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Introduction

The environment automotive performance parts and accessories company executives work in is becoming increasingly complex, and changes are coming more and more frequently. Every three months Fast Lane Research will issue a Trends & Outlook Report Quarterly (TORQ) covering a range of topics that have the potential to impact industry business. Some topics will receive regular updates while others specific to the time of year the report is released, will be featured when appropriate.

The TORQ reporting will be flexible enough to capture rapidly emerging factors that will affect the industry while updating baseline benchmark data. The information presented will be a combination of primary and secondary data. The primary data will be the result of surveys and interviews with industry thought-leaders and consumers. The secondary data will be sourced from reputable research firms, industry publications and governmental agencies.

Executive Summary

The US economy and the automotive performance parts and accessories industry have suffered through a rough couple of years. Much of the data from the first quarter of 2010 indicate that the worst is over and things are beginning to improve.

- Through the end of March 2010, new-vehicle sales are up 15.5% compared to 2009.
- Science and engineering are at the heart of today's vehicle development and the auto industry is transforming itself
- DOT, EPA Set Aggressive National Standards for Fuel Economy and First Ever Greenhouse Gas Emission Levels
- Looking forward the majority of businesses in the automotive performance parts and accessories industry expect a strong rebound from 2009 for the remainder of 2010
- Manufacturers of automotive performance parts and accessories indicated that on average they spend 7% of annual revenues on marketing
- Classic musclecars continue to be the most “favorite” group of vehicles for automotive enthusiasts (56%), followed by Hot Rods, Street Rods & Customs (46%).
- Overall economic activity increased somewhat since the last report across all Federal Reserve Districts except St. Louis
- Recent data indicate that only half of the world’s 100 largest economies are “nation-states.”

OEM Vehicle Styling Trends

Executive Summary

Since production vehicles are the “canvas” that the automotive performance parts and accessories industry uses to paint its picture of personal freedom and lifestyle enjoyment, it is important to keep track of what the OEMs are designing.

The primary sources of information about OEM thinking on vehicle styling are the major auto shows. So far the 2010 auto show season (which started with the Los Angeles show in December 2009) has been mainly about “green.”

There have been some more radical designs, but much of what is being presented by the OEMs shows continued interest in migrating existing models to alternate fuels, and introducing smaller more fuel-efficient vehicles.

Probably the most radical change is the fact that there are new car companies entering the marketplace. Not since the 1920s have there been so many startups entering the vehicle production business. Even as we lose tried and true makes—Pontiac, Saturn—new ones are entering the fray. Some of these companies were established to produce alternative fueled vehicles, but not all. And some of the vehicle styling is very extreme and may provide indicators of where styling in general is going.

If the current styling approaches were to be summed up in one word it would be aerodynamic.

Here is a sampling of the new automotive OEMs entering the marketplace and some of the styling cues they are employing.

New Automotive OEMs

Carbon Motors: Carbon Motors Corporation has a different business model than most older OEMs. Carbon Motors is targeting a very narrow niche within the vehicle production marketplace. In addition they have set out to foster public and private sector collaboration.

The business model of the typical automakers makes producing vehicles in very low volumes very difficult because of the costs involved. That combined with the risks involved, is why there hasn't been a purpose-built law enforcement patrol vehicle in more than 100 years.

At least at first glance, the Carbon E7 doesn't seem revolutionary. It's a four-door sedan about the same size as the Dodge Charger.

Unlike the new Ford Taurus police cruiser the E7 is rear-wheel-drive. Carbon claims that the E7 will easily last a full 250,000 miles even under the severe strain of police use. Now for the surprises, the engine is a 300-hp 3.0-liter six-cylinder turbodiesel built by BMW and goes from 0 to 60 mph in 6.5 seconds. Add to that, it has suicide-style rear doors. Total production according to Carbon is somewhere between 10,000 and 80,000 units per year.

Tesla Motors: Tesla Motors began in 2003 with the idea of mass producing the AC Propulsion tzero electric car. But the first vehicle offered by the company was the Tesla Roadster. With a sticker of more than $100,000, the Roadster goes from 0 to 60 in 3.9 seconds and has a top speed of 125.

Tesla has delivered a ground breaking electric sports car that works. The Tesla Roadster is the first production vehicle to use lithium-ion battery cells, and the first

production EV with a range of more than 200 miles per charge. In October 2009 a Tesla Roadster set a world record when it was driven the entire 313 miles of Australia's annual Global Green Challenge on a single charge.

Next came the Roadster Sport with a price of $129,000. The Roadster Sport has clocked the quarter mile at 12.943 seconds and goes from 0 to 60 in 3.7 seconds.

With more than a thousand Roadsters on the highway, Tesla is now working on the development of the Model S, an all-electric family sedan. The Model S is expected to cost around $58,000 and more than 1,500 buyers have already made reservations for one. Production is planned for late 2011.

Fisker Automotive: Fisker Coachbuild, LLC and Quantum Technologies announced a joint venture partnership in September 2007. Fisker Coachbuild provides exclusive design services for Fisker Automotive while Quantum Technologies contributes the latest technological advancements.

Henrik Fisker best known as the designer of such iconic cars as the BMW Z8 roadster, the Aston Martin DB9 and V8 Vantage, has established his car company to build a high-performance hybrid sports sedan with looks that will rival his other creations.

The Karma, Fisker Automotive's first offering is rated to go from 0 to 60 in under 6 seconds and have a top speed over 125 mph thanks to a plug-in hybrid technology it calls Q Drive. Developed by Quantum Technologies for Fisker, the Q Drive is conceptually similar to the drivetrain in the Chevrolet Volt with a small gasoline engine that runs a generator to charge the lithium-ion battery pack in between regular recharges.

Fisker originally intended to sell its Karma PHEV in late 2009, but, due to funding delays, the launch date was pushed back to late 2010. The Karma hardtop convertible is planned to arrive in 2012, at an as-yet unstated price.

Lightning Car Company: The Lightning Car Company was started in 2006, primarily by Iain Sanderson, and Chris Dell. Its first product is the Lightning GT, a carbon fiber and Kevlar bodied sports car. It is driven by four 120-kilowatt brushless wheel motors (one for each wheel) that double as generators during braking to recharge the battery pack. The batteries t[illegible]terials instead of graphite. That should result, in a battery pack that's safer, longer lasting and faster charging (full charging in about 10 minutes). Lightning says that its batteries will deliver several times more power per unit weight and volume than lithium-ion units.

The Lightning GT will go from 0 to 60 in 4 seconds, and generates up to 700 hp. Plans are to have the GT available for sale this year and Lightning has begun taking orders. There are also plans to produce an SUV and a smaller sports car, all powered by variations of the GT's powerplant.

