2.08%
Pontiac	Bonneville	\$6,946.24	2.13%
Chrysler	Concorde	\$6,498.15	2.32%
Mercury	Grand Marquis	\$6,964.55	2.37%
Ford	Crown Victoria	\$6,977.65	2.32%
Buick	LeSabre	\$5,589.70	2.23%
	Total Traditional Car	\$6,937.67	2.25%
Maybach	Maybach	\$69,623.26	2.34%
Rolls-Royce	Rolls-Royce	\$61,987.58	2.13%
Bentley	Bentley	\$62,416.00	2.18%
Porsche	Carrera GT	\$19,040.81	2.26%
Lamborghini	Lamborghini	\$10,108.15	2.08%
Ferrari	Ferrari	\$11,211.55	2.38%
Ford	GT	\$9,353.63	2.09%

Dust to Dust Energy Report -- Automotive

Aston Martin	Aston Martin	\$10,671.08	2.26%
	Total Ultra Luxury	\$31,801.51	2.22%
Lexus	GX 470	\$10,831.91	2.28%
Land Rover	Discovery	\$11,794.14	2.30%
Land Rover	LR3	\$12,616.76	2.28%
Infiniti	QX4	\$7,989.78	2.13%
Land Rover	Range Rover Sport	\$10,799.74	2.17%
Lincoln	Aviator	\$9,965.28	2.22%
Mercury	Mountaineer	\$9,346.19	2.34%
Subaru	B9 Tribeca	\$7,775.20	2.36%
GMC	Envoy	\$9,247.17	2.09%
Buick	Rainier	\$8,099.05	2.11%
Saab	9-7X	\$6,751.84	2.18%
Hummer	H3	\$8,498.38	2.11%
	Total Upper Mid-Range SUV	\$9,476.29	2.21%
Acura	NSX	\$17,952.64	2.10%
M-Benz	SC 430	\$11,765.12	2.09%
Cadillac	XLR	\$11,745.33	2.19%
Jaguar	XK	\$11,976.30	2.08%
Porsche	911 Carrera 4	\$9,120.08	2.13%
Porsche	911 Carrera	\$9,796.95	2.18%
M-Benz	SL Coupe/Roadster	\$10,018.15	2.21%
M-Benz	CL class	\$10,603.23	2.23%
BMW	6 Series	\$8,428.22	2.15%
Lotus	Lotus	\$5,900.37	2.15%
Dodge	Viper	\$5,528.73	2.15%
	Total Upper Premium Sportscars	\$10,257.74	2.15%
Industry Straight Average		\$10,725.14	2.51%

CHAPTER 7 -- Manufacturing

Anywhere from 20 to 50 percent of a vehicle's transaction price goes toward manufacturing that vehicle. A shift of barely a percentage point, however, can mean significantly higher wholesale profits, thus the reason large pickups and SUVs were so lucrative for automakers.

The research looked at plant efficiency, energy use and the energy that has been transferred from the automaker to suppliers. As mentioned, Toyota has claimed a 30 percent reduction of energy requirements to build vehicles in Japan. **Missing from that percentage is the off-loading of nearly all and in some cases more energy requirements to suppliers who are building full-module components to be placed into the assembly process.**

We also looked at the energy requirements for plant employees. For example, at one of the largest Japanese plants, virtually all workers use mass transit to reach their work place. The same

Dust to Dust Energy Report -- Automotive

manufacturer in the U.S. Southeast has workers who all drive personal vehicles to the plant, typically using cars and trucks with moderate to low fuel economy. The differences can be significant. The domestically built Honda Accord has an employee energy use of approximately \$1.92 per day while the energy requirement to get a worker to the Japanese Accord plant is less than 18 cents per day.

This particular cost is not included in the retail price of the vehicles because the cost is borne by the worker from his or her paycheck. But the energy cost is a social one.

The direct cost to manufacture each of the models listed is between 35 and 40 percent of the dollar figure. For example, the Chevrolet Aveo manufacturing cost that Chevrolet or General Motors has to bear is \$1,312 per vehicle. The total manufacturing cost is \$3,116 including worker transportation patterns, infrastructure support (such as roads), fuel for worker vehicles and scores of other energy consuming components.

Again, as we've seen with other aspects of this study, the first buyer and the automaker do not have to pay for much of the social energy expenditure. This is passed on to workers, suppliers and their workers, society in general (mass transit, for example) and other third parties.

Dust to Dust Energy Report -- Automotive

		Manufacturing	
		Veh Cost	Manufacturing
Division	Model	Share Tran Prc	Share Tran Prc
Kia	Rio	\$3,928	30.34%
Hyundai	Accent	\$3,473	27.42%
Chevrolet	Aveo	\$3,116	24.68%
Toyota	Echo	\$2,864	25.53%
	Total Budget Cars	\$3,345	26.99%
Chevrolet	Cobalt	\$4,128	24.58%
Toyota	Matrix **	\$4,121	23.66%
Mazda	Mazda3	\$3,992	24.38%
Nissan	Sentra	\$3,921	24.55%
Suzuki	Aerio	\$3,619	23.95%
Mitsubishi	Lancer	\$3,555	21.23%
Kia	Spectra	\$3,521	22.51%
Scion	tC	\$3,441	20.31%
Suzuki	Forenza	\$3,421	21.22%
Ford	Focus	\$3,271	19.98%
Mazda	Protégé	\$3,147	21.51%
Pontiac	Sunfire	\$3,087	19.38%
Chevrolet	Cavalier	\$3,086	19.68%
Scion	xA	\$2,997	22.79%
Toyota	Corolla	\$2,983	18.79%
Dodge	Neon	\$2,966	19.23%
Hyundai	Elantra	\$2,947	19.22%
Saturn	Ion	\$2,888	19.25%
Ford	Escort	\$2,315	15.94%
Scion	xB	\$1,947	13.01%
	Total Economy Cars	\$3,268	20.76%
Nissan	Xterra	\$8,237	33.58%
Isuzu	Trooper	\$7,777	29.32%
Mazda	Mazda5	\$6,843	36.51%
Isuzu	Rodeo	\$6,281	32.25%
Suzuki	XL-7	\$6,018	23.81%
Suzuki	Grand Vitara	\$5,762	24.37%
Kia	Sorento	\$5,377	22.01%
Chevrolet	Blazer	\$5,278	26.04%
Suzuki	Vitara	\$5,121	27.04%
Isuzu	Rodeo Sport	\$4,991	25.52%
Kia	Sportage	\$4,761	22.55%
Jeep	Liberty	\$4,479	17.17%
Chevrolet	Tracker	\$2,828	15.23%
Jeep	Wrangler	\$2,461	9.70%
	Ttl Entry Level SUVs	\$5,444	24.65%

Dust to Dust Energy Report -- Automotive

Mitsubishi	Outlander	\$9,234	40.74%
Hyundai	Tucson	\$9,026	40.25%
Mazda	Tribute	\$9,011	38.91%
Hyundai	Santa Fe	\$8,227	33.07%
Pontiac	Torrent	\$8,043	34.93%
Ford	Escape	\$7,947	33.64%
Mercury	Mariner	\$7,938	33.16%
Toyota	RAV4	\$7,937	33.56%
Saturn	Vue	\$7,527	33.89%
Chevrolet	Equinox	\$7,421	30.57%
Honda	Element	\$7,361	37.28%
Pontiac	Aztek	\$6,282	28.29%
Honda	CR-V	\$6,021	24.56%
	Ttl Entry Level Sportwagons	\$7,844	34.07%
Nissan	Titan	\$10,964	34.89%
Toyota	Tundra	\$10,223	33.34%
Dodge	Ram pickup	\$10,121	26.21%
Chevrolet	Silverado	\$9,983	30.49%
GMC	Sierra	\$9,983	28.34%
Ford	F Series	\$9,746	25.90%
	Ttl Full Size Pickup	\$10,170	29.86%
GMC	Savana/G Van	\$10,967	41.59%
Ford	Econoline/Club Wagon	\$10,946	36.44%
GMC	Express/G Van	\$10,114	36.62%
Dodge	Sprinter Van	\$9,861	28.47%
Dodge	Ram Van	\$9,237	36.05%
Ford	Econoline van	\$8,943	31.24%
	Full Size Van	\$10,011	35.07%
Honda	Accord Hybrid	\$13,424	44.43%
Toyota	Prius	\$13,238	57.20%
Honda	Civic Hybrid	\$13,192	55.83%
Ford	Escape Hybrid	\$12,863	48.59%
Mercury	Mariner Hybrid	\$12,849	45.52%
Honda	Insight	\$11,974	59.18%
Lexus	RX 400h	\$31,627	68.43%
Toyota	Highlander Hybrid	\$20,244	55.58%
	Ttl Hybrids	\$16,176	54.35%
Volkswagen	Phaeton	\$45,686	45.95%
Audi	allroad quattro	\$22,798	50.05%
Audi	A6	\$20,223	39.35%
Lexus	LS 430	\$19,287	34.61%
Lexus	GS 430	\$17,993	35.74%
Infiniti	Q45	\$17,288	30.42%
Jaguar	S-Type	\$16,255	35.62%
Infiniti	M45	\$15,793	34.60%

Dust to Dust Energy Report -- Automotive

Lexus	GS 300	\$15,733	35.43%
Cadillac	DTS	\$14,143	30.39%
Cadillac	DeVille	\$13,792	33.34%
M-Benz	E class	\$13,497	21.82%
Cadillac	Seville	\$13,468	32.66%
Volvo	80 series	\$13,449	35.21%
Cadillac	STS	\$12,937	27.63%
BMW	5 Series	\$12,793	31.82%
Acura	RL	\$11,254	21.91%
Lincoln	Town Car	\$11,231	24.80%
BMW	M3	\$11,111	23.69%
	Total Luxury Car	\$16,775	32.90%
Volkswagen	Golf	\$10,989	50.76%
Volkswagen	Golf GTI	\$11,246	45.32%
Saturn	L series	\$10,324	53.03%
Honda	Civic	\$9,861	44.18%
Chevrolet	HHR	\$17,442	97.37%
Pontiac	G6	\$9,543	47.00%
Chevrolet	Classic	\$9,245	47.09%
Subaru	Impreza	\$9,064	38.38%
Pontiac	Grand Am	\$9,062	41.29%
Ford	Fusion	\$8,973	44.35%
Mercury	Milan	\$8,973	41.63%
Dodge	Stratus	\$8,821	45.41%
Kia	Optima	\$8,124	46.27%
Hyundai	Sonata	\$8,067	40.86%
Suzuki	Verona	\$7,773	41.47%
Volkswagen	Beetle	\$7,448	37.44%
Pontiac	Vibe	\$4,121	22.33%
Chevrolet	Malibu	\$7,819	34.84%
Chrysler	PT Cruiser	\$6,568	28.39%
Chrysler	Sebring	\$5,229	28.27%
	Ttl Lower Mid-Range Cars	\$8,935	43.78%
Nissan	Pathfinder	\$9,046	27.48%
Toyota	4Runner	\$8,937	24.24%
Mitsubishi	Montero	\$8,869	25.92%
Mitsubishi	Montero Sport	\$8,651	29.41%
Isuzu	Axiom	\$7,069	24.57%
Land Rover	Freelander	\$6,821	26.88%
Isuzu	Ascender	\$6,238	23.51%
Jeep	Commander	\$6,237	16.96%
Jeep	Grand Cherokee	\$6,091	15.22%
Jeep	Grand Cherokee SRT-8	\$6,943	16.56%
Dodge	Durango	\$5,821	18.41%
Ford	Explorer	\$5,719	18.20%
Chevrolet	TrailBlazer	\$5,554	20.40%
	Ttl Lower Mid-Range SUV	\$7,077	22.13%

Dust to Dust Energy Report -- Automotive

Toyota	Sequoia	\$14,963	35.70%
Nissan	Armada	\$14,056	35.37%
Ford	Excursion	\$13,462	27.85%
Chevrolet	Suburban	\$12,768	31.08%
GMC	Yukon XL	\$12,762	25.59%
Ford	Expedition	\$12,461	27.98%
Chevrolet	Tahoe	\$11,967	30.91%
GMC	Yukon	\$11,962	28.42%
	Total Large SUV	\$13,050	30.36%
Chrysler	Pacifica	\$11,327	37.49%
Nissan	Murano	\$10,226	33.83%
Toyota	Highlander	\$10,144	34.42%
Ford	Freestyle/Windstar	\$10,110	37.29%
Buick	Rendezvous	\$9,747	35.27%
Honda	Pilot	\$8,953	28.03%
Mitsubishi	Endeavor	\$8,043	25.34%
	Total Mid-Range Sportwagons	\$9,793	33.09%
Volkswagen	EuroVan/T4	\$9,347	25.45%
Honda	Odyssey	\$9,236	26.64%
Pontiac	Montana SV6	\$9,124	35.49%
Chrysler	Town & Country	\$9,038	26.26%
Buick	Terraza	\$9,011	27.77%
Dodge	Caravan/Grand Caravan	\$8,886	33.94%
Toyota	Sienna	\$8,883	25.55%
Chevrolet	Venture	\$8,734	35.92%
Saturn	Relay	\$8,732	31.93%
Pontiac	Montana	\$8,729	34.35%
Nissan	Quest	\$8,629	27.42%
Chevrolet	Uplander	\$8,627	26.62%
Ford	Freestar	\$8,429	37.91%
Mercury	Monterey	\$8,429	30.90%
Kia	Sedona	\$8,124	32.67%
Mazda	MPV	\$7,956	29.33%
GMC	Safari	\$7,028	30.37%
Chevrolet	Astro	\$7,027	28.37%
	Total Minivans	\$8,554	30.38%
Volvo	70 series	\$10,114	26.68%
Volvo	60 series	\$9,244	25.99%
Mercury	Zephyr	\$8,947	31.11%
Acura	TL	\$8,647	25.32%
Acura	CL	\$8,238	25.25%
Lincoln	LS	\$8,219	23.01%
Jaguar	X-Type	\$7,776	23.48%
Lexus	ES 330	\$7,546	23.93%
Lexus	IS 300	\$7,468	21.51%
Infiniti	G35	\$7,241	22.11%
M-Benz	C class	\$6,924	17.96%

Dust to Dust Energy Report -- Automotive

Cadillac	CTS	\$6,847	21.56%
BMW	330	\$6,586	18.67%
Buick	Park Avenue	\$6,341	16.52%
BMW	325	\$6,237	16.91%
Saab	9-5	\$6,231	17.58%
	Total Near Luxury Cars	\$7,663	22.35%
Audi	A8	\$20,227	22.54%
M-Benz	S class	\$14,949	12.02%
Maserati	Maserati	\$12,446	10.83%
BMW	7 Series	\$11,962	11.14%
Jaguar	XJ	\$11,347	14.63%
	Total Premium Cars	\$14,186	14.23%
Mercury	Montego	\$9,223	33.49%
Buick	LaCrosse	\$9,147	32.76%
Volkswagen	Passat	\$8,361	27.81%
Dodge	Magnum	\$8,227	29.04%
Ford	Five Hundred	\$8,223	35.46%
Dodge	Charger	\$8,042	32.56%
Nissan	Maxima	\$8,009	28.49%
Chrysler	300/300M	\$7,992	26.00%
Mitsubishi	Diamante	\$7,872	29.69%
Volvo	40 series	\$7,728	30.41%
Infiniti	I30/I35	\$7,541	25.27%
Mazda	Millenia	\$7,342	26.58%
Audi	A4/S4	\$7,228	19.81%
Audi	S4	\$7,777	13.80%
Acura	TSX	\$7,029	24.46%
Saab	9-3	\$6,666	22.12%
Saab	9-2	\$6,326	24.55%
Buick	Regal	\$4,753	20.21%
	Total Premium Mid-Range Cars	\$7,638	26.81%
M-Benz	SLK class	\$16,223	36.14%
M-Benz	CLS class	\$14,944	23.82%
M-Benz	CLK class	\$14,227	26.62%
Porsche	Boxster	\$13,135	24.96%
Chevrolet	Corvette	\$12,868	21.36%
Audi	TT	\$11,279	27.23%
BMW	Z8	\$11,136	22.15%
BMW	Z4	\$10,117	26.19%
Ford	Thunderbird	\$6,017	16.59%
Chrysler	Crossfire	\$5,391	17.27%
	Total Premium Sporty Cars	\$11,534	24.23%
Porsche	Cayenne	\$9,063	8.94%
Volkswagen	Touareg	\$16,844	41.42%
Land Rover	Range Rover	\$15,383	17.37%
M-Benz	G class	\$15,119	16.38%

Dust to Dust Energy Report -- Automotive

Hummer	H1	\$14,281	10.46%
Lexus	LX 470	\$13,157	19.88%
Cadillac	Escalade ESV	\$13,025	18.51%
Toyota	Land Cruiser	\$12,973	23.86%
Hummer	H2	\$12,332	22.51%
Cadillac	Escalade	\$11,216	19.10%
Lincoln	Navigator	\$10,662	20.50%
	Total Premium SUV	\$13,096	19.90%
Volvo	XC90	\$13,546	29.27%
Lexus	RX330	\$13,471	36.20%
Infiniti	FX35	\$12,343	31.47%
Infiniti	FX45	\$13,089	26.55%
M-Benz	R class	\$12,062	23.48%
Volvo	50 series	\$11,967	41.91%
Acura	MDX	\$11,592	27.26%
Cadillac	SRX	\$11,337	25.82%
M-Benz	M class	\$10,111	22.11%
BMW	X5	\$9,648	14.21%
BMW	X3	\$9,226	27.77%
	Total Premium Sportwagons	\$11,672	27.82%
Honda	Accord	\$8,882	30.45%
Volkswagen	Jetta wagon	\$8,337	38.38%
Volkswagen	Jetta	\$8,214	34.90%
Toyota	Camry	\$7,961	30.12%
Subaru	Baja	\$7,779	32.66%
Subaru	Legacy	\$7,534	25.61%
Subaru	Forester	\$7,438	28.24%
Subaru	Outback	\$7,236	23.25%
Mazda	Mazda6	\$7,319	28.62%
Dodge	Intrepid	\$7,221	36.80%
Chevrolet	Monte Carlo	\$6,137	22.85%
Mitsubishi	Galant	\$5,969	24.38%
Pontiac	Grand Prix	\$5,968	22.49%
Buick	Century	\$5,928	30.12%
Mercury	Sable	\$5,897	29.68%
Ford	Taurus	\$5,893	29.86%
Mazda	626	\$5,691	28.40%
Nissan	Altima	\$5,628	22.25%
Chevrolet	Impala	\$5,529	21.76%
Hyundai	XG350	\$5,237	22.65%
Kia	Amanti	\$5,146	22.50%
	Total Small Rid-Range Cars	\$6,712	27.90%
Chevrolet	SSR	\$9,949	30.78%
Honda	Ridgeline	\$7,363	24.42%
GMC	Canyon	\$5,229	24.46%
GMC	Sonoma	\$5,229	23.69%
Nissan	Frontier	\$4,726	19.90%

Dust to Dust Energy Report -- Automotive

Toyota	Tacoma	\$4,673	27.67%
Chevrolet	Colorado	\$4,583	20.54%
Mitsubishi	Raider	\$4,581	15.45%
Mazda	B-Series	\$4,434	20.39%
Dodge	Dakota	\$4,131	16.68%
Ford	Ranger	\$3,946	20.40%
Chevrolet	S10	\$3,175	17.36%
	Total Small Pickup	\$5,168	21.81%
Cadillac	Escalade EXT	\$8,344	14.66%
Chevrolet	Avalanche	\$8,061	24.76%
Lincoln	Mark LT	\$7,919	19.59%
	Total Specialty Utility Pickup	\$8,108	19.67%
Mazda	RX8	\$10,114	36.98%
Nissan	350Z	\$8,934	24.66%
Audi	A3	\$8,541	28.18%
Mitsubishi	Eclipse Spyder	\$8,471	27.20%
Mitsubishi	Eclipse	\$8,233	38.90%
Pontiac	GTO	\$8,127	29.52%
Toyota	Celica	\$8,021	37.08%
Mini	Mini Cooper S	\$7,773	36.42%
Acura	RSX	\$7,773	34.46%
Pontiac	Solstice	\$7,661	35.85%
Mini	Mini Cooper	\$7,315	33.72%
Ford	Mustang	\$7,163	25.81%
Toyota	MR2 Spyder	\$6,856	29.72%
Mazda	MX-5 Miata	\$5,992	24.51%
Honda	S2000	\$5,928	19.22%
Hyundai	Tiburon	\$5,862	33.23%
Pontiac	Firebird	\$5,244	21.12%
Chevrolet	Camaro	\$5,238	20.43%
	Total Touring	\$7,403	29.84%
Toyota	Avalon	\$8,016	26.42%
Buick	Lucerne	\$7,342	22.25%
Pontiac	Bonneville	\$7,261	25.37%
Chrysler	Concorde	\$6,239	23.47%
Mercury	Grand Marquis	\$5,777	22.44%
Ford	Crown Victoria	\$5,773	24.83%
Buick	LeSabre	\$5,591	22.44%
	Total Traditional Car	\$6,571	23.89%
Maybach	Maybach	\$47,192	12.44%
Rolls-Royce	Rolls-Royce	\$43,435	13.19%
Bentley	Bentley	\$43,008	24.93%
Porsche	Carrera GT	\$18,448	4.00%
Lamborghini	Lamborghini	\$16,333	8.12%
Ferrari	Ferrari	\$16,143	6.32%
Ford	GT	\$15,690	11.47%

Dust to Dust Energy Report -- Automotive

Aston Martin	Aston Martin	\$12,338	5.11%
	Total Ultra Luxury	\$26,573	10.70%
Lexus	GX 470	\$10,946	24.75%
Land Rover	Discovery	\$10,288	23.20%
Land Rover	LR3	\$10,143	21.41%
Infiniti	QX4	\$10,117	23.69%
Land Rover	Range Rover Sport	\$9,862	15.08%
Lincoln	Aviator	\$9,563	24.59%
Mercury	Mountaineer	\$9,517	29.59%
Subaru	B9 Tribeca	\$9,128	28.37%
GMC	Envoy	\$8,946	25.21%
Buick	Rainier	\$8,882	29.02%
Saab	9-7X	\$8,837	22.53%
Hummer	H3	\$7,943	24.74%
	Total Upper Mid-Range SUV	\$9,514	24.35%
Acura	NSX	\$18,142	19.88%
M-Benz	SC 430	\$13,881	21.69%
Cadillac	XLR	\$13,349	17.51%
Jaguar	XK	\$12,461	15.89%
Porsche	911 Carrera 4	\$11,532	13.34%
Porsche	911 Carrera	\$11,155	15.89%
M-Benz	SL Coupe/Roadster	\$10,944	6.60%
M-Benz	CL class	\$10,319	8.80%
BMW	6 Series	\$9,237	13.40%
Lotus	Lotus	\$9,237	18.97%
Dodge	Viper	\$8,867	10.48%
	Total Upper Premium Sportscars	\$11,739	14.77%
Industry Straight Average		\$10,191	29.65%

Dust to Dust Energy Report -- Automotive

CHAPTER 8 – Administrative Support

Over and above the manufacturing and supplier employees, each auto company needs extensive staffs for administration, marketing, secretarial, managerial and executive employees. (In all, about 130 data points.)

As a share of a vehicle's price, the energy cost for each model is fairly consistent in the 0.18 to 0.22 percent range. The exception is currently the Hybrid segment where administrative and related energy costs are twice the industry average.

The reasons for the difference: New products and especially technologically advanced ones require closer monitoring, more customer-service staffing, increases in quality control technicians, more training for both internal (e.g. manufacturing) and external (e.g. dealership technicians) service industries.

Dust to Dust Energy Report -- Automotive

Once again, older technology requires less of this type of support and financial cost related to energy consumption.

Country of manufacture also plays a significant roll in these social energy costs. For a worker in Germany, for example, a manufacturer needs to pay a higher wage to cover energy-related (and clearly other) cost of living than in the Southern U.S. where electricity is less expensive.

Interestingly, however, manufacturers in as competitive market as the U.S. must hold such expenses to a fairly consistent level as a share of total energy costs.

And workers compensate similarly. As a share of total family budget, energy requirements in Japan and much of Europe are higher so housing (among many other considerations) is smaller than in the U.S.

The dollar cost, however, can be dramatically different for different segments of vehicles. While only an average of \$235.14 per vehicle in budget cars, it is nearly \$1,265 dollars for premium-car segment vehicles. Part of this is a function of volume and having the ability to spread the cost of support administration over fewer or more units.

Even within the category, employee administration can vary significantly based on the ability of such staffs to function in multiple capacities for multiple car lines. Honda spends the least per unit in the entry-level Sportwagon category while Mitsubishi Outlander had a similar share of

Dust to Dust Energy Report -- Automotive

energy costs as a share of overall energy consumption but a per unit cost about 80 percent higher (\$729 per unit vs. \$408 per Honda unit).

The Mercedes-Benz Maybach holds high ground at \$5,328 per unit of energy support for customers who pay literally hundreds of thousands of dollars for a vehicle and expect a great deal of service in return. Also, clearly, this is a very limited production and sales vehicle in the U.S. so the expense cannot be spread around multiple models.

Dust to Dust Energy Report -- Automotive

		Employees	Employees
Division	Model	Plant/Office	Plant/Office
Kia	Rio	0.189%	\$ 295.17
Hyundai	Accent	0.192%	\$ 247.12
Chevrolet	Aveo	0.195%	\$ 211.76
Toyota	Echo	0.169%	\$ 186.50
	Total Budget Cars	0.186%	\$ 235.14
Chevrolet	Cobalt	0.190%	\$ 325.31
Toyota	Matrix **	0.173%	\$ 283.46
Mazda	Mazda3	0.170%	\$ 273.15
Nissan	Sentra	0.190%	\$ 299.86
Suzuki	Aerio	0.201%	\$ 283.86
Mitsubishi	Lancer	0.196%	\$ 263.35
Kia	Spectra	0.198%	\$ 270.34
Scion	tC	0.199%	\$ 233.60
Suzuki	Forenza	0.184%	\$ 220.92
Ford	Focus	0.193%	\$ 261.85
Mazda	Protégé	0.198%	\$ 246.21
Pontiac	Sunfire	0.182%	\$ 216.49
Chevrolet	Cavalier	0.195%	\$ 224.49
Scion	xA	0.188%	\$ 215.72
Toyota	Corolla	0.170%	\$ 210.33
Dodge	Neon	0.171%	\$ 184.23
Hyundai	Elantra	0.176%	\$ 206.22
Saturn	Ion	0.187%	\$ 213.40
Ford	Escort	0.169%	\$ 184.36
Scion	xB	0.166%	\$ 149.92
	Total Economy Cars	0.185%	\$ 238.35
Nissan	Xterra	0.179%	\$ 691.16
Isuzu	Trooper	0.173%	\$ 690.12
Mazda	Mazda5	0.170%	\$ 488.22
Isuzu	Rodeo	0.193%	\$ 547.43
Suzuki	XL-7	0.187%	\$ 455.72
Suzuki	Grand Vitara	0.173%	\$ 418.35
Kia	Sorento	0.181%	\$ 341.57
Chevrolet	Blazer	0.200%	\$ 541.46
Suzuki	Vitara	0.192%	\$ 381.27
Isuzu	Rodeo Sport	0.172%	\$ 341.31
Kia	Sportage	0.187%	\$ 347.42
Jeep	Liberty	0.165%	\$ 342.81
Chevrolet	Tracker	0.199%	\$ 211.32
Jeep	Wrangler	0.198%	\$ 247.55
	Ttl Entry Level SUVs	0.184%	\$ 431.84

Dust to Dust Energy Report -- Automotive

Mitsubishi	Outlander	0.176%	\$ 729.92
Hyundai	Tucson	0.189%	\$ 611.27
Mazda	Tribute	0.176%	\$ 595.52
Hyundai	Santa Fe	0.170%	\$ 518.31
Pontiac	Torrent	0.177%	\$ 566.02
Ford	Escape	0.174%	\$ 546.39
Mercury	Mariner	0.194%	\$ 570.71
Toyota	RAV4	0.182%	\$ 574.34
Saturn	Vue	0.181%	\$ 538.33
Chevrolet	Equinox	0.198%	\$ 681.57
Honda	Element	0.182%	\$ 466.89
Pontiac	Aztek	0.171%	\$ 442.92
Honda	CR-V	0.177%	\$ 408.03
	Ttl Entry Level Sportwagons	0.181%	\$ 557.71

Nissan	Titan	0.187%	\$ 850.39
Toyota	Tundra	0.170%	\$ 814.67
Dodge	Ram pickup	0.170%	\$ 975.45
Chevrolet	Silverado	0.166%	\$ 972.05
GMC	Sierra	0.182%	\$ 1,034.53
Ford	F Series	0.166%	\$ 1,064.12
	Ttl Full Size Pickup	0.174%	\$ 951.87

GMC	Savana/G Van	0.180%	\$ 1,317.81
Ford	Econoline/Club Wagon	0.173%	\$ 1,199.07
GMC	Express/G Van	0.171%	\$ 1,073.90
Dodge	Sprinter Van	0.180%	\$ 1,659.74
Dodge	Ram Van	0.172%	\$ 885.13
Ford	Econoline van	0.185%	\$ 1,141.00
	Full Size Van	0.177%	\$ 1,212.77

Honda	Accord Hybrid	0.231%	\$ 892.21
Toyota	Prius	0.477%	\$ 1,687.75
Honda	Civic Hybrid	0.345%	\$ 1,263.23
Ford	Escape Hybrid	0.226%	\$ 1,013.87
Mercury	Mariner Hybrid	0.229%	\$ 1,001.12
Honda	Insight	0.194%	\$ 621.43
Lexus	RX 400h	0.304%	\$ 2,309.14
Toyota	Highlander Hybrid	0.195%	\$ 748.07
	Ttl Hybrids	0.275%	\$ 1,192.10

Volkswagen	Phaeton	0.186%	\$ 5,026.15
Audi	allroad quattro	0.174%	\$ 1,966.62
Audi	A6	0.181%	\$ 1,697.89
Lexus	LS 430	0.174%	\$ 1,836.71
Lexus	GS 430	0.191%	\$ 1,526.65
Infiniti	Q45	0.186%	\$ 1,586.27
Jaguar	S-Type	0.170%	\$ 1,119.03
Infiniti	M45	0.182%	\$ 888.85
Lexus	GS 300	0.190%	\$ 961.08

Dust to Dust Energy Report -- Automotive

Cadillac	DTS	0.173%	\$ 1,140.94
Cadillac	DeVille	0.184%	\$ 1,264.34
M-Benz	E class	0.188%	\$ 1,594.25
Cadillac	Seville	0.197%	\$ 1,054.89
Volvo	80 series	0.172%	\$ 1,146.81
Cadillac	STS	0.171%	\$ 1,172.75
BMW	5 Series	0.183%	\$ 1,189.37
Acura	RL	0.191%	\$ 865.18
Lincoln	Town Car	0.194%	\$ 1,171.08
BMW	M3	0.187%	\$ 729.21
	Total Luxury Car	0.183%	\$ 1,470.43
Volkswagen	Golf	0.176%	\$ 716.75
Volkswagen	Golf GTI	0.196%	\$ 779.69
Saturn	L series	0.177%	\$ 735.51
Honda	Civic	0.181%	\$ 779.73
Chevrolet	HHR	0.188%	\$ 761.57
Pontiac	G6	0.179%	\$ 666.59
Chevrolet	Classic	0.200%	\$ 1,039.19
Subaru	Impreza	0.185%	\$ 563.81
Pontiac	Grand Am	0.167%	\$ 713.12
Ford	Fusion	0.190%	\$ 803.37
Mercury	Milan	0.169%	\$ 703.41
Dodge	Stratus	0.193%	\$ 839.83
Kia	Optima	0.166%	\$ 532.88
Hyundai	Sonata	0.180%	\$ 577.33
Suzuki	Verona	0.198%	\$ 574.14
Volkswagen	Beetle	0.181%	\$ 565.77
Pontiac	Vibe	0.201%	\$ 327.30
Chevrolet	Malibu	0.174%	\$ 544.27
Chrysler	PT Cruiser	0.177%	\$ 547.81
Chrysler	Sebring	0.192%	\$ 404.10
	Ttl Lower Mid-Range Cars	0.184%	\$ 658.81
Nissan	Pathfinder	0.180%	\$ 631.41
Toyota	4Runner	0.201%	\$ 775.93
Mitsubishi	Montero	0.166%	\$ 567.29
Mitsubishi	Montero Sport	0.172%	\$ 518.57
Isuzu	Axiom	0.181%	\$ 445.91
Land Rover	Freelander	0.179%	\$ 473.46
Isuzu	Ascender	0.189%	\$ 465.86
Jeep	Commander	0.178%	\$ 566.74
Jeep	Grand Cherokee	0.183%	\$ 571.75
Jeep	Grand Cherokee SRT-8	0.176%	\$ 543.85
Dodge	Durango	0.171%	\$ 449.50
Ford	Explorer	0.169%	\$ 481.53
Chevrolet	TrailBlazer	0.195%	\$ 497.06
	Ttl Lower Mid-Range SUV	0.180%	\$ 537.60
Toyota	Sequoia	0.183%	\$ 1,176.06