Aptera Motors: If the startup automotive company designs seem like more of the same, the Aptera 2 Series will definitely be the exception. Technically, it is not a car, but rather a three-wheel motorcycle. But that shouldn't diminish the audacity of the design and engineering of the Aptera. Its radically designed composite shell looks more like a light aircraft without wings than a traditional car.

Looking more like something from science fiction this is probably what the future of automotive will look like. In fact, there was a glimpse of one in the 2009 Star Trek film.

The first variant of the 2 Series slated for production is the Aptera 2e (formerly Typ-1e), a battery powered electric vehicle. The 2e will accelerate from 0 to 60 in less than 10 seconds, and be capable of reaching a top speed of just over 85 mph. According to Aptera, the 2 Series will be priced from the mid-$20,000s to mid-$40,000s, depending on the variant and options selected by the buyer.

Koenigsegg: The company was founded in 1994 in Sweden by Christian Koenigsegg with the sole purpose of producing a world-class supercar. Many years of development and prototyping led to the company's first street-legal production car delivery in 2002, a CC 8S.

The midengine sports cars responsible for the company's performance reputation—CCR, CCX and CCXR—are all developments on that first one. All are powered by heavily modified supercharged versions of Ford's 4.7-

liter, DOHC, 32-valve V8. In the current CCX the twin Rotrex centrifugal superchargers push output to 806 hp and in the CCXR (which can run on E85 gas/alcohol blend or even E100 alcohol) that output grows to 1018 hp.

Apart from developing, manufacturing and selling the Koenigsegg line of supercars, Koenigsegg is also involved in "green technology" development programs, including the CCXR ("Flower Power") flexfuel supercar. Koenigsegg is also active in development programs when it comes to plug-in electric cars' systems and next-generation combustion engine technologies.

Koenigsegg holds patents within the engine development area, for example, the Rocket catalytic converter that reduced back pressure and size while shortening light-off time and a supercharger response system that eliminated the need to use bypass valves, which in turn reduces consumption and improves engine response time.

In the battle to build the world's fastest production car, Koenigsegg claims the CCXR will run away from even the vaunted Bugatti Veyron—and top out at well over 250 mph.

Ariel Motor Company: Ariel Motor Company is one of the smallest auto manufacturers in the UK. Founded in 1991 and changing its name in 2001, Ariel is best known for the Atom. The UK version is based around the Honda Civic Type-R engine and gearbox, while the US version is available with the supercharged GM Ecotec. The Atom is the world's first road-going ”exoskelatal” car; it has no bodywork or roof, and is built entirely around the tube chassis, making it extremely lightweight at less than 1,102 pounds. This means that the high performance supercharged model has a power-to-weight ratio of over 600 bhp (450 kW) per ton, at a fraction of the cost of a conventional sports car.

Ariel is also currently making a new car called the Atom 500, with 500 bhp (370 kW) and a power-to-weight ratio of about 1000 BHP/ton.

The tiny, midengine Atom doesn't have doors, or side windows, or a radio, or heater or even a windshield. In

fact, it doesn't even have any conventional body panels—the driver and single passenger are exposed to the elements through an exposed tube frame.

SIM-Drive Corp.: A partnership of 34 companies including Mitsubishi Motors and Isuzu Motors that was established in August 2009. The sole purpose of the company is to popularize in-wheel motor-driven electric vehicles. SIM-Drive plans to produce newly designed electric vehicles and convert existing vehicles to electric drive. Having already developed 10 electric car prototypes, SIM-Drive management sees the company poised to produce electric cars that have the functions and performance that will make them acceptable to the market.

Prototypes, Concepts and New Introductions

With the top-tier auto shows taking their place in the history books, what have the OEMs been telling us they are thinking about? The message of green and green tech came through loud and clear from just about everyone.

High-tech powerplants that increase gas mileage without giving up performance have been featured in all the premiere auto shows. From the Chevy Cruze 40 mpg 1.4-liter 4-cylinder to BMW's 's 3-liter, 315-horsepower twin-turbo 6, the emphasis is on increased miles per gallon and having fun doing it.

From a styling perspective, just about every vehicle is becoming longer, lower and more aerodynamic. Windshields invariably have a more laid back profile, and vehicle front ends are increasingly rounded from an apex sweeping back to the wheel wells. There are still vertical-slab looks in the mix, but they have softened a bit.

Part of the story involves who was not present in some of this year's the auto shows—Nissan, Infiniti—but they have announced that they will be back in the next round of auto shows.

LA Auto Show

Being in California, it is no surprise that the last few shows in Los Angeles have been mostly about “green,” but this year the event took that theme to an all time high.

The Green Car of the Year award was presented during press days of the LA Auto show. Issued by the Green Car Journal, the award went to the VW Jetta TDI. That’s right, a diesel powered car beat out an impressive list of hybrids.

With the changing of show dates LA has featured increasing numbers of new introductions and this year there was plenty of new product to see. In the past LA was scheduled so close to the Detroit Auto Show that it didn’t receive the attention from OEMs and media that it really deserves. That is now all changed.

The OEMs introduced the following vehicles:

2011 Audi A8
Audi e-Tron
2011 Cadillac CTS Coupe
Cadillac Converj (concept)
Honda P NUT (Concept)
BMW Vision EfficientDynamics (concept)
2011 Infiniti M
2011 Porsche Boxster Spyder
2010 Toyota Prius Plug In (concept)
2011 Toyota Sienna
2010 Hyundai Tucson
Mitsubishi PX-MiEV (concept)
Lexus LF-Ch Hybrid (concept)
Volkswagen Up! Lite (Concept)
Dodge Viper SRT-10
2011 Chevrolet Cruze
2011 Ford Fiesta
2011 Mustang V6
2011 Kia Sorento
Suzuki Kizashi
Volvo S60 Concept
2011 Buick Regal
Subaru Hybrid Tourer (concept)
Mercedes Benz AMG SLS Gullwing
Mini Coupe (concept)
Mini Roadster (concept)

Detroit Auto Show (NAIAS)

The North American International Auto Show (NAIAS), alias the Detroit Auto Show has long been the "big" show in the US for the auto industry. Historically there have been elaborate displays offered by the car companies, and media days have been filled with drama and fanfare. This year, like last year, was more sedate. In an environment of two major bankruptcies the show was noticeably toned down.

Another major difference was the increased emphasis on green. The NAIAS debuted the Electric Avenue, a 37,000 square foot feature on the main floor of the 2010 show. The new showcase spotlighted electric vehicles and technology of both traditional automakers and innovative entrepreneurs.

Some of the major introductions included:

2010 Kia Shadow Dragon
Fiat 500 EV
Audi e-tron
2011 BMW Z4
2011 BMW 740i
BMW ActiveE
Buick Regal GS
2011 Cadillac CTS-V Coupe
Cadillac XTS Platinum
Chevrolet Aveo RS
Chrysler Lancia Delta
2012 Ford Focus
GMC Granite
2011 Honda CR-Z
2011 Lincoln MKX
2011 Mercedes Benz CLS
2011 Mercedes Benz E-Class
Mini Beachcomber
Toyota FT-CH Hybrid
Volkswagen Compact Coupe
Volvo C30 BEV

Chicago Auto Show

The Chicago Auto Show is promoted as one of the world's largest vehicle exhibitions. With a tradition of more than 100 years of featuring what's new in the automotive industry, Chicago continued to maintain its reputation in 2010.

Being situated in the US heartland, the Chicago Auto Show often has more of a light truck presence than many of the other major auto shows. Here are some of the vehicles introduced this year:

Ford Transit Connect Taxi
2011 Ford Transit Connect Electric
2010 Dodge Challenger Fuchsia Editions
2011 Hyundai Azera
Delta Wing IndyCar Concept
2011 BMW Alpina B7
Kia Ray Concept
2011 Toyota Avalon
Honda Odyssey Concept
2011 Chevrolet Silverado HD
2011 Ford Edge
2010 Scion tC RS

New York Auto Show

The New York International Auto Show (NYIAS), is an interesting event. Held in the heart of a city whose residents are not known for their love of cars, the New York Auto Show is one of the few auto shows that also features an exhibit of classic and antique cars.

Here are some of the introductions seen during the New York Auto Show:

2011 Acura TSX Sport Wagon
2011 Bentley Supersports Convertible
2011 BMW Alpina B7 xDrive
2011 BMW 535i
2011 Cadillac CTS-V Sport Wagon
2011 Chevrolet Cruze ECO & RS
2011 Hyundai Equus
2011 Hyundai Sonata Hybrid
2011 Infiniti QX56
2011 Kia Forte Hatchback
2011 Kia Optima
2011 Kia Sorento SX
2011 Lexus CT 200h
2011 Lincoln MKZ Hybrid
2011 Mercedes Benz R-Class
2011 Mini Countryman
2011 Nissan LEAF
2011 Nissan Juke
Porsche 911 GT3 Hybrid
2011 Scion iQ
2011 Subaru Impreza WRX
2011 Volvo S60

New-Vehicle Sales Trends

Executive Summary

For those who are only interested in total new-vehicle sales because it is an indicator of what the overall economy is doing, the news is encouraging. New-vehicle sales in March 2010 were up 24.3% compared to March 2009. Keep in mind that in Mar 2009 new-vehicle sales dropped 36.9% compared to 2008 after having decreased 11.8% from 2007. Auto sales have definitely gained ground, but still have not reached the level we were accustomed to just three years ago.

Through the end of March 2010, year-to-date new-vehicle sales are up 15.5% compared to 2009. For the same period in 2009 sales were down 38.4% from 2008 which had been off 7.9% compared to 2007.

In short, we have a positive new-vehicle sales trend started this year. It's not what it used to be, but things are moving in the right direction.

2010 AUTOMOTIVE SALES FORECASTS

After a tough year in 2009 everyone is looking to 2010 and wondering what will business be like. Since there is a relationship between the sales of new vehicles and the sales of performance parts and accessories, we thought it would be helpful to examine the forecasts for new vehicle sales in 2010.

The pattern of forecasts is interesting and falls within a narrow band, even with the broad source of projections—car companies, financial institutions and market research firms. With a high of 12.5 million units projected by an obviously optimistic Ford, and a low of 10.5 million by a cautious dealer group, Sonic Automotive, the range is rather limited..

2010 US Car & Light Truck Sales Forecasts

Forecaster	*Unit Sales*
Ford	12.5 million
Chrysler	11.0 million
GM	11.0 to 12.0 million
BMW	11.0 to 11.5 million
Toyota	11.0 million
Edmunds	11.5 million
JD Power & Associates	11.5 million
iSuppli	11.6 million
Fitch Ratings Ltd	11.1 million
CSM Worldwide	11.8 million
Goldman Sachs	11.0 million
Sonic Automotive	10.5 million
Center for Automotive Research	11.0 million
AutoPacific	11.4 million

NADA: Outlook for New Vehicle Sales Upbeat

The following is a statement from Paul Taylor, chief economist with the National Automobile Dealers Association (NADA) on new-vehicle sales:

"The March data shows a welcome increase in new-car sales, reflecting in part some 'catch-up' sales from snowstorms that froze out activity from Washington, D.C., to Bangor, Maine, in February. Strong sales from major automakers in March led to overall gains of more than 20 percent.

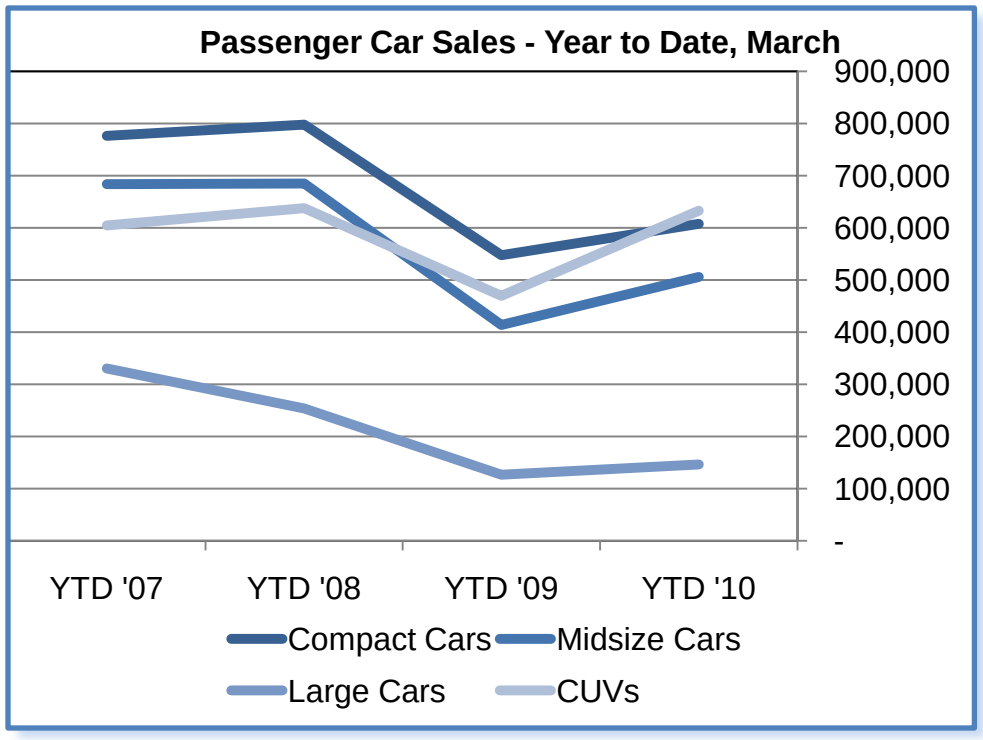
"March sales will also reflect consumers with 'cabin fever' getting out to new-car dealerships. And April new-car sales will provide an indication of what the economy will support without intervening factors, such as 'catch-up' sales. March, and to a lesser extent sales in April, will reflect the current incentive surge launched by Toyota and Honda."