Dust to Dust Energy Report -- Automotive

Nissan	Armada	0.167%	\$ 933.29
Ford	Excursion	0.180%	\$ 1,599.77
Chevrolet	Suburban	0.191%	\$ 1,627.98
GMC	Yukon XL	0.196%	\$ 1,663.67
Ford	Expedition	0.187%	\$ 1,624.18
Chevrolet	Tahoe	0.183%	\$ 1,440.44
GMC	Yukon	0.178%	\$ 1,384.82
	Total Large SUV	0.183%	\$ 1,431.27
Chrysler	Pacifica	0.169%	\$ 859.76
Nissan	Murano	0.189%	\$ 844.33
Toyota	Highlander	0.173%	\$ 671.90
Ford	Freestyle/Windstar	0.200%	\$ 1,022.28
Buick	Rendezvous	0.199%	\$ 799.75
Honda	Pilot	0.183%	\$ 627.29
Mitsubishi	Endeavor	0.178%	\$ 537.59
	Total Mid-Range Sportwagons	0.184%	\$ 766.13
Volkswagen	EuroVan/T4	0.178%	\$ 649.25
Honda	Odyssey	0.184%	\$ 800.80
Pontiac	Montana SV6	0.188%	\$ 698.83
Chrysler	Town & Country	0.178%	\$ 675.17
Buick	Terraza	0.170%	\$ 672.97
Dodge	Caravan/Grand Caravan	0.178%	\$ 636.64
Toyota	Sienna	0.168%	\$ 578.69
Chevrolet	Venture	0.192%	\$ 712.01
Saturn	Relay	0.171%	\$ 593.67
Pontiac	Montana	0.196%	\$ 697.03
Nissan	Quest	0.173%	\$ 586.20
Chevrolet	Uplander	0.188%	\$ 620.96
Ford	Freestar	0.193%	\$ 642.81
Mercury	Monterey	0.167%	\$ 549.30
Kia	Sedona	0.194%	\$ 533.79
Mazda	MPV	0.200%	\$ 609.22
GMC	Safari	0.189%	\$ 658.52
Chevrolet	Astro	0.165%	\$ 583.35
	Total Minivans	0.182%	\$ 638.85
Volvo	70 series	0.177%	\$ 812.81
Volvo	60 series	0.174%	\$ 635.56
Mercury	Zephyr	0.198%	\$ 778.25
Acura	TL	0.183%	\$ 664.10
Acura	CL	0.175%	\$ 643.95
Lincoln	LS	0.189%	\$ 594.74
Jaguar	X-Type	0.168%	\$ 541.84
Lexus	ES 330	0.166%	\$ 528.78
Lexus	IS 300	0.180%	\$ 534.46
Infiniti	G35	0.186%	\$ 568.54
M-Benz	C class	0.189%	\$ 549.21
Cadillac	CTS	0.180%	\$ 483.97

Dust to Dust Energy Report -- Automotive

BMW	330	0.175%	\$ 497.85
Buick	Park Avenue	0.185%	\$ 515.35
BMW	325	0.177%	\$ 463.31
Saab	9-5	0.189%	\$ 468.23
	Total Near Luxury Cars	0.181%	\$ 580.06
Audi	A8	0.174%	\$ 1,848.49
M-Benz	S class	0.167%	\$ 1,537.89
Maserati	Maserati	0.185%	\$ 915.46
BMW	7 Series	0.198%	\$ 1,168.39
Jaguar	XJ	0.187%	\$ 843.65
	Total Premium Cars	0.182%	\$ 1,262.77
Mercury	Montego	0.166%	\$ 571.15
Buick	LaCrosse	0.173%	\$ 640.81
Volkswagen	Passat	0.168%	\$ 661.90
Dodge	Magnum	0.200%	\$ 739.00
Ford	Five Hundred	0.179%	\$ 621.35
Dodge	Charger	0.174%	\$ 590.70
Nissan	Maxima	0.165%	\$ 625.95
Chrysler	300/300M	0.194%	\$ 730.60
Mitsubishi	Diamante	0.179%	\$ 522.20
Volvo	40 series	0.182%	\$ 559.21
Infiniti	I30/I35	0.170%	\$ 591.50
Mazda	Millenia	0.186%	\$ 455.82
Audi	A4/S4	0.169%	\$ 506.66
Audi	S4	0.198%	\$ 641.36
Acura	TSX	0.191%	\$ 556.85
Saab	9-3	0.191%	\$ 568.71
Saab	9-2	0.188%	\$ 499.12
Buick	Regal	0.170%	\$ 301.43
	Total Premium Mid-Range Cars	0.180%	\$ 576.91
M-Benz	SLK class	0.198%	\$ 1,253.48
M-Benz	CLS class	0.193%	\$ 1,677.63
M-Benz	CLK class	0.191%	\$ 1,273.80
Porsche	Boxster	0.186%	\$ 941.38
Chevrolet	Corvette	0.186%	\$ 951.62
Audi	TT	0.176%	\$ 686.95
BMW	Z8	0.181%	\$ 875.60
BMW	Z4	0.176%	\$ 642.40
Ford	Thunderbird	0.173%	\$ 436.86
Chrysler	Crossfire	0.182%	\$ 315.45
	Total Premium Sporty Cars	0.184%	\$ 905.52
Porsche	Cayenne	0.171%	\$ 1,368.30
Volkswagen	Touareg	0.200%	\$ 1,537.84
Land Rover	Range Rover	0.176%	\$ 1,368.81
M-Benz	G class	0.184%	\$ 1,618.12
Hummer	H1	0.189%	\$ 2,510.63

Dust to Dust Energy Report -- Automotive

Lexus	LX 470	0.177%	\$ 1,217.40
Cadillac	Escalade ESV	0.195%	\$ 1,458.65
Toyota	Land Cruiser	0.171%	\$ 1,638.80
Hummer	H2	0.185%	\$ 1,103.05
Cadillac	Escalade	0.179%	\$ 1,177.64
Lincoln	Navigator	0.187%	\$ 983.56
	Total Premium SUV	0.183%	\$ 1,452.98
Volvo	XC90	0.182%	\$ 1,385.61
Lexus	RX330	0.199%	\$ 1,263.21
Infiniti	FX35	0.196%	\$ 1,027.18
Infiniti	FX45	0.174%	\$ 1,006.93
M-Benz	R class	0.180%	\$ 873.89
Volvo	50 series	0.165%	\$ 755.99
Acura	MDX	0.169%	\$ 937.57
Cadillac	SRX	0.172%	\$ 818.36
M-Benz	M class	0.165%	\$ 880.32
BMW	X5	0.187%	\$ 735.04
BMW	X3	0.179%	\$ 676.87
	Total Premium Sportwagons	0.179%	\$ 941.91
Honda	Accord	0.201%	\$ 915.75
Volkswagen	Jetta wagon	0.167%	\$ 464.72
Volkswagen	Jetta	0.173%	\$ 460.36
Toyota	Camry	0.170%	\$ 657.66
Subaru	Baja	0.165%	\$ 494.57
Subaru	Legacy	0.179%	\$ 516.33
Subaru	Forester	0.195%	\$ 587.35
Subaru	Outback	0.181%	\$ 510.37
Mazda	Mazda6	0.173%	\$ 503.43
Dodge	Intrepid	0.199%	\$ 627.76
Chevrolet	Monte Carlo	0.166%	\$ 472.55
Mitsubishi	Galant	0.186%	\$ 416.90
Pontiac	Grand Prix	0.188%	\$ 443.34
Buick	Century	0.182%	\$ 460.74
Mercury	Sable	0.184%	\$ 535.26
Ford	Taurus	0.193%	\$ 575.02
Mazda	626	0.165%	\$ 394.09
Nissan	Altima	0.187%	\$ 395.19
Chevrolet	Impala	0.168%	\$ 396.67
Hyundai	XG350	0.193%	\$ 374.58
Kia	Amanti	0.170%	\$ 347.82
	Total Small Rid-Range Cars	0.180%	\$ 502.40
Chevrolet	SSR	0.196%	\$ 684.38
Honda	Ridgeline	0.196%	\$ 577.33
GMC	Canyon	0.197%	\$ 475.30
GMC	Sonoma	0.200%	\$ 479.97
Nissan	Frontier	0.194%	\$ 384.78
Toyota	Tacoma	0.177%	\$ 351.19

Dust to Dust Energy Report -- Automotive

Chevrolet	Colorado	0.172%	\$ 355.97
Mitsubishi	Raider	0.176%	\$ 346.28
Mazda	B-Series	0.170%	\$ 357.05
Dodge	Dakota	0.186%	\$ 324.35
Ford	Ranger	0.186%	\$ 338.65
Chevrolet	S10	0.170%	\$ 227.85
	Total Small Pickup	0.185%	\$ 408.59
Cadillac	Escalade EXT	0.194%	\$ 877.99
Chevrolet	Avalanche	0.173%	\$ 800.89
Lincoln	Mark LT	0.197%	\$ 735.12
	Total Specialty Utility Pickup	0.188%	\$ 804.67
Mazda	RX8	0.188%	\$ 648.66
Nissan	350Z	0.183%	\$ 625.96
Audi	A3	0.181%	\$ 527.38
Mitsubishi	Eclipse Spyder	0.165%	\$ 408.21
Mitsubishi	Eclipse	0.186%	\$ 541.20
Pontiac	GTO	0.168%	\$ 489.23
Toyota	Celica	0.178%	\$ 487.06
Mini	Mini Cooper S	0.172%	\$ 528.28
Acura	RSX	0.176%	\$ 533.85
Pontiac	Solstice	0.199%	\$ 572.47
Mini	Mini Cooper	0.171%	\$ 518.82
Ford	Mustang	0.172%	\$ 547.30
Toyota	MR2 Spyder	0.172%	\$ 468.85
Mazda	MX-5 Miata	0.166%	\$ 444.30
Honda	S2000	0.191%	\$ 450.17
Hyundai	Tiburon	0.199%	\$ 549.70
Pontiac	Firebird	0.189%	\$ 420.82
Chevrolet	Camaro	0.195%	\$ 448.72
	Total Touring	0.181%	\$ 511.72
Toyota	Avalon	0.196%	\$ 775.05
Buick	Lucerne	0.193%	\$ 615.56
Pontiac	Bonneville	0.167%	\$ 544.61
Chrysler	Concorde	0.180%	\$ 504.38
Mercury	Grand Marquis	0.177%	\$ 519.48
Ford	Crown Victoria	0.170%	\$ 510.63
Buick	LeSabre	0.194%	\$ 487.15
	Total Traditional Car	0.182%	\$ 565.27
Maybach	Maybach	0.179%	\$ 5,328.16
Rolls-Royce	Rolls-Royce	0.183%	\$ 5,325.69
Bentley	Bentley	0.165%	\$ 4,719.82
Porsche	Carrera GT	0.173%	\$ 1,456.90
Lamborghini	Lamborghini	0.190%	\$ 921.57
Ferrari	Ferrari	0.187%	\$ 881.65
Ford	GT	0.181%	\$ 808.50
Aston Martin	Aston Martin	0.190%	\$ 897.52

Dust to Dust Energy Report -- Automotive

	Total Ultra Luxury	0.181%	\$ 2,542.48
Lexus	GX 470	0.191%	\$ 908.21
Land Rover	Discovery	0.184%	\$ 943.12
Land Rover	LR3	0.192%	\$ 1,061.07
Infiniti	QX4	0.171%	\$ 641.13
Land Rover	Range Rover Sport	0.196%	\$ 977.26
Lincoln	Aviator	0.174%	\$ 780.01
Mercury	Mountaineer	0.178%	\$ 710.95
Subaru	B9 Tribeca	0.182%	\$ 599.36
GMC	Envoy	0.196%	\$ 869.28
Buick	Rainier	0.175%	\$ 671.40
Saab	9-7X	0.189%	\$ 586.17
Hummer	H3	0.200%	\$ 807.06
	Total Upper Mid-Range SUV	0.186%	\$ 796.25
Acura	NSX	0.166%	\$ 1,419.11
M-Benz	SC 430	0.188%	\$ 1,056.78
Cadillac	XLR	0.167%	\$ 897.29
Jaguar	XK	0.188%	\$ 1,080.91
Porsche	911 Carrera 4	0.171%	\$ 730.80
Porsche	911 Carrera	0.181%	\$ 812.67
M-Benz	SL Coupe/Roadster	0.176%	\$ 798.91
M-Benz	CL class	0.195%	\$ 928.44
BMW	6 Series	0.200%	\$ 784.39
Lotus	Lotus	0.200%	\$ 548.62
Dodge	Viper	0.181%	\$ 464.79
	Total Upper Premium Sportscars	0.183%	\$ 865.70
	Industry Straight Average	0.199%	\$ 849.84

CHAPTER 9 – Transportation to Retail

Transportation energy costs is a function of size, weight and if the vehicle needs special handling because it is for a particularly critical audience of potential buyers.

This includes everything from the cost of in-transport vehicle covers to the fuel needed for trucking to a dealership from the plant and/or port. Also included is transportation from plant to port and bunker fuel for trans-oceanic shipping.

The energy cost to produce and transport bunker oil is approximately 40 percent of diesel fuel, according to CNW calculation and adjusting for refinery efficiencies by country. **In most cases, however, the payment for this transportation expense is borne by the first-time buyer of the vehicle as a “destination fee” and costs automakers very little if anything in terms real outlay.**

Dust to Dust Energy Report -- Automotive

			Transport to	Transport to
Segment	Division	Model	Retailers	Retailers
b	Kia	Rio	0.190%	\$ 296.73
b	Hyundai	Accent	0.171%	\$ 220.09
b	Chevrolet	Aveo	0.188%	\$ 204.16
b	Toyota	Echo	0.179%	\$ 197.54
		Total Budget Cars	0.182%	\$ 229.63
e	Chevrolet	Cobalt	0.165%	\$ 282.51
e	Toyota	Matrix **	0.180%	\$ 294.93
e	Mazda	Mazda3	0.179%	\$ 287.61
e	Nissan	Sentra	0.196%	\$ 309.33
e	Suzuki	Aerio	0.190%	\$ 268.33
e	Mitsubishi	Lancer	0.197%	\$ 264.70
e	Kia	Spectra	0.199%	\$ 271.71
e	Scion	tC	0.188%	\$ 220.69
e	Suzuki	Forenza	0.190%	\$ 228.12
e	Ford	Focus	0.184%	\$ 249.64
e	Mazda	Protégé	0.200%	\$ 248.70
e	Pontiac	Sunfire	0.171%	\$ 203.40
e	Chevrolet	Cavalier	0.177%	\$ 203.77
e	Scion	xA	0.175%	\$ 200.80
e	Toyota	Corolla	0.181%	\$ 223.94
e	Dodge	Neon	0.187%	\$ 201.46
e	Hyundai	Elantra	0.191%	\$ 223.80
e	Saturn	Ion	0.193%	\$ 220.24
e	Ford	Escort	0.170%	\$ 185.45
e	Scion	xB	0.181%	\$ 163.47
		Total Economy Cars	0.185%	\$ 237.63
elsuv	Nissan	Xterra	0.189%	\$ 729.77
elsuv	Isuzu	Trooper	0.196%	\$ 781.87
elsuv	Mazda	Mazda5	0.169%	\$ 485.35
elsuv	Isuzu	Rodeo	0.180%	\$ 510.55
elsuv	Suzuki	XL-7	0.175%	\$ 426.48
elsuv	Suzuki	Grand Vitara	0.174%	\$ 420.77
elsuv	Kia	Sorento	0.186%	\$ 351.00
elsuv	Chevrolet	Blazer	0.183%	\$ 495.44
elsuv	Suzuki	Vitara	0.182%	\$ 361.41
elsuv	Isuzu	Rodeo Sport	0.173%	\$ 343.30
elsuv	Kia	Sportage	0.168%	\$ 312.12
elsuv	Jeep	Liberty	0.176%	\$ 365.66
elsuv	Chevrolet	Tracker	0.197%	\$ 209.20
elsuv	Jeep	Wrangler	0.194%	\$ 242.55
		Ttl Entry Level SUVs	0.182%	\$ 431.11
elsw	Mitsubishi	Outlander	0.165%	\$ 684.30

Dust to Dust Energy Report -- Automotive

elsw	Hyundai	Tucson	0.189%	\$ 611.27
elsw	Mazda	Tribute	0.186%	\$ 629.36
elsw	Hyundai	Santa Fe	0.186%	\$ 567.09
elsw	Pontiac	Torrent	0.185%	\$ 591.60
elsw	Ford	Escape	0.191%	\$ 599.77
elsw	Mercury	Mariner	0.197%	\$ 579.53
elsw	Toyota	RAV4	0.193%	\$ 609.05
elsw	Saturn	Vue	0.195%	\$ 579.97
elsw	Chevrolet	Equinox	0.173%	\$ 595.52
elsw	Honda	Element	0.197%	\$ 505.38
elsw	Pontiac	Aztek	0.175%	\$ 453.28
elsw	Honda	CR-V	0.171%	\$ 394.20
		Ttl Entry Level Sportwagons	0.185%	\$ 569.25
fspu	Nissan	Titan	0.192%	\$ 873.13
fspu	Toyota	Tundra	0.196%	\$ 939.27
fspu	Dodge	Ram pickup	0.189%	\$ 1,084.48
fspu	Chevrolet	Silverado	0.190%	\$ 1,112.59
fspu	GMC	Sierra	0.181%	\$ 1,028.85
fspu	Ford	F Series	0.196%	\$ 1,256.43
		Ttl Full Size Pickup	0.191%	\$ 1,049.12
fsv	GMC	Savana/G Van	0.193%	\$ 1,412.98
fsv	Ford	Econoline/Club Wagon	0.169%	\$ 1,171.34
fsv	GMC	Express/G Van	0.185%	\$ 1,161.82
fsv	Dodge	Sprinter Van	0.172%	\$ 1,585.98
fsv	Dodge	Ram Van	0.189%	\$ 972.62
fsv	Ford	Econoline van	0.201%	\$ 1,239.68
		Full Size Van	0.185%	\$ 1,257.40
hy	Honda	Accord Hybrid	0.190%	\$ 732.39
hy	Toyota	Prius	0.184%	\$ 651.61
hy	Honda	Civic Hybrid	0.184%	\$ 673.18
hy	Ford	Escape Hybrid	0.171%	\$ 766.38
hy	Mercury	Mariner Hybrid	0.196%	\$ 855.25
hy	Honda	Insight	0.166%	\$ 531.74
hy	Lexus	RX 400h	0.201%	\$ 1,525.42
hy	Toyota	Highlander Hybrid	0.178%	\$ 683.70
		Ttl Hybrids	0.184%	\$ 802.46
l	Volkswagen	Phaeton	0.189%	\$ 5,107.22
l	Audi	allroad quattro	0.174%	\$ 1,966.62
l	Audi	A6	0.176%	\$ 1,650.98
l	Lexus	LS 430	0.181%	\$ 1,910.60
l	Lexus	GS 430	0.187%	\$ 1,494.67
l	Infiniti	Q45	0.195%	\$ 1,663.02
l	Jaguar	S-Type	0.198%	\$ 1,303.34
l	Infiniti	M45	0.197%	\$ 962.11
l	Lexus	GS 300	0.176%	\$ 890.26
l	Cadillac	DTS	0.188%	\$ 1,239.87

Dust to Dust Energy Report -- Automotive

I	Cadillac	DeVille	0.182%	\$ 1,250.60
I	M-Benz	E class	0.182%	\$ 1,543.37
I	Cadillac	Seville	0.169%	\$ 904.96
I	Volvo	80 series	0.167%	\$ 1,113.47
I	Cadillac	STS	0.195%	\$ 1,337.35
I	BMW	5 Series	0.192%	\$ 1,247.86
I	Acura	RL	0.186%	\$ 842.53
I	Lincoln	Town Car	0.183%	\$ 1,104.68
I	BMW	M3	0.194%	\$ 756.51
		Total Luxury Car	0.185%	\$ 1,488.95
Imr	Volkswagen	Golf	0.173%	\$ 704.54
Imr	Volkswagen	Golf GTI	0.187%	\$ 743.89
Imr	Saturn	L series	0.166%	\$ 689.80
Imr	Honda	Civic	0.171%	\$ 736.65
Imr	Chevrolet	HHR	0.181%	\$ 733.22
Imr	Pontiac	G6	0.170%	\$ 633.07
Imr	Chevrolet	Classic	0.187%	\$ 971.64
Imr	Subaru	Impreza	0.186%	\$ 566.86
Imr	Pontiac	Grand Am	0.181%	\$ 772.91
Imr	Ford	Fusion	0.190%	\$ 803.37
Imr	Mercury	Milan	0.169%	\$ 703.41
Imr	Dodge	Stratus	0.194%	\$ 844.19
Imr	Kia	Optima	0.186%	\$ 597.08
Imr	Hyundai	Sonata	0.196%	\$ 628.65
Imr	Suzuki	Verona	0.197%	\$ 571.24
Imr	Volkswagen	Beetle	0.195%	\$ 609.53
Imr	Pontiac	Vibe	0.183%	\$ 297.99
Imr	Chevrolet	Malibu	0.199%	\$ 622.46
Imr	Chrysler	PT Cruiser	0.199%	\$ 615.90
Imr	Chrysler	Sebring	0.201%	\$ 423.04
		Ttl Lower Mid-Range Cars	0.186%	\$ 663.47
Imr suv	Nissan	Pathfinder	0.176%	\$ 617.37
Imr suv	Toyota	4Runner	0.201%	\$ 775.93
Imr suv	Mitsubishi	Montero	0.195%	\$ 666.39
Imr suv	Mitsubishi	Montero Sport	0.177%	\$ 533.64
Imr suv	Isuzu	Axiom	0.186%	\$ 458.23
Imr suv	Land Rover	Freelander	0.165%	\$ 436.43
Imr suv	Isuzu	Ascender	0.170%	\$ 419.03
Imr suv	Jeep	Commander	0.167%	\$ 531.71
Imr suv	Jeep	Grand Cherokee	0.180%	\$ 562.38
Imr suv	Jeep	Grand Cherokee SRT-8	0.169%	\$ 522.22
Imr suv	Dodge	Durango	0.189%	\$ 496.82
Imr suv	Ford	Explorer	0.198%	\$ 564.16
Imr suv	Chevrolet	TrailBlazer	0.189%	\$ 481.76
		Ttl Lower Mid-Range SUV	0.182%	\$ 543.54
Isuv	Toyota	Sequoia	0.174%	\$ 1,118.22
Isuv	Nissan	Armada	0.172%	\$ 961.23

Dust to Dust Energy Report -- Automotive

lsuv	Ford	Excursion	0.168%	\$ 1,493.12
lsuv	Chevrolet	Suburban	0.175%	\$ 1,491.60
lsuv	GMC	Yukon XL	0.189%	\$ 1,604.25
lsuv	Ford	Expedition	0.176%	\$ 1,528.64
lsuv	Chevrolet	Tahoe	0.169%	\$ 1,330.24
lsuv	GMC	Yukon	0.198%	\$ 1,540.41
		Total Large SUV	0.178%	\$ 1,383.46
mrs	Chrysler	Pacifica	0.188%	\$ 956.42
mrs	Nissan	Murano	0.166%	\$ 741.58
mrs	Toyota	Highlander	0.174%	\$ 675.78
mrs	Ford	Freestyle/Windstar	0.174%	\$ 889.39
mrs	Buick	Rendezvous	0.190%	\$ 763.58
mrs	Honda	Pilot	0.186%	\$ 637.57
mrs	Mitsubishi	Endeavor	0.169%	\$ 510.41
		Total Mid-Range Sportwagons	0.178%	\$ 739.25
mv	Volkswagen	EuroVan/T4	0.169%	\$ 616.42
mv	Honda	Odyssey	0.165%	\$ 718.11
mv	Pontiac	Montana SV6	0.169%	\$ 628.21
mv	Chrysler	Town & Country	0.197%	\$ 747.24
mv	Buick	Terraza	0.193%	\$ 764.02
mv	Dodge	Caravan/Grand Caravan	0.185%	\$ 661.67
mv	Toyota	Sienna	0.184%	\$ 633.81
mv	Chevrolet	Venture	0.190%	\$ 704.59
mv	Saturn	Relay	0.185%	\$ 642.28
mv	Pontiac	Montana	0.189%	\$ 672.14
mv	Nissan	Quest	0.166%	\$ 562.49
mv	Chevrolet	Uplander	0.186%	\$ 614.36
mv	Ford	Freestar	0.194%	\$ 646.14
mv	Mercury	Monterey	0.174%	\$ 572.33
mv	Kia	Sedona	0.193%	\$ 531.04
mv	Mazda	MPV	0.167%	\$ 508.70
mv	GMC	Safari	0.194%	\$ 675.94
mv	Chevrolet	Astro	0.172%	\$ 608.10
		Total Minivans	0.182%	\$ 639.31
nl	Volvo	70 series	0.184%	\$ 844.96
nl	Volvo	60 series	0.171%	\$ 624.60
nl	Mercury	Zephyr	0.167%	\$ 656.40
nl	Acura	TL	0.174%	\$ 631.44
nl	Acura	CL	0.199%	\$ 732.27
nl	Lincoln	LS	0.176%	\$ 553.83
nl	Jaguar	X-Type	0.185%	\$ 596.67
nl	Lexus	ES 330	0.189%	\$ 602.05
nl	Lexus	IS 300	0.165%	\$ 489.92
nl	Infiniti	G35	0.196%	\$ 599.11
nl	M-Benz	C class	0.181%	\$ 525.96
nl	Cadillac	CTS	0.189%	\$ 508.16
nl	BMW	330	0.181%	\$ 514.92

Dust to Dust Energy Report -- Automotive

nl	Buick	Park Avenue	0.193%	\$ 537.64
nl	BMW	325	0.183%	\$ 479.01
nl	Saab	9-5	0.172%	\$ 426.11
		Total Near Luxury Cars	0.182%	\$ 582.69
p	Audi	A8	0.165%	\$ 1,752.88
p	M-Benz	S class	0.172%	\$ 1,583.93
p	Maserati	Maserati	0.193%	\$ 955.05
p	BMW	7 Series	0.175%	\$ 1,032.67
p	Jaguar	XJ	0.167%	\$ 753.42
		Total Premium Cars	0.174%	\$ 1,215.59
pmr	Mercury	Montego	0.175%	\$ 602.11
pmr	Buick	LaCrosse	0.192%	\$ 711.19
pmr	Volkswagen	Passat	0.166%	\$ 654.02
pmr	Dodge	Magnum	0.181%	\$ 668.80
pmr	Ford	Five Hundred	0.200%	\$ 694.24
pmr	Dodge	Charger	0.194%	\$ 658.59
pmr	Nissan	Maxima	0.171%	\$ 648.72
pmr	Chrysler	300/300M	0.191%	\$ 719.30
pmr	Mitsubishi	Diamante	0.182%	\$ 530.95
pmr	Volvo	40 series	0.177%	\$ 543.85
pmr	Infiniti	I30/I35	0.175%	\$ 608.90
pmr	Mazda	Millenia	0.168%	\$ 411.70
pmr	Audi	A4/S4	0.165%	\$ 494.67
pmr	Audi	S4	0.194%	\$ 628.40
pmr	Acura	TSX	0.189%	\$ 551.02
pmr	Saab	9-3	0.197%	\$ 586.58
pmr	Saab	9-2	0.172%	\$ 456.64
pmr	Buick	Regal	0.177%	\$ 313.84
		Total Premium Mid-Range Cars	0.181%	\$ 582.42
ps	M-Benz	SLK class	0.194%	\$ 1,228.15
ps	M-Benz	CLS class	0.192%	\$ 1,668.93
ps	M-Benz	CLK class	0.181%	\$ 1,207.11
ps	Porsche	Boxster	0.188%	\$ 951.50
ps	Chevrolet	Corvette	0.195%	\$ 997.66
ps	Audi	TT	0.184%	\$ 718.17
ps	BMW	Z8	0.189%	\$ 914.30
ps	BMW	Z4	0.190%	\$ 693.50
ps	Ford	Thunderbird	0.177%	\$ 446.96
ps	Chrysler	Crossfire	0.181%	\$ 313.72
		Total Premium Sporty Cars	0.187%	\$ 914.00
psuv	Porsche	Cayenne	0.174%	\$ 1,392.31
psuv	Volkswagen	Touareg	0.200%	\$ 1,537.84
psuv	Land Rover	Range Rover	0.180%	\$ 1,399.92
psuv	M-Benz	G class	0.182%	\$ 1,600.54
psuv	Hummer	H1	0.197%	\$ 2,616.90
psuv	Lexus	LX 470	0.168%	\$ 1,155.50

Dust to Dust Energy Report -- Automotive

psuv	Cadillac	Escalade ESV	0.197%	\$ 1,473.61
psuv	Toyota	Land Cruiser	0.166%	\$ 1,590.88
psuv	Hummer	H2	0.186%	\$ 1,109.01
psuv	Cadillac	Escalade	0.197%	\$ 1,296.06
psuv	Lincoln	Navigator	0.174%	\$ 915.18
		Total Premium SUV	0.184%	\$ 1,462.52
psw	Volvo	XC90	0.180%	\$ 1,370.38
psw	Lexus	RX330	0.185%	\$ 1,174.34
psw	Infiniti	FX35	0.170%	\$ 890.92
psw	Infiniti	FX45	0.189%	\$ 1,093.74
psw	M-Benz	R class	0.183%	\$ 888.46
psw	Volvo	50 series	0.199%	\$ 911.77
psw	Acura	MDX	0.189%	\$ 1,048.52
psw	Cadillac	SRX	0.165%	\$ 785.06
psw	M-Benz	M class	0.190%	\$ 1,013.70
psw	BMW	X5	0.184%	\$ 723.25
psw	BMW	X3	0.171%	\$ 646.62
		Total Premium Sportwagons	0.182%	\$ 958.80
smr	Honda	Accord	0.168%	\$ 765.40
smr	Volkswagen	Jetta wagon	0.199%	\$ 553.76
smr	Volkswagen	Jetta	0.196%	\$ 521.56
smr	Toyota	Camry	0.189%	\$ 731.17
smr	Subaru	Baja	0.168%	\$ 503.56
smr	Subaru	Legacy	0.196%	\$ 565.36
smr	Subaru	Forester	0.195%	\$ 587.35
smr	Subaru	Outback	0.177%	\$ 499.09
smr	Mazda	Mazda6	0.174%	\$ 506.34
smr	Dodge	Intrepid	0.166%	\$ 523.66
smr	Chevrolet	Monte Carlo	0.198%	\$ 563.65
smr	Mitsubishi	Galant	0.180%	\$ 403.45
smr	Pontiac	Grand Prix	0.174%	\$ 410.32
smr	Buick	Century	0.190%	\$ 480.99
smr	Mercury	Sable	0.180%	\$ 523.63
smr	Ford	Taurus	0.194%	\$ 578.00
smr	Mazda	626	0.182%	\$ 434.69
smr	Nissan	Altima	0.186%	\$ 393.08
smr	Chevrolet	Impala	0.181%	\$ 427.36
smr	Hyundai	XG350	0.189%	\$ 366.81
smr	Kia	Amanti	0.197%	\$ 403.06
		Total Small Rid-Range Cars	0.185%	\$ 511.54
spu	Chevrolet	SSR	0.191%	\$ 666.92
spu	Honda	Ridgeline	0.179%	\$ 527.25
spu	GMC	Canyon	0.171%	\$ 412.57
spu	GMC	Sonoma	0.201%	\$ 482.37
spu	Nissan	Frontier	0.199%	\$ 394.70
spu	Toyota	Tacoma	0.165%	\$ 327.38
spu	Chevrolet	Colorado	0.194%	\$ 401.51

Dust to Dust Energy Report -- Automotive

spu	Mitsubishi	Raider	0.177%	\$	348.25
spu	Mazda	B-Series	0.192%	\$	403.25
spu	Dodge	Dakota	0.195%	\$	340.05
spu	Ford	Ranger	0.200%	\$	364.14
spu	Chevrolet	S10	0.186%	\$	249.29
		Total Small Pickup	0.188%	\$	409.81
sup	Cadillac	Escalade EXT	0.176%	\$	796.53
sup	Chevrolet	Avalanche	0.187%	\$	865.70
sup	Lincoln	Mark LT	0.176%	\$	656.76
		Total Specialty Utility Pickup	0.180%	\$	773.00
t	Mazda	RX8	0.170%	\$	586.56
t	Nissan	350Z	0.183%	\$	625.96
t	Audi	A3	0.180%	\$	524.47
t	Mitsubishi	Eclipse Spyder	0.178%	\$	440.38
t	Mitsubishi	Eclipse	0.185%	\$	538.29
t	Pontiac	GTO	0.169%	\$	492.14
t	Toyota	Celica	0.181%	\$	495.27
t	Mini	Mini Cooper S	0.191%	\$	586.64
t	Acura	RSX	0.190%	\$	576.32
t	Pontiac	Solstice	0.199%	\$	572.47
t	Mini	Mini Cooper	0.186%	\$	564.33
t	Ford	Mustang	0.181%	\$	575.94
t	Toyota	MR2 Spyder	0.183%	\$	498.84
t	Mazda	MX-5 Miata	0.168%	\$	449.65
t	Honda	S2000	0.198%	\$	466.67
t	Hyundai	Tiburon	0.182%	\$	502.74
t	Pontiac	Firebird	0.191%	\$	425.27
t	Chevrolet	Camaro	0.193%	\$	444.12
		Total Touring	0.184%	\$	520.34
tr	Toyota	Avalon	0.186%	\$	735.51
tr	Buick	Lucerne	0.198%	\$	631.50
tr	Pontiac	Bonneville	0.171%	\$	557.66
tr	Chrysler	Concorde	0.192%	\$	538.01
tr	Mercury	Grand Marquis	0.187%	\$	548.83
tr	Ford	Crown Victoria	0.177%	\$	531.66
tr	Buick	LeSabre	0.176%	\$	441.95
		Total Traditional Car	0.184%	\$	569.30
u	Maybach	Maybach	0.174%	\$	5,179.33
u	Rolls-Royce	Rolls-Royce	0.190%	\$	5,529.41
ul	Bentley	Bentley	0.169%	\$	4,834.24
ul	Porsche	Carrera GT	0.201%	\$	1,692.70
ul	Lamborghini	Lamborghini	0.193%	\$	936.12
ul	Ferrari	Ferrari	0.186%	\$	876.93
ul	Ford	GT	0.166%	\$	741.50
ul	Aston Martin	Aston Martin	0.201%	\$	949.48
		Total Ultra Luxury	0.185%	\$	2,592.46

Dust to Dust Energy Report -- Automotive

umr suv	Lexus	GX 470	0.175%	\$ 832.13
umr suv	Land Rover	Discovery	0.166%	\$ 850.86
umr suv	Land Rover	LR3	0.165%	\$ 911.86
umr suv	Infiniti	QX4	0.196%	\$ 734.86
umr suv	Land Rover	Range Rover Sport	0.177%	\$ 882.53
umr suv	Lincoln	Aviator	0.201%	\$ 901.04
umr suv	Mercury	Mountaineer	0.187%	\$ 746.90
umr suv	Subaru	B9 Tribeca	0.177%	\$ 582.89
umr suv	GMC	Envoy	0.193%	\$ 855.97
umr suv	Buick	Rainier	0.201%	\$ 771.16
umr suv	Saab	9-7X	0.188%	\$ 583.07
umr suv	Hummer	H3	0.181%	\$ 730.39
		Total Upper Mid-Range SUV	0.184%	\$ 781.97
ups	Acura	NSX	0.166%	\$ 1,419.11
ups	M-Benz	SC 430	0.168%	\$ 944.36
ups	Cadillac	XLR	0.174%	\$ 934.90
ups	Jaguar	XK	0.196%	\$ 1,126.91
ups	Porsche	911 Carrera 4	0.176%	\$ 752.17
ups	Porsche	911 Carrera	0.170%	\$ 763.28
ups	M-Benz	SL Coupe/Roadster	0.177%	\$ 803.45
ups	M-Benz	CL class	0.195%	\$ 928.44
ups	BMW	6 Series	0.187%	\$ 733.40
ups	Lotus	Lotus	0.169%	\$ 463.58
ups	Dodge	Viper	0.165%	\$ 423.71
		Total Upper Premium Sportscars	0.177%	\$ 844.85
Industry Straight Average			0.198%	\$ 843.93

As with all of the Dust to Dust study, we looked long and hard at the support industries necessary to make transportation to retail efficient for the manufacturer. Off loading of trans-oceanic ships, port facility maintenance and infrastructure, intermediate vehicle holding yards including security issues, pre- and post-delivery “prep” for sale, etc.