New Passenger Car Sales

Against a backdrop of an increase of 24.3% in overall new-vehicle sales in March 2010, the passenger car segments fared somewhat better with an increase of 27.9% if you include CUVs. If you exclude CUVs, passenger car sales were up 19.1%.

It's tough to know where to lump the CUVs—they look like SUVs (light trucks) but are built on car platforms. It seems obvious that a large portion of the consumers who were buying SUVs are now selecting CUVs instead, but that may be more a vehicle internal space issue rather than truck capability.

With CUVs lumped in with passenger cars, 74.3% of new vehicle sales for March 2010 are cars. Without the CUV numbers, passenger cars account for 49.2% of March's sales, which is more in line with how the car vs. light truck proportions used to be.



When we look at the new-vehicle sales from a year-to-date perspective we find that including CUVs car sales are up 21.6% so far this year. Without CUVs, passenger cars are 15.8% ahead of last year.

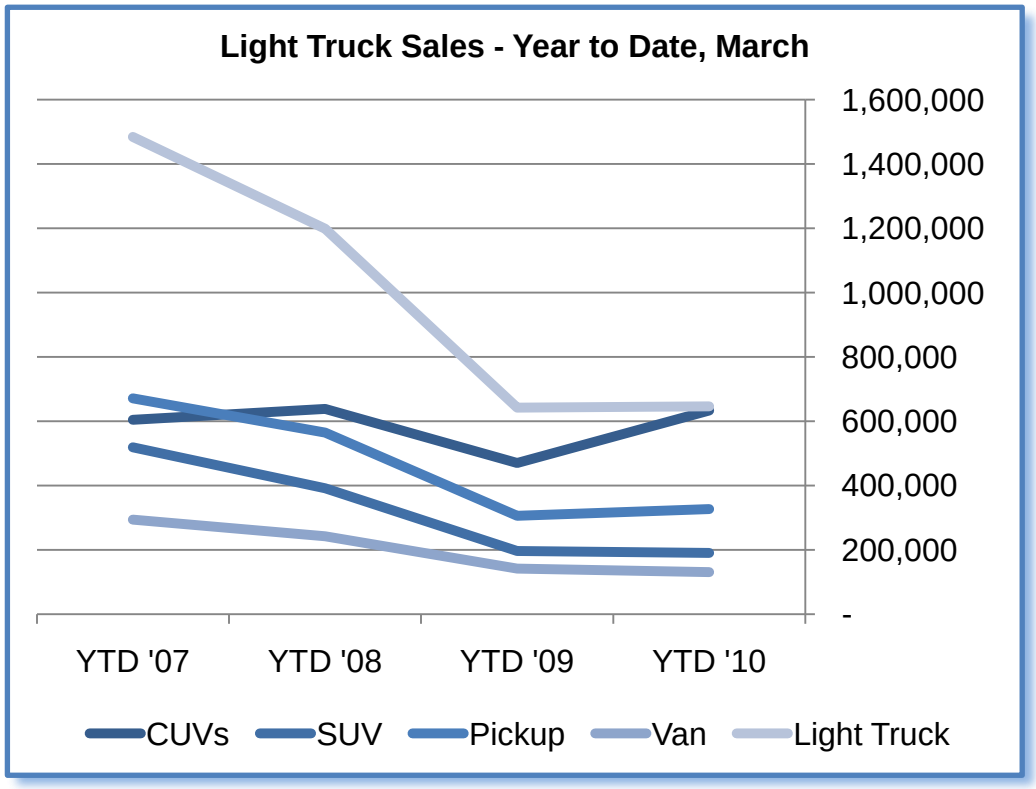
From 2002 to 2007 passenger cars were not chosen by the majority of new vehicle buyers in the US, light trucks were. In 2002, passenger cars represented 49.0% of all new vehicles sold. That market share continued to deteriorate until 2004 when it reached a low of 45.6%. Then in 2008 the pendulum swung back the other way with cars accounting for 53.0% of all new vehicles sold. For the first quarter of 2010 the mix of passenger cars and light trucks sold is almost even if you lump CUVs in with light trucks. Of course, the question of where to classify CUVs lingers.

New Light Truck Sales

Traditionally, light trucks have included SUVs, vans and pickups. Today, many are also including CUVs as part of the light-truck segment. There once was an advantage for the OEMs to include CUVs because there were two CAFÉ standards—one for cars and one for light trucks. As the CAFÉ standards merge into one, the question of where to put CUVs will get more difficult to call.

Using the traditional perspective, new light truck sales in March 2010 were up 14.8% over 2009. Even at that total units sold were still a third less than they were in 2008 and less than half of the units moved in 2007.

When we include CUVs in the mix, the increase doubles to 29.7%. If we compare those sales to 2008 we find them down 19.7% (not 37.1%), and 33.9% below 2007 (not 52.4%). It should be obvious that the number of CUVs sold in March 2010 is almost equal to the total sales of the other three light-truck segments combined. That is the only way the comparison percentages could shift so drastically.



Up until 1982, light trucks accounted for less than 20% of all new vehicles sold. But in 1982 light trucks seemed to reach a tipping point and continued picking up market share until in 2004 they represented 54.6%. Then in 2008, when gas prices went sky high and the economy turned sour, light trucks appeared to fall out of favor. In that year they lost market share and dropped to 47.0% of all new vehicles sold.

For the first quarter of 2010, new light truck sales are in a dead heat with passenger cars. The real star in the light truck camp is the CUV segment. In the graph above, it is clear that pickup trucks are slowly gaining back some of the ground they lost beginning in 2008, but SUVs and vans are still sliding. The real upswing is in CUVs.

The light-truck segment peaked in 2004 when it accounted for nearly 55% of all new vehicles sold. It looked to be the culmination of a shift that began back in the ‘80s. Then in 2008 light-truck's market share dropped to 47%. Products sat on the shelf, businesses closed, and many proclaimed the light-truck market dead. If that were the case, you would expect market share to continue to decline, but it hasn't. In fact, it is slowly moving upward again. As of March 2010, light truck is accounting for a little over 49% of all new vehicles sold in the US.