Dust to Dust Energy Report -- Automotive

CHAPTER 10 – Dealership Expenses

To support the sale of a single vehicle requires a dealership have a wide range of support services and facilities including, but not exclusively, showroom space, outside storage areas, service and parts facilities, lot lighting, always-on heating and cooling, washing and preparation facilities, used-car operations (required by franchises) and an assortment of other operations. Add to that the vast array of supplier industries such as office equipment, service equipment manufacturers, government/community infrastructure.

On a per-vehicle basis, the dealer and those support services spend more than 14 percent of a vehicle's transaction price in energy expenses or about \$1,361 per unit sold. This includes energy required for sales, administration, service/parts and other employees needed to operate the business and paid for by those individuals from their pay.

Dust to Dust Energy Report -- Automotive

Service is an additional matter because of the intensity of the energy requirements, especially with new technologies and electronic components in vehicles.

Training for service personnel, for example, is significantly higher for new products with unique or break-through technology with high learning curves. While much of this, presumably, will be lower on a per-unit sold basis over time, early versions of high-tech models and/or components require out-of-the-ordinary energy costs. The GM Impact electric required extensive technician training but, as it happened, virtually all of that eventually had to be leveraged against very few vehicles sold/leased.

The complexities of the retail environment require significant manufacturer support in regards to something as simple as field staffs who visit, measure effectiveness and recommend changes to dealers based on that auto company's shifting desires and demands. Energy requirements for such field staff support can be dramatic, especially for automakers with far flung outlets rather than concentrated in urban/suburban areas.

An analysis of one simple dealership item, the common shop towel, showed a cost of nearly \$4 in energy expenditure for manufacture, use, laundry and re-use over its lifetime. This is a cost borne by the auto owner and typically showing up on repair orders as "shop expenses" for fixing or repairing a customer's vehicle.

Dust to Dust Energy Report -- Automotive

		Dealer Share of Tran Prc for Energy		Dealer \$ Energy Cost	Dealer Service	Dealer Service
Division	Model					
Kia	Rio	13.93%	\$	547.17	\$ 3,045.40	1.95%
Hyundai	Accent	13.78%	\$	478.58	\$ 2,715.73	2.11%
Chevrolet	Aveo	13.54%	\$	421.91	\$ 1,639.78	1.51%
Toyota	Echo	14.88%	\$	426.16	\$ 1,743.62	1.58%
	Total Budget Cars	14.03%	\$	468.45	\$ 2,286.13	1.79%
Chevrolet	Cobalt	13.20%	\$	544.90	\$ 2,602.51	1.52%
Toyota	Matrix **	11.90%	\$	490.40	\$ 2,801.80	1.71%
Mazda	Mazda3	10.76%	\$	429.54	\$ 3,165.36	1.97%
Nissan	Sentra	10.88%	\$	426.60	\$ 2,919.68	1.85%
Suzuki	Aerio	11.48%	\$	415.46	\$ 2,203.09	1.56%
Mitsubishi	Lancer	11.61%	\$	412.74	\$ 2,405.12	1.79%
Kia	Spectra	13.13%	\$	462.31	\$ 2,894.55	2.12%
Scion	tC	14.73%	\$	506.86	\$ 1,878.20	1.60%
Suzuki	Forenza	14.31%	\$	489.55	\$ 1,800.96	1.50%
Ford	Focus	14.12%	\$	461.87	\$ 2,659.17	1.96%
Mazda	Protégé	14.18%	\$	446.24	\$ 1,927.42	1.55%
Pontiac	Sunfire	12.22%	\$	377.23	\$ 2,164.86	1.82%
Chevrolet	Cavalier	10.37%	\$	320.02	\$ 2,279.44	1.98%
Scion	xA	14.24%	\$	426.77	\$ 2,432.60	2.12%
Toyota	Corolla	12.99%	\$	387.49	\$ 2,474.53	2.00%
Dodge	Neon	10.68%	\$	316.77	\$ 2,219.33	2.06%
Hyundai	Elantra	14.09%	\$	415.23	\$ 2,073.92	1.77%
Saturn	Ion	14.34%	\$	414.14	\$ 2,122.55	1.86%
Ford	Escort	12.89%	\$	298.40	\$ 1,669.04	1.53%
Scion	xB	12.13%	\$	236.17	\$ 1,797.23	1.99%
	Total Economy Cars	12.71%	\$	413.93	\$ 2,324.57	1.81%
Nissan	Xterra	15.38%	\$	1,266.85	\$ 6,139.35	1.59%
Isuzu	Trooper	13.34%	\$	1,037.45	\$ 6,781.56	1.70%
Mazda	Mazda5	10.91%	\$	746.57	\$ 5,887.34	2.05%
Isuzu	Rodeo	11.37%	\$	714.15	\$ 3,970.98	1.40%
Suzuki	XL-7	11.99%	\$	721.56	\$ 4,484.11	1.84%
Suzuki	Grand Vitara	15.42%	\$	888.50	\$ 3,869.12	1.60%
Kia	Sorento	16.14%	\$	867.85	\$ 3,302.45	1.75%
Chevrolet	Blazer	14.63%	\$	772.17	\$ 4,737.80	1.75%
Suzuki	Vitara	12.97%	\$	664.19	\$ 3,733.30	1.88%
Isuzu	Rodeo Sport	15.53%	\$	775.10	\$ 4,187.05	2.11%
Kia	Sportage	14.96%	\$	712.25	\$ 3,344.19	1.80%
Jeep	Liberty	12.88%	\$	576.90	\$ 3,926.70	1.89%
Chevrolet	Tracker	13.73%	\$	388.28	\$ 1,890.22	1.78%
Jeep	Wrangler	14.06%	\$	346.02	\$ 1,887.91	1.51%

Dust to Dust Energy Report -- Automotive

	Ttl Entry Level SUVs	13.81%	\$ 748.42	\$ 4,153.00	1.76%
Mitsubishi	Outlander	15.73%	\$ 1,452.51	\$ 6,552.71	1.58%
Hyundai	Tucson	15.52%	\$ 1,400.84	\$ 5,207.11	1.61%
Mazda	Tribute	12.82%	\$ 1,155.21	\$ 6,361.29	1.88%
Hyundai	Santa Fe	15.04%	\$ 1,237.34	\$ 5,975.81	1.96%
Pontiac	Torrent	15.77%	\$ 1,268.38	\$ 6,811.38	2.13%
Ford	Escape	16.33%	\$ 1,297.75	\$ 6,876.95	2.19%
Mercury	Mariner	14.88%	\$ 1,181.17	\$ 6,207.16	2.11%
Toyota	RAV4	11.35%	\$ 900.85	\$ 6,216.70	1.97%
Saturn	Vue	14.82%	\$ 1,115.50	\$ 4,134.14	1.39%
Chevrolet	Equinox	11.74%	\$ 871.23	\$ 6,540.34	1.90%
Honda	Element	13.12%	\$ 965.76	\$ 5,028.10	1.96%
Pontiac	Aztek	14.37%	\$ 902.72	\$ 4,895.44	1.89%
Honda	CR-V	10.16%	\$ 611.73	\$ 4,656.58	2.02%
	Ttl Entry Level Sportwagons	13.97%	\$ 1,104.69	\$ 5,804.90	1.89%
Nissan	Titan	10.43%	\$ 1,143.55	\$ 6,230.16	1.37%
Toyota	Tundra	14.62%	\$ 1,494.60	\$ 9,488.54	1.98%
Dodge	Ram pickup	15.05%	\$ 1,523.21	\$12,623.53	2.20%
Chevrolet	Silverado	14.49%	\$ 1,446.54	\$ 9,603.41	1.64%
GMC	Sierra	16.50%	\$ 1,647.20	\$ 7,844.24	1.38%
Ford	F Series	16.25%	\$ 1,583.73	\$11,410.48	1.78%
	Ttl Full Size Pickup	14.56%	\$ 1,473.14	\$ 9,533.39	1.73%
GMC	Savana/G Van	14.97%	\$ 1,641.76	\$10,688.88	1.46%
Ford	Econoline/Club Wagon	12.20%	\$ 1,335.41	\$10,812.41	1.56%
GMC	Express/G Van	10.95%	\$ 1,107.48	\$12,811.39	2.04%
Dodge	Sprinter Van	10.83%	\$ 1,067.95	\$18,072.77	1.96%
Dodge	Ram Van	14.55%	\$ 1,343.98	\$10,652.46	2.07%
Ford	Econoline van	13.56%	\$ 1,212.67	\$10,793.20	1.75%
	Full Size Van	12.84%	\$ 1,284.88	\$12,305.18	1.81%
Honda	Accord Hybrid	18.27%	\$ 2,452.56	\$13,761.27	3.57%
Toyota	Prius	19.46%	\$ 2,576.11	\$14,377.97	4.06%
Honda	Civic Hybrid	17.44%	\$ 2,300.68	\$11,942.50	3.26%
Ford	Escape Hybrid	18.61%	\$ 2,394.25	\$15,434.85	3.44%
Mercury	Mariner Hybrid	18.78%	\$ 2,412.63	\$15,168.52	3.48%
Honda	Insight	16.29%	\$ 1,950.56	\$10,923.02	3.41%
Lexus	RX 400h	17.32%	\$ 5,476.82	\$23,243.38	3.06%
Toyota	Highlander Hybrid	16.56%	\$ 3,353.18	\$11,971.00	3.12%
	Ttl Hybrids	17.84%	\$ 2,864.60	\$14,602.81	3.43%
Volkswagen	Phaeton	10.37%	\$ 4,737.64	\$52,153.10	1.93%
Audi	allroad quattro	10.74%	\$ 2,448.51	\$18,988.03	1.68%
Audi	A6	15.54%	\$ 3,142.65	\$13,508.04	1.44%
Lexus	LS 430	12.27%	\$ 2,366.51	\$17,311.55	1.64%
Lexus	GS 430	10.98%	\$ 1,975.63	\$13,907.66	1.74%
Infiniti	Q45	12.51%	\$ 2,162.73	\$14,583.43	1.71%
Jaguar	S-Type	15.11%	\$ 2,456.13	\$ 9,281.38	1.41%

Dust to Dust Energy Report -- Automotive

Infiniti	M45	10.16%	\$	1,604.57	\$ 6,934.99	1.42%
Lexus	GS 300	12.29%	\$	1,933.59	\$10,470.70	2.07%
Cadillac	DTS	11.75%	\$	1,661.80	\$11,277.53	1.71%
Cadillac	DeVille	10.34%	\$	1,426.09	\$ 9,757.40	1.42%
M-Benz	E class	10.97%	\$	1,480.62	\$12,296.11	1.45%
Cadillac	Seville	14.25%	\$	1,919.19	\$11,887.59	2.22%
Volvo	80 series	11.42%	\$	1,535.88	\$ 9,334.52	1.40%
Cadillac	STS	14.19%	\$	1,835.76	\$13,579.23	1.98%
BMW	5 Series	13.72%	\$	1,755.20	\$13,583.50	2.09%
Acura	RL	12.91%	\$	1,452.89	\$ 9,467.16	2.09%
Lincoln	Town Car	10.88%	\$	1,221.93	\$12,737.01	2.11%
BMW	M3	15.17%	\$	1,685.54	\$ 7,448.09	1.91%
	Total Luxury Car	12.40%	\$	2,042.26	\$14,131.95	1.76%
Volkswagen	Golf	16.53%	\$	1,816.48	\$ 8,755.81	2.15%
Volkswagen	Golf GTI	16.34%	\$	1,837.60	\$ 8,035.61	2.02%
Saturn	L series	11.16%	\$	1,152.16	\$ 6,316.23	1.52%
Honda	Civic	16.35%	\$	1,612.27	\$ 8,486.52	1.97%
Chevrolet	HHR	14.97%	\$	2,611.07	\$ 6,481.49	1.60%
Pontiac	G6	12.45%	\$	1,188.10	\$ 8,006.51	2.15%
Chevrolet	Classic	10.99%	\$	1,016.03	\$10,807.58	2.08%
Subaru	Impreza	11.04%	\$	1,000.67	\$ 4,175.26	1.37%
Pontiac	Grand Am	10.80%	\$	978.70	\$ 7,131.23	1.67%
Ford	Fusion	13.11%	\$	1,176.36	\$ 6,342.39	1.50%
Mercury	Milan	10.36%	\$	929.60	\$ 7,616.81	1.83%
Dodge	Stratus	16.21%	\$	1,429.88	\$ 6,875.33	1.58%
Kia	Optima	14.72%	\$	1,195.85	\$ 6,933.81	2.16%
Hyundai	Sonata	13.22%	\$	1,066.46	\$ 4,522.40	1.41%
Suzuki	Verona	10.61%	\$	824.72	\$ 4,146.59	1.43%
Volkswagen	Beetle	11.67%	\$	869.18	\$ 6,532.88	2.09%
Pontiac	Vibe	16.28%	\$	670.90	\$ 2,377.41	1.46%
Chevrolet	Malibu	12.00%	\$	938.28	\$ 6,568.72	2.10%
Chrysler	PT Cruiser	16.46%	\$	1,081.09	\$ 4,394.86	1.42%
Chrysler	Sebring	11.77%	\$	615.45	\$ 3,135.97	1.49%
	Ttl Lower Mid-Range Cars	13.35%	\$	1,200.54	\$ 6,382.17	1.75%
Nissan	Pathfinder	12.95%	\$	1,171.46	\$ 6,243.91	1.78%
Toyota	4Runner	13.97%	\$	1,248.50	\$ 6,330.98	1.64%
Mitsubishi	Montero	10.99%	\$	974.70	\$ 6,082.99	1.78%
Mitsubishi	Montero Sport	16.10%	\$	1,392.81	\$ 6,180.61	2.05%
Isuzu	Axiom	14.79%	\$	1,045.51	\$ 4,089.56	1.66%
Land Rover	Freelander	15.50%	\$	1,057.26	\$ 5,395.83	2.04%
Isuzu	Ascender	14.55%	\$	907.63	\$ 4,288.87	1.74%
Jeep	Commander	13.04%	\$	813.30	\$ 5,699.21	1.79%
Jeep	Grand Cherokee	12.15%	\$	740.06	\$ 4,374.07	1.40%
Jeep	Grand Cherokee SRT-8	10.24%	\$	710.96	\$ 5,592.98	1.81%
Dodge	Durango	13.14%	\$	764.88	\$ 5,178.50	1.97%
Ford	Explorer	11.38%	\$	650.82	\$ 6,182.99	2.17%
Chevrolet	TrailBlazer	10.65%	\$	591.50	\$ 3,670.56	1.44%
	Ttl Lower Mid-Range SUV	13.03%	\$	928.41	\$ 5,331.62	1.79%

Dust to Dust Energy Report -- Automotive

Toyota	Sequoia	10.35%	\$	1,548.67	\$12,531.81	1.95%
Nissan	Armada	10.42%	\$	1,464.64	\$ 9,779.97	1.75%
Ford	Excursion	15.50%	\$	2,086.61	\$16,530.94	1.86%
Chevrolet	Suburban	14.80%	\$	1,889.66	\$12,358.97	1.45%
GMC	Yukon XL	16.09%	\$	2,053.41	\$15,702.99	1.85%
Ford	Expedition	14.37%	\$	1,790.65	\$14,417.90	1.66%
Chevrolet	Tahoe	10.93%	\$	1,307.99	\$15,899.89	2.02%
GMC	Yukon	10.94%	\$	1,308.64	\$15,326.34	1.97%
	Total Large SUV	12.93%	\$	1,681.28	\$14,068.60	1.81%
Chrysler	Pacifica	15.97%	\$	1,808.92	\$10,632.49	2.09%
Nissan	Murano	12.29%	\$	1,256.78	\$ 7,281.75	1.63%
Toyota	Highlander	12.87%	\$	1,305.53	\$ 7,029.67	1.81%
Ford	Freestyle/Windstar	14.51%	\$	1,466.96	\$ 8,229.38	1.61%
Buick	Rendezvous	11.11%	\$	1,082.89	\$ 5,827.35	1.45%
Honda	Pilot	14.92%	\$	1,335.79	\$ 5,690.15	1.66%
Mitsubishi	Endeavor	16.45%	\$	1,323.07	\$ 6,493.38	2.15%
	Total Mid-Range Sportwagons	14.02%	\$	1,368.56	\$ 7,312.02	1.77%
Volkswagen	EuroVan/T4	10.82%	\$	1,011.35	\$ 7,404.37	2.03%
Honda	Odyssey	15.21%	\$	1,404.80	\$ 6,049.54	1.39%
Pontiac	Montana SV6	10.55%	\$	962.58	\$ 7,211.37	1.94%
Chrysler	Town & Country	13.59%	\$	1,228.26	\$ 6,448.22	1.70%
Buick	Terraza	14.97%	\$	1,348.95	\$ 7,442.29	1.88%
Dodge	Caravan/Grand Caravan	14.55%	\$	1,292.91	\$ 5,507.99	1.54%
Toyota	Sienna	14.69%	\$	1,304.91	\$ 7,302.56	2.12%
Chevrolet	Venture	14.93%	\$	1,303.99	\$ 6,712.13	1.81%
Saturn	Relay	11.18%	\$	976.24	\$ 6,943.55	2.00%
Pontiac	Montana	14.45%	\$	1,261.34	\$ 7,432.61	2.09%
Nissan	Quest	12.69%	\$	1,095.02	\$ 5,489.31	1.62%
Chevrolet	Uplander	13.95%	\$	1,203.47	\$ 6,209.62	1.88%
Ford	Freestar	14.19%	\$	1,196.08	\$ 4,896.01	1.47%
Mercury	Monterey	14.97%	\$	1,261.82	\$ 7,038.98	2.14%
Kia	Sedona	10.31%	\$	837.58	\$ 4,622.54	1.68%
Mazda	MPV	12.00%	\$	954.72	\$ 4,630.05	1.52%
GMC	Safari	10.76%	\$	756.21	\$ 6,898.76	1.98%
Chevrolet	Astro	11.59%	\$	814.43	\$ 5,267.84	1.49%
	Total Minivans	13.08%	\$	1,123.04	\$ 6,305.99	1.79%
Volvo	70 series	13.66%	\$	1,381.57	\$ 9,413.93	2.05%
Volvo	60 series	15.93%	\$	1,472.57	\$ 7,597.52	2.08%
Mercury	Zephyr	12.49%	\$	1,117.48	\$ 7,861.10	2.00%
Acura	TL	11.03%	\$	953.76	\$ 7,439.40	2.05%
Acura	CL	14.02%	\$	1,154.97	\$ 8,132.20	2.21%
Lincoln	LS	10.39%	\$	853.95	\$ 4,657.23	1.48%
Jaguar	X-Type	10.58%	\$	822.70	\$ 6,063.50	1.88%
Lexus	ES 330	14.72%	\$	1,110.77	\$ 4,810.00	1.51%
Lexus	IS 300	16.49%	\$	1,231.47	\$ 6,146.28	2.07%
Infiniti	G35	16.07%	\$	1,163.63	\$ 4,737.85	1.55%

Dust to Dust Energy Report -- Automotive

M-Benz	C class	11.57%	\$	801.11	\$ 5,579.27	1.92%
Cadillac	CTS	12.90%	\$	883.26	\$ 4,409.47	1.64%
BMW	330	10.24%	\$	674.41	\$ 4,523.29	1.59%
Buick	Park Avenue	10.70%	\$	678.49	\$ 5,432.10	1.95%
BMW	325	13.29%	\$	828.90	\$ 4,449.83	1.70%
Saab	9-5	13.59%	\$	846.79	\$ 5,078.66	2.05%
Total Near Luxury Cars		12.98%	\$	998.49	\$ 6,020.73	1.86%
Audi	A8	11.18%	\$	2,261.38	\$17,635.02	1.66%
M-Benz	S class	15.03%	\$	2,246.83	\$14,365.91	1.56%
Maserati	Maserati	15.20%	\$	1,891.79	\$ 7,620.58	1.54%
BMW	7 Series	14.95%	\$	1,788.32	\$ 8,733.42	1.48%
Jaguar	XJ	14.71%	\$	1,669.14	\$ 7,714.62	1.71%
Total Premium Cars		14.21%	\$	1,971.49	\$11,213.91	1.59%
Mercury	Montego	10.40%	\$	959.19	\$ 6,193.14	1.80%
Buick	LaCrosse	12.10%	\$	1,106.79	\$ 7,630.49	2.06%
Volkswagen	Passat	10.61%	\$	887.10	\$ 5,555.22	1.41%
Dodge	Magnum	13.47%	\$	1,108.18	\$ 6,022.86	1.63%
Ford	Five Hundred	15.54%	\$	1,277.85	\$ 6,144.05	1.77%
Dodge	Charger	14.22%	\$	1,143.57	\$ 5,431.69	1.60%
Nissan	Maxima	12.48%	\$	999.52	\$ 6,563.03	1.73%
Chrysler	300/300M	13.35%	\$	1,066.93	\$ 8,209.86	2.18%
Mitsubishi	Diamante	10.49%	\$	825.77	\$ 5,747.13	1.97%
Volvo	40 series	15.77%	\$	1,218.71	\$ 6,053.00	1.97%
Infiniti	I30/I35	12.07%	\$	910.20	\$ 5,636.69	1.62%
Mazda	Millenia	10.30%	\$	756.23	\$ 4,852.23	1.98%
Audi	A4/S4	11.32%	\$	818.21	\$ 6,445.64	2.15%
Audi	S4	10.23%	\$	795.59	\$ 4,567.27	1.41%
Acura	TSX	12.87%	\$	904.63	\$ 3,994.14	1.37%
Saab	9-3	14.49%	\$	965.90	\$ 5,627.57	1.89%
Saab	9-2	11.90%	\$	752.79	\$ 4,752.27	1.79%
Buick	Regal	13.05%	\$	620.27	\$ 3,918.56	2.21%
Total Premium Mid-Range Cars		12.48%	\$	950.97	\$ 5,741.38	1.81%
M-Benz	SLK class	10.83%	\$	1,756.95	\$10,002.49	1.58%
M-Benz	CLS class	15.75%	\$	2,353.68	\$16,080.87	1.85%
M-Benz	CLK class	11.02%	\$	1,567.82	\$12,604.66	1.89%
Porsche	Boxster	10.30%	\$	1,352.91	\$ 9,261.97	1.83%
Chevrolet	Corvette	15.55%	\$	2,000.97	\$ 8,851.05	1.73%
Audi	TT	16.20%	\$	1,827.20	\$ 5,581.47	1.43%
BMW	Z8	15.39%	\$	1,713.83	\$ 7,933.58	1.64%
BMW	Z4	10.23%	\$	1,034.97	\$ 7,664.98	2.10%
Ford	Thunderbird	14.58%	\$	877.28	\$ 4,368.63	1.73%
Chrysler	Crossfire	15.04%	\$	810.81	\$ 3,657.17	2.11%
Total Premium Sporty Cars		13.49%	\$	1,529.64	\$ 8,600.69	1.79%
Porsche	Cayenne	11.70%	\$	1,060.37	\$13,603.03	1.70%
Volkswagen	Touareg	12.83%	\$	2,161.09	\$13,994.33	1.82%
Land Rover	Range Rover	10.24%	\$	1,575.22	\$16,721.27	2.15%

Dust to Dust Energy Report -- Automotive

M-Benz	G class	12.39%	\$	1,873.24	\$18,028.01	2.05%
Hummer	H1	12.76%	\$	1,822.26	\$20,988.31	1.58%
Lexus	LX 470	15.86%	\$	2,086.70	\$14,237.36	2.07%
Cadillac	Escalade ESV	14.27%	\$	1,858.67	\$16,232.15	2.17%
Toyota	Land Cruiser	10.17%	\$	1,319.35	\$14,471.26	1.51%
Hummer	H2	11.00%	\$	1,356.52	\$ 8,407.01	1.41%
Cadillac	Escalade	10.67%	\$	1,196.75	\$12,500.06	1.90%
Lincoln	Navigator	13.57%	\$	1,446.83	\$ 8,573.24	1.63%
	Total Premium SUV	12.31%	\$	1,614.27	\$ 14,341	1.82%
Volvo	XC90	12.31%	\$	1,667.51	\$16,216.19	2.13%
Lexus	RX330	16.45%	\$	2,215.98	\$ 9,775.62	1.54%
Infiniti	FX35	10.64%	\$	1,313.30	\$ 8,961.60	1.71%
Infiniti	FX45	16.31%	\$	2,134.82	\$11,631.81	2.01%
M-Benz	R class	15.10%	\$	1,821.36	\$ 9,127.33	1.88%
Volvo	50 series	15.47%	\$	1,851.29	\$ 8,292.99	1.81%
Acura	MDX	12.79%	\$	1,482.62	\$ 9,930.44	1.79%
Cadillac	SRX	16.10%	\$	1,825.26	\$ 9,420.68	1.98%
M-Benz	M class	15.33%	\$	1,550.02	\$ 9,229.99	1.73%
BMW	X5	11.44%	\$	1,103.73	\$ 6,328.40	1.61%
BMW	X3	13.06%	\$	1,204.92	\$ 6,919.96	1.83%
	Total Premium Sportwagons	14.09%	\$	1,651.89	\$ 9,621	1.82%
Honda	Accord	10.41%	\$	924.62	\$ 9,294.15	2.04%
Volkswagen	Jetta wagon	14.26%	\$	1,188.86	\$ 6,038.53	2.17%
Volkswagen	Jetta	16.14%	\$	1,325.74	\$ 5,215.64	1.96%
Toyota	Camry	16.02%	\$	1,275.35	\$ 8,588.32	2.22%
Subaru	Baja	11.95%	\$	929.59	\$ 4,256.32	1.42%
Subaru	Legacy	16.44%	\$	1,238.59	\$ 4,009.48	1.39%
Subaru	Forester	11.56%	\$	859.83	\$ 5,903.63	1.96%
Subaru	Outback	10.94%	\$	791.62	\$ 4,511.54	1.60%
Mazda	Mazda6	15.56%	\$	1,138.84	\$ 4,743.26	1.63%
Dodge	Intrepid	10.68%	\$	771.20	\$ 6,750.78	2.14%
Chevrolet	Monte Carlo	13.80%	\$	846.91	\$ 5,323.31	1.87%
Mitsubishi	Galant	13.40%	\$	799.85	\$ 4,460.35	1.99%
Pontiac	Grand Prix	15.27%	\$	911.31	\$ 5,117.25	2.17%
Buick	Century	12.14%	\$	719.66	\$ 3,974.47	1.57%
Mercury	Sable	11.47%	\$	676.39	\$ 4,945.37	1.70%
Ford	Taurus	14.56%	\$	858.02	\$ 5,482.06	1.84%
Mazda	626	15.68%	\$	892.35	\$ 4,633.50	1.94%
Nissan	Altima	10.59%	\$	596.01	\$ 3,719.47	1.76%
Chevrolet	Impala	12.66%	\$	699.97	\$ 3,470.85	1.47%
Hyundai	XG350	10.85%	\$	568.21	\$ 4,172.73	2.15%
Kia	Amanti	13.18%	\$	678.24	\$ 3,048.55	1.49%
	Total Small Rid-Range Cars	13.22%	\$	890.05	\$ 5,126.65	1.83%
Chevrolet	SSR	13.16%	\$	1,309.29	\$ 5,377.23	1.54%
Honda	Ridgeline	16.20%	\$	1,192.81	\$ 5,066.33	1.72%
GMC	Canyon	14.64%	\$	765.53	\$ 3,570.76	1.48%
GMC	Sonoma	12.43%	\$	649.96	\$ 4,415.71	1.84%

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Nissan	Frontier	12.07%	\$	570.43	\$ 4,046.16	2.04%
Toyota	Tacoma	10.76%	\$	502.81	\$ 4,365.03	2.20%
Chevrolet	Colorado	12.88%	\$	590.29	\$ 3,414.87	1.65%
Mitsubishi	Raider	12.79%	\$	585.91	\$ 2,852.92	1.45%
Mazda	B-Series	14.39%	\$	638.05	\$ 3,192.41	1.52%
Dodge	Dakota	16.31%	\$	673.77	\$ 2,755.26	1.58%
Ford	Ranger	16.23%	\$	640.44	\$ 3,841.67	2.11%
Chevrolet	S10	14.16%	\$	449.58	\$ 1,956.81	1.46%
	Total Small Pickup	13.84%	\$	714.07	\$ 3,737.93	1.72%
Cadillac	Escalade EXT	15.71%	\$	1,310.84	\$ 7,422.21	1.64%
Chevrolet	Avalanche	11.23%	\$	905.25	\$ 7,036.73	1.52%
Lincoln	Mark LT	15.62%	\$	1,236.95	\$ 7,276.60	1.95%
	Total Specialty Utility Pickup	14.19%	\$	1,151.01	\$ 7,245.18	1.70%
Mazda	RX8	12.55%	\$	1,269.31	\$ 6,348.60	1.84%
Nissan	350Z	12.45%	\$	1,112.28	\$ 7,354.14	2.15%
Audi	A3	14.21%	\$	1,213.68	\$ 4,661.93	1.60%
Mitsubishi	Eclipse Spyder	10.67%	\$	903.86	\$ 4,379.03	1.77%
Mitsubishi	Eclipse	14.83%	\$	1,220.95	\$ 4,219.02	1.45%
Pontiac	GTO	11.07%	\$	899.66	\$ 6,057.16	2.08%
Toyota	Celica	11.43%	\$	916.80	\$ 4,268.65	1.56%
Mini	Mini Cooper S	15.95%	\$	1,239.79	\$ 5,866.38	1.91%
Acura	RSX	11.46%	\$	890.79	\$ 5,399.19	1.78%
Pontiac	Solstice	12.61%	\$	966.05	\$ 4,516.47	1.57%
Mini	Mini Cooper	12.74%	\$	931.93	\$ 6,280.50	2.07%
Ford	Mustang	13.62%	\$	975.60	\$ 4,709.32	1.48%
Toyota	MR2 Spyder	12.41%	\$	850.83	\$ 3,925.28	1.44%
Mazda	MX-5 Miata	13.84%	\$	829.29	\$ 4,924.74	1.84%
Honda	S2000	14.08%	\$	834.66	\$ 5,185.24	2.20%
Hyundai	Tiburon	11.26%	\$	660.06	\$ 4,613.03	1.67%
Pontiac	Firebird	15.87%	\$	832.22	\$ 4,720.27	2.12%
Chevrolet	Camaro	10.87%	\$	569.37	\$ 4,901.41	2.13%
	Total Touring	12.88%	\$	950.95	\$ 5,129.46	1.81%
Toyota	Avalon	14.51%	\$	1,163.12	\$ 6,326.98	1.60%
Buick	Lucerne	12.69%	\$	931.70	\$ 4,720.33	1.48%
Pontiac	Bonneville	15.32%	\$	1,112.39	\$ 6,848.41	2.10%
Chrysler	Concorde	12.50%	\$	779.88	\$ 5,324.05	1.90%
Mercury	Grand Marquis	15.17%	\$	876.37	\$ 5,899.18	2.01%
Ford	Crown Victoria	10.28%	\$	593.46	\$ 6,578.16	2.19%
Buick	LeSabre	15.02%	\$	839.77	\$ 4,921.75	1.96%
	Total Traditional Car	13.64%	\$	899.53	\$ 5,802.69	1.89%
Maybach	Maybach	10.14%	\$	4,785.27	\$42,268.07	1.42%
Rolls-Royce	Rolls-Royce	15.04%	\$	6,532.62	\$52,674.89	1.81%
Bentley	Bentley	15.83%	\$	6,808.17	\$46,912.11	1.64%
Porsche	Carrera GT	11.35%	\$	2,093.85	\$15,411.18	1.83%
Lamborghini	Lamborghini	12.54%	\$	2,048.16	\$ 7,518.06	1.55%
Ferrari	Ferrari	13.38%	\$	2,159.93	\$ 8,486.46	1.80%

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Ford	GT	16.39%	\$	2,571.59	\$ 7,504.35	1.68%
Aston Martin	Aston Martin	11.17%	\$	1,378.15	\$ 7,652.56	1.62%
	Total Ultra Luxury	13.23%	\$	3,547.22	\$23,553.46	1.67%
Lexus	GX 470	11.77%	\$	1,288.34	\$ 7,940.86	1.67%
Land Rover	Discovery	12.93%	\$	1,330.24	\$ 7,380.95	1.44%
Land Rover	LR3	13.78%	\$	1,397.71	\$ 8,565.91	1.55%
Infiniti	QX4	10.63%	\$	1,075.44	\$ 7,873.55	2.10%
Land Rover	Range Rover Sport	13.84%	\$	1,364.90	\$10,221.36	2.05%
Lincoln	Aviator	14.71%	\$	1,406.72	\$ 7,351.81	1.64%
Mercury	Mountaineer	11.67%	\$	1,110.63	\$ 6,909.79	1.73%
Subaru	B9 Tribeca	12.23%	\$	1,116.35	\$ 5,104.43	1.55%
GMC	Envoy	16.37%	\$	1,464.46	\$ 6,830.05	1.54%
Buick	Rainier	13.29%	\$	1,180.42	\$ 7,980.12	2.08%
Saab	9-7X	14.93%	\$	1,319.36	\$ 5,613.61	1.81%
Hummer	H3	10.74%	\$	853.08	\$ 8,675.93	2.15%
	Total Upper Mid-Range SUV	13.07%	\$	1,242.30	\$ 7,537.36	1.78%
Acura	NSX	11.41%	\$	2,070.00	\$15,046.02	1.76%
M-Benz	SC 430	12.51%	\$	1,736.51	\$12,141.74	2.16%
Cadillac	XLR	13.27%	\$	1,771.41	\$10,799.69	2.01%
Jaguar	XK	11.78%	\$	1,467.91	\$10,809.14	1.88%
Porsche	911 Carrera 4	11.14%	\$	1,284.66	\$ 8,846.56	2.07%
Porsche	911 Carrera	14.51%	\$	1,618.59	\$ 8,396.10	1.87%
M-Benz	SL Coupe/Roadster	11.30%	\$	1,236.67	\$ 8,533.82	1.88%
M-Benz	CL class	15.13%	\$	1,561.26	\$ 8,046.46	1.69%
BMW	6 Series	15.08%	\$	1,392.94	\$ 7,569.32	1.93%
Lotus	Lotus	15.47%	\$	1,428.96	\$ 4,059.76	1.48%
Dodge	Viper	12.52%	\$	1,110.15	\$ 3,928.92	1.53%
	Total Upper Premium Sportscars	13.10%	\$	1,516.28	\$ 8,925.23	1.84%
Industry Straight Average		14.38%	\$	1,361.45	\$ 8,398.78	1.98%

CHAPTER 11 – Recyclables

Among the most expensive energy components in the Dust to Dust study was in the recycle, non-recycle and re-use components. We'll break that down beginning with recyclables.

The industry and the recycle scrap industries have all improved the technology and efficiency of recycling parts and components, especially hard metals and plastics. In all, the industry is among the best at this primarily because there is a ready market for such recycled materials and the materials are in significant quantities to justify the expense of recycling. That is, with volume of recyclables comes the ability to support new products from recycled material. Tires are a good example. If only a handful of tires were available, there would be no justification for finding ways of using the material as a road-building component. The ready supply and new techniques for efficiently reducing the bulk to reusable grist created a new industry.

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Current hybrids have components that are capable of being recycled in a higher proportion of their total social energy costs than non-hybrid models. Light-weight metals (rather than the sound-deadening metals now common in conventional vehicles) and plastics currently have higher desirability so more of the hybrid's non-electronic components can be bought and sold more readily in the scrappage and recycling industry.

With that comes a price, though. It is more energy intense to recycle high-tech electronics, battery(ies), related components, motors, controller(s) and small items such as special gauges and regenerative braking parts.

In all, while the industry as a whole the cost of recycling is about \$119,000 per vehicle, hybrids cost more than \$140,000 per vehicle to recycle. Again, the owners of the vehicles do not pay this amount. Recyclers pay and resell at a typical 11 percent profit margin over and above their total expenses.

How can a vehicle costing \$30,000 generate \$140,000 in recyclables?

Remember that we are discussing energy usage, not the cost of the vehicle. Over time, for instance, the vehicle will sell on average of five times in its lifetime, each time at a portion of its original cost but generally bringing the lifetime expenditure for the vehicle into the two to four times original cost range depending on desirability and demand.

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We are also discussing energy consumption, not costs. That \$140,000 in recyclable energy costs will generate \$160,000 to \$220,000 in net revenue to recyclers. Additionally, the support industries to recyclers expend significant energy for the production and maintenance of necessary recycling equipment. Government agencies and those who remanufacture recycled material into other products similarly expend significant quantities of energy in support of the recycling of a single car.

The reason we include all of this into the vehicle's social energy cost is simple: As with research and development, we cannot be certain that recycled material will ever get into secondary products.

Tires are a good example. Scrap yards once accumulated acres upon acres of used tires and eventually simply burned them as a disposal method. Today, about 20 percent of those tires are recycled into everything from road-maintenance pavement to fish habitat.

But such recycling demands energy expenditures. Shredding a tire worth \$2 at wholesale as scrap costs about \$2.90 in energy to total expenditures but the resulting material can be sold for approximately \$3.10. Governments or taxes of all sorts pay roughly 83 cents in energy costs to support that single recycled tire but receive 91 cents of savings if the tire is used as a component of road-paving material, our analysis shows.

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Similarly, we have included the recycling of components taken in on repair and maintenance such as oil, tires, and batteries over the lifetime of the vehicle, not just the last stage just prior to disposal of the entire car or truck.

Lead-acid batteries, for example, are replaced approximately 3.6 times during the life of a vehicle on average. Roughly 24 percent are recycled, 18 percent re-used after refurbishment and the rest are either stored or sent to landfills by the owners. To produce a single replacement wiper blade costs 0.19 cents of energy (rubber or rubber like material, plastic or metal frame, packaging, distribution, stocking, installation and disposal).

Many of these costs are passed along to consumers; much of the technology is leveraged against other products or product categories; some are simply paid for by society in general through gasoline or other taxes.

The point is this: Recycling of an automobile is both supported by and supportive of other industries. Such recycling can reduce the what would be the new-product or non-recycled cost of other goods or services to consumers or governments.

In many cases, such recycling generates all-new products or packaging technologies or spawns entirely new ways of producing competitive products in seemingly old industries. Example: One company was built on entirely on the use of recycled paper and paper goods for greeting cards, a product category dominated by Hallmark. So successful was the idea that the owner and founder

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of that company became extraordinarily wealthy and went on to build top rated golf courses including Bandon Dunes which is within walking distance of CNW offices.

Did the newspaper reader pay for the energy of anything more than the half-dollar for the original edition? Did that reader expect his daily habit of reading sports would result in a new and lucrative greeting card company?

Unlikely.

But the high volume of newspaper material supported generally low prices for cast off material that allowed one entrepreneur to compete successfully against the long-time greeting card giant.

All of this required energy expenditures not paid for by the original newspaper reader. So, too, with automobiles. Cadres of engineers, backyard scientists, tinkers and conglomerates are expending huge quantities of energy devising new ways to recycle automotive components.

Toyota currently has the most sophisticated methods of disposing of the nickel batteries found in Prius. But to do so today is likely to remain energy intense and unprofitable until the quantity of such batteries is high enough to encourage others to invest in the development of better recycling methods. CNW calculates that it costs \$3 in energy to recycle a conventional lead acid battery and more than \$93 for the Prius battery.

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Division	Model	Recycleables Disposal	Recycleables Disposal
Kia	Rio	\$ 38,699.95	24.78%
Hyundai	Accent	\$ 38,161.82	29.65%
Chevrolet	Aveo	\$ 28,799.30	26.52%
Toyota	Echo	\$ 29,431.90	26.67%
	Total Budget Cars	\$ 33,773.24	26.91%
Chevrolet	Cobalt	\$ 46,023.36	26.88%
Toyota	Matrix **	\$ 41,191.30	25.14%
Mazda	Mazda3	\$ 43,045.69	26.79%
Nissan	Sentra	\$ 46,115.14	29.22%
Suzuki	Aerio	\$ 39,133.15	27.71%
Mitsubishi	Lancer	\$ 39,637.38	29.50%
Kia	Spectra	\$ 32,099.51	23.51%
Scion	tC	\$ 26,177.43	22.30%
Suzuki	Forenza	\$ 31,192.55	25.98%
Ford	Focus	\$ 31,706.52	23.37%
Mazda	Protégé	\$ 33,325.76	26.80%
Pontiac	Sunfire	\$ 29,558.70	24.85%
Chevrolet	Cavalier	\$ 29,149.15	25.32%
Scion	xA	\$ 27,309.32	23.80%
Toyota	Corolla	\$ 31,278.05	25.28%
Dodge	Neon	\$ 27,870.96	25.87%
Hyundai	Elantra	\$ 30,862.67	26.34%
Saturn	Ion	\$ 28,939.76	25.36%
Ford	Escort	\$ 23,290.17	21.35%
Scion	xB	\$ 26,687.50	29.55%
	Total Economy Cars	\$ 33,229.70	25.75%
Nissan	Xterra	\$ 87,842.86	22.75%
Isuzu	Trooper	\$ 115,446.17	28.94%
Mazda	Mazda5	\$ 66,110.52	23.02%
Isuzu	Rodeo	\$ 82,993.40	29.26%
Suzuki	XL-7	\$ 62,850.70	25.79%
Suzuki	Grand Vitara	\$ 51,628.54	21.35%
Kia	Sorento	\$ 48,838.57	25.88%
Chevrolet	Blazer	\$ 78,674.48	29.06%
Suzuki	Vitara	\$ 56,714.31	28.56%
Isuzu	Rodeo Sport	\$ 52,050.33	26.23%
Kia	Sportage	\$ 52,262.20	28.13%
Jeep	Liberty	\$ 50,714.63	24.41%
Chevrolet	Tracker	\$ 29,542.73	27.82%
Jeep	Wrangler	\$ 31,344.32	25.07%
	Ttl Entry Level SUVs	\$ 61,929.55	26.16%
Mitsubishi	Outlander	\$ 120,561.49	29.07%
Hyundai	Tucson	\$ 91,593.37	28.32%

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Mazda	Tribute	\$ 94,099.65	27.81%
Hyundai	Santa Fe	\$ 83,661.41	27.44%
Pontiac	Torrent	\$ 77,195.67	24.14%
Ford	Escape	\$ 82,303.58	26.21%
Mercury	Mariner	\$ 72,132.52	24.52%
Toyota	RAV4	\$ 73,180.40	23.19%
Saturn	Vue	\$ 76,585.69	25.75%
Chevrolet	Equinox	\$ 92,872.86	26.98%
Honda	Element	\$ 72,035.22	28.08%
Pontiac	Aztek	\$ 56,129.19	21.67%
Honda	CR-V	\$ 60,558.61	26.27%
	Ttl Entry Level Sportwagons	\$ 80,993.05	26.11%

Nissan	Titan	\$ 108,368.33	23.83%
Toyota	Tundra	\$ 140,123.74	29.24%
Dodge	Ram pickup	\$ 158,540.02	27.63%
Chevrolet	Silverado	\$ 162,086.81	27.68%
GMC	Sierra	\$ 165,809.00	29.17%
Ford	F Series	\$ 161,349.28	25.17%
	Ttl Full Size Pickup	\$ 149,380	27.12%

GMC	Savana/G Van	\$ 200,013.85	27.32%
Ford	Econoline/Club Wagon	\$ 199,960.21	28.85%
GMC	Express/G Van	\$ 159,137.56	25.34%
Dodge	Sprinter Van	\$ 236,052.45	25.60%
Dodge	Ram Van	\$ 134,673.81	26.17%
Ford	Econoline van	\$ 156,100.51	25.31%
	Full Size Van	\$ 180,990	26.43%

Honda	Accord Hybrid	\$ 131,368.13	34.08%
Toyota	Prius	\$ 147,391.88	41.62%
Honda	Civic Hybrid	\$ 137,233.07	37.51%
Ford	Escape Hybrid	\$ 136,559.70	30.47%
Mercury	Mariner Hybrid	\$ 133,610.40	30.62%
Honda	Insight	\$ 113,874.89	35.55%
Lexus	RX 400h	\$ 219,857.09	28.97%
Toyota	Highlander Hybrid	\$ 114,961.03	29.93%
	Ttl Hybrids	\$ 141,857	33.59%

Volkswagen	Phaeton	\$ 609,083.32	22.54%
Audi	allroad quattro	\$ 277,247.91	24.53%
Audi	A6	\$ 239,298.77	25.51%
Lexus	LS 430	\$ 279,940.47	26.52%
Lexus	GS 430	\$ 178,241.83	22.30%
Infiniti	Q45	\$ 240,839.72	28.24%
Jaguar	S-Type	\$ 180,756.56	27.46%
Infiniti	M45	\$ 137,820.81	28.22%
Lexus	GS 300	\$ 125,344.93	24.78%
Cadillac	DTS	\$ 144,101.73	21.85%
Cadillac	DeVille	\$ 162,508.86	23.65%

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M-Benz	E class	\$ 233,626.14	27.55%
Cadillac	Seville	\$ 115,555.91	21.58%
Volvo	80 series	\$ 149,485.68	22.42%
Cadillac	STS	\$ 190,657.87	27.80%
BMW	5 Series	\$ 152,603.13	23.48%
Acura	RL	\$ 111,612.82	24.64%
Lincoln	Town Car	\$ 173,730.45	28.78%
BMW	M3	\$ 83,449.85	21.40%
	Total Luxury Car	\$ 199,258.25	24.91%

Volkswagen	Golf	\$ 100,101.28	24.58%
Volkswagen	Golf GTI	\$ 90,858.07	22.84%
Saturn	L series	\$ 111,406.69	26.81%
Honda	Civic	\$ 123,937.70	28.77%
Chevrolet	HHR	\$ 101,151.72	24.97%
Pontiac	G6	\$ 104,494.24	28.06%
Chevrolet	Classic	\$ 135,198.64	26.02%
Subaru	Impreza	\$ 87,467.15	28.70%
Pontiac	Grand Am	\$ 111,879.16	26.20%
Ford	Fusion	\$ 111,626.02	26.40%
Mercury	Milan	\$ 108,258.61	26.01%
Dodge	Stratus	\$ 116,401.96	26.75%
Kia	Optima	\$ 87,860.41	27.37%
Hyundai	Sonata	\$ 84,546.40	26.36%
Suzuki	Verona	\$ 65,040.54	22.43%
Volkswagen	Beetle	\$ 68,392.06	21.88%
Pontiac	Vibe	\$ 43,444.71	26.68%
Chevrolet	Malibu	\$ 73,100.47	23.37%
Chrysler	PT Cruiser	\$ 73,907.98	23.88%
Chrysler	Sebring	\$ 55,710.76	26.47%
	Ttl Lower Mid-Range Cars	\$ 92,739.23	25.73%

Nissan	Pathfinder	\$ 93,202.56	26.57%
Toyota	4Runner	\$ 104,461.16	27.06%
Mitsubishi	Montero	\$ 93,192.74	27.27%
Mitsubishi	Montero Sport	\$ 83,724.61	27.77%
Isuzu	Axiom	\$ 62,723.08	25.46%
Land Rover	Freelander	\$ 70,568.94	26.68%
Isuzu	Ascender	\$ 65,861.30	26.72%
Jeep	Commander	\$ 93,861.86	29.48%
Jeep	Grand Cherokee	\$ 79,514.31	25.45%
Jeep	Grand Cherokee SRT-8	\$ 68,969.73	22.32%
Dodge	Durango	\$ 62,878.07	23.92%
Ford	Explorer	\$ 81,689.54	28.67%
Chevrolet	TrailBlazer	\$ 72,570.07	28.47%
	Ttl Lower Mid-Range SUV	\$ 79,478.31	26.60%

Toyota	Sequoia	\$ 167,219.39	26.02%
Nissan	Armada	\$ 136,528.35	24.43%
Ford	Excursion	\$ 236,587.90	26.62%

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Chevrolet	Suburban	\$ 197,232.17	23.14%
GMC	Yukon XL	\$ 207,703.88	24.47%
Ford	Expedition	\$ 211,144.03	24.31%
Chevrolet	Tahoe	\$ 229,052.85	29.10%
GMC	Yukon	\$ 197,842.07	25.43%
	Total Large SUV	\$ 197,914	25.44%
Chrysler	Pacifica	\$ 139,494.17	27.42%
Nissan	Murano	\$ 99,040.79	22.17%
Toyota	Highlander	\$ 86,064.93	22.16%
Ford	Freestyle/Windstar	\$ 124,820.71	24.42%
Buick	Rendezvous	\$ 109,554.12	27.26%
Honda	Pilot	\$ 100,983.06	29.46%
Mitsubishi	Endeavor	\$ 64,812.96	21.46%
	Total Mid-Range Sportwagons	\$ 103,538.68	24.91%
Volkswagen	EuroVan/T4	\$ 98,445.27	26.99%
Honda	Odyssey	\$ 121,904.82	28.01%
Pontiac	Montana SV6	\$ 95,680.74	25.74%
Chrysler	Town & Country	\$ 98,278.49	25.91%
Buick	Terraza	\$ 104,152.45	26.31%
Dodge	Caravan/Grand Caravan	\$ 88,199.44	24.66%
Toyota	Sienna	\$ 96,586.71	28.04%
Chevrolet	Venture	\$ 83,697.69	22.57%
Saturn	Relay	\$ 85,856.95	24.73%
Pontiac	Montana	\$ 100,962.62	28.39%
Nissan	Quest	\$ 93,182.80	27.50%
Chevrolet	Uplander	\$ 92,351.55	27.96%
Ford	Freestar	\$ 89,793.40	26.96%
Mercury	Monterey	\$ 79,731.22	24.24%
Kia	Sedona	\$ 69,888.44	25.40%
Mazda	MPV	\$ 68,415.06	22.46%
GMC	Safari	\$ 83,342.58	23.92%
Chevrolet	Astro	\$ 82,022.77	23.20%
	Total Minivans	\$ 90,694.06	25.72%
Volvo	70 series	\$ 119,855.45	26.10%
Volvo	60 series	\$ 96,247.41	26.35%
Mercury	Zephyr	\$ 99,442.86	25.30%
Acura	TL	\$ 81,615.69	22.49%
Acura	CL	\$ 100,566.98	27.33%
Lincoln	LS	\$ 72,596.18	23.07%
Jaguar	X-Type	\$ 93,984.26	29.14%
Lexus	ES 330	\$ 86,834.78	27.26%
Lexus	IS 300	\$ 74,052.27	24.94%
Infiniti	G35	\$ 83,814.10	27.42%
M-Benz	C class	\$ 86,362.38	29.72%
Cadillac	CTS	\$ 65,550.59	24.38%
BMW	330	\$ 66,882.06	23.51%
Buick	Park Avenue	\$ 66,215.95	23.77%

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BMW	325	\$ 77,505.56	29.61%
Saab	9-5	\$ 64,139.78	25.89%
	Total Near Luxury Cars	\$ 83,479.14	26.02%
Audi	A8	\$ 267,287.41	25.16%
M-Benz	S class	\$ 228,381.10	24.80%
Maserati	Maserati	\$ 111,290.19	22.49%
BMW	7 Series	\$ 136,843.20	23.19%
Jaguar	XJ	\$ 111,478.58	24.71%
	Total Premium Cars	\$ 171,056.10	24.07%
Mercury	Montego	\$ 89,250.03	25.94%
Buick	LaCrosse	\$ 96,566.45	26.07%
Volkswagen	Passat	\$ 107,519.10	27.29%
Dodge	Magnum	\$ 79,036.19	21.39%
Ford	Five Hundred	\$ 101,394.15	29.21%
Dodge	Charger	\$ 96,276.74	28.36%
Nissan	Maxima	\$ 106,601.80	28.10%
Chrysler	300/300M	\$ 89,366.98	23.73%
Mitsubishi	Diamante	\$ 81,714.24	28.01%
Volvo	40 series	\$ 88,091.18	28.67%
Infiniti	I30/I35	\$ 102,504.32	29.46%
Mazda	Millenia	\$ 66,877.41	27.29%
Audi	A4/S4	\$ 88,500.11	29.52%
Audi	S4	\$ 91,313.00	28.19%
Acura	TSX	\$ 64,518.50	22.13%
Saab	9-3	\$ 78,607.37	26.40%
Saab	9-2	\$ 72,239.79	27.21%
Buick	Regal	\$ 43,582.88	24.58%
	Total Premium Mid-Range Cars	\$ 85,775.57	26.75%
M-Benz	SLK class	\$ 183,336.72	28.96%
M-Benz	CLS class	\$ 206,791.30	23.79%
M-Benz	CLK class	\$ 177,465.60	26.61%
Porsche	Boxster	\$ 122,227.66	24.15%
Chevrolet	Corvette	\$ 120,538.00	23.56%
Audi	TT	\$ 90,747.63	23.25%
BMW	Z8	\$ 123,405.80	25.51%
BMW	Z4	\$ 92,600.25	25.37%
Ford	Thunderbird	\$ 74,216.13	29.39%
Chrysler	Crossfire	\$ 38,963.64	22.48%
	Total Premium Sporty Cars	\$ 123,029.27	25.31%
Porsche	Cayenne	\$ 214,527.72	26.81%
Volkswagen	Touareg	\$ 168,700.91	21.94%
Land Rover	Range Rover	\$ 168,457.10	21.66%
M-Benz	G class	\$ 238,761.26	27.15%
Hummer	H1	\$ 289,851.26	21.82%
Lexus	LX 470	\$ 168,578.59	24.51%
Cadillac	Escalade ESV	\$ 213,710.79	28.57%

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Toyota	Land Cruiser	\$ 236,332.04	24.66%
Hummer	H2	\$ 159,673.53	26.78%
Cadillac	Escalade	\$ 170,987.67	25.99%
Lincoln	Navigator	\$ 134,279.02	25.53%
	Total Premium SUV	\$ 196,714.54	25.04%
Volvo	XC90	\$ 216,977.17	28.50%
Lexus	RX330	\$ 163,646.45	25.78%
Infiniti	FX35	\$ 135,052.89	25.77%
Infiniti	FX45	\$ 131,190.66	22.67%
M-Benz	R class	\$ 131,860.75	27.16%
Volvo	50 series	\$ 103,181.28	22.52%
Acura	MDX	\$ 133,145.61	24.00%
Cadillac	SRX	\$ 135,838.53	28.55%
M-Benz	M class	\$ 132,901.20	24.91%
BMW	X5	\$ 106,246.36	27.03%
BMW	X3	\$ 89,619.16	23.70%
	Total Premium Sportwagons	\$ 134,514.55	25.51%
Honda	Accord	\$ 125,379.95	27.52%
Volkswagen	Jetta wagon	\$ 82,174.07	29.53%
Volkswagen	Jetta	\$ 63,199.68	23.75%
Toyota	Camry	\$ 89,442.36	23.12%
Subaru	Baja	\$ 78,142.46	26.07%
Subaru	Legacy	\$ 67,613.04	23.44%
Subaru	Forester	\$ 68,825.43	22.85%
Subaru	Outback	\$ 64,035.60	22.71%
Mazda	Mazda6	\$ 67,395.04	23.16%
Dodge	Intrepid	\$ 79,526.67	25.21%
Chevrolet	Monte Carlo	\$ 63,794.38	22.41%
Mitsubishi	Galant	\$ 57,917.28	25.84%
Pontiac	Grand Prix	\$ 53,955.20	22.88%
Buick	Century	\$ 66,578.78	26.30%
Mercury	Sable	\$ 69,875.16	24.02%
Ford	Taurus	\$ 88,219.52	29.61%
Mazda	626	\$ 70,075.70	29.34%
Nissan	Altima	\$ 51,206.08	24.23%
Chevrolet	Impala	\$ 50,811.35	21.52%
Hyundai	XG350	\$ 51,120.83	26.34%
Kia	Amanti	\$ 56,531.21	27.63%
	Total Small Rid-Range Cars	\$ 69,800.94	25.12%
Chevrolet	SSR	\$ 98,745.54	28.28%
Honda	Ridgeline	\$ 72,106.84	24.48%
GMC	Canyon	\$ 59,737.87	24.76%
GMC	Sonoma	\$ 54,596.43	22.75%
Nissan	Frontier	\$ 48,752.21	24.58%
Toyota	Tacoma	\$ 53,769.23	27.10%
Chevrolet	Colorado	\$ 58,114.89	28.08%
Mitsubishi	Raider	\$ 43,010.17	21.86%

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Mazda	B-Series	\$ 45,365.88	21.60%
Dodge	Dakota	\$ 49,838.90	28.58%
Ford	Ranger	\$ 48,303.08	26.53%
Chevrolet	S10	\$ 33,855.41	25.26%
	Total Small Pickup	\$ 55,516.37	25.32%
Cadillac	Escalade EXT	\$ 117,035.52	25.86%
Chevrolet	Avalanche	\$ 135,827.44	29.34%
Lincoln	Mark LT	\$ 107,581.81	28.83%
	Total Specialty Utility Pickup	\$ 120,148.26	28.01%
Mazda	RX8	\$ 94,884.02	27.50%
Nissan	350Z	\$ 96,732.53	28.28%
Audi	A3	\$ 71,181.90	24.43%
Mitsubishi	Eclipse Spyder	\$ 67,615.13	27.33%
Mitsubishi	Eclipse	\$ 74,662.04	25.66%
Pontiac	GTO	\$ 85,062.33	29.21%
Toyota	Celica	\$ 59,131.75	21.61%
Mini	Mini Cooper S	\$ 82,620.81	26.90%
Acura	RSX	\$ 81,260.81	26.79%
Pontiac	Solstice	\$ 61,734.68	21.46%
Mini	Mini Cooper	\$ 65,808.68	21.69%
Ford	Mustang	\$ 89,890.67	28.25%
Toyota	MR2 Spyder	\$ 70,600.57	25.90%
Mazda	MX-5 Miata	\$ 61,291.65	22.90%
Honda	S2000	\$ 56,283.38	23.88%
Hyundai	Tiburon	\$ 70,466.08	25.51%
Pontiac	Firebird	\$ 59,871.78	26.89%
Chevrolet	Camaro	\$ 63,027.95	27.39%
	Total Touring	\$ 72,895.93	25.64%
Toyota	Avalon	\$ 109,773.08	27.76%
Buick	Lucerne	\$ 74,695.97	23.42%
Pontiac	Bonneville	\$ 79,441.50	24.36%
Chrysler	Concorde	\$ 83,223.34	29.70%
Mercury	Grand Marquis	\$ 72,873.91	24.83%
Ford	Crown Victoria	\$ 71,518.67	23.81%
Buick	LeSabre	\$ 56,022.54	22.31%
	Total Traditional Car	\$ 78,221.29	25.17%
Maybach	Maybach	\$ 878,997.36	29.53%
Rolls-Royce	Rolls-Royce	\$ 645,485.71	22.18%
Bentley	Bentley	\$ 829,829.53	29.01%
Porsche	Carrera GT	\$ 250,200.11	29.71%
Lamborghini	Lamborghini	\$ 103,749.19	21.39%
Ferrari	Ferrari	\$ 131,634.35	27.92%
Ford	GT	\$ 121,543.60	27.21%
Aston Martin	Aston Martin	\$ 102,978.95	21.80%
	Total Ultra Luxury	\$ 383,052	26.09%

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Lexus	GX 470	\$ 102,517.99	21.56%
Land Rover	Discovery	\$ 152,078.27	29.67%
Land Rover	LR3	\$ 149,323.23	27.02%
Infiniti	QX4	\$ 90,095.91	24.03%
Land Rover	Range Rover Sport	\$ 119,664.71	24.00%
Lincoln	Aviator	\$ 102,566.65	22.88%
Mercury	Mountaineer	\$ 109,118.78	27.32%
Subaru	B9 Tribeca	\$ 84,074.91	25.53%
GMC	Envoy	\$ 100,499.24	22.66%
Buick	Rainier	\$ 84,136.55	21.93%
Saab	9-7X	\$ 81,412.82	26.25%
Hummer	H3	\$ 86,799.64	21.51%
	Total Upper Mid-Range SUV	\$ 105,190.72	24.53%
Acura	NSX	\$ 227,571.07	26.62%
M-Benz	SC 430	\$ 147,274.86	26.20%
Cadillac	XLR	\$ 114,713.12	21.35%
Jaguar	XK	\$ 148,223.23	25.78%
Porsche	911 Carrera 4	\$ 92,995.75	21.76%
Porsche	911 Carrera	\$ 114,986.17	25.61%
M-Benz	SL Coupe/Roadster	\$ 104,357.67	22.99%
M-Benz	CL class	\$ 133,980.68	28.14%
BMW	6 Series	\$ 98,518.84	25.12%
Lotus	Lotus	\$ 70,113.20	25.56%
Dodge	Viper	\$ 66,123.92	25.75%
	Total Upper Premium Sportscars	\$ 119,896.23	24.99%
Industry Straight Average		\$ 119,321.12	27.90%

CHAPTER 12 – Non-Recyclables

About half of all new vehicles have components which cannot be recycled into secondary materials and/or cannot be put back into the marketplace as replacement or repair parts. Such material includes leather seats, fluids, worn out drive train components, brake lining, hoses, lighting system, electronics, worn trim panels, etc.

Over the past 20 years, the actual percentage of parts that are not recyclable in modern vehicles has increased as vehicles last longer and such parts become less valuable to the aftermarket. At one point in time, when recycling to a secondary market for secondary material manufacture, these bits and pieces were simply stored and reused to keep a vehicle running long past the original life expectancy, covered in the next chapter.

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That is no longer the case. As cars become more sophisticated, the ability to recycle or even re-use parts increases in difficulty. This is a similar problem with modern computers and other electronic devices. Once simple to repair (or, at least, cost effective) today's computers, televisions, radios and other such devices are more likely to be "trashed" rather than fixed.

As the following table shows, CNW's research found a wide variance in both the cost and percentage of models containing and the cost of paying for (in an energy-expended sense) those non-recyclables.

It is here that hybrids show their benefit. Most current hybrids have a non-recycle component in the 40 percent range, significantly less than virtually all other models except for the Jeep Wrangler. While this is contrary to the general rule that complexity results in fewer non-recycle components, hybrids are finding a ready market for components to feed the repair and secondary hybrid marketplaces.

The data is based on the **lifetime energy cost** of those non-recyclable parts from simply scrapping the components to warehousing while waiting for market conditions to favor future disposal, to purchase of those non-recyclable parts for evaluation of potential recyclability.

As the second table below shows, sorted by order of share that is not recyclable, the energy cost can be staggering. The more luxurious vehicles, for example, can have costs that are nearly 10 times their original transaction price. For many of these components these are waste parts and material that can only be disposed of in landfills. CNW has estimated the landfill cost to

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governments and society in its calculations. To do otherwise would be ignoring the reality. One could argue the amount of energy demanded, but none of the automakers, Toyota included, will address the issue in a way that puts the impact of such non-recyclables on the impact to society in general.

This is not meant as a complaint or “attack” on automakers. Granting that CNW’s assessment is – as mentioned previously – possibly “off” by as much as 15 percent, it is currently the only available assessment based on hard numbers.