Vehicle Units Sold % Change to LY

Vehicle	Units	% Change
Ford F-Series	88,000	+33%
Ford Escape	64,000	+44%
Toyota RAV4	55,000	+40%
Ford Edge	34,000	+43%
Kia Sorento	33,000	new

New Vehicle Segment Sales Trends

It comes as no surprise that the segment with the largest increase over last year is CUV, with growth of nearly 35%. As of the end of March 2010, CUVs account for nearly one-in-four of new vehicles sold. CUVs have really gained market share, going from 15.6% in 2007 to 24.9% in 2010.

The segment that came in second will be surprising to some. That segment is midsize cars, which accounted for nearly 20% of new vehicle sales in the first quarter of 2010. Midsize cars posted an increase in sales over 2009 of nearly 31%. This is the segment that includes Toyota Camry, Ford Fusion and Honda Accord.

Segment	Percent Change Mar '10 to '09	Percent Change Mar '09 to '08	Percent Change Mar '08 to '07	Percent Change YTD Mar '10 to '09	Percent Change YTD Mar '09 to '08	Percent Change YTD Mar '08 to '07
Compact Car	11.5%	-32.5%	1.3%	11.0%	-31.4%	2.76%
Midsize Car	30.9%	-36.2%	-4.4%	22.3%	-39.6%	0.1%
Large Car	13.6%	-45.4%	-23.3%	15.6%	-50.2%	-23.2%
SUV	16.3%	-50.7%	-32.0%	-3.2%	-49.9%	-24.7%
CUV	49.6%	-25.1%	-1.7%	34.9%	-26.4%	5.5%
Pickup	20.9%	-44.6%	-22.3%	6.8%	-45.9%	-15.8%
Van	1.0%	-38.5%	-15.7%	-7.3%	-41.8%	-17.5%
Total	24.3%	-36.8%	-11.8%	15.5%	-38.4%	-7.9%

Compact Cars

Compact cars are the only new vehicle segment to have sales increases even during the recession. Notice that in the first quarter 2008 compact car sales increased more than 1%, even as new vehicle sales dropped nearly 12%. Then in the first quarter of 2009, the compact car segment had the second smallest drop in sales, beaten only by CUVs.

Compact cars have gained almost 4% market share since 2007, accounting for 23.9% of new vehicles sold in the first quarter 2010 up from 20.1% in 2007. With all the media attention to global warming and increasing gas prices, one would expect this segment to be exploding—but it isn't.

We have seen this pattern before—in the mid 1970s during the gas crunch. Thirty-five years ago US consumers shifted to compact cars in order to deal with the lack of gasoline available in our country's gas stations. In 1975, domestic compact cars accounted for 35% of the new vehicles sold. By 1978, that same segment was down to 31.6%—then just as quickly as the trend ramped up, it receded back to the previous norm.

Considering that US consumers feel they need more room, more capability and more status than these cars provide, we have to wonder how long the trend will last. Back in 1975, one of the better selling compacts was the Buick Skylark with 110 inch wheelbase and weighing in at around 3,500 pounds. Compare that to today's Chevy Cobalt, with a wheelbase of 103.3 inches and a curb weight of 2,721 pounds. Things do not appear to be that different.

In today's compact car segment there are three cars that really stand out for year-to-date sales growth this year over last year: Nissan Versa up 86.7% (going from 16,780 units in 2009 to 31,334 in 2010), Chevrolet Cobalt up 74.4% (going from 21.438 units last year to 37,379), and Ford Focus up 45.1% (going from 30,056 units last year to 43,597 this year). The only cars in this segment to sell more units are the Honda Civic at 53,627 (up 6.1%), and the Toyota Corolla with 59,247, but the public controversy kept Corolla's increase at less than 11%.

Ford Forecasts 36% Compact Cars by 2013

Ford Motor Co.'s top sales analyst, George Pipas thinks a variety of factors will contribute to the continued growth of cars, especially smaller models. That includes continued gas price volatility, government policy that encourages consumers to buy more efficient models—such as last summer's cash-for-clunkers program—and changing demographics. By 2013, Pipas predicted that compact cars, subcompact cars and crossover vehicles built off small-car platforms will account for 36% of total new-vehicle sales in the United States.

Midsize Cars

Through the month of March 2010, midsize car sales have increased 22.3% over 2009. There is only one segment that has performed better so far this year and that's CUVs. Granted, in 2009 midsize cars dropped nearly 40% after barely holding their own in 2008 compared to 2007. But the fact remains that US consumers have purchased more than 684,000 midsize cars so far this year.

There are two particular vehicles in this segment that stand out in the sales race: Ford Fusion and Chevrolet Malibu. Keep in mind that the midsize car segment has long been dominated by Toyota Camry, Honda Accord and Nissan Altima, and so far for 2010 all three have sold in excess of 60,000 units apiece. The Fusion has sold more than 51,000 units so far, which is up 80% over last year. That increase is 4 times as much as the best showing of any of the leading three in this segment. Meanwhile, the Chevrolet Malibu is up nearly 39% with more than 49,000 units sold.

Midsize cars currently account for almost 20% of all new vehicles sold in the US—again validating the fact that Americans love "roomy" when it comes to cars. US drivers may not be able to afford the expense of an SUV or a large car, but they still want as much room in the passenger cabin as they can get.

Large Cars

Large cars continue to suffer in today's marketplace. After decreasing 23% in 2008 and dropping another 50% last year, sales are up nearly 16% so far this year. Total year-to-date sales volume is now around 254,000 units. The Chevrolet Impala is the unit sales leader with more than double the unit sales of its closest rival, coming in with more than 38,000, but the growth leader is Ford Taurus which is up nearly 96% (17,000 units). The Dodge Charger comes in second in unit sales, but is way off the pace in sales growth.

CUVs

A lot of folks don't know what to think about CUVs. They are a car based SUV, which makes them neither a car nor a light truck in some people's minds. Others see them as tamer SUVs, and some see them as boxy station wagons.

For the car buying public how you classify this segment makes little difference, they just like them. Through the end of March CUV sales are up 35%, which is the largest increase over last year of any vehicle segment. What makes that even more amazing is that CUVs had the smallest decrease last year (26%) of all the segments, and in fact the compact CUVs (within of CUV segment) actually showed an increase last year as well.

The winners in this segment in unit sales and percent increase are the Ford Escape and the Toyota RAV4. Both have sold more than 40,000 units and are up more than 43% over last year.

SUVs

The SUV segment is by far the worst performing of all the light vehicle segments. So far this year, SUV sales are down 3%. That's after dropping nearly 50% in 2009, and decreasing almost 25% in 2008. In the past, SUVs would typically generate sales of well over half a million units, but now can't even muster sales of 200,000 units.

Pickup Trucks

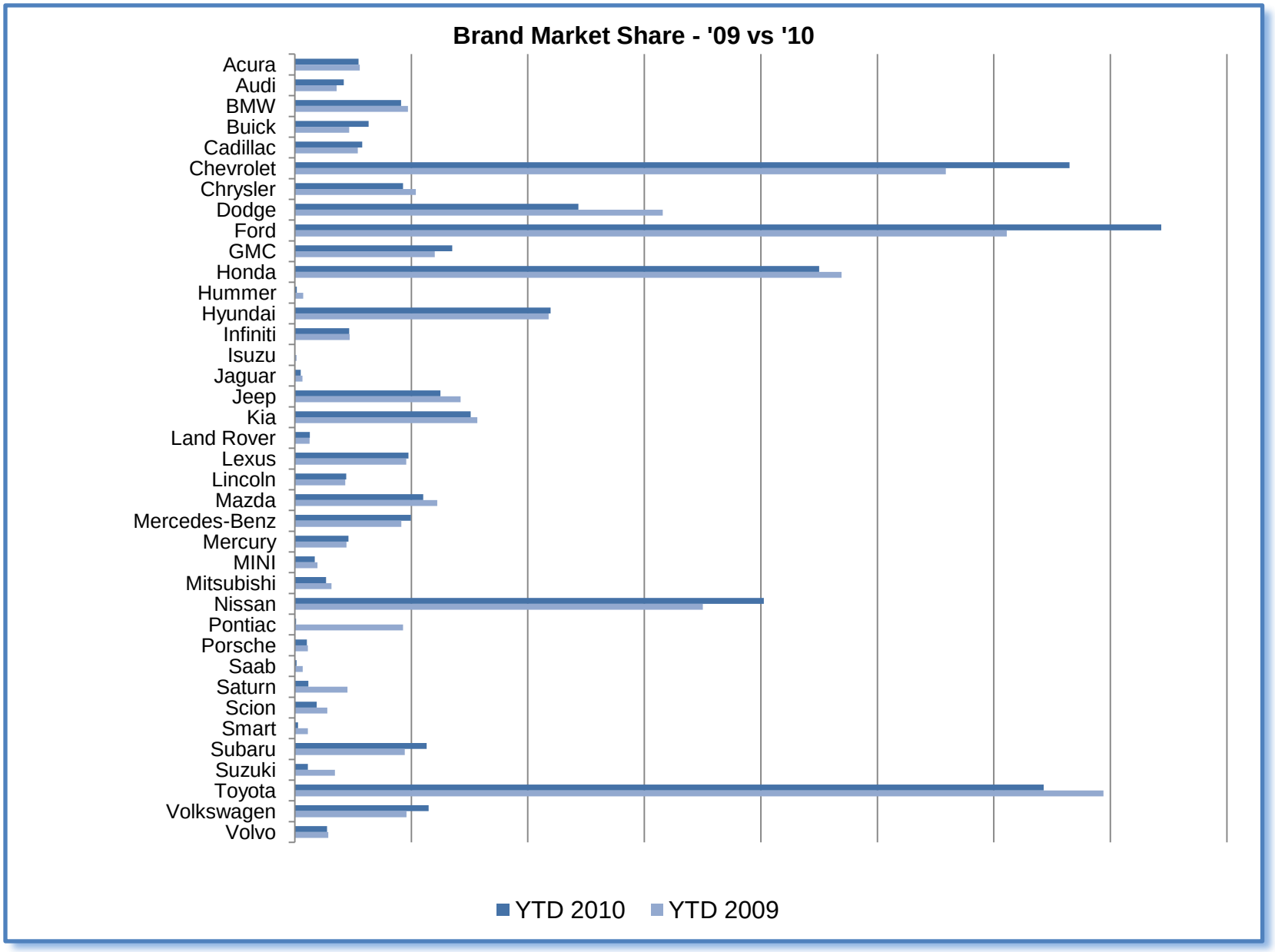
Until the last 10 years or so, pickup trucks were exclusively work vehicles. Then they became fashionable as personal or family vehicles. During the recent recession some of the sparkle of this segment has been tarnished, but it appears to be making a comeback. So far this year, pickup trucks are up nearly 7% and account for just under 13% of all new vehicles sold.

Within this segment, the shining star is the Ford F-Series. The light duty version of the F-Series is up more than 26% with nearly 62,000 units sold, and the super duty version is also up 26% with 37,000 units sold. In comparison, the Chevrolet Silverado is also up, but at a rate that is two-thirds less.

Vans

Not far behind SUVs in the competition for the worst performing segment in new vehicle sales is vans. This segment is down more than 7% this year (which is higher than SUVs), after dropping nearly 42% last year and decreasing well over 17% in 2008. Where SUVs sales are about 66% less than they were in 2007, van sales are down about 56%.

Part of the problem with new van sales is the number of models that are no longer offered. Models have disappeared from all the segments, but almost a quarter of the van models are no longer offered.


Brand Market Share - '09 vs '10
Acura
Audi
BMW
Buick
Cadillac
Chevrolet
Chrysler
Dodge
Ford
GMC
Honda
Hummer
Hyundai
Infiniti
Isuzu
Jaguar
Jeep
Kia
Land Rover
Lexus
Lincoln
Mazda
Mercedes-Benz
Mercury
MINI
Mitsubishi
Nissan
Pontiac
Porsche
Saab
Saturn
Scion
Smart
Subaru
Suzuki
Toyota
Volkswagen
Volvo
YTD 2010
YTD 2009

Used-Vehicle Sales Trends

Starting in 1995, the US used vehicle market has seen at least 40 million units sold through recognized retailers each year, until 2008. In 2008, used vehicle sales dropped to 36.5 million, and then dropped again in 2009 to 35.5 million. Sales in the first two months of 2010 have been a little higher than the first two months of 2009, but still less than 2008.