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Division	Model	Non-Recycleables Disposal	Non-Recycleables Disposal
Kia	Rio	\$ 88,006.28	56.35%
Hyundai	Accent	\$ 64,823.95	50.37%
Chevrolet	Aveo	\$ 56,300.75	51.84%
Toyota	Echo	\$ 57,584.46	52.18%
	Total Budget Cars	\$ 66,678.86	52.69%
Chevrolet	Cobalt	\$ 93,631.98	54.69%
Toyota	Matrix **	\$ 91,583.91	55.90%
Mazda	Mazda3	\$ 86,759.69	54.00%
Nissan	Sentra	\$ 79,210.85	50.19%
Suzuki	Aerio	\$ 72,707.21	51.48%
Mitsubishi	Lancer	\$ 63,651.41	47.37%
Kia	Spectra	\$ 75,299.97	55.15%
Scion	tC	\$ 63,430.27	54.03%
Suzuki	Forenza	\$ 60,612.77	50.48%
Ford	Focus	\$ 73,376.40	54.08%
Mazda	Protégé	\$ 61,436.66	49.41%
Pontiac	Sunfire	\$ 62,078.46	52.19%
Chevrolet	Cavalier	\$ 60,291.65	52.37%
Scion	xA	\$ 63,912.49	55.70%
Toyota	Corolla	\$ 67,081.71	54.22%
Dodge	Neon	\$ 53,701.94	49.85%
Hyundai	Elantra	\$ 58,909.42	50.28%
Saturn	Ion	\$ 58,327.35	51.11%
Ford	Escort	\$ 56,519.96	51.81%
Scion	xB	\$ 37,076.78	41.05%
	Total Economy Cars	\$ 66,980.04	51.77%
Nissan	Xterra	\$ 231,086.00	59.85%
Isuzu	Trooper	\$ 221,570.22	55.54%
Mazda	Mazda5	\$ 175,085.09	60.97%
Isuzu	Rodeo	\$ 147,257.53	51.92%
Suzuki	XL-7	\$ 131,340.66	53.89%
Suzuki	Grand Vitara	\$ 142,227.32	58.82%
Kia	Sorento	\$ 98,009.71	51.94%
Chevrolet	Blazer	\$ 131,060.23	48.41%
Suzuki	Vitara	\$ 98,694.24	49.70%
Isuzu	Rodeo Sport	\$ 102,725.16	51.77%
Kia	Sportage	\$ 94,303.42	50.76%
Jeep	Liberty	\$ 113,666.00	54.71%
Chevrolet	Tracker	\$ 44,840.84	42.23%
Jeep	Wrangler	\$ 43,742.45	34.99%
	Ttl Entry Level SUVs	\$ 126,829.20	51.82%

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Mitsubishi	Outlander	\$	236,366.77	56.99%
Hyundai	Tucson	\$	181,836.04	56.22%
Mazda	Tribute	\$	195,653.49	57.82%
Hyundai	Santa Fe	\$	171,810.62	56.35%
Pontiac	Torrent	\$	191,294.84	59.82%
Ford	Escape	\$	181,284.41	57.73%
Mercury	Mariner	\$	176,497.55	60.00%
Toyota	RAV4	\$	193,882.96	61.44%
Saturn	Vue	\$	176,502.68	59.34%
Chevrolet	Equinox	\$	199,864.09	58.06%
Honda	Element	\$	143,682.51	56.01%
Pontiac	Aztek	\$	155,793.43	60.15%
Honda	CR-V	\$	129,552.89	56.20%
	Ttl Entry Level Sportwagons	\$	179,540.17	58.16%
Nissan	Titan	\$	272,588.03	59.94%
Toyota	Tundra	\$	264,359.91	55.16%
Dodge	Ram pickup	\$	333,714.26	58.16%
Chevrolet	Silverado	\$	338,826.11	57.86%
GMC	Sierra	\$	320,285.88	56.35%
Ford	F Series	\$	374,860.70	58.48%
	Ttl Full Size Pickup	\$	317,439.15	57.66%
GMC	Savana/G Van	\$	420,627.53	57.45%
Ford	Econoline/Club Wagon	\$	388,843.36	56.10%
GMC	Express/G Van	\$	373,624.46	59.49%
Dodge	Sprinter Van	\$	557,495.01	60.46%
Dodge	Ram Van	\$	288,671.93	56.10%
Ford	Econoline van	\$	356,524.53	57.81%
	Full Size Van	\$	397,631.14	57.90%
Honda	Accord Hybrid	\$	188,079.70	48.79%
Toyota	Prius	\$	131,082.41	37.01%
Honda	Civic Hybrid	\$	165,330.78	45.19%
Ford	Escape Hybrid	\$	254,789.73	52.68%
Mercury	Mariner Hybrid	\$	245,825.33	52.73%
Honda	Insight	\$	137,902.90	43.05%
Lexus	RX 400h	\$	426,233.70	42.36%
Toyota	Highlander Hybrid	\$	201,044.29	49.21%
	Ttl Hybrids	\$	218,786.11	46.38%
Volkswagen	Phaeton	\$	1,859,453.79	68.81%
Audi	allroad quattro	\$	735,893.52	65.11%
Audi	A6	\$	603,082.94	64.29%
Lexus	LS 430	\$	669,156.00	63.39%
Lexus	GS 430	\$	534,445.03	66.86%
Infiniti	Q45	\$	517,181.51	60.64%
Jaguar	S-Type	\$	397,594.57	60.40%
Infiniti	M45	\$	288,018.77	58.97%

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Lexus	GS 300	\$	315,319.96	62.34%
Cadillac	DTS	\$	440,051.27	66.72%
Cadillac	DeVille	\$	439,682.13	63.99%
M-Benz	E class	\$	511,056.73	60.27%
Cadillac	Seville	\$	343,921.81	64.23%
Volvo	80 series	\$	435,356.86	65.30%
Cadillac	STS	\$	412,980.91	60.22%
BMW	5 Series	\$	422,983.89	65.08%
Acura	RL	\$	279,385.53	61.68%
Lincoln	Town Car	\$	348,093.25	57.66%
BMW	M3	\$	246,361.93	63.18%
	Total Luxury Car	\$	515,790.55	63.11%
Volkswagen	Golf	\$	262,463.86	64.45%
Volkswagen	Golf GTI	\$	255,508.33	64.23%
Saturn	L series	\$	249,962.31	60.15%
Honda	Civic	\$	254,022.93	58.97%
Chevrolet	HHR	\$	240,442.11	59.35%
Pontiac	G6	\$	218,466.26	58.67%
Chevrolet	Classic	\$	323,640.38	62.29%
Subaru	Impreza	\$	170,182.11	55.84%
Pontiac	Grand Am	\$	256,950.50	60.17%
Ford	Fusion	\$	256,529.95	60.67%
Mercury	Milan	\$	255,007.74	61.27%
Dodge	Stratus	\$	262,624.51	60.35%
Kia	Optima	\$	190,649.52	59.39%
Hyundai	Sonata	\$	192,176.67	59.92%
Suzuki	Verona	\$	180,390.42	62.21%
Volkswagen	Beetle	\$	198,754.79	63.59%
Pontiac	Vibe	\$	89,557.97	55.00%
Chevrolet	Malibu	\$	197,624.24	63.18%
Chrysler	PT Cruiser	\$	186,990.94	60.42%
Chrysler	Sebring	\$	116,299.68	55.26%
	Ttl Lower Mid-Range Cars	\$	217,912.26	60.27%
Nissan	Pathfinder	\$	201,572.62	57.46%
Toyota	4Runner	\$	218,985.22	56.73%
Mitsubishi	Montero	\$	189,567.20	55.47%
Mitsubishi	Montero Sport	\$	165,275.73	54.82%
Isuzu	Axiom	\$	136,729.05	55.50%
Land Rover	Freelander	\$	144,129.02	54.49%
Isuzu	Ascender	\$	128,392.52	52.09%
Jeep	Commander	\$	161,525.69	50.73%
Jeep	Grand Cherokee	\$	168,783.36	54.02%
Jeep	Grand Cherokee SRT-8	\$	176,276.27	51.18%
Dodge	Durango	\$	142,465.97	54.20%
Ford	Explorer	\$	142,374.80	49.97%
Chevrolet	TrailBlazer	\$	129,268.38	50.71%
	Ttl Lower Mid-Range SUV	\$	161,949.68	53.64%

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Toyota	Sequoia	\$	391,186.95	60.87%
Nissan	Armada	\$	338,741.17	60.61%
Ford	Excursion	\$	528,494.04	59.46%
Chevrolet	Suburban	\$	546,367.64	64.10%
GMC	Yukon XL	\$	529,349.07	62.36%
Ford	Expedition	\$	538,240.55	61.97%
Chevrolet	Tahoe	\$	457,854.33	58.17%
GMC	Yukon	\$	479,887.97	61.68%
	Total Large SUV	\$	476,265.21	61.15%
Chrysler	Pacifica	\$	304,232.31	59.80%
Nissan	Murano	\$	289,027.33	64.70%
Toyota	Highlander	\$	250,759.72	64.57%
Ford	Freestyle/Windstar	\$	313,200.14	61.27%
Buick	Rendezvous	\$	241,686.68	60.14%
Honda	Pilot	\$	190,765.10	55.65%
Mitsubishi	Endeavor	\$	191,311.46	63.34%
	Total Mid-Range Sportwagons	\$	254,426.10	61.35%
Volkswagen	EuroVan/T4	\$	212,474.96	58.25%
Honda	Odyssey	\$	253,813.49	58.32%
Pontiac	Montana SV6	\$	220,301.41	59.27%
Chrysler	Town & Country	\$	226,759.08	59.78%
Buick	Terraza	\$	231,774.29	58.55%
Dodge	Caravan/Grand Caravan	\$	216,312.90	60.48%
Toyota	Sienna	\$	199,032.18	57.78%
Chevrolet	Venture	\$	227,014.51	61.22%
Saturn	Relay	\$	209,418.28	60.32%
Pontiac	Montana	\$	204,310.56	57.45%
Nissan	Quest	\$	198,387.01	58.55%
Chevrolet	Uplander	\$	182,295.78	55.19%
Ford	Freestar	\$	188,687.91	56.65%
Mercury	Monterey	\$	197,578.05	60.07%
Kia	Sedona	\$	157,318.85	57.18%
Mazda	MPV	\$	187,954.06	61.70%
GMC	Safari	\$	204,794.33	58.78%
Chevrolet	Astro	\$	208,911.12	59.09%
	Total Minivans	\$	207,063.27	58.81%
Volvo	70 series	\$	272,988.41	59.45%
Volvo	60 series	\$	213,269.64	58.39%
Mercury	Zephyr	\$	239,295.55	60.88%
Acura	TL	\$	232,792.52	64.15%
Acura	CL	\$	219,397.25	59.62%
Lincoln	LS	\$	194,874.46	61.93%
Jaguar	X-Type	\$	180,523.20	55.97%
Lexus	ES 330	\$	181,579.53	57.00%
Lexus	IS 300	\$	179,714.82	60.53%
Infiniti	G35	\$	175,934.76	57.56%
M-Benz	C class	\$	158,056.11	54.39%

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Cadillac	CTS	\$	159,746.64	59.41%
BMW	330	\$	169,302.89	59.51%
Buick	Park Avenue	\$	166,073.53	59.62%
BMW	325	\$	137,934.98	52.70%
Saab	9-5	\$	141,926.05	57.29%
	Total Near Luxury Cars	\$	188,963.14	58.65%
Audi	A8	\$	685,915.27	64.57%
M-Benz	S class	\$	582,337.42	63.24%
Maserati	Maserati	\$	302,813.72	61.19%
BMW	7 Series	\$	380,851.16	64.54%
Jaguar	XJ	\$	282,713.53	62.67%
	Total Premium Cars	\$	446,926.22	63.24%
Mercury	Montego	\$	205,277.36	59.66%
Buick	LaCrosse	\$	223,400.19	60.31%
Volkswagen	Passat	\$	235,017.49	59.65%
Dodge	Magnum	\$	237,075.85	64.16%
Ford	Five Hundred	\$	196,243.61	56.53%
Dodge	Charger	\$	193,573.96	57.02%
Nissan	Maxima	\$	221,743.55	58.45%
Chrysler	300/300M	\$	227,609.01	60.44%
Mitsubishi	Diamante	\$	165,373.32	56.69%
Volvo	40 series	\$	174,533.67	56.80%
Infiniti	I30/I35	\$	197,282.81	56.70%
Mazda	Millenia	\$	138,450.26	56.50%
Audi	A4/S4	\$	159,093.25	53.07%
Audi	S4	\$	201,804.24	53.67%
Acura	TSX	\$	185,107.74	63.49%
Saab	9-3	\$	172,031.96	57.78%
Saab	9-2	\$	148,327.62	55.87%
Buick	Regal	\$	98,306.05	55.44%
	Total Premium Mid-Range Cars	\$	187,791.77	57.90%
M-Benz	SLK class	\$	375,621.76	59.33%
M-Benz	CLS class	\$	570,882.60	65.68%
M-Benz	CLK class	\$	410,665.99	61.58%
Porsche	Boxster	\$	321,002.56	63.42%
Chevrolet	Corvette	\$	331,487.99	64.79%
Audi	TT	\$	250,216.62	64.11%
BMW	Z8	\$	296,297.43	61.25%
BMW	Z4	\$	223,975.13	61.36%
Ford	Thunderbird	\$	131,697.55	52.15%
Chrysler	Crossfire	\$	96,431.16	55.64%
	Total Premium Sporty Cars	\$	300,827.88	60.93%
Porsche	Cayenne	\$	500,469.13	62.54%
Volkswagen	Touareg	\$	511,067.51	66.47%
Land Rover	Range Rover	\$	504,454.43	64.86%
M-Benz	G class	\$	521,215.93	59.27%

Dust to Dust Energy Report -- Automotive

Hummer	H1	\$	873,659.90	65.77%
Lexus	LX 470	\$	423,706.16	61.60%
Cadillac	Escalade ESV	\$	438,965.38	58.68%
Toyota	Land Cruiser	\$	592,265.21	61.80%
Hummer	H2	\$	356,751.50	59.83%
Cadillac	Escalade	\$	397,021.21	60.35%
Lincoln	Navigator	\$	305,759.53	58.13%
	Total Premium SUV	\$	493,212.35	61.76%
Volvo	XC90	\$	459,612.23	60.37%
Lexus	RX330	\$	395,425.34	62.29%
Infiniti	FX35	\$	315,737.05	60.25%
Infiniti	FX45	\$	366,723.15	63.37%
M-Benz	R class	\$	287,615.76	59.24%
Volvo	50 series	\$	300,203.28	65.52%
Acura	MDX	\$	353,605.05	63.74%
Cadillac	SRX	\$	272,388.88	57.25%
M-Benz	M class	\$	320,838.13	60.14%
BMW	X5	\$	225,701.68	57.42%
BMW	X3	\$	233,502.58	61.75%
	Total Premium Sportwagons	\$	321,032.10	61.03%
Honda	Accord	\$	272,088.18	59.72%
Volkswagen	Jetta wagon	\$	155,067.37	55.72%
Volkswagen	Jetta	\$	166,175.87	62.45%
Toyota	Camry	\$	247,139.29	63.88%
Subaru	Baja	\$	177,161.19	59.10%
Subaru	Legacy	\$	179,288.58	62.16%
Subaru	Forester	\$	184,929.20	61.40%
Subaru	Outback	\$	179,806.34	55.67%
Mazda	Mazda6	\$	181,460.08	62.36%
Dodge	Intrepid	\$	181,981.91	57.69%
Chevrolet	Monte Carlo	\$	173,448.55	60.93%
Mitsubishi	Galant	\$	129,472.93	57.76%
Pontiac	Grand Prix	\$	139,928.05	59.34%
Buick	Century	\$	143,482.68	56.68%
Mercury	Sable	\$	173,808.75	59.75%
Ford	Taurus	\$	159,702.03	53.60%
Mazda	626	\$	124,320.20	52.05%
Nissan	Altima	\$	125,116.75	59.20%
Chevrolet	Impala	\$	143,385.91	60.73%
Hyundai	XG350	\$	107,394.27	55.33%
Kia	Amanti	\$	107,133.08	52.36%
	Total Small Rid-Range Cars	\$	164,394.82	58.47%
Chevrolet	SSR	\$	187,982.13	53.84%
Honda	Ridgeline	\$	167,718.12	56.94%
GMC	Canyon	\$	131,715.27	54.59%
GMC	Sonoma	\$	136,412.89	56.84%
Nissan	Frontier	\$	104,497.17	52.69%

Dust to Dust Energy Report -- Automotive

Toyota	Tacoma	\$	105,053.54	52.95%
Chevrolet	Colorado	\$	101,244.20	48.92%
Mitsubishi	Raider	\$	106,227.69	53.99%
Mazda	B-Series	\$	107,708.77	51.28%
Dodge	Dakota	\$	78,727.85	45.15%
Ford	Ranger	\$	88,484.58	48.60%
Chevrolet	S10	\$	64,630.74	48.22%
	Total Small Pickup	\$	115,033.58	52.00%
Cadillac	Escalade EXT	\$	254,325.35	56.20%
Chevrolet	Avalanche	\$	236,925.24	51.18%
Lincoln	Mark LT	\$	196,326.91	52.61%
	Total Specialty Utility Pickup	\$	229,192.50	53.33%
Mazda	RX8	\$	198,577.09	57.55%
Nissan	350Z	\$	196,150.54	57.35%
Audi	A3	\$	178,845.78	61.38%
Mitsubishi	Eclipse Spyder	\$	143,770.67	58.11%
Mitsubishi	Eclipse	\$	172,769.42	59.38%
Pontiac	GTO	\$	157,499.82	54.08%
Toyota	Celica	\$	175,391.14	64.10%
Mini	Mini Cooper S	\$	181,170.63	58.99%
Acura	RSX	\$	180,474.13	59.50%
Pontiac	Solstice	\$	181,924.95	63.24%
Mini	Mini Cooper	\$	195,403.67	64.40%
Ford	Mustang	\$	178,928.53	56.23%
Toyota	MR2 Spyder	\$	161,599.24	59.28%
Mazda	MX-5 Miata	\$	161,937.02	60.50%
Honda	S2000	\$	134,827.36	57.20%
Hyundai	Tiburon	\$	161,398.30	58.43%
Pontiac	Firebird	\$	116,838.69	52.48%
Chevrolet	Camaro	\$	117,467.20	51.05%
	Total Touring	\$	166,387.45	58.51%
Toyota	Avalon	\$	232,002.54	58.67%
Buick	Lucerne	\$	197,871.77	62.04%
Pontiac	Bonneville	\$	192,438.06	59.01%
Chrysler	Concorde	\$	146,146.71	52.16%
Mercury	Grand Marquis	\$	172,230.57	58.68%
Ford	Crown Victoria	\$	176,314.92	58.70%
Buick	LeSabre	\$	151,874.38	60.48%
	Total Traditional Car	\$	181,268.42	58.53%
Maybach	Maybach	\$	1,836,964.62	61.71%
Rolls-Royce	Rolls-Royce	\$	2,014,316.81	69.22%
Bentley	Bentley	\$	1,784,989.36	62.40%
Porsche	Carrera GT	\$	477,337.07	56.68%
Lamborghini	Lamborghini	\$	298,627.55	61.57%
Ferrari	Ferrari	\$	255,810.84	54.26%
Ford	GT	\$	257,468.47	57.64%

Dust to Dust Energy Report -- Automotive

Aston Martin	Aston Martin	\$	296,417.32	62.75%
	Total Ultra Luxury	\$	902,741.51	60.78%
Lexus	GX 470	\$	302,120.35	63.54%
Land Rover	Discovery	\$	284,862.18	55.58%
Land Rover	LR3	\$	318,010.63	57.54%
Infiniti	QX4	\$	225,431.90	60.13%
Land Rover	Range Rover Sport	\$	299,961.51	60.16%
Lincoln	Aviator	\$	269,382.96	60.09%
Mercury	Mountaineer	\$	225,108.65	56.36%
Subaru	B9 Tribeca	\$	190,937.86	57.98%
GMC	Envoy	\$	271,630.56	61.25%
Buick	Rainier	\$	243,993.83	63.60%
Saab	9-7X	\$	177,512.65	57.24%
Hummer	H3	\$	251,444.74	62.31%
	Total Upper Mid-Range SUV	\$	255,033.15	59.65%
Acura	NSX	\$	534,393.03	62.51%
M-Benz	SC 430	\$	345,836.27	61.52%
Cadillac	XLR	\$	355,012.94	66.07%
Jaguar	XK	\$	354,213.30	61.61%
Porsche	911 Carrera 4	\$	268,718.85	62.88%
Porsche	911 Carrera	\$	256,711.19	57.18%
M-Benz	SL Coupe/Roadster	\$	277,584.04	61.15%
M-Benz	CL class	\$	280,496.22	58.91%
BMW	6 Series	\$	234,212.69	59.72%
Lotus	Lotus	\$	164,672.46	60.03%
Dodge	Viper	\$	139,851.79	54.46%
	Total Upper Premium Sportscars	\$	291,972.98	60.55%
Industry Straight Average		\$	276,187.59	62.41%

Dust to Dust Energy Report -- Automotive

Sorted by high-to-low non-recyclables disposal costs.

Division	Model	Non-Recycleables Disposal	Non-Recycleables Disposal
Rolls-Royce	Rolls-Royce	\$ 2,014,316.81	69.22%
Volkswagen	Phaeton	\$ 1,859,453.79	68.81%
Lexus	GS 430	\$ 534,445.03	66.86%
Cadillac	DTS	\$ 440,051.27	66.72%
Volkswagen	Touareg	\$ 511,067.51	66.47%
Cadillac	XLR	\$ 355,012.94	66.07%
Hummer	H1	\$ 873,659.90	65.77%
M-Benz	CLS class	\$ 570,882.60	65.68%
Volvo	50 series	\$ 300,203.28	65.52%
Volvo	80 series	\$ 435,356.86	65.30%
Audi	allroad quattro	\$ 735,893.52	65.11%
BMW	5 Series	\$ 422,983.89	65.08%
Land Rover	Range Rover	\$ 504,454.43	64.86%
Chevrolet	Corvette	\$ 331,487.99	64.79%
Nissan	Murano	\$ 289,027.33	64.70%
Audi	A8	\$ 685,915.27	64.57%
Toyota	Highlander	\$ 250,759.72	64.57%
BMW	7 Series	\$ 380,851.16	64.54%
Volkswagen	Golf	\$ 262,463.86	64.45%
Mini	Mini Cooper	\$ 195,403.67	64.40%
Audi	A6	\$ 603,082.94	64.29%
Volkswagen	Golf GTI	\$ 255,508.33	64.23%
Cadillac	Seville	\$ 343,921.81	64.23%
Dodge	Magnum	\$ 237,075.85	64.16%
Acura	TL	\$ 232,792.52	64.15%
Audi	TT	\$ 250,216.62	64.11%
Chevrolet	Suburban	\$ 546,367.64	64.10%
Toyota	Celica	\$ 175,391.14	64.10%
Cadillac	DeVille	\$ 439,682.13	63.99%
Toyota	Camry	\$ 247,139.29	63.88%
Acura	MDX	\$ 353,605.05	63.74%
Buick	Rainier	\$ 243,993.83	63.60%
Volkswagen	Beetle	\$ 198,754.79	63.59%
Lexus	GX 470	\$ 302,120.35	63.54%
Acura	TSX	\$ 185,107.74	63.49%
Porsche	Boxster	\$ 321,002.56	63.42%
Lexus	LS 430	\$ 669,156.00	63.39%
Infiniti	FX45	\$ 366,723.15	63.37%
Mitsubishi	Endeavor	\$ 191,311.46	63.34%
	Total Premium Cars	\$ 446,926.22	63.24%
Pontiac	Solstice	\$ 181,924.95	63.24%
M-Benz	S class	\$ 582,337.42	63.24%
Chevrolet	Malibu	\$ 197,624.24	63.18%
BMW	M3	\$ 246,361.93	63.18%

Dust to Dust Energy Report -- Automotive

	Total Luxury Car	\$	515,790.55	63.11%
Porsche	911 Carrera 4	\$	268,718.85	62.88%
Aston Martin	Aston Martin	\$	296,417.32	62.75%
Jaguar	XJ	\$	282,713.53	62.67%
Porsche	Cayenne	\$	500,469.13	62.54%
Acura	NSX	\$	534,393.03	62.51%
Volkswagen	Jetta	\$	166,175.87	62.45%
Bentley	Bentley	\$	1,784,989.36	62.40%
GMC	Yukon XL	\$	529,349.07	62.36%
Mazda	Mazda6	\$	181,460.08	62.36%
Lexus	GS 300	\$	315,319.96	62.34%
Hummer	H3	\$	251,444.74	62.31%
Lexus	RX330	\$	395,425.34	62.29%
Chevrolet	Classic	\$	323,640.38	62.29%
Suzuki	Verona	\$	180,390.42	62.21%
Subaru	Legacy	\$	179,288.58	62.16%
Buick	Lucerne	\$	197,871.77	62.04%
Ford	Expedition	\$	538,240.55	61.97%
Lincoln	LS	\$	194,874.46	61.93%
Toyota	Land Cruiser	\$	592,265.21	61.80%
	Total Premium SUV	\$	493,212.35	61.76%
BMW	X3	\$	233,502.58	61.75%
Maybach	Maybach	\$	1,836,964.62	61.71%
Mazda	MPV	\$	187,954.06	61.70%
GMC	Yukon	\$	479,887.97	61.68%
Acura	RL	\$	279,385.53	61.68%
Jaguar	XK	\$	354,213.30	61.61%
Lexus	LX 470	\$	423,706.16	61.60%
M-Benz	CLK class	\$	410,665.99	61.58%
Lamborghini	Lamborghini	\$	298,627.55	61.57%
M-Benz	SC 430	\$	345,836.27	61.52%
Toyota	RAV4	\$	193,882.96	61.44%
Subaru	Forester	\$	184,929.20	61.40%
Audi	A3	\$	178,845.78	61.38%
BMW	Z4	\$	223,975.13	61.36%
	Total Mid-Range Sportwagons	\$	254,426.10	61.35%
Ford	Freestyle/Windstar	\$	313,200.14	61.27%
Mercury	Milan	\$	255,007.74	61.27%
BMW	Z8	\$	296,297.43	61.25%
GMC	Envoy	\$	271,630.56	61.25%
Chevrolet	Venture	\$	227,014.51	61.22%
Maserati	Maserati	\$	302,813.72	61.19%
	Total Large SUV	\$	476,265.21	61.15%
M-Benz	SL Coupe/Roadster	\$	277,584.04	61.15%
	Total Premium Sportwagons	\$	321,032.10	61.03%
Mazda	Mazda5	\$	175,085.09	60.97%
	Total Premium Sporty Cars	\$	300,827.88	60.93%
Chevrolet	Monte Carlo	\$	173,448.55	60.93%
Mercury	Zephyr	\$	239,295.55	60.88%

Dust to Dust Energy Report -- Automotive

Toyota	Sequoia	\$	391,186.95	60.87%
	Total Ultra Luxury	\$	902,741.51	60.78%
Chevrolet	Impala	\$	143,385.91	60.73%
Ford	Fusion	\$	256,529.95	60.67%
Infiniti	Q45	\$	517,181.51	60.64%
Nissan	Armada	\$	338,741.17	60.61%
	Total Upper Premium Sportscars	\$	291,972.98	60.55%
Lexus	IS 300	\$	179,714.82	60.53%
Mazda	MX-5 Miata	\$	161,937.02	60.50%
Buick	LeSabre	\$	151,874.38	60.48%
Dodge	Caravan/Grand Caravan	\$	216,312.90	60.48%
Dodge	Sprinter Van	\$	557,495.01	60.46%
Chrysler	300/300M	\$	227,609.01	60.44%
Chrysler	PT Cruiser	\$	186,990.94	60.42%
Jaguar	S-Type	\$	397,594.57	60.40%
Volvo	XC90	\$	459,612.23	60.37%
Dodge	Stratus	\$	262,624.51	60.35%
Cadillac	Escalade	\$	397,021.21	60.35%
Saturn	Relay	\$	209,418.28	60.32%
Buick	LaCrosse	\$	223,400.19	60.31%
	Ttl Lower Mid-Range Cars	\$	217,912.26	60.27%
M-Benz	E class	\$	511,056.73	60.27%
Infiniti	FX35	\$	315,737.05	60.25%
Cadillac	STS	\$	412,980.91	60.22%
Pontiac	Grand Am	\$	256,950.50	60.17%
Land Rover	Range Rover Sport	\$	299,961.51	60.16%
Saturn	L series	\$	249,962.31	60.15%
Pontiac	Aztek	\$	155,793.43	60.15%
Buick	Rendezvous	\$	241,686.68	60.14%
M-Benz	M class	\$	320,838.13	60.14%
Infiniti	QX4	\$	225,431.90	60.13%
Lincoln	Aviator	\$	269,382.96	60.09%
Mercury	Monterey	\$	197,578.05	60.07%
Lotus	Lotus	\$	164,672.46	60.03%
Mercury	Mariner	\$	176,497.55	60.00%
Nissan	Titan	\$	272,588.03	59.94%
Hyundai	Sonata	\$	192,176.67	59.92%
Nissan	Xterra	\$	231,086.00	59.85%
Hummer	H2	\$	356,751.50	59.83%
Pontiac	Torrent	\$	191,294.84	59.82%
Chrysler	Pacifica	\$	304,232.31	59.80%
Chrysler	Town & Country	\$	226,759.08	59.78%
Mercury	Sable	\$	173,808.75	59.75%
Honda	Accord	\$	272,088.18	59.72%
BMW	6 Series	\$	234,212.69	59.72%
Mercury	Montego	\$	205,277.36	59.66%
Volkswagen	Passat	\$	235,017.49	59.65%
	Total Upper Mid-Range SUV	\$	255,033.15	59.65%
Acura	CL	\$	219,397.25	59.62%
Buick	Park Avenue	\$	166,073.53	59.62%

Dust to Dust Energy Report -- Automotive

BMW	330	\$	169,302.89	59.51%
Acura	RSX	\$	180,474.13	59.50%
GMC	Express/G Van	\$	373,624.46	59.49%
Ford	Excursion	\$	528,494.04	59.46%
Volvo	70 series	\$	272,988.41	59.45%
Cadillac	CTS	\$	159,746.64	59.41%
Kia	Optima	\$	190,649.52	59.39%
Mitsubishi	Eclipse	\$	172,769.42	59.38%
Chevrolet	HHR	\$	240,442.11	59.35%
Saturn	Vue	\$	176,502.68	59.34%
Pontiac	Grand Prix	\$	139,928.05	59.34%
M-Benz	SLK class	\$	375,621.76	59.33%
Toyota	MR2 Spyder	\$	161,599.24	59.28%
M-Benz	G class	\$	521,215.93	59.27%
Pontiac	Montana SV6	\$	220,301.41	59.27%
M-Benz	R class	\$	287,615.76	59.24%
Nissan	Altima	\$	125,116.75	59.20%
Subaru	Baja	\$	177,161.19	59.10%
Chevrolet	Astro	\$	208,911.12	59.09%
Pontiac	Bonneville	\$	192,438.06	59.01%
Mini	Mini Cooper S	\$	181,170.63	58.99%
Infiniti	M45	\$	288,018.77	58.97%
Honda	Civic	\$	254,022.93	58.97%
M-Benz	CL class	\$	280,496.22	58.91%
Suzuki	Grand Vitara	\$	142,227.32	58.82%
	Total Minivans	\$	207,063.27	58.81%
GMC	Safari	\$	204,794.33	58.78%
Ford	Crown Victoria	\$	176,314.92	58.70%
Mercury	Grand Marquis	\$	172,230.57	58.68%
Cadillac	Escalade ESV	\$	438,965.38	58.68%
Toyota	Avalon	\$	232,002.54	58.67%
Pontiac	G6	\$	218,466.26	58.67%
	Total Near Luxury Cars	\$	188,963.14	58.65%
Buick	Terraza	\$	231,774.29	58.55%
Nissan	Quest	\$	198,387.01	58.55%
	Total Traditional Car	\$	181,268.42	58.53%
	Total Touring	\$	166,387.45	58.51%
Ford	F Series	\$	374,860.70	58.48%
	Total Small Rid-Range Cars	\$	164,394.82	58.47%
Nissan	Maxima	\$	221,743.55	58.45%
Hyundai	Tiburon	\$	161,398.30	58.43%
Volvo	60 series	\$	213,269.64	58.39%
Honda	Odyssey	\$	253,813.49	58.32%
Volkswagen	EuroVan/T4	\$	212,474.96	58.25%
Chevrolet	Tahoe	\$	457,854.33	58.17%
	Ttl Entry Level Sportwagons	\$	179,540.17	58.16%
Dodge	Ram pickup	\$	333,714.26	58.16%
Lincoln	Navigator	\$	305,759.53	58.13%
Mitsubishi	Eclipse Spyder	\$	143,770.67	58.11%
Chevrolet	Equinox	\$	199,864.09	58.06%

Dust to Dust Energy Report -- Automotive

Subaru	B9 Tribeca	\$	190,937.86	57.98%
	Total Premium Mid-Range Cars	\$	187,791.77	57.90%
	Full Size Van	\$	397,631.14	57.90%
Chevrolet	Silverado	\$	338,826.11	57.86%
Mazda	Tribute	\$	195,653.49	57.82%
Ford	Econoline van	\$	356,524.53	57.81%
Toyota	Sienna	\$	199,032.18	57.78%
Saab	9-3	\$	172,031.96	57.78%
Mitsubishi	Galant	\$	129,472.93	57.76%
Ford	Escape	\$	181,284.41	57.73%
Dodge	Intrepid	\$	181,981.91	57.69%
Lincoln	Town Car	\$	348,093.25	57.66%
	Ttl Full Size Pickup	\$	317,439.15	57.66%
Ford	GT	\$	257,468.47	57.64%
Infiniti	G35	\$	175,934.76	57.56%
Mazda	RX8	\$	198,577.09	57.55%
Land Rover	LR3	\$	318,010.63	57.54%
Nissan	Pathfinder	\$	201,572.62	57.46%
GMC	Savana/G Van	\$	420,627.53	57.45%
Pontiac	Montana	\$	204,310.56	57.45%
BMW	X5	\$	225,701.68	57.42%
Nissan	350Z	\$	196,150.54	57.35%
Saab	9-5	\$	141,926.05	57.29%
Cadillac	SRX	\$	272,388.88	57.25%
Saab	9-7X	\$	177,512.65	57.24%
Honda	S2000	\$	134,827.36	57.20%
Kia	Sedona	\$	157,318.85	57.18%
Porsche	911 Carrera	\$	256,711.19	57.18%
Dodge	Charger	\$	193,573.96	57.02%
Lexus	ES 330	\$	181,579.53	57.00%
Mitsubishi	Outlander	\$	236,366.77	56.99%
Honda	Ridgeline	\$	167,718.12	56.94%
GMC	Sonoma	\$	136,412.89	56.84%
Volvo	40 series	\$	174,533.67	56.80%
Toyota	4Runner	\$	218,985.22	56.73%
Infiniti	I30/I35	\$	197,282.81	56.70%
Mitsubishi	Diamante	\$	165,373.32	56.69%
Porsche	Carrera GT	\$	477,337.07	56.68%
Buick	Century	\$	143,482.68	56.68%
Ford	Freestar	\$	188,687.91	56.65%
Ford	Five Hundred	\$	196,243.61	56.53%
Mazda	Millenia	\$	138,450.26	56.50%
Mercury	Mountaineer	\$	225,108.65	56.36%
Hyundai	Santa Fe	\$	171,810.62	56.35%
Kia	Rio	\$	88,006.28	56.35%
GMC	Sierra	\$	320,285.88	56.35%
Ford	Mustang	\$	178,928.53	56.23%
Hyundai	Tucson	\$	181,836.04	56.22%
Honda	CR-V	\$	129,552.89	56.20%
Cadillac	Escalade EXT	\$	254,325.35	56.20%