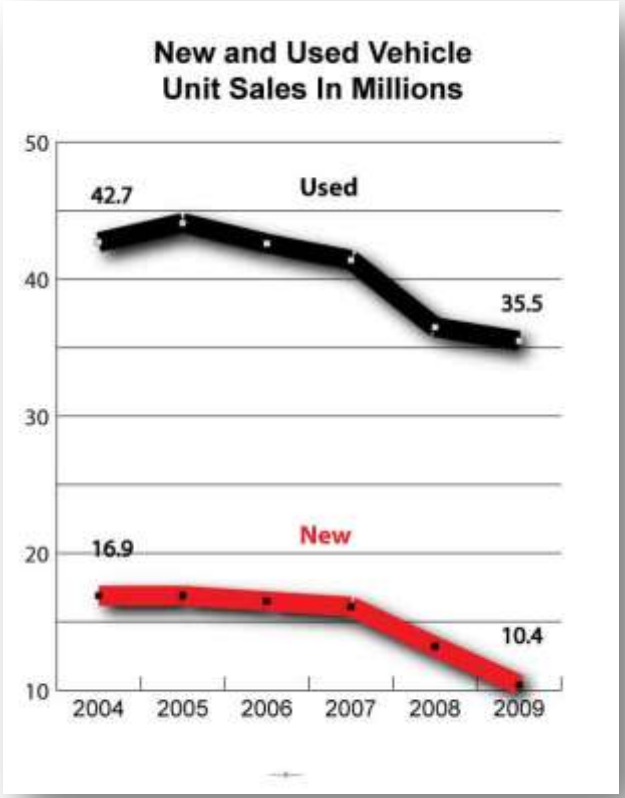
NADA: Outlook for Used Vehicle Sales Upbeat

The following is a statement on the used-vehicle market from Jonathan Banks, senior director of editorial and data services for NADA Used Car Guide:

"Used-vehicle prices continued to follow an upward trend during March. Most indicators suggest the used market will continue to support high used prices. However, new-vehicle incentives at the current levels will cause the resale values of used vehicles to decline because car shoppers will shift from the used to the new market, while at the same time the used-vehicle supply will increase from trade-ins.

"An indicator to watch will be the new vehicle Consumer Price Index and new-car incentives. If manufacturer incentives drive stronger new-vehicle sales, used-vehicle prices will moderate in the wholesale lanes at auctions."

Source: National Automobile Dealers Association



Historically, used vehicle sales start out with a low in February and steadily increase until they peak in June. Sales then trail off in July and recover some in August or September only to resume the slide until November.

The pattern has been almost exactly the same the last 4 years. In fact if you plot monthly used vehicle sales on a graph, the lines vary a little but are almost completely on top of each other.

In 2010 we are seeing the same pattern beginning.

General Automotive Technology

Executive Summary

Technology is transforming the cars and trucks in ways that could never have been imagined even a decade ago. Today, from state-of-the-art electronics and safety systems to environmentally-friendly powertrain technologies and infotainment devices that help keep drivers connected, today's automakers are providing consumers with innovative technologies that meet real world needs.

"Science and engineering are at the heart of today's vehicle development and the auto industry is transforming itself by reinventing the automobile to meet the societal goals of energy security, greenhouse gas reductions and sustainable, safe mobility," said NYIAS chairman John LaSorsa.

"To be at the leading-edge of the new clean energy economy, the auto industry is investing billions of dollars each year. In fact, the auto industry ranks among the top investors in research and development globally," he continued.

Top OEM Patent Filers For Alternative Power Vehicle Technologies		
OEM	2008	2009
Toyota	2,379	2,058
GM	261	629
Honda	348	420
Hyundai	464	390
Nissan	490	346
Source: Derwent World Patents Index		

If there is any doubt that there is a race among the OEMs to develop new/alternative power vehicles, just look at the number of patents filed in 2008 and 2009.

Even a styling guru like Ralph Gilles, now CEO of Dodge and Chrysler Group design chief, thinks that technology is the force of the future. “Technology will be the reason people buy a car in the future.”

Here are some of the latest advancements that are transforming today’s vehicles.

From Rockets To Race Cars, NASA Comes To NASCAR

Over the years, NASA has provided technology that not only helps the racing world, but also improves conditions for all drivers while helping to protect the environment.

You may not be aware of it, but NASA has a technology transfer program that allows industry to access the innovations developed as part of the US space program, or find solutions for challenges that NASA has. Some of the products developed with NASA technology are: memory foam, cordless tools, scratch resistant lenses, wireless measurement acquisition system.

For those wanting to help find solutions a good example is Maverick Corp. of Cincinnati, OH. Maverick developed a family of low-toxicity polyimides that exhibit glass transition temperatures up to 335°C (635°F) and excellent thermal oxidative stability to 316°C (635°F) in aircraft engine environments.

- These "novel" polyimides can be manufactured from fabric or braid using a variety of processes including: autoclave, solvent-assisted Resin Transfer Molding (RTM), and compression molding
- Complex parts produced included: LH2 Test Duct for Reusable Launch Vehicles, High Pressure Cooling Tube, Center Vent Tube, and Stator Vane Bushings
- Thermal and mechanical properties were measured to be comparable to the current state-of-the-art resin system, PMR-15.

The resins will reduce the cost and weight of aerospace structures; hence, useful to NASA's space program. Motorsports have many of the same needs and requirements that NASA does, and could benefit from solutions developed for NASA.

NASA technologies available for license can be searched at the NASA Techfinder portal (http://technology.nasa.gov). In addition, the following publications provide insight into available NASA technologies, commercial applications of NASA technologies, as well as technology needs of the Agency:

Tech Briefs Magazine – (www.techbriefs.com) A monthly publication that includes technologies available for licensing, technologies available at no cost, and NASA's technology needs for which NASA is seeking dual-use technology development partners.

Spinoff Magazine – (www.sti.nasa.gov/tto/) An annual publication featuring about 50 NASA technology transfer successes.

Technology Innovation Magazine – (www.nasa.gov/offices/ipp/products/product_innovation.html) An approximately quarterly publication providing information on NASA's technology needs and associated partnering opportunities, as well as on NASA's partnering successes.

In addition, the public may contact the Innovative Partnerships Program (IPP) National Network (www.nasa.gov/offices/ipp/netowrk/index.html) points of contact and visit Field Center IPP websites for information on NASA technologies available for license. NASA Industry Days held at various NASA Field Centers can also be a useful source of information on available NASA technologies and NASA's technology needs.

The spectrum of technologies key to NASA's missions is so broad that it is difficult to imagine a key industrial sector that could not benefit from NASA's inventions in one or more technology areas. The IPP program, through its various program elements, therefore provides the opportunity for a broad spectrum of industry, large and small companies alike, as well as invites the genius of individuals, to create innovative technology and technology applications for the benefit of NASA's missions and the Nation.

Weight Reduction

An interesting example of weight reduction is the Volkswagen Up! Lite shown at the LA Auto Show in December 2009. Weighing in at only 1,530 pounds, this four-seater vehicle is a poster child for the use of innovative materials to reduce curb weight. Volkswagen made extensive use of aluminum; passenger compartment floors, trunk floor, engine compartment and firewall, and front windshield crossmember. Realizing that every ounce counts, Volkswagen substituted a carbon fiber composite for more traditional roof materials and cut more than 2 pounds. Sprinkled into the mix are a number of components made from magnesium.