Dust to Dust Energy Report -- Automotive

Ford	Econoline/Club Wagon	\$	388,843.36	56.10%
Dodge	Ram Van	\$	288,671.93	56.10%
Honda	Element	\$	143,682.51	56.01%
Jaguar	X-Type	\$	180,523.20	55.97%
Toyota	Matrix **	\$	91,583.91	55.90%
Saab	9-2	\$	148,327.62	55.87%
Subaru	Impreza	\$	170,182.11	55.84%
Volkswagen	Jetta wagon	\$	155,067.37	55.72%
Scion	xA	\$	63,912.49	55.70%
Subaru	Outback	\$	179,806.34	55.67%
Honda	Pilot	\$	190,765.10	55.65%
Chrysler	Crossfire	\$	96,431.16	55.64%
Land Rover	Discovery	\$	284,862.18	55.58%
Isuzu	Trooper	\$	221,570.22	55.54%
Isuzu	Axiom	\$	136,729.05	55.50%
Mitsubishi	Montero	\$	189,567.20	55.47%
Buick	Regal	\$	98,306.05	55.44%
Hyundai	XG350	\$	107,394.27	55.33%
Chrysler	Sebring	\$	116,299.68	55.26%
Chevrolet	Uplander	\$	182,295.78	55.19%
Toyota	Tundra	\$	264,359.91	55.16%
Kia	Spectra	\$	75,299.97	55.15%
Pontiac	Vibe	\$	89,557.97	55.00%
Mitsubishi	Montero Sport	\$	165,275.73	54.82%
Jeep	Liberty	\$	113,666.00	54.71%
Chevrolet	Cobalt	\$	93,631.98	54.69%
GMC	Canyon	\$	131,715.27	54.59%
Land Rover	Freelander	\$	144,129.02	54.49%
Dodge	Viper	\$	139,851.79	54.46%
M-Benz	C class	\$	158,056.11	54.39%
Ferrari	Ferrari	\$	255,810.84	54.26%
Toyota	Corolla	\$	67,081.71	54.22%
Dodge	Durango	\$	142,465.97	54.20%
Pontiac	GTO	\$	157,499.82	54.08%
Ford	Focus	\$	73,376.40	54.08%
Scion	tC	\$	63,430.27	54.03%
Jeep	Grand Cherokee	\$	168,783.36	54.02%
Mazda	Mazda3	\$	86,759.69	54.00%
Mitsubishi	Raider	\$	106,227.69	53.99%
Suzuki	XL-7	\$	131,340.66	53.89%
Chevrolet	SSR	\$	187,982.13	53.84%
Audi	S4	\$	201,804.24	53.67%
	Ttl Lower Mid-Range SUV	\$	161,949.68	53.64%
Ford	Taurus	\$	159,702.03	53.60%
	Total Specialty Utility Pickup	\$	229,192.50	53.33%
Audi	A4/S4	\$	159,093.25	53.07%
Toyota	Tacoma	\$	105,053.54	52.95%
Mercury	Mariner Hybrid	\$	245,825.33	52.73%
BMW	325	\$	137,934.98	52.70%
Nissan	Frontier	\$	104,497.17	52.69%

Dust to Dust Energy Report -- Automotive

	Total Budget Cars	\$	66,678.86	52.69%
Ford	Escape Hybrid	\$	254,789.73	52.68%
Lincoln	Mark LT	\$	196,326.91	52.61%
Pontiac	Firebird	\$	116,838.69	52.48%
Chevrolet	Cavalier	\$	60,291.65	52.37%
Kia	Amanti	\$	107,133.08	52.36%
Pontiac	Sunfire	\$	62,078.46	52.19%
Toyota	Echo	\$	57,584.46	52.18%
Chrysler	Concorde	\$	146,146.71	52.16%
Ford	Thunderbird	\$	131,697.55	52.15%
Isuzu	Ascender	\$	128,392.52	52.09%
Mazda	626	\$	124,320.20	52.05%
	Total Small Pickup	\$	115,033.58	52.00%
Kia	Sorento	\$	98,009.71	51.94%
Isuzu	Rodeo	\$	147,257.53	51.92%
Chevrolet	Aveo	\$	56,300.75	51.84%
	Ttl Entry Level SUVs	\$	126,829.20	51.82%
Ford	Escort	\$	56,519.96	51.81%
	Total Economy Cars	\$	66,980.04	51.77%
Isuzu	Rodeo Sport	\$	102,725.16	51.77%
Suzuki	Aerio	\$	72,707.21	51.48%
Mazda	B-Series	\$	107,708.77	51.28%
Jeep	Grand Cherokee SRT-8	\$	176,276.27	51.18%
Chevrolet	Avalanche	\$	236,925.24	51.18%
Saturn	Ion	\$	58,327.35	51.11%
Chevrolet	Camaro	\$	117,467.20	51.05%
Kia	Sportage	\$	94,303.42	50.76%
Jeep	Commander	\$	161,525.69	50.73%
Chevrolet	TrailBlazer	\$	129,268.38	50.71%
Suzuki	Forenza	\$	60,612.77	50.48%
Hyundai	Accent	\$	64,823.95	50.37%
Hyundai	Elantra	\$	58,909.42	50.28%
Nissan	Sentra	\$	79,210.85	50.19%
Ford	Explorer	\$	142,374.80	49.97%
Dodge	Neon	\$	53,701.94	49.85%
Suzuki	Vitara	\$	98,694.24	49.70%
Mazda	Protégé	\$	61,436.66	49.41%
Toyota	Highlander Hybrid	\$	201,044.29	49.21%
Chevrolet	Colorado	\$	101,244.20	48.92%
Honda	Accord Hybrid	\$	188,079.70	48.79%
Ford	Ranger	\$	88,484.58	48.60%
Chevrolet	Blazer	\$	131,060.23	48.41%
Chevrolet	S10	\$	64,630.74	48.22%
Mitsubishi	Lancer	\$	63,651.41	47.37%
	Ttl Hybrids	\$	218,786.11	46.38%
Honda	Civic Hybrid	\$	165,330.78	45.19%
Dodge	Dakota	\$	78,727.85	45.15%
Honda	Insight	\$	137,902.90	43.05%
Lexus	RX 400h	\$	426,233.70	42.36%
Chevrolet	Tracker	\$	44,840.84	42.23%

Dust to Dust Energy Report -- Automotive

Scion	xB	\$	37,076.78	41.05%
Toyota	Prius	\$	131,082.41	37.01%
Jeep	Wrangler	\$	43,742.45	34.99%

CHAPTER 13 – Reusable

The share of new vehicles that can be reused to support repair and long-term maintenance of vehicles represents the smallest of the disposal segment of the energy research. Generally the share of a new vehicle that can be stripped from a scrapped vehicle and set aside for future repair depends in large part on the used-vehicle marketplace and those vehicles that have a longer life as a mainstream means of transportation.

For example, the Jeep Wrangler is among the models with the most reusable parts and components. Aside from the simplicity of design that generates a low original cost to produce, the image of Jeeps (from CJs to current versions) and usability of the vehicle for secondary purposes long after production generates significant interest in replacement parts.

Dust to Dust Energy Report -- Automotive

The Luxury Car segment shows among the lowest reusable parts in large measure because those who are maintaining or restoring such vehicles will turn to the aftermarket for genuine, undamaged pieces.

Hybrids, on the other hand, have a relatively high reusable rate because current versions will have in our estimation long-term core interest among restoration and repair/maintenance owners. The electronics alone will be a valuable asset for these folks.

Dust to Dust Energy Report -- Automotive

		Reuseables	Reuseables
Division	Model	Disposal	Disposal
Kia	Rio	\$12,862.33	18.87%
Hyundai	Accent	\$12,766.99	19.98%
Chevrolet	Aveo	\$11,313.85	21.64%
Toyota	Echo	\$11,160.77	21.15%
	Total Budget Cars	\$12,025.99	20.41%
Chevrolet	Cobalt	\$14,302.27	18.43%
Toyota	Matrix **	\$13,704.26	18.96%
Mazda	Mazda3	\$14,202.76	19.21%
Nissan	Sentra	\$16,185.34	20.59%
Suzuki	Aerio	\$14,255.85	20.81%
Mitsubishi	Lancer	\$16,354.15	23.13%
Kia	Spectra	\$13,067.40	21.34%
Scion	tC	\$12,769.04	23.67%
Suzuki	Forenza	\$13,992.47	23.54%
Ford	Focus	\$14,045.31	22.55%
Mazda	Protégé	\$14,969.37	23.79%
Pontiac	Sunfire	\$13,057.72	22.96%
Chevrolet	Cavalier	\$12,232.05	22.31%
Scion	xA	\$10,420.89	20.50%
Toyota	Corolla	\$11,613.45	20.50%
Dodge	Neon	\$13,121.05	24.28%
Hyundai	Elantra	\$13,623.32	23.38%
Saturn	Ion	\$13,125.66	23.53%
Ford	Escort	\$14,108.27	26.84%
Scion	xB	\$15,649.52	29.40%
	Total Economy Cars	\$13,740.01	22.49%
Nissan	Xterra	\$26,979.67	17.40%
Isuzu	Trooper	\$27,518.44	15.52%
Mazda	Mazda5	\$17,952.65	16.01%
Isuzu	Rodeo	\$25,671.70	18.82%
Suzuki	XL-7	\$22,827.29	20.32%
Suzuki	Grand Vitara	\$19,753.79	19.83%
Kia	Sorento	\$20,121.11	22.18%
Chevrolet	Blazer	\$31,468.25	22.53%
Suzuki	Vitara	\$21,714.96	21.74%
Isuzu	Rodeo Sport	\$21,059.89	22.00%
Kia	Sportage	\$19,313.71	21.11%
Jeep	Liberty	\$19,647.38	20.88%
Chevrolet	Tracker	\$18,377.22	29.95%
Jeep	Wrangler	\$32,468.11	39.94%
	Ttl Entry Level SUVs	\$23,205.30	22.02%

Dust to Dust Energy Report -- Automotive

Mitsubishi	Outlander	\$24,857.92	13.94%
Hyundai	Tucson	\$21,885.98	15.46%
Mazda	Tribute	\$20,503.55	14.37%
Hyundai	Santa Fe	\$21,569.34	16.21%
Pontiac	Torrent	\$20,609.34	16.04%
Ford	Escape	\$21,315.41	16.06%
Mercury	Mariner	\$18,220.76	15.48%
Toyota	RAV4	\$18,704.07	15.37%
Saturn	Vue	\$18,023.29	14.91%
Chevrolet	Equinox	\$21,594.82	14.96%
Honda	Element	\$17,956.31	15.91%
Pontiac	Aztek	\$18,768.55	18.18%
Honda	CR-V	\$17,700.87	17.53%
	Ttl Entry Level Sportwagons	\$20,131.55	15.72%

Nissan	Titan	\$29,562.91	16.23%
Toyota	Tundra	\$33,507.98	15.60%
Dodge	Ram pickup	\$34,118.17	14.21%
Chevrolet	Silverado	\$35,674.17	14.46%
GMC	Sierra	\$35,939.21	14.48%
Ford	F Series	\$43,527.62	16.35%
	Ttl Full Size Pickup	\$35,388.34	15.22%

GMC	Savana/G Van	\$47,427.90	15.23%
Ford	Econoline/Club Wagon	\$45,785.54	15.05%
GMC	Express/G Van	\$38,581.39	15.17%
Dodge	Sprinter Van	\$50,820.96	13.94%
Dodge	Ram Van	\$40,070.08	17.73%
Ford	Econoline van	\$43,935.69	16.88%
	Full Size Van	\$44,436.93	15.67%

Honda	Accord Hybrid	\$33,808.35	17.13%
Toyota	Prius	\$47,656.57	21.37%
Honda	Civic Hybrid	\$34,691.15	17.30%
Ford	Escape Hybrid	\$32,585.85	16.85%
Mercury	Mariner Hybrid	\$31,722.37	16.65%
Honda	Insight	\$39,035.79	21.40%
Lexus	RX 400h	\$95,379.15	28.67%
Toyota	Highlander Hybrid	\$38,185.35	20.86%
	Ttl Hybrids	\$44,133.07	20.03%

Volkswagen	Phaeton	\$72,885.67	8.65%
Audi	allroad quattro	\$40,856.36	10.36%
Audi	A6	\$34,165.73	10.20%
Lexus	LS 430	\$38,982.27	10.09%
Lexus	GS 430	\$28,696.27	10.84%
Infiniti	Q45	\$37,314.77	11.12%
Jaguar	S-Type	\$31,640.45	12.14%
Infiniti	M45	\$25,657.59	12.81%
Lexus	GS 300	\$24,543.51	12.88%

Dust to Dust Energy Report -- Automotive

Cadillac	DTS	\$25,073.57	11.43%
Cadillac	DeVille	\$30,592.93	12.36%
M-Benz	E class	\$41,055.56	12.18%
Cadillac	Seville	\$27,187.04	14.19%
Volvo	80 series	\$28,426.31	12.28%
Cadillac	STS	\$32,693.93	11.98%
BMW	5 Series	\$25,958.71	11.44%
Acura	RL	\$23,750.33	13.68%
Lincoln	Town Car	\$34,641.34	13.56%
BMW	M3	\$22,145.40	15.42%
	Total Luxury Car	\$32,961.46	11.98%
Volkswagen	Golf	\$15,885.09	10.97%
Volkswagen	Golf GTI	\$18,398.68	12.93%
Saturn	L series	\$21,585.93	13.04%
Honda	Civic	\$21,676.62	12.26%
Chevrolet	HHR	\$25,809.37	15.68%
Pontiac	G6	\$20,434.00	13.27%
Chevrolet	Classic	\$22,912.90	11.69%
Subaru	Impreza	\$20,805.36	15.46%
Pontiac	Grand Am	\$23,175.35	13.63%
Ford	Fusion	\$21,501.46	12.93%
Mercury	Milan	\$20,509.87	12.72%
Dodge	Stratus	\$22,250.31	12.90%
Kia	Optima	\$17,259.00	13.24%
Hyundai	Sonata	\$17,642.24	13.72%
Suzuki	Verona	\$16,831.86	15.36%
Volkswagen	Beetle	\$16,543.45	14.53%
Pontiac	Vibe	\$13,425.47	18.32%
Chevrolet	Malibu	\$15,490.77	13.45%
Chrysler	PT Cruiser	\$19,236.44	15.70%
Chrysler	Sebring	\$17,206.56	18.27%
	Ttl Lower Mid-Range Cars	\$19,429.04	14.00%
Nissan	Pathfinder	\$23,822.76	15.97%
Toyota	4Runner	\$27,084.28	16.21%
Mitsubishi	Montero	\$26,263.60	17.26%
Mitsubishi	Montero Sport	\$23,716.67	17.41%
Isuzu	Axiom	\$20,873.75	19.04%
Land Rover	Freelander	\$22,665.05	18.83%
Isuzu	Ascender	\$25,025.41	21.19%
Jeep	Commander	\$31,041.02	19.79%
Jeep	Grand Cherokee	\$29,488.23	20.53%
Jeep	Grand Cherokee SRT-8	\$35,172.89	26.50%
Dodge	Durango	\$26,347.94	21.88%
Ford	Explorer	\$30,452.33	21.36%
Chevrolet	TrailBlazer	\$26,152.34	20.82%
	Ttl Lower Mid-Range SUV	\$26,777.41	19.75%
Toyota	Sequoia	\$32,967.14	13.11%

Dust to Dust Energy Report -- Automotive

Nissan	Armada	\$32,921.60	14.96%
Ford	Excursion	\$50,133.87	13.92%
Chevrolet	Suburban	\$39,036.79	12.76%
GMC	Yukon XL	\$42,061.39	13.17%
Ford	Expedition	\$45,317.69	13.72%
Chevrolet	Tahoe	\$41,922.29	12.73%
GMC	Yukon	\$38,415.13	12.89%
	Total Large SUV	\$40,346.99	13.41%
Chrysler	Pacifica	\$26,130.61	12.78%
Nissan	Murano	\$20,710.04	13.13%
Toyota	Highlander	\$18,268.19	13.27%
Ford	Freestyle/Windstar	\$28,316.15	14.31%
Buick	Rendezvous	\$20,188.12	12.60%
Honda	Pilot	\$22,631.56	14.89%
Mitsubishi	Endeavor	\$16,822.34	15.20%
	Total Mid-Range Sportwagons	\$21,866.72	13.74%
Volkswagen	EuroVan/T4	\$22,471.33	14.76%
Honda	Odyssey	\$24,800.70	13.67%
Pontiac	Montana SV6	\$22,704.60	14.99%
Chrysler	Town & Country	\$21,825.92	14.31%
Buick	Terraza	\$24,845.82	15.14%
Dodge	Caravan/Grand Caravan	\$21,004.89	14.86%
Toyota	Sienna	\$20,620.49	14.18%
Chevrolet	Venture	\$23,317.85	16.21%
Saturn	Relay	\$20,594.62	14.95%
Pontiac	Montana	\$21,425.35	14.16%
Nissan	Quest	\$19,597.27	13.95%
Chevrolet	Uplander	\$24,936.78	16.85%
Ford	Freestar	\$23,659.15	16.39%
Mercury	Monterey	\$20,610.88	15.69%
Kia	Sedona	\$20,531.85	17.42%
Mazda	MPV	\$18,473.99	15.84%
GMC	Safari	\$24,850.99	17.30%
Chevrolet	Astro	\$25,614.69	17.71%
	Total Minivans	\$22,327.06	15.47%
Volvo	70 series	\$26,916.29	14.45%
Volvo	60 series	\$23,198.19	15.26%
Mercury	Zephyr	\$21,248.04	13.82%
Acura	TL	\$17,384.32	13.36%
Acura	CL	\$19,384.34	13.05%
Lincoln	LS	\$17,972.62	15.00%
Jaguar	X-Type	\$21,142.09	14.89%
Lexus	ES 330	\$21,553.68	15.74%
Lexus	IS 300	\$17,034.85	14.53%
Infiniti	G35	\$19,489.12	15.02%
M-Benz	C class	\$21,056.39	15.89%
Cadillac	CTS	\$17,684.59	16.21%

Dust to Dust Energy Report -- Automotive

BMW	330	\$19,554.91	16.98%
Buick	Park Avenue	\$18,689.42	16.61%
BMW	325	\$21,908.32	17.69%
Saab	9-5	\$17,799.52	16.82%
	Total Near Luxury Cars	\$20,126.04	15.33%
Audi	A8	\$38,675.68	10.27%
M-Benz	S class	\$40,503.72	11.96%
Maserati	Maserati	\$31,331.69	16.32%
BMW	7 Series	\$25,673.11	12.27%
Jaguar	XJ	\$21,264.11	12.62%
	Total Premium Cars	\$31,489.66	12.69%
Mercury	Montego	\$19,981.49	14.40%
Buick	LaCrosse	\$20,021.20	13.62%
Volkswagen	Passat	\$20,759.77	13.06%
Dodge	Magnum	\$19,133.87	14.45%
Ford	Five Hundred	\$21,508.26	14.26%
Dodge	Charger	\$21,330.69	14.62%
Nissan	Maxima	\$21,198.45	13.45%
Chrysler	300/300M	\$23,588.11	15.83%
Mitsubishi	Diamante	\$19,337.17	15.30%
Volvo	40 series	\$19,280.47	14.53%
Infiniti	I30/I35	\$20,852.15	13.84%
Mazda	Millenia	\$17,286.00	16.21%
Audi	A4/S4	\$24,500.81	17.41%
Audi	S4	\$22,151.77	18.14%
Acura	TSX	\$15,302.86	14.38%
Saab	9-3	\$19,894.05	15.82%
Saab	9-2	\$19,824.54	16.92%
Buick	Regal	\$15,782.73	19.98%
	Total Premium Mid-Range Cars	\$20,096.35	15.35%
M-Benz	SLK class	\$30,138.08	11.71%
M-Benz	CLS class	\$31,427.54	10.53%
M-Benz	CLK class	\$30,270.16	11.81%
Porsche	Boxster	\$23,001.85	12.43%
Chevrolet	Corvette	\$20,982.55	11.65%
Audi	TT	\$17,712.64	12.64%
BMW	Z8	\$24,820.20	13.24%
BMW	Z4	\$18,709.34	13.27%
Ford	Thunderbird	\$22,300.57	18.46%
Chrysler	Crossfire	\$16,827.80	21.88%
	Total Premium Sporty Cars	\$23,619.07	13.76%
Porsche	Cayenne	\$31,904.83	10.65%
Volkswagen	Touareg	\$29,896.16	11.59%
Land Rover	Range Rover	\$36,832.27	13.48%
M-Benz	G class	\$48,648.99	13.58%
Hummer	H1	\$56,434.10	12.41%

Dust to Dust Energy Report -- Automotive

Lexus	LX 470	\$36,672.60	13.89%
Cadillac	Escalade ESV	\$39,395.11	12.75%
Toyota	Land Cruiser	\$49,570.42	13.54%
Hummer	H2	\$32,059.68	13.39%
Cadillac	Escalade	\$35,643.77	13.66%
Lincoln	Navigator	\$35,975.09	16.34%
	Total Premium SUV	\$39,366.64	13.21%

Volvo	XC90	\$33,579.94	11.13%
Lexus	RX330	\$28,547.37	11.93%
Infiniti	FX35	\$29,131.03	13.98%
Infiniti	FX45	\$29,590.58	13.96%
M-Benz	R class	\$26,908.54	13.60%
Volvo	50 series	\$18,891.40	11.96%
Acura	MDX	\$24,665.95	12.26%
Cadillac	SRX	\$28,884.00	14.20%
M-Benz	M class	\$31,806.37	14.95%
BMW	X5	\$26,024.71	15.55%
BMW	X3	\$21,044.29	14.55%
	Total Premium Sportwagons	\$27,188.56	13.46%

Honda	Accord	\$23,412.99	12.76%
Volkswagen	Jetta wagon	\$18,166.85	14.75%
Volkswagen	Jetta	\$13,792.33	13.80%
Toyota	Camry	\$18,159.47	13.00%
Subaru	Baja	\$18,172.72	14.83%
Subaru	Legacy	\$15,724.34	14.40%
Subaru	Forester	\$18,317.71	15.75%
Subaru	Outback	\$22,087.99	21.62%
Mazda	Mazda6	\$15,863.29	14.48%
Dodge	Intrepid	\$22,826.39	17.10%
Chevrolet	Monte Carlo	\$18,529.53	16.66%
Mitsubishi	Galant	\$15,520.53	16.40%
Pontiac	Grand Prix	\$17,051.90	17.78%
Buick	Century	\$18,667.08	17.02%
Mercury	Sable	\$19,007.16	16.23%
Ford	Taurus	\$23,206.56	16.79%
Mazda	626	\$21,310.28	18.61%
Nissan	Altima	\$14,283.09	16.57%
Chevrolet	Impala	\$16,460.90	17.75%
Hyundai	XG350	\$15,885.37	18.33%
Kia	Amanti	\$19,501.36	20.01%
	Total Small Rid-Range Cars	\$18,378.47	16.41%

Chevrolet	SSR	\$28,825.87	17.88%
Honda	Ridgeline	\$23,566.53	18.58%
GMC	Canyon	\$22,619.27	20.65%
GMC	Sonoma	\$21,136.42	20.41%
Nissan	Frontier	\$21,334.81	22.73%
Toyota	Tacoma	\$18,626.95	19.95%

Dust to Dust Energy Report -- Automotive

Chevrolet	Colorado	\$24,315.84	23.00%
Mitsubishi	Raider	\$21,861.43	24.15%
Mazda	B-Series	\$27,745.45	27.12%
Dodge	Dakota	\$25,132.38	26.27%
Ford	Ranger	\$23,275.26	24.87%
Chevrolet	S10	\$18,402.77	26.52%
	Total Small Pickup	\$23,070.25	22.68%
Cadillac	Escalade EXT	\$35,574.93	17.94%
Chevrolet	Avalanche	\$44,032.59	19.48%
Lincoln	Mark LT	\$32,816.37	18.56%
	Total Specialty Utility Pickup	\$37,474.63	18.66%
Mazda	RX8	\$21,890.58	14.95%
Nissan	350Z	\$20,973.30	14.37%
Audi	A3	\$15,966.41	14.19%
Mitsubishi	Eclipse Spyder	\$15,086.71	14.56%
Mitsubishi	Eclipse	\$17,684.98	14.96%
Pontiac	GTO	\$22,336.64	16.71%
Toyota	Celica	\$14,040.90	14.29%
Mini	Mini Cooper S	\$17,779.11	14.11%
Acura	RSX	\$16,844.63	13.71%
Pontiac	Solstice	\$16,179.35	15.30%
Mini	Mini Cooper	\$15,019.36	13.91%
Ford	Mustang	\$21,611.70	15.52%
Toyota	MR2 Spyder	\$16,445.26	14.82%
Mazda	MX-5 Miata	\$17,544.53	16.60%
Honda	S2000	\$19,078.89	18.92%
Hyundai	Tiburon	\$18,442.87	16.06%
Pontiac	Firebird	\$21,834.72	20.63%
Chevrolet	Camaro	\$24,289.12	21.56%
	Total Touring	\$18,502.72	15.84%
Toyota	Avalon	\$22,177.88	13.57%
Buick	Lucerne	\$17,603.15	14.54%
Pontiac	Bonneville	\$22,231.27	16.63%
Chrysler	Concorde	\$24,325.67	18.14%
Mercury	Grand Marquis	\$19,991.84	16.49%
Ford	Crown Victoria	\$21,699.18	17.49%
Buick	LeSabre	\$17,077.05	17.21%
	Total Traditional Car	\$20,729.43	16.30%
Maybach	Maybach	\$99,800.04	8.76%
Rolls-Royce	Rolls-Royce	\$77,088.53	8.60%
Bentley	Bentley	\$92,370.63	8.59%
Porsche	Carrera GT	\$49,644.84	13.61%
Lamborghini	Lamborghini	\$31,767.49	17.04%
Ferrari	Ferrari	\$38,434.37	17.82%
Ford	GT	\$28,667.52	15.15%
Aston Martin	Aston Martin	\$27,186.86	15.45%

Dust to Dust Energy Report -- Automotive

	Total Ultra Luxury	\$55,620.04	13.13%
Lexus	GX 470	\$25,838.41	14.90%
Land Rover	Discovery	\$33,596.00	14.75%
Land Rover	LR3	\$36,217.46	15.44%
Infiniti	QX4	\$23,686.27	15.84%
Land Rover	Range Rover Sport	\$31,464.01	15.84%
Lincoln	Aviator	\$30,461.90	17.03%
Mercury	Mountaineer	\$28,445.42	16.32%
Subaru	B9 Tribeca	\$22,819.22	16.49%
GMC	Envoy	\$27,662.67	16.09%
Buick	Rainier	\$20,214.61	14.47%
Saab	9-7X	\$21,903.37	16.51%
Hummer	H3	\$24,606.06	16.18%
	Total Upper Mid-Range SUV	\$27,242.95	15.82%
Acura	NSX	\$34,836.71	10.87%
M-Benz	SC 430	\$26,551.13	12.28%
Cadillac	XLR	\$22,924.61	12.58%
Jaguar	XK	\$27,841.62	12.61%
Porsche	911 Carrera 4	\$24,373.11	15.36%
Porsche	911 Carrera	\$33,100.03	17.21%
M-Benz	SL Coupe/Roadster	\$27,964.76	15.86%
M-Benz	CL class	\$25,328.23	12.95%
BMW	6 Series	\$23,951.76	15.16%
Lotus	Lotus	\$15,796.45	14.41%
Dodge	Viper	\$23,141.12	19.79%
	Total Upper Premium Sportscars	\$25,982.68	14.46%
	Industry Straight Average	\$27,570.05	17.50%

CHAPTER 14 – Social Energy Expenditures

For the CNW evaluation, we used three measures to determine or outline future technological advances in the disposal and other categories. We've listed the total energy cost as "minimum", "medium" and "maximum" to provide a range of what we determined was the likelihood of such technological disposal advances.

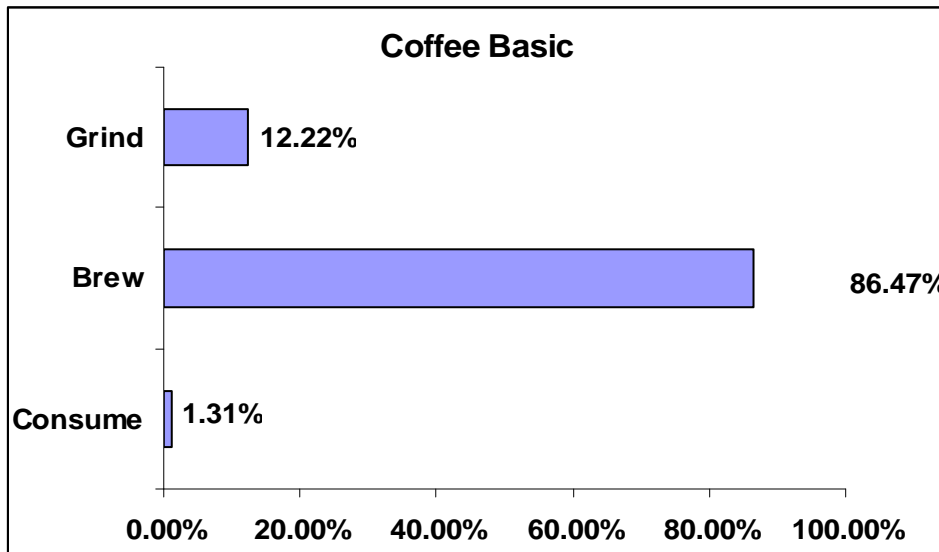
As the table below shows, the share of "minimum" of "maximum" is generally in the mid-80 percent range. Luxury vehicles generally have a narrow difference between high and low than do general-market vehicles. Hybrids generally are slightly above industry average because of the complexity of the vehicles and the advances that are being made in making hybrids more "mainstream" which should bring the minimum-to-maximum ratio closer to industry average over time.

Dust to Dust Energy Report -- Automotive

Why do we look at total energy expenditures and why do they differ so dramatically from what auto companies and other research show for vehicles?

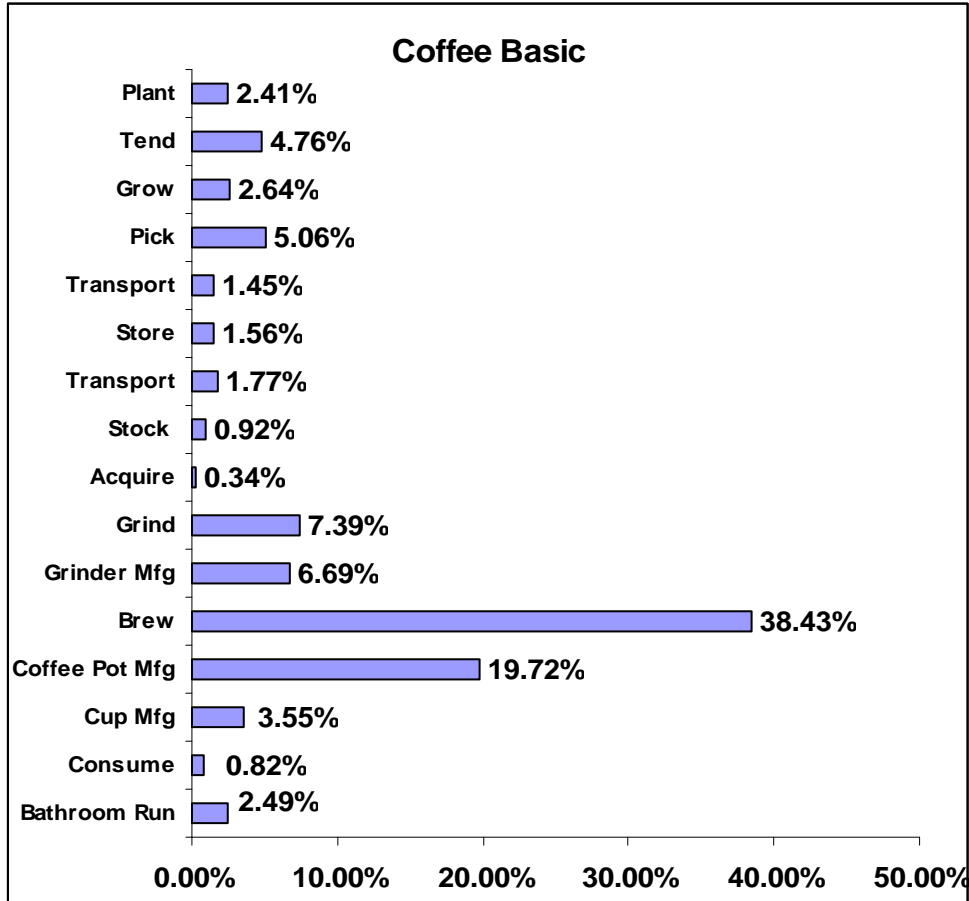
Let's show the differences by using another common product: Coffee.

If we used the general automaker methodology for calculating the energy requirements for a vehicle, it would like this for coffee.



But there is more to having a good cup of coffee and the resulting energy cost. Here's a simple expansion of the components in that single cup of joe.

Dust to Dust Energy Report -- Automotive



While the above simplified example may seem frivolous, it is used to make a point. Peer reviewed studies of the cost to manufacture a car or truck (see the Q&A section for previous studies) turn a blind eye to the “coffee mug maker” component of having that cup of coffee over your morning paper. While brewing constitutes the largest component in both evaluations, the overall energy necessary to make that coffee is less of the total energy expense when all factors are considered.

Dust to Dust Energy Report -- Automotive

		Energy \$		Energy \$		Energy \$		Min. as Share of Max. E Cost	
Division	Model	Total Minimum	Total Medium	Total Max.					
Kia	Rio	\$ 156,174.14	\$ 163,694.70	\$ 181,626.62					85.99%
Hyundai	Accent	\$ 128,707.65	\$ 135,374.96	\$ 152,942.79					84.15%
Chevrolet	Aveo	\$ 108,594.65	\$ 113,772.33	\$ 128,458.07					84.54%
Toyota	Echo	\$ 110,355.83	\$ 115,389.62	\$ 129,773.44					85.04%
	Total Budget Cars	\$ 125,958.06	\$ 132,057.90	\$ 148,200.23					84.93%
Chevrolet	Cobalt	\$ 171,217.84	\$ 178,493.25	\$ 197,987.60					86.48%
Toyota	Matrix **	\$ 163,847.66	\$ 171,260.86	\$ 189,523.67					86.45%
Mazda	Mazda3	\$ 160,678.21	\$ 168,265.11	\$ 186,992.87					85.93%
Nissan	Sentra	\$ 157,820.46	\$ 165,087.74	\$ 186,280.43					84.72%
Suzuki	Aerio	\$ 141,223.94	\$ 147,461.49	\$ 166,926.02					84.60%
Mitsubishi	Lancer	\$ 134,364.01	\$ 140,736.86	\$ 161,743.05					83.07%
Kia	Spectra	\$ 136,535.55	\$ 143,413.41	\$ 160,875.04					84.87%
Scion	tC	\$ 117,387.56	\$ 123,213.62	\$ 139,336.56					84.25%
Suzuki	Forenza	\$ 120,063.70	\$ 125,775.20	\$ 143,235.78					83.82%
Ford	Focus	\$ 135,671.89	\$ 142,063.92	\$ 159,276.94					85.18%
Mazda	Protégé	\$ 124,349.84	\$ 129,870.51	\$ 149,453.05					83.20%
Pontiac	Sunfire	\$ 118,948.48	\$ 124,577.57	\$ 140,769.59					84.50%
Chevrolet	Cavalier	\$ 115,123.01	\$ 120,808.46	\$ 137,340.69					83.82%
Scion	xA	\$ 114,745.05	\$ 120,601.42	\$ 134,802.14					85.12%
Toyota	Corolla	\$ 123,726.46	\$ 129,571.48	\$ 144,378.18					85.70%
Dodge	Neon	\$ 107,734.67	\$ 113,236.77	\$ 129,858.43					82.96%
Hyundai	Elantra	\$ 117,170.36	\$ 122,606.51	\$ 140,818.45					83.21%
Saturn	Ion	\$ 114,115.77	\$ 119,540.47	\$ 136,030.44					83.89%
Ford	Escort	\$ 109,087.46	\$ 113,369.90	\$ 131,564.88					82.92%
Scion	xB	\$ 90,313.02	\$ 94,293.42	\$ 112,831.88					80.04%
	Total Economy Cars	\$ 128,706.25	\$ 134,712.40	\$ 152,501					84.24%
Nissan	Xterra	\$ 386,122.45	\$ 401,765.65	\$ 442,622.55					87.24%
Isuzu	Trooper	\$ 398,915.58	\$ 414,511.60	\$ 451,587.90					88.34%
Mazda	Mazda5	\$ 287,187.32	\$ 300,664.24	\$ 325,641.49					88.19%
Isuzu	Rodeo	\$ 283,641.15	\$ 294,607.27	\$ 329,555.21					86.07%
Suzuki	XL-7	\$ 243,701.80	\$ 254,925.48	\$ 286,265.51					85.13%
Suzuki	Grand Vitara	\$ 241,819.87	\$ 252,339.49	\$ 279,551.87					86.50%
Kia	Sorento	\$ 188,711.64	\$ 198,258.94	\$ 225,141.37					83.82%
Chevrolet	Blazer	\$ 270,731.19	\$ 281,519.16	\$ 319,727.28					84.68%
Suzuki	Vitara	\$ 198,579.53	\$ 208,098.02	\$ 235,782.42					84.22%
Isuzu	Rodeo Sport	\$ 198,438.16	\$ 208,391.31	\$ 234,664.17					84.56%
Kia	Sportage	\$ 185,788.11	\$ 194,605.54	\$ 219,358.20					84.70%
Jeep	Liberty	\$ 207,761.70	\$ 216,744.29	\$ 243,023.00					85.49%
Chevrolet	Tracker	\$ 106,192.40	\$ 111,298.91	\$ 132,292.72					80.27%

Dust to Dust Energy Report -- Automotive

Jeep	Wrangler	\$ 125,027.22	\$ 129,722.15	\$ 166,348.49	75.16%
	Ttl Entry Level SUVs	\$ 237,329.87	\$ 247,675.15	\$ 277,968.73	84.60%
Mitsubishi	Outlander	\$ 414,728.21	\$ 431,967.42	\$ 469,611.33	88.31%
Hyundai	Tucson	\$ 323,422.93	\$ 339,056.87	\$ 368,376.72	87.80%
Mazda	Tribute	\$ 338,366.25	\$ 354,893.75	\$ 384,216.61	88.07%
Hyundai	Santa Fe	\$ 304,888.51	\$ 320,328.67	\$ 352,776.73	86.43%
Pontiac	Torrent	\$ 319,783.24	\$ 335,906.01	\$ 365,204.43	87.56%
Ford	Escape	\$ 314,015.95	\$ 330,137.64	\$ 361,960.66	86.75%
Mercury	Mariner	\$ 294,178.32	\$ 309,504.65	\$ 336,638.66	87.39%
Toyota	RAV4	\$ 315,568.77	\$ 330,623.32	\$ 358,262.00	88.08%
Saturn	Vue	\$ 297,420.16	\$ 310,196.81	\$ 335,703.66	88.60%
Chevrolet	Equinox	\$ 344,228.52	\$ 359,061.09	\$ 391,360.10	87.96%
Honda	Element	\$ 256,535.68	\$ 269,890.54	\$ 295,517.99	86.81%
Pontiac	Aztek	\$ 259,017.93	\$ 271,098.09	\$ 296,640.79	87.32%
Honda	CR-V	\$ 230,523.84	\$ 241,813.15	\$ 265,164.99	86.94%
	Ttl Entry Level Sportwagons	\$ 308,667.56	\$ 323,421.39	\$ 352,418.05	87.54%
Nissan	Titan	\$ 454,755.91	\$ 473,093.61	\$ 514,104.36	88.46%
Toyota	Tundra	\$ 479,219.35	\$ 500,425.50	\$ 548,420.46	87.38%
Dodge	Ram pickup	\$ 573,796.67	\$ 598,064.41	\$ 645,927.42	88.83%
Chevrolet	Silverado	\$ 585,573.74	\$ 606,606.68	\$ 660,617.33	88.64%
GMC	Sierra	\$ 568,423.04	\$ 587,897.47	\$ 637,874.92	89.11%
Ford	F Series	\$ 641,038.06	\$ 663,778.27	\$ 730,396.08	87.77%
	Ttl Full Size Pickup	\$ 550,467.79	\$ 571,644.32	\$ 622,890.09	88.36%
GMC	Savana/G Van	\$ 732,115.10	\$ 755,412.74	\$ 825,779.27	88.66%
Ford	Econoline/Club Wagon	\$ 693,102.98	\$ 716,196.80	\$ 785,240.39	88.27%
GMC	Express/G Van	\$ 628,009.32	\$ 652,042.19	\$ 708,400.26	88.65%
Dodge	Sprinter Van	\$ 922,079.89	\$ 951,081.60	\$1,036,932.38	88.92%
Dodge	Ram Van	\$ 514,611.42	\$ 535,844.86	\$ 587,639.59	87.57%
Ford	Econoline van	\$ 616,754.27	\$ 637,703.14	\$ 699,965.56	88.11%
	Full Size Van	\$ 684,445.50	\$ 708,046.89	\$ 773,992.91	88.36%
Honda	Accord Hybrid	\$ 385,469.86	\$ 415,107.70	\$ 461,548.51	83.52%
Toyota	Prius	\$ 354,137.15	\$ 384,329.24	\$ 445,154.68	79.55%
Honda	Civic Hybrid	\$ 365,857.28	\$ 393,292.46	\$ 438,483.86	83.44%
Ford	Escape Hybrid	\$ 448,177.55	\$ 478,869.66	\$ 540,285.25	82.95%
Mercury	Mariner Hybrid	\$ 436,350.10	\$ 466,780.25	\$ 526,010.57	82.95%
Honda	Insight	\$ 320,323.18	\$ 345,170.77	\$ 395,152.90	81.06%
Lexus	RX 400h	\$ 758,912.99	\$ 819,260.18	\$ 977,808.44	77.61%
Toyota	Highlander Hybrid	\$ 384,099.67	\$ 419,667.85	\$ 485,541.41	79.11%
	Ttl Hybrids	\$ 431,665.97	\$ 465,309.76	\$ 533,748.20	81.27%
Volkswagen	Phaeton	\$ 2,702,233.01	\$2,804,809.75	\$2,993,981.42	90.26%
Audi	allroad quattro	\$ 1,130,240.16	\$1,174,474.70	\$1,265,237.38	89.33%
Audi	A6	\$ 938,058.67	\$ 974,932.37	\$1,044,499.31	89.81%
Lexus	LS 430	\$ 1,055,582.45	\$1,094,547.52	\$1,169,227.26	90.28%
Lexus	GS 430	\$ 799,290.72	\$ 833,167.01	\$ 887,391.82	90.07%
Infiniti	Q45	\$ 852,831.88	\$ 886,866.04	\$ 958,038.58	89.02%

Dust to Dust Energy Report -- Automotive

Jaguar	S-Type	\$ 658,254.04	\$ 686,246.56	\$ 744,737.64	88.39%
Infiniti	M45	\$ 488,379.92	\$ 512,712.48	\$ 554,988.67	88.00%
Lexus	GS 300	\$ 505,831.02	\$ 533,968.30	\$ 575,012.27	87.97%
Cadillac	DTS	\$ 659,504.49	\$ 686,586.82	\$ 727,789.30	90.62%
Cadillac	DeVille	\$ 687,141.06	\$ 712,116.56	\$ 760,213.99	90.39%
M-Benz	E class	\$ 848,007.77	\$ 875,281.50	\$ 948,218.34	89.43%
Cadillac	Seville	\$ 535,476.90	\$ 562,751.68	\$ 604,385.24	88.60%
Volvo	80 series	\$ 666,751.47	\$ 691,070.86	\$ 741,260.74	89.95%
Cadillac	STS	\$ 685,819.68	\$ 714,171.68	\$ 764,720.92	89.68%
BMW	5 Series	\$ 649,928.17	\$ 678,059.87	\$ 720,911.78	90.15%
Acura	RL	\$ 452,974.11	\$ 475,148.16	\$ 511,518.34	88.55%
Lincoln	Town Car	\$ 603,649.94	\$ 628,839.88	\$ 684,331.53	88.21%
BMW	M3	\$ 389,952.58	\$ 410,197.22	\$ 446,125.18	87.41%
	Total Luxury Car	\$ 805,784.63	\$ 838,734.16	\$ 900,136.30	89.27%
Volkswagen	Golf	\$ 407,246.85	\$ 428,808.14	\$ 456,177.80	89.27%
Volkswagen	Golf GTI	\$ 397,802.42	\$ 418,921.62	\$ 451,242.20	88.16%
Saturn	L series	\$ 415,541.56	\$ 433,333.95	\$ 467,069.27	88.97%
Honda	Civic	\$ 430,787.98	\$ 450,747.78	\$ 486,032.13	88.63%
Chevrolet	HHR	\$ 405,093.00	\$ 431,627.56	\$ 471,387.92	85.94%
Pontiac	G6	\$ 372,395.71	\$ 391,133.32	\$ 424,578.27	87.71%
Chevrolet	Classic	\$ 519,595.06	\$ 540,663.66	\$ 577,723.53	89.94%
Subaru	Impreza	\$ 304,763.59	\$ 319,003.52	\$ 347,292.37	87.75%
Pontiac	Grand Am	\$ 427,019.69	\$ 444,191.62	\$ 477,229.42	89.48%
Ford	Fusion	\$ 422,825.83	\$ 439,317.58	\$ 469,915.85	89.98%
Mercury	Milan	\$ 416,219.18	\$ 433,738.59	\$ 468,169.92	88.90%
Dodge	Stratus	\$ 435,147.50	\$ 452,273.72	\$ 488,074.44	89.16%
Kia	Optima	\$ 321,009.89	\$ 337,263.55	\$ 364,096.35	88.17%
Hyundai	Sonata	\$ 320,737.46	\$ 334,393.32	\$ 362,566.20	88.46%
Suzuki	Verona	\$ 289,971.20	\$ 302,715.51	\$ 329,481.78	88.01%
Volkswagen	Beetle	\$ 312,577.99	\$ 327,428.05	\$ 353,734.81	88.37%
Pontiac	Vibe	\$ 162,836.26	\$ 170,005.56	\$ 189,051.62	86.13%
Chevrolet	Malibu	\$ 312,796.18	\$ 328,122.18	\$ 351,577.89	88.97%
Chrysler	PT Cruiser	\$ 309,497.39	\$ 321,541.35	\$ 347,688.61	89.02%
Chrysler	Sebring	\$ 210,467.53	\$ 219,447.95	\$ 242,122.46	86.93%
	Ttl Lower Mid-Range Cars	\$ 359,716.61	\$ 376,233.93	\$ 406,261	88.40%
Nissan	Pathfinder	\$ 350,781.18	\$ 367,242.54	\$ 404,284.95	86.77%
Toyota	4Runner	\$ 386,035.32	\$ 402,551.80	\$ 440,391.02	87.66%
Mitsubishi	Montero	\$ 341,740.87	\$ 357,667.56	\$ 395,642.35	86.38%
Mitsubishi	Montero Sport	\$ 301,493.03	\$ 317,717.45	\$ 352,378.32	85.56%
Isuzu	Axiom	\$ 246,359.29	\$ 258,563.36	\$ 286,122.52	86.10%
Land Rover	Freelander	\$ 264,501.27	\$ 277,775.35	\$ 309,979.64	85.33%
Isuzu	Ascender	\$ 246,486.91	\$ 257,921.41	\$ 289,232.19	85.22%
Jeep	Commander	\$ 318,391.67	\$ 331,141.19	\$ 373,619.47	85.22%
Jeep	Grand Cherokee	\$ 312,433.43	\$ 323,638.56	\$ 362,657.63	86.15%
Jeep	Grand Cherokee SRT-8	\$ 309,004.15	\$ 340,639.25	\$ 372,199.35	83.02%
Dodge	Durango	\$ 262,868.19	\$ 274,632.58	\$ 310,092.71	84.77%
Ford	Explorer	\$ 284,930.38	\$ 297,483.19	\$ 335,406.85	84.95%
Chevrolet	TrailBlazer	\$ 254,900.15	\$ 264,716.22	\$ 298,176.44	85.49%

Dust to Dust Energy Report -- Automotive

	Ttl Lower Mid-Range SUV	\$ 298,455.83	\$ 313,206.96	\$ 348,475.65	85.59%
Toyota	Sequoia	\$ 642,657.15	\$ 671,700.63	\$ 725,272.96	88.61%
Nissan	Armada	\$ 558,855.31	\$ 584,155.91	\$ 636,424.86	87.81%
Ford	Excursion	\$ 888,759.97	\$ 920,839.51	\$ 998,491.61	89.01%
Chevrolet	Suburban	\$ 852,342.99	\$ 879,359.63	\$ 948,713.24	89.84%
GMC	Yukon XL	\$ 848,810.31	\$ 879,328.71	\$ 947,041.49	89.63%
Ford	Expedition	\$ 868,548.06	\$ 897,217.60	\$ 965,986.78	89.91%
Chevrolet	Tahoe	\$ 787,123.18	\$ 816,298.06	\$ 876,628.96	89.79%
GMC	Yukon	\$ 777,986.91	\$ 806,583.89	\$ 871,752.44	89.24%
	Total Large SUV	\$ 778,135.48	\$ 806,935.49	\$ 871,289.04	89.23%
Chrysler	Pacifica	\$ 508,731.47	\$ 532,499.88	\$ 573,543.96	88.70%
Nissan	Murano	\$ 446,733.38	\$ 465,497.91	\$ 497,587.91	89.78%
Toyota	Highlander	\$ 388,379.64	\$ 406,858.85	\$ 433,897.74	89.51%
Ford	Freestyle/Windstar	\$ 511,141.32	\$ 530,947.66	\$ 572,614.72	89.26%
Buick	Rendezvous	\$ 401,885.99	\$ 418,543.23	\$ 451,865.15	88.94%
Honda	Pilot	\$ 342,780.26	\$ 358,759.20	\$ 390,548.13	87.77%
Mitsubishi	Endeavor	\$ 302,017.51	\$ 317,876.96	\$ 346,387.14	87.19%
	Total Mid-Range Sportswagons	\$ 414,524.22	\$ 432,997.67	\$ 466,634.96	88.74%
Volkswagen	EuroVan/T4	\$ 364,747.21	\$ 382,509.93	\$ 414,800.91	87.93%
Honda	Odyssey	\$ 435,218.92	\$ 451,909.26	\$ 487,930.78	89.20%
Pontiac	Montana SV6	\$ 371,720.05	\$ 389,018.00	\$ 421,838.59	88.12%
Chrysler	Town & Country	\$ 379,307.18	\$ 396,021.67	\$ 428,547.84	88.51%
Buick	Terraza	\$ 395,866.40	\$ 413,668.63	\$ 450,078.02	87.96%
Dodge	Caravan/Grand Caravan	\$ 357,661.98	\$ 373,348.89	\$ 401,992.90	88.97%
Toyota	Sienna	\$ 344,460.45	\$ 361,950.93	\$ 391,901.47	87.89%
Chevrolet	Venture	\$ 370,836.02	\$ 387,586.14	\$ 424,206.61	87.42%
Saturn	Relay	\$ 347,177.33	\$ 363,829.11	\$ 394,053.94	88.10%
Pontiac	Montana	\$ 355,627.39	\$ 373,050.34	\$ 405,214.39	87.76%
Nissan	Quest	\$ 338,846.55	\$ 354,059.88	\$ 382,644.86	88.55%
Chevrolet	Uplander	\$ 330,298.81	\$ 346,338.90	\$ 379,666.16	87.00%
Ford	Freestar	\$ 333,061.59	\$ 347,582.67	\$ 383,013.45	86.96%
Mercury	Monterey	\$ 328,924.18	\$ 345,653.97	\$ 375,027.00	87.71%
Kia	Sedona	\$ 275,151.33	\$ 288,735.46	\$ 318,648.12	86.35%
Mazda	MPV	\$ 304,608.48	\$ 318,149.25	\$ 345,583.91	88.14%
GMC	Safari	\$ 348,422.14	\$ 363,105.11	\$ 397,587.84	87.63%
Chevrolet	Astro	\$ 353,546.41	\$ 366,655.68	\$ 405,879.53	87.11%
	Total Minivans	\$ 351,971.24	\$ 367,954.10	\$ 400,478.69	87.85%
Volvo	70 series	\$ 459,216.30	\$ 480,125.81	\$ 520,961.08	88.15%
Volvo	60 series	\$ 365,265.31	\$ 383,579.40	\$ 416,121.04	87.78%
Mercury	Zephyr	\$ 393,054.78	\$ 410,980.36	\$ 445,372.27	88.25%
Acura	TL	\$ 362,897.68	\$ 379,937.84	\$ 410,011.25	88.51%
Acura	CL	\$ 367,972.86	\$ 385,498.03	\$ 419,487.14	87.72%
Lincoln	LS	\$ 314,677.87	\$ 328,408.05	\$ 358,318.07	87.82%
Jaguar	X-Type	\$ 322,526.63	\$ 337,188.83	\$ 368,164.49	87.60%
Lexus	ES 330	\$ 318,542.85	\$ 332,009.62	\$ 361,733.04	88.06%
Lexus	IS 300	\$ 296,921.70	\$ 311,767.45	\$ 340,280.59	87.26%

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Infiniti	G35	\$ 305,667.74	\$ 318,810.22	\$ 346,663.48	88.17%
M-Benz	C class	\$ 290,586.74	\$ 303,891.11	\$ 333,189.99	87.21%
Cadillac	CTS	\$ 268,870.36	\$ 281,010.10	\$ 305,248.78	88.08%
BMW	330	\$ 284,483.45	\$ 296,267.15	\$ 323,152.17	88.03%
Buick	Park Avenue	\$ 278,569.40	\$ 291,020.99	\$ 318,346.61	87.51%
BMW	325	\$ 261,754.69	\$ 273,270.42	\$ 302,066.76	86.65%
Saab	9-5	\$ 247,739.57	\$ 259,896.03	\$ 284,730.66	87.01%
Total Near Luxury Cars		\$ 321,171.75	\$ 335,853.84	\$ 365,865.46	87.74%
Audi	A8	\$ 1,062,350.59	\$1,102,473.99	\$1,189,584.36	89.30%
M-Benz	S class	\$ 920,891.53	\$ 952,453.28	\$1,042,528.22	88.33%
Maserati	Maserati	\$ 494,843.00	\$ 516,801.37	\$ 583,614.69	84.79%
BMW	7 Series	\$ 590,095.73	\$ 612,579.47	\$ 664,071.39	88.86%
Jaguar	XJ	\$ 451,147.64	\$ 471,878.40	\$ 504,662.66	89.40%
Total Premium Cars		\$ 703,865.70	\$ 731,237.30	\$ 796,892.26	88.14%
Mercury	Montego	\$ 344,063.35	\$ 360,438.68	\$ 392,132.84	87.74%
Buick	LaCrosse	\$ 370,412.16	\$ 388,296.44	\$ 419,060.33	88.39%
Volkswagen	Passat	\$ 393,987.16	\$ 408,790.48	\$ 440,025.50	89.54%
Dodge	Magnum	\$ 369,500.65	\$ 384,858.69	\$ 417,654.99	88.47%
Ford	Five Hundred	\$ 347,121.37	\$ 362,766.27	\$ 393,790.86	88.15%
Dodge	Charger	\$ 339,480.73	\$ 354,098.00	\$ 385,614.98	88.04%
Nissan	Maxima	\$ 379,365.84	\$ 394,937.39	\$ 427,043.97	88.84%
Chrysler	300/300M	\$ 376,599.14	\$ 393,867.93	\$ 429,200.43	87.74%
Mitsubishi	Diamante	\$ 291,732.39	\$ 306,177.29	\$ 334,172.15	87.30%
Volvo	40 series	\$ 307,259.09	\$ 322,258.80	\$ 349,774.30	87.84%
Infiniti	I30/I35	\$ 347,944.04	\$ 362,031.94	\$ 392,115.98	88.73%
Mazda	Millenia	\$ 245,061.96	\$ 258,012.41	\$ 282,081.71	86.88%
Audi	A4/S4	\$ 299,797.13	\$ 314,288.97	\$ 348,924.43	85.92%
Audi	S4	\$ 323,919.85	\$ 352,168.91	\$ 378,278.85	85.63%
Acura	TSX	\$ 291,543.17	\$ 303,470.94	\$ 328,700.85	88.70%
Saab	9-3	\$ 297,755.17	\$ 311,014.65	\$ 339,826.40	87.62%
Saab	9-2	\$ 265,489.85	\$ 277,320.91	\$ 304,906.46	87.07%
Buick	Regal	\$ 177,310.32	\$ 186,602.15	\$ 207,639.95	85.39%
Total Premium Mid-Range Cars		\$ 320,463.52	\$ 335,633.38	\$ 365,052.50	87.67%
M-Benz	SLK class	\$ 633,068.80	\$ 661,051.24	\$ 713,911.68	88.68%
M-Benz	CLS class	\$ 869,236.23	\$ 902,614.79	\$ 960,409.56	90.51%
M-Benz	CLK class	\$ 666,913.20	\$ 695,312.68	\$ 747,981.12	89.16%
Porsche	Boxster	\$ 506,118.66	\$ 529,868.53	\$ 569,726.00	88.84%
Chevrolet	Corvette	\$ 511,621.38	\$ 535,341.40	\$ 576,522.66	88.74%
Audi	TT	\$ 390,312.38	\$ 409,000.04	\$ 435,901.11	89.54%
BMW	Z8	\$ 483,754.60	\$ 504,538.00	\$ 542,032.97	89.25%
BMW	Z4	\$ 364,999.02	\$ 383,815.97	\$ 412,995.89	88.38%
Ford	Thunderbird	\$ 252,521.72	\$ 263,784.62	\$ 293,012.29	86.18%
Chrysler	Crossfire	\$ 173,325.81	\$ 183,184.79	\$ 206,507.11	83.93%
Total Premium Sporty Cars		\$ 485,187.18	\$ 506,851.21	\$ 545,900.04	88.32%
Porsche	Cayenne	\$ 800,178.00	\$ 823,904.40	\$ 885,974.34	90.32%

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Volkswagen	Touareg	\$ 768,919.36	\$ 801,918.77	\$ 859,430.59	89.47%
Land Rover	Range Rover	\$ 777,733.63	\$ 811,413.12	\$ 875,303.68	88.85%
M-Benz	G class	\$ 879,415.33	\$ 914,435.58	\$ 996,651.77	88.24%
Hummer	H1	\$ 1,328,374.24	\$1,365,465.81	\$1,457,118.57	91.16%
Lexus	LX 470	\$ 687,795.13	\$ 717,276.19	\$ 773,735.56	88.89%
Cadillac	Escalade ESV	\$ 748,025.16	\$ 779,140.97	\$ 846,343.33	88.38%
Toyota	Land Cruiser	\$ 958,361.88	\$ 987,125.50	\$1,059,531.44	90.45%
Hummer	H2	\$ 596,241.72	\$ 618,337.25	\$ 664,249.52	89.76%
Cadillac	Escalade	\$ 657,897.93	\$ 682,810.74	\$ 738,879.34	89.04%
Lincoln	Navigator	\$ 525,965.61	\$ 546,647.69	\$ 595,693.02	88.29%
	Total Premium SUV	\$ 793,537.09	\$ 822,588.73	\$ 886,628.29	89.35%
Volvo	XC90	\$ 761,323.39	\$ 792,753.09	\$ 850,768.46	89.49%
Lexus	RX330	\$ 634,780.65	\$ 660,243.25	\$ 710,353.36	89.36%
Infiniti	FX35	\$ 524,070.18	\$ 546,688.08	\$ 590,447.58	88.76%
Infiniti	FX45	\$ 578,697.22	\$ 605,552.85	\$ 649,764.56	89.06%
M-Benz	R class	\$ 485,496.15	\$ 508,506.84	\$ 547,116.03	88.74%
Volvo	50 series	\$ 458,176.18	\$ 480,287.46	\$ 515,844.98	88.82%
Acura	MDX	\$ 554,773.36	\$ 577,778.42	\$ 620,853.14	89.36%
Cadillac	SRX	\$ 475,791.71	\$ 498,374.65	\$ 541,288.70	87.90%
M-Benz	M class	\$ 533,525.51	\$ 554,416.51	\$ 605,122.98	88.17%
BMW	X5	\$ 393,068.28	\$ 410,148.41	\$ 446,765.84	87.98%
BMW	X3	\$ 378,139.93	\$ 395,490.81	\$ 427,724.71	88.41%
	Total Premium Sportwagons	\$ 525,258.41	\$ 548,203.67	\$ 591,459.12	88.73%
Honda	Accord	\$ 455,595.76	\$ 474,696.53	\$ 510,750.84	89.20%
Volkswagen	Jetta wagon	\$ 278,273.16	\$ 293,837.55	\$ 322,568.93	86.27%
Volkswagen	Jetta	\$ 266,103.90	\$ 280,859.28	\$ 301,251.22	88.33%
Toyota	Camry	\$ 386,861.43	\$ 404,686.10	\$ 433,529.91	89.24%
Subaru	Baja	\$ 299,740.92	\$ 312,705.84	\$ 340,125.50	88.13%
Subaru	Legacy	\$ 288,451.52	\$ 301,233.59	\$ 326,042.88	88.47%
Subaru	Forester	\$ 301,205.39	\$ 315,406.85	\$ 343,825.78	87.60%
Subaru	Outback	\$ 281,970.95	\$ 304,281.46	\$ 329,184.41	85.66%
Mazda	Mazda6	\$ 290,997.58	\$ 304,198.68	\$ 330,052.85	88.17%
Dodge	Intrepid	\$ 315,456.85	\$ 330,199.83	\$ 362,618.83	86.99%
Chevrolet	Monte Carlo	\$ 284,669.24	\$ 296,976.46	\$ 323,779.11	87.92%
Mitsubishi	Galant	\$ 224,138.07	\$ 235,367.26	\$ 257,319.79	87.10%
Pontiac	Grand Prix	\$ 235,818.19	\$ 247,814.76	\$ 270,382.73	87.22%
Buick	Century	\$ 253,151.24	\$ 263,773.37	\$ 289,030.14	87.59%
Mercury	Sable	\$ 290,904.07	\$ 302,422.83	\$ 329,852.59	88.19%
Ford	Taurus	\$ 297,938.26	\$ 310,171.35	\$ 343,970.41	86.62%
Mazda	626	\$ 238,840.14	\$ 250,056.99	\$ 278,866.25	85.65%
Nissan	Altima	\$ 211,333.40	\$ 221,276.87	\$ 243,156.38	86.91%
Chevrolet	Impala	\$ 236,112.21	\$ 245,812.04	\$ 268,065.38	88.08%
Hyundai	XG350	\$ 194,080.61	\$ 204,058.55	\$ 227,501.73	85.31%
Kia	Amanti	\$ 204,600.84	\$ 213,473.64	\$ 240,050.50	85.23%
	Total Small Rid-Range Cars	\$ 277,916.37	\$ 291,109.99	\$ 317,710.77	87.33%
Chevrolet	SSR	\$ 349,170.93	\$ 365,806.46	\$ 406,428.29	85.91%

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Honda	Ridgeline	\$ 294,554.07	\$ 308,176.20	\$ 338,889.56	86.92%
GMC	Canyon	\$ 241,267.66	\$ 250,832.94	\$ 281,446.43	85.72%
GMC	Sonoma	\$ 239,984.32	\$ 250,279.00	\$ 277,596.07	86.45%
Nissan	Frontier	\$ 198,340.98	\$ 207,683.56	\$ 234,629.40	84.53%
Toyota	Tacoma	\$ 198,410.43	\$ 207,951.28	\$ 232,939.27	85.18%
Chevrolet	Colorado	\$ 206,961.85	\$ 215,550.01	\$ 246,674.07	83.90%
Mitsubishi	Raider	\$ 196,752.82	\$ 204,772.64	\$ 232,073.11	84.78%
Mazda	B-Series	\$ 210,027.23	\$ 218,291.70	\$ 252,088.04	83.32%
Dodge	Dakota	\$ 174,383.85	\$ 181,943.88	\$ 212,194.72	82.18%
Ford	Ranger	\$ 182,069.65	\$ 190,497.75	\$ 220,990.83	82.39%
Chevrolet	S10	\$ 134,027.77	\$ 139,609.16	\$ 162,509.47	82.47%
	Total Small Pickup	\$ 218,829.30	\$ 228,449.55	\$ 258,204.94	84.48%
Cadillac	Escalade EXT	\$ 452,573.57	\$ 469,650.62	\$ 518,870.82	87.22%
Chevrolet	Avalanche	\$ 462,942.87	\$ 478,945.85	\$ 537,951.12	86.06%
Lincoln	Mark LT	\$ 373,159.23	\$ 389,591.78	\$ 436,158.77	85.56%
	Total Specialty Utility Pickup	\$ 429,558.55	\$ 446,062.75	\$ 497,660.24	86.28%
Mazda	RX8	\$ 345,032.79	\$ 362,764.70	\$ 393,990.76	87.57%
Nissan	350Z	\$ 342,052.81	\$ 359,453.23	\$ 391,858.48	87.29%
Audi	A3	\$ 291,370.88	\$ 305,787.49	\$ 331,518.03	87.89%
Mitsubishi	Eclipse Spyder	\$ 247,402.60	\$ 261,156.48	\$ 282,413.16	87.60%
Mitsubishi	Eclipse	\$ 290,966.66	\$ 304,639.63	\$ 331,139.30	87.87%
Pontiac	GTO	\$ 291,209.63	\$ 306,293.45	\$ 335,222.20	86.87%
Toyota	Celica	\$ 273,631.40	\$ 286,837.85	\$ 309,869.16	88.31%
Mini	Mini Cooper S	\$ 307,140.55	\$ 322,019.73	\$ 347,357.17	88.42%
Acura	RSX	\$ 303,325.14	\$ 317,388.12	\$ 344,788.94	87.97%
Pontiac	Solstice	\$ 287,673.27	\$ 300,816.79	\$ 325,290.69	88.44%
Mini	Mini Cooper	\$ 303,405.64	\$ 317,933.07	\$ 339,569.16	89.35%
Ford	Mustang	\$ 318,197.05	\$ 331,044.96	\$ 360,819.47	88.19%
Toyota	MR2 Spyder	\$ 272,589.07	\$ 284,221.18	\$ 309,753.20	88.00%
Mazda	MX-5 Miata	\$ 267,649.11	\$ 279,395.15	\$ 303,304.08	88.24%
Honda	S2000	\$ 235,692.53	\$ 247,640.43	\$ 275,159.38	85.66%
Hyundai	Tiburon	\$ 276,229.25	\$ 287,364.34	\$ 314,753.03	87.76%
Pontiac	Firebird	\$ 222,654.46	\$ 233,450.96	\$ 262,550.90	84.80%
Chevrolet	Camaro	\$ 230,112.99	\$ 240,821.77	\$ 270,961.74	84.92%
	Total Touring	\$ 283,685.32	\$ 297,168.30	\$ 323,906.60	87.51%
Toyota	Avalon	\$ 395,436.16	\$ 410,942.26	\$ 446,525.71	88.56%
Buick	Lucerne	\$ 318,940.94	\$ 331,934.96	\$ 359,471.59	88.72%
Pontiac	Bonneville	\$ 326,114.53	\$ 341,336.32	\$ 373,843.32	87.23%
Chrysler	Concorde	\$ 280,213.27	\$ 292,556.19	\$ 326,763.61	85.75%
Mercury	Grand Marquis	\$ 293,491.37	\$ 306,043.91	\$ 334,950.70	87.62%
Ford	Crown Victoria	\$ 300,372.41	\$ 313,317.03	\$ 342,666.39	87.66%
Buick	LeSabre	\$ 251,109.53	\$ 262,462.05	\$ 287,197.44	87.43%
	Total Traditional Car	\$ 309,382.60	\$ 322,656.10	\$ 353,059.82	87.57%
Maybach	Maybach	\$ 2,976,624.99	\$3,070,870.33	\$3,279,156.45	90.77%
Rolls-Royce	Rolls-Royce	\$ 2,910,215.10	\$3,012,857.62	\$3,182,312.30	91.45%
Bentley	Bentley	\$ 2,860,494.75	\$2,957,223.03	\$3,124,208.24	91.56%

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Porsche	Carrera GT	\$ 842,141.08	\$ 878,094.11	\$ 970,090.06	86.81%
Lamborghini	Lamborghini	\$ 485,035.97	\$ 510,935.19	\$ 578,227.68	83.88%
Ferrari	Ferrari	\$ 471,469.74	\$ 498,259.13	\$ 578,338.04	81.52%
Ford	GT	\$ 446,687.24	\$ 472,453.18	\$ 543,679.63	82.16%
Aston Martin	Aston Martin	\$ 472,380.52	\$ 493,749.24	\$ 544,767.70	86.71%
	Total Ultra Luxury	\$ 1,433,131.17	\$1,486,805.23	\$1,600,097.51	86.86%
Lexus	GX 470	\$ 475,500.88	\$ 495,676.09	\$ 537,303.41	88.50%
Land Rover	Discovery	\$ 512,565.78	\$ 531,564.97	\$ 580,862.60	88.24%
Land Rover	LR3	\$ 552,639.62	\$ 572,746.24	\$ 627,821.32	88.02%
Infiniti	QX4	\$ 374,930.97	\$ 393,996.96	\$ 430,036.27	87.19%
Land Rover	Range Rover Sport	\$ 498,602.94	\$ 520,051.20	\$ 565,719.17	88.14%
Lincoln	Aviator	\$ 448,280.80	\$ 466,602.32	\$ 510,834.92	87.75%
Mercury	Mountaineer	\$ 399,409.87	\$ 416,947.30	\$ 458,757.33	87.06%
Subaru	B9 Tribeca	\$ 329,318.09	\$ 344,666.87	\$ 377,731.80	87.18%
GMC	Envoy	\$ 443,509.45	\$ 460,749.96	\$ 505,009.73	87.82%
Buick	Rainier	\$ 383,659.59	\$ 401,702.12	\$ 434,844.37	88.23%
Saab	9-7X	\$ 310,144.09	\$ 325,914.06	\$ 359,267.39	86.33%
Hummer	H3	\$ 403,531.58	\$ 421,003.58	\$ 459,844.62	87.75%
	Total Upper Mid-Range SUV	\$ 427,674.47	\$ 445,968.47	\$ 487,336.08	87.68%
Acura	NSX	\$ 854,887.58	\$ 890,145.61	\$ 957,048.46	89.33%
M-Benz	SC 430	\$ 562,117.77	\$ 589,877.03	\$ 637,818.82	88.13%
Cadillac	XLR	\$ 537,297.97	\$ 563,218.07	\$ 608,586.69	88.29%
Jaguar	XK	\$ 574,954.35	\$ 599,692.40	\$ 650,714.16	88.36%
Porsche	911 Carrera 4	\$ 427,370.16	\$ 449,033.39	\$ 508,841.26	83.99%
Porsche	911 Carrera	\$ 448,989.35	\$ 470,159.04	\$ 539,024.80	83.30%
M-Benz	SL Coupe/Roadster	\$ 453,926.36	\$ 474,640.85	\$ 531,259.62	85.44%
M-Benz	CL class	\$ 476,121.81	\$ 496,048.54	\$ 550,918.22	86.42%
BMW	6 Series	\$ 392,192.84	\$ 410,392.10	\$ 457,778.56	85.67%
Lotus	Lotus	\$ 274,308.29	\$ 289,034.02	\$ 326,902.41	83.91%
Dodge	Viper	\$ 256,791.91	\$ 270,697.97	\$ 314,090.42	81.76%
	Total Upper Premium Sportscars	\$ 478,087.13	\$ 500,267.18	\$ 552,998.49	85.87%
	Industry Straight Average	\$ 461,849.94	\$ 481,945.34	\$ 525,122.97	93.96%

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On a purely cost per mile basis for energy use from “Dust to Dust” future post-manufacturing technology advances can make a significant difference. For hybrids currently being offered, the CPM variance is around 70 cents. For budget vehicles it is only about 15 cents.

Based on historic technology advances, the probable figure is closer to the minimum than the maximum. Again, all of the information is in the context of today’s marketplace. And the number to use depends on how efficient the industry can become at each of the necessary stages in vehicle life.

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		Energy \$	Energy \$	Energy \$
		Total Minimum	Total	Total Max.
Division	Model	Per Mile	Medium	Per Mile
		Per Mile	Per Mile	Per Mile
Kia	Rio	\$0.964	\$1.010	\$1.121
Hyundai	Accent	\$0.852	\$0.897	\$1.013
Chevrolet	Aveo	\$0.765	\$0.801	\$0.905
Toyota	Echo	\$0.703	\$0.735	\$0.827
Total Budget Cars		\$0.821	\$0.861	\$0.966
Chevrolet	Cobalt	\$1.013	\$1.056	\$1.172
Toyota	Matrix **	\$1.011	\$1.057	\$1.170
Mazda	Mazda3	\$0.980	\$1.026	\$1.140
Nissan	Sentra	\$0.962	\$1.007	\$1.136
Suzuki	Aerio	\$0.888	\$0.927	\$1.050
Mitsubishi	Lancer	\$0.872	\$0.914	\$1.050
Kia	Spectra	\$0.864	\$0.908	\$1.018
Scion	tC	\$0.845	\$0.886	\$1.002
Suzuki	Forenza	\$0.840	\$0.880	\$1.002
Ford	Focus	\$0.803	\$0.841	\$0.942
Mazda	Protégé	\$0.772	\$0.807	\$0.928
Pontiac	Sunfire	\$0.758	\$0.793	\$0.897
Chevrolet	Cavalier	\$0.757	\$0.795	\$0.904
Scion	xA	\$0.736	\$0.773	\$0.864
Toyota	Corolla	\$0.732	\$0.767	\$0.854
Dodge	Neon	\$0.728	\$0.765	\$0.877
Hyundai	Elantra	\$0.723	\$0.757	\$0.869
Saturn	Ion	\$0.709	\$0.742	\$0.845
Ford	Escort	\$0.568	\$0.590	\$0.685
Scion	xB	\$0.478	\$0.499	\$0.597
Total Economy Cars		\$ 0.802	\$ 0.840	\$ 0.950
Nissan	Xterra	\$2.022	\$2.103	\$2.317
Isuzu	Trooper	\$1.909	\$1.983	\$2.161
Mazda	Mazda5	\$1.679	\$1.758	\$1.904
Isuzu	Rodeo	\$1.542	\$1.601	\$1.791
Suzuki	XL-7	\$1.477	\$1.545	\$1.735
Suzuki	Grand Vitara	\$1.414	\$1.476	\$1.635
Kia	Sorento	\$1.320	\$1.386	\$1.574
Chevrolet	Blazer	\$1.295	\$1.347	\$1.530
Suzuki	Vitara	\$1.257	\$1.317	\$1.492
Isuzu	Rodeo Sport	\$1.225	\$1.286	\$1.449
Kia	Sportage	\$1.168	\$1.224	\$1.380
Jeep	Liberty	\$1.099	\$1.147	\$1.286
Chevrolet	Tracker	\$0.694	\$0.727	\$0.865
Jeep	Wrangler	\$0.604	\$0.627	\$0.804
Ttl Entry Level SUVs		\$ 1.336	\$ 1.395	\$ 1.566

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Mitsubishi	Outlander	\$2.266	\$2.360	\$2.566
Hyundai	Tucson	\$2.215	\$2.322	\$2.523
Mazda	Tribute	\$2.212	\$2.320	\$2.511
Hyundai	Santa Fe	\$2.019	\$2.121	\$2.336
Pontiac	Torrent	\$1.974	\$2.073	\$2.254
Ford	Escape	\$1.950	\$2.051	\$2.248
Mercury	Mariner	\$1.948	\$2.050	\$2.229
Toyota	RAV4	\$1.948	\$2.041	\$2.211
Saturn	Vue	\$1.847	\$1.927	\$2.085
Chevrolet	Equinox	\$1.821	\$1.900	\$2.071
Honda	Element	\$1.807	\$1.901	\$2.081
Pontiac	Aztek	\$1.542	\$1.614	\$1.766
Honda	CR-V	\$1.478	\$1.550	\$1.700
	Ttl Entry Level Sportwagons	\$ 1.925	\$ 2.018	\$ 2.199

Nissan	Titan	\$2.691	\$2.799	\$3.042
Toyota	Tundra	\$2.509	\$2.620	\$2.871
Dodge	Ram pickup	\$2.484	\$2.589	\$2.796
Chevrolet	Silverado	\$2.450	\$2.538	\$2.764
GMC	Sierra	\$2.450	\$2.534	\$2.749
Ford	F Series	\$2.392	\$2.477	\$2.725
	Ttl Full Size Pickup	\$ 2.496	\$ 2.593	\$ 2.825

GMC	Savana/G Van	\$2.692	\$2.777	\$3.036
Ford	Econoline/Club Wagon	\$2.686	\$2.776	\$3.044
GMC	Express/G Van	\$2.482	\$2.577	\$2.800
Dodge	Sprinter Van	\$2.420	\$2.496	\$2.722
Dodge	Ram Van	\$2.267	\$2.361	\$2.589
Ford	Econoline van	\$2.195	\$2.269	\$2.491
	Full Size Van	\$ 2.457	\$ 2.543	\$ 2.780

Honda	Accord Hybrid	\$3.295	\$3.548	\$3.945
Toyota	Prius	\$3.249	\$3.526	\$4.084
Honda	Civic Hybrid	\$3.238	\$3.480	\$3.880
Ford	Escape Hybrid	\$3.179	\$3.396	\$3.832
Mercury	Mariner Hybrid	\$3.162	\$3.382	\$3.812
Honda	Insight	\$2.939	\$3.167	\$3.625
Lexus	RX 400h	\$3.953	\$4.267	\$5.093
Toyota	Highlander Hybrid	\$2.744	\$2.998	\$3.468
	Ttl Hybrids	\$ 3.220	\$ 3.471	\$ 3.967

Volkswagen	Phaeton	\$11.213	\$11.638	\$12.423
Audi	allroad quattro	\$5.595	\$5.814	\$6.264
Audi	A6	\$4.963	\$5.158	\$5.526
Lexus	LS 430	\$4.734	\$4.908	\$5.243
Lexus	GS 430	\$4.416	\$4.603	\$4.903
Infiniti	Q45	\$4.243	\$4.412	\$4.766
Jaguar	S-Type	\$3.989	\$4.159	\$4.514
Infiniti	M45	\$3.876	\$4.069	\$4.405

Dust to Dust Energy Report -- Automotive

Lexus	GS 300	\$3.861	\$4.076	\$4.389
Cadillac	DTS	\$3.471	\$3.614	\$3.830
Cadillac	DeVille	\$3.385	\$3.508	\$3.745
M-Benz	E class	\$3.313	\$3.419	\$3.704
Cadillac	Seville	\$3.305	\$3.474	\$3.731
Volvo	80 series	\$3.301	\$3.421	\$3.670
Cadillac	STS	\$3.175	\$3.306	\$3.540
BMW	5 Series	\$3.140	\$3.276	\$3.483
Acura	RL	\$2.762	\$2.897	\$3.119
Lincoln	Town Car	\$2.756	\$2.871	\$3.125
BMW	M3	\$2.727	\$2.869	\$3.120
	Total Luxury Car	\$ 4.117	\$ 4.289	\$ 4.605

Volkswagen	Golf	\$2.697	\$2.840	\$3.021
Volkswagen	Golf GTI	\$2.763	\$2.909	\$3.134
Saturn	L series	\$2.534	\$2.642	\$2.848
Honda	Civic	\$2.420	\$2.532	\$2.731
Chevrolet	HHR	\$2.397	\$2.554	\$2.789
Pontiac	G6	\$2.342	\$2.460	\$2.670
Chevrolet	Classic	\$2.269	\$2.361	\$2.523
Subaru	Impreza	\$2.225	\$2.328	\$2.535
Pontiac	Grand Am	\$2.224	\$2.313	\$2.486
Ford	Fusion	\$2.202	\$2.288	\$2.447
Mercury	Milan	\$2.202	\$2.295	\$2.477
Dodge	Stratus	\$2.165	\$2.250	\$2.428
Kia	Optima	\$1.994	\$2.095	\$2.261
Hyundai	Sonata	\$1.980	\$2.064	\$2.238
Suzuki	Verona	\$1.908	\$1.992	\$2.168
Volkswagen	Beetle	\$1.828	\$1.915	\$2.069
Pontiac	Vibe	\$1.011	\$1.056	\$1.174
Chevrolet	Malibu	\$1.919	\$2.013	\$2.157
Chrysler	PT Cruiser	\$1.612	\$1.675	\$1.811
Chrysler	Sebring	\$1.283	\$1.338	\$1.476
	Ttl Lower Mid-Range Cars	\$ 2.099	\$ 2.196	\$ 2.372

Nissan	Pathfinder	\$2.220	\$2.324	\$2.559
Toyota	4Runner	\$2.193	\$2.287	\$2.502
Mitsubishi	Montero	\$2.177	\$2.278	\$2.520
Mitsubishi	Montero Sport	\$2.123	\$2.237	\$2.482
Isuzu	Axiom	\$1.735	\$1.821	\$2.015
Land Rover	Freelander	\$1.674	\$1.758	\$1.962
Isuzu	Ascender	\$1.531	\$1.602	\$1.796
Jeep	Commander	\$1.531	\$1.592	\$1.796
Jeep	Grand Cherokee	\$1.495	\$1.549	\$1.735
Jeep	Grand Cherokee SRT-8	\$1.698	\$1.872	\$2.045
Dodge	Durango	\$1.429	\$1.493	\$1.685
Ford	Explorer	\$1.404	\$1.465	\$1.652
Chevrolet	TrailBlazer	\$1.363	\$1.416	\$1.595
	Ttl Lower Mid-Range SUV	\$ 1.736	\$ 1.823	\$ 2.026

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Toyota	Sequoia	\$3.672	\$3.838	\$4.144
Nissan	Armada	\$3.450	\$3.606	\$3.929
Ford	Excursion	\$3.304	\$3.423	\$3.712
Chevrolet	Suburban	\$3.134	\$3.233	\$3.488
GMC	Yukon XL	\$3.132	\$3.245	\$3.495
Ford	Expedition	\$3.058	\$3.159	\$3.401
Chevrolet	Tahoe	\$2.937	\$3.046	\$3.271
GMC	Yukon	\$2.936	\$3.044	\$3.290
	Total Large SUV	\$ 3.203	\$ 3.324	\$ 3.591
Chrysler	Pacifica	\$2.780	\$2.910	\$3.134
Nissan	Murano	\$2.510	\$2.615	\$2.795
Toyota	Highlander	\$2.490	\$2.608	\$2.781
Ford	Freestyle/Windstar	\$2.481	\$2.577	\$2.780
Buick	Rendezvous	\$2.392	\$2.491	\$2.690
Honda	Pilot	\$2.197	\$2.300	\$2.504
Mitsubishi	Endeavor	\$1.974	\$2.078	\$2.264
	Total Mid-Range Sportwagons	\$ 2.403	\$ 2.511	\$ 2.707
Volkswagen	EuroVan/T4	\$2.294	\$2.406	\$2.609
Honda	Odyssey	\$2.267	\$2.354	\$2.541
Pontiac	Montana SV6	\$2.239	\$2.343	\$2.541
Chrysler	Town & Country	\$2.218	\$2.316	\$2.506
Buick	Terraza	\$2.212	\$2.311	\$2.514
Dodge	Caravan/Grand Caravan	\$2.181	\$2.277	\$2.451
Toyota	Sienna	\$2.180	\$2.291	\$2.480
Chevrolet	Venture	\$2.144	\$2.240	\$2.452
Saturn	Relay	\$2.143	\$2.246	\$2.432
Pontiac	Montana	\$2.142	\$2.247	\$2.441
Nissan	Quest	\$2.118	\$2.213	\$2.392
Chevrolet	Uplander	\$2.117	\$2.220	\$2.434
Ford	Freestar	\$2.069	\$2.159	\$2.379
Mercury	Monterey	\$2.069	\$2.174	\$2.359
Kia	Sedona	\$1.994	\$2.092	\$2.309
Mazda	MPV	\$1.953	\$2.039	\$2.215
GMC	Safari	\$1.725	\$1.798	\$1.968
Chevrolet	Astro	\$1.725	\$1.789	\$1.980
	Total Minivans	\$ 2.099	\$ 2.195	\$ 2.389
Volvo	70 series	\$2.482	\$2.595	\$2.816
Volvo	60 series	\$2.269	\$2.382	\$2.585
Mercury	Zephyr	\$2.196	\$2.296	\$2.488
Acura	TL	\$2.122	\$2.222	\$2.398
Acura	CL	\$2.022	\$2.118	\$2.305
Lincoln	LS	\$2.017	\$2.105	\$2.297
Jaguar	X-Type	\$1.908	\$1.995	\$2.178
Lexus	ES 330	\$1.852	\$1.930	\$2.103
Lexus	IS 300	\$1.833	\$1.924	\$2.100
Infiniti	G35	\$1.777	\$1.854	\$2.015
M-Benz	C class	\$1.699	\$1.777	\$1.948

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Cadillac	CTS	\$1.680	\$1.756	\$1.908
BMW	330	\$1.616	\$1.683	\$1.836
Buick	Park Avenue	\$1.556	\$1.626	\$1.778
BMW	325	\$1.531	\$1.598	\$1.766
Saab	9-5	\$1.529	\$1.604	\$1.758
	Total Near Luxury Cars	\$ 1.881	\$ 1.967	\$ 2.143
Audi	A8	\$4.964	\$5.152	\$5.559
M-Benz	S class	\$3.669	\$3.795	\$4.153
Maserati	Maserati	\$3.055	\$3.190	\$3.603
BMW	7 Series	\$2.936	\$3.048	\$3.304
Jaguar	XJ	\$2.785	\$2.913	\$3.115
	Total Premium Cars	\$ 3.482	\$ 3.619	\$ 3.947
Mercury	Montego	\$2.264	\$2.371	\$2.580
Buick	LaCrosse	\$2.245	\$2.353	\$2.540
Volkswagen	Passat	\$2.052	\$2.129	\$2.292
Dodge	Magnum	\$2.019	\$2.103	\$2.282
Ford	Five Hundred	\$2.018	\$2.109	\$2.289
Dodge	Charger	\$1.974	\$2.059	\$2.242
Nissan	Maxima	\$1.966	\$2.046	\$2.213
Chrysler	300/300M	\$1.961	\$2.051	\$2.235
Mitsubishi	Diamante	\$1.932	\$2.028	\$2.213
Volvo	40 series	\$1.897	\$1.989	\$2.159
Infiniti	I30/I35	\$1.851	\$1.926	\$2.086
Mazda	Millenia	\$1.802	\$1.897	\$2.074
Audi	A4/S4	\$1.774	\$1.860	\$2.065
Audi	S4	\$1.894	\$2.059	\$2.212
Acura	TSX	\$1.725	\$1.796	\$1.945
Saab	9-3	\$1.636	\$1.709	\$1.867
Saab	9-2	\$1.553	\$1.622	\$1.783
Buick	Regal	\$1.167	\$1.228	\$1.366
	Total Premium Mid-Range Cars	\$ 1.874	\$ 1.963	\$ 2.136
M-Benz	SLK class	\$3.982	\$4.158	\$4.490
M-Benz	CLS class	\$3.668	\$3.809	\$4.052
M-Benz	CLK class	\$3.492	\$3.640	\$3.916
Porsche	Boxster	\$3.224	\$3.375	\$3.629
Chevrolet	Corvette	\$3.158	\$3.305	\$3.559
Audi	TT	\$2.768	\$2.901	\$3.091
BMW	Z8	\$2.733	\$2.850	\$3.062
BMW	Z4	\$2.483	\$2.611	\$2.809
Ford	Thunderbird	\$1.477	\$1.543	\$1.714
Chrysler	Crossfire	\$1.323	\$1.398	\$1.576
	Total Premium Sporty Cars	\$ 2.831	\$ 2.959	\$ 3.190
Porsche	Cayenne	\$4.146	\$4.269	\$4.591
Volkswagen	Touareg	\$4.134	\$4.311	\$4.621
Land Rover	Range Rover	\$3.775	\$3.939	\$4.249
M-Benz	G class	\$3.711	\$3.858	\$4.205

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Hummer	H1	\$3.505	\$3.603	\$3.845
Lexus	LX 470	\$3.229	\$3.367	\$3.633
Cadillac	Escalade ESV	\$3.197	\$3.330	\$3.617
Toyota	Land Cruiser	\$3.184	\$3.279	\$3.520
Hummer	H2	\$3.027	\$3.139	\$3.372
Cadillac	Escalade	\$2.753	\$2.857	\$3.092
Lincoln	Navigator	\$2.617	\$2.720	\$2.964
	Total Premium SUV	\$ 3.389	\$ 3.516	\$ 3.792
Volvo	XC90	\$3.325	\$3.462	\$3.715
Lexus	RX330	\$3.306	\$3.439	\$3.700
Infiniti	FX35	\$3.029	\$3.160	\$3.413
Infiniti	FX45	\$3.269	\$3.421	\$3.671
M-Benz	R class	\$2.960	\$3.101	\$3.336
Volvo	50 series	\$2.937	\$3.079	\$3.307
Acura	MDX	\$2.845	\$2.963	\$3.184
Cadillac	SRX	\$2.782	\$2.914	\$3.165
M-Benz	M class	\$2.482	\$2.579	\$2.815
BMW	X5	\$2.368	\$2.471	\$2.691
BMW	X3	\$2.264	\$2.368	\$2.561
	Total Premium Sportwagons	\$ 2.870	\$ 2.996	\$ 3.233
Honda	Accord	\$2.180	\$2.271	\$2.444
Volkswagen	Jetta wagon	\$2.046	\$2.161	\$2.372
Volkswagen	Jetta	\$2.016	\$2.128	\$2.282
Toyota	Camry	\$1.954	\$2.044	\$2.190
Subaru	Baja	\$1.909	\$1.992	\$2.166
Subaru	Legacy	\$1.849	\$1.931	\$2.090
Subaru	Forester	\$1.825	\$1.912	\$2.084
Subaru	Outback	\$1.785	\$1.926	\$2.083
Mazda	Mazda6	\$1.796	\$1.878	\$2.037
Dodge	Intrepid	\$1.772	\$1.855	\$2.037
Chevrolet	Monte Carlo	\$1.506	\$1.571	\$1.713
Mitsubishi	Galant	\$1.465	\$1.538	\$1.682
Pontiac	Grand Prix	\$1.465	\$1.539	\$1.679
Buick	Century	\$1.455	\$1.516	\$1.661
Mercury	Sable	\$1.447	\$1.505	\$1.641
Ford	Taurus	\$1.446	\$1.506	\$1.670
Mazda	626	\$1.397	\$1.462	\$1.631
Nissan	Altima	\$1.381	\$1.446	\$1.589
Chevrolet	Impala	\$1.357	\$1.413	\$1.541
Hyundai	XG350	\$1.285	\$1.351	\$1.507
Kia	Amanti	\$1.263	\$1.318	\$1.482
	Total Small Rid-Range Cars	\$ 1.648	\$ 1.727	\$ 1.885
Chevrolet	SSR	\$2.442	\$2.558	\$2.842
Honda	Ridgeline	\$1.807	\$1.891	\$2.079
GMC	Canyon	\$1.283	\$1.334	\$1.497
GMC	Sonoma	\$1.283	\$1.338	\$1.484
Nissan	Frontier	\$1.160	\$1.215	\$1.372

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Toyota	Tacoma	\$1.147	\$1.202	\$1.346
Chevrolet	Colorado	\$1.125	\$1.171	\$1.341
Mitsubishi	Raider	\$1.124	\$1.170	\$1.326
Mazda	B-Series	\$1.088	\$1.131	\$1.306
Dodge	Dakota	\$1.014	\$1.058	\$1.234
Ford	Ranger	\$0.968	\$1.013	\$1.175
Chevrolet	S10	\$0.779	\$0.812	\$0.945
	Total Small Pickup	\$ 1.268	\$ 1.324	\$ 1.496
Cadillac	Escalade EXT	\$2.048	\$2.125	\$2.348
Chevrolet	Avalanche	\$1.978	\$2.047	\$2.299
Lincoln	Mark LT	\$1.944	\$2.029	\$2.272
	Total Specialty Utility Pickup	\$ 1.990	\$ 2.067	\$ 2.306
Mazda	RX8	\$2.482	\$2.610	\$2.834
Nissan	350Z	\$2.193	\$2.304	\$2.512
Audi	A3	\$2.096	\$2.200	\$2.385
Mitsubishi	Eclipse Spyder	\$2.079	\$2.195	\$2.373
Mitsubishi	Eclipse	\$2.021	\$2.116	\$2.300
Pontiac	GTO	\$1.995	\$2.098	\$2.296
Toyota	Celica	\$1.969	\$2.064	\$2.229
Mini	Mini Cooper S	\$1.908	\$2.000	\$2.157
Acura	RSX	\$1.908	\$1.996	\$2.168
Pontiac	Solstice	\$1.880	\$1.966	\$2.126
Mini	Mini Cooper	\$1.795	\$1.881	\$2.009
Ford	Mustang	\$1.758	\$1.829	\$1.993
Toyota	MR2 Spyder	\$1.683	\$1.754	\$1.912
Mazda	MX-5 Miata	\$1.471	\$1.535	\$1.667
Honda	S2000	\$1.455	\$1.529	\$1.699
Hyundai	Tiburon	\$1.439	\$1.497	\$1.639
Pontiac	Firebird	\$1.287	\$1.349	\$1.518
Chevrolet	Camaro	\$1.286	\$1.345	\$1.514
	Total Touring	\$ 1.817	\$ 1.904	\$ 2.074
Toyota	Avalon	\$1.967	\$2.044	\$2.222
Buick	Lucerne	\$1.802	\$1.875	\$2.031
Pontiac	Bonneville	\$1.782	\$1.865	\$2.043
Chrysler	Concorde	\$1.531	\$1.599	\$1.786
Mercury	Grand Marquis	\$1.418	\$1.478	\$1.618
Ford	Crown Victoria	\$1.417	\$1.478	\$1.616
Buick	LeSabre	\$1.372	\$1.434	\$1.569
	Total Traditional Car	\$ 1.613	\$ 1.682	\$ 1.841
Maybach	Maybach	\$11.582	\$11.949	\$12.759
Rolls-Royce	Rolls-Royce	\$10.660	\$11.036	\$11.657
Bentley	Bentley	\$10.555	\$10.912	\$11.528
Porsche	Carrera GT	\$4.528	\$4.721	\$5.216
Lamborghini	Lamborghini	\$4.009	\$4.223	\$4.779
Ferrari	Ferrari	\$3.962	\$4.187	\$4.860
Ford	GT	\$3.851	\$4.073	\$4.687

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Aston Martin	Aston Martin	\$3.028	\$3.165	\$3.492
	Total Ultra Luxury	\$ 6.522	\$ 6.783	\$ 7.372
Lexus	GX 470	\$2.686	\$2.800	\$3.036
Land Rover	Discovery	\$2.525	\$2.619	\$2.861
Land Rover	LR3	\$2.489	\$2.580	\$2.828
Infiniti	QX4	\$2.483	\$2.609	\$2.848
Land Rover	Range Rover Sport	\$2.420	\$2.525	\$2.746
Lincoln	Aviator	\$2.347	\$2.443	\$2.675
Mercury	Mountaineer	\$2.336	\$2.438	\$2.683
Subaru	B9 Tribeca	\$2.240	\$2.345	\$2.570
GMC	Envoy	\$2.196	\$2.281	\$2.500
Buick	Rainier	\$2.180	\$2.282	\$2.471
Saab	9-7X	\$2.169	\$2.279	\$2.512
Hummer	H3	\$1.949	\$2.034	\$2.221
	Total Upper Mid-Range SUV	\$ 2.335	\$ 2.436	\$ 2.663
Acura	NSX	\$4.453	\$4.636	\$4.985
M-Benz	SC 430	\$3.407	\$3.575	\$3.866
Cadillac	XLR	\$3.276	\$3.434	\$3.711
Jaguar	XK	\$3.058	\$3.190	\$3.461
Porsche	911 Carrera 4	\$2.830	\$2.974	\$3.370
Porsche	911 Carrera	\$2.738	\$2.867	\$3.287
M-Benz	SL Coupe/Roadster	\$2.686	\$2.809	\$3.144
M-Benz	CL class	\$2.533	\$2.639	\$2.930
BMW	6 Series	\$2.267	\$2.372	\$2.646
Lotus	Lotus	\$2.267	\$2.389	\$2.702
Dodge	Viper	\$2.176	\$2.294	\$2.662
	Total Upper Premium Sportscars	\$ 2.881	\$ 3.016	\$ 3.342
Industry Straight Average		\$2.481	\$2.592	\$2.830

CHAPTER 15 – Conclusion

To be quite up front, there is no actual conclusion to this study. It is, hopefully, only a beginning of a discussion about the social cost of energy.

Just as an example of some of the issues future reports from other sources and investigators must consider include those already pointed out in this report but should increasingly note the small items in the calculations. Just a few:

- The type of material used other than major panels or understructures have important impact (albeit seemingly small overall) such as chrome. It is one of the most difficult and expensive to make and dispose of. The pollution and clean-up cost for such material far outweigh its seemingly insignificant contribution to a vehicle's appearance or cost.

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- “Manufacturing” must include suppliers and the design, development and manufacture of support machinery, not just the use of those machines. Human labor is far less energy intense than a robotic milling machine, even though there are clear cost advantages when replacing human labor with robotics.
- Dies, molds and related equipment are more complex for more technologically advanced vehicles. This can be the difference between a Maybach and a Sonata or between the Scion xB vs. the Scion xA. More bending, more components, more cost.
- Some portion of the worker transportation to and from work at all levels of the auto design/develop to disposal can be a critical component in the overall energy expense. This relates in part to where those manufacturing plants are located be it in China or Tennessee and what the infrastructure demands are to support that manufacturing plant. (Note: CNW used a 22 to 46 percent range of employee transportation costs related to the individual models based on actual surveys of what portion of total driving is specifically for work and adjusted for the fact that worker would obviously be employed somewhere else if not at the car plant.)
- Autos are fully a quarter-plus of all items disposed of in the U.S. as a share of energy expended to recycle, re-use and/or dispose of non-recyclable components and material.
- To sell 17 million vehicles the auto industry needs roughly 45 million shoppers or intenders. No evaluation except this one has included that calculation in the overall energy cost of a single automobile.

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While we could expand on this for pages, the real conclusion is that there are many other factors involved than the simple “fuel economy” cost that most consumers believe is the true measure of a vehicle’s efficiency.

For environmentalists and those concerned about CO₂, for example, the adage that this emission knows no (national) borders is not only true but important to the discussion about pollution, global warming or related topics. And that leads back to the ability of an automaker to produce simplified vehicles, the ability of the recycle/disposal industries to increasingly more efficient means of using those vehicles at the end of their lives.

For government agencies, a serious consideration of the global impact has to be addressed when deciding on a local regulation regardless of the final decision.

For automakers, it is important to consider all aspects of energy consumption and how this important social product impacts society in general.

For other researchers into this topic, we would recommend adding as many factors as conceivable to their evaluations to better understand the overall impact.

For CNW, it means continued refinement of the data whether it results in significant alternations in methodology or how the data is reported. We welcome comments, criticisms, suggestions and

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recommendations for a better way of reporting the findings. We expect to continue on this path for some time into the future.

In the following pages we have two sections:

The **Q&A** includes letters, emails and (yes) faxes that responded to our initial releases. Some of those letters answer general questions asked; others include discussions or links to previous manufacturing studies.

The **Appendix** section similarly includes news articles about gasoline, ethanol and other somewhat or precisely related topics.

We recommend spending the time to at least scan these posts and articles. We found them helpful in focusing our future Dust-to-Dust energy reports which we believe will be issued annually.