Low Mass Seat Frame Solutions: With a focus on helping automakers reduce vehicle weight, The Woodbridge Group(R) developed the StructureLite(R) seat frames. They are designed to offer low mass frame solutions with several value added features. Woodbridge announced that the North American subsidiary of JSP, a global supplier of engineered plastic foams and related technologies, recently licensed the patented

StructureLite(R) technology and associated know how to produce expanded polypropylene (EPP) seat frames in North America.

StructureLite(R) seat frames have gained wide marketplace acceptance, and virtually every OEM is currently utilizing the benefits of this technology. Woodbridge offers StructureLite(R) seat frames in both polyurethane and expanded polypropylene for seat cushions, seat backs and seat bolster applications. This alternative seat frame technology continues to lower seat system weight by up to 35% and offer seat system cost savings by replacing traditional, complex and heavy steel stampings and wires frames. The anatomically designed A-surface improves comfort and offers cushion savings opportunity, and can improve acoustical performance. StructureLite(R) products can also integrate anti-submarine and energy management capabilities to enhance occupant safety.

For more information, visit www.woodbridgegroup.com StructureLite(R) is a registered trademark used under license by Woodbridge Foam Corporation.

Energy Efficiency

For many years, auto engineers have been developing new technologies to make vehicles more fuel efficient—testing and refining them—and the results are now coming to market. This year, more than 50 technologies will be on sale that reduce emissions, increase mileage and run on alternative fuels. Consumers have more than 130 models to choose from that achieve 30 MPG or more (highway), including 27 models of hybrids and 8 clean diesel autos.

Many of the technologies described here are being implemented with the sole purpose of meeting the oncoming new CAFÉ standards. In many cases, the OEMs will be forced to reduce engine size to meet the requirements, which will mean even fewer V8s and six-cylinder offerings.

Stop-Start Technology: One of the clearest motoring trends to emerge from Europe in the past year is the growth of Stop-Start technology. The technology conserves energy by shutting off the engine whenever the car stops, such as at a traffic light. The decrease in fuel consumption results in savings of up to 12 percent, and lower CO2 emissions.

Hydraulic Hybrid: Hydraulic drivetrains are particularly attractive for vehicle applications that entail a significant amount of stop-and-go driving, such as urban delivery trucks or school buses. A major benefit of a hydraulic hybrid vehicle is the ability to capture and use a large percentage of the energy normally lost in vehicle braking. Hydraulic hybrids can quickly and efficiently store and release great amounts of energy due to a higher power density. This is a critical factor in maximizing braking energy recovered and increasing the fuel economy benefit. While the primary benefit of hydraulics is higher fuel economy, hydraulics also increase vehicle acceleration performance. Hydraulic hybrid technology cost-

effectively allows the engine speed or torque to be independent of vehicle speed resulting in cleaner and more efficient engine operation.

Composite CNG Tanks: The CNG tank market has witnessed double digit growths during the last decade and is expected to grow at a similar rate for the next five years (2010-15). According to Lucintel, the global composite CNG tank market for the automotive industry is forecast to reach $368.8 million by 2015.

Lucintel, a management consulting and market research firm, has analyzed the global automotive CNG tank market and has now published a comprehensive research report entitled “Growth Opportunities in Global Automotive Composite CNG Tank Market 2010-2015: Trends, Forecast and Market Analysis.”

Lucintel’s study finds that growth in composite materials consumption in the CNG tank industry is primarily driven by the increase in the number of natural gas vehicles produced together with increasing acceptance of composite CNG tanks. While more expensive than its traditional counterparts, the use of composites in CNG tanks is growing in applications where weight savings, fuel economy and other performance benefits are critical. Composite CNG cylinders have also been proven to be cost effective, environmentally friendly and safe solutions for in-city & intercity mass transportation systems across the globe.

The European & Asian-Pacific markets are likely to lead the way for accelerated consumption of CNG tanks - witnessing highest growth in the next 5 years primarily driven by environmental concerns. Composite CNG tank manufacturers are, as a result, heavily focusing and investing in these markets to take advantage of changing geographic demand patterns and their subsequent opportunities. Moreover, interest among Asian suppliers to cater to increasing demand in domestic and export markets is expected to increase competitiveness in the market.

Obviously, the accelerated adoption of alternative fueled vehicles will have a direct impact on the performance parts and accessories industry. The continued shift to fuels other than gasoline and diesel will hasten the tipping point in the automotive industry.

To find out more, please visit www.lucintel.com.

Electric Power Steering: Electric Power Steering (EPS) is progressively replacing hydraulic power steering in new production vehicles. The primary reason behind the shift is that it eliminates the power steering pump, which runs all the time and can use as much as 8 to 10 horsepower under load. This improves fuel economy while also eliminating the weight and bulk of the power steering pump and hoses.

Electric power steering can be fine tuned with a precision that is hard to match with hydraulic controls. By monitoring the driver's steering inputs, vehicle speed, and other suspension dynamics, the system can provide just the right amount of steering feel and effort to match rapidly changing driving conditions. EPS can deliver extra effort when it is needed, and reduce steering effort when the situation calls for it. It can even provide steering assist when the engine is off.

The central electronic elements of today's power steering systems are modern 16- and 32-bit MCUs designed for safety-critical applications. These controllers can provide enhanced computing power and specialized peripherals for complex electric motor control functions.

Integrated power supply solutions are also important elements of a power steering control unit. They provide connectivity to automotive busses, such as CAN and LIN. For MOSFET power stages control, integrated pre-drivers are typically used to interface with the MCU directly or via SPI.

Automatic Transmissions: Adding additional gear ratios is the current approach. The OEMs have gone to 6-speeds and beyond. An example is the 8-speed introduced by ZF Getriebe GmbH, designed for passenger cars. This new 8-speed while keeping the same size and weight, is promoted as increasing fuel economy by 6% when compared to current 6-speed transmissions.

Dual Clutch Transmissions: The dual-clutch transmission on the other hand, relies on two clutches (with no clutch pedal) that fully eliminates the lag, thus improving acceleration and engine performances overall. There are two input shafts, two output shafts, two clutches but no torque converter.

More specifically, the whole system relies on two clutches that work independently but have two different roles: one of them is responsible for controlling the odd gears, such as first, third and reverse, while the other other manages the even gears - second, fourth and others if they exist. As said, the two clutches operate entirely separately but join forces to provide this increase of torque. And here's how they do it.

There are a few important advantages when it comes to dual-clutch transmissions. First of all there's the reaction time. The whole assembly works incredibly fast, less than a hundredth of a second as in the case of DSG designed by Volkswagen.

Secondly, there's the fuel consumption. The dual-clutch clutch gearbox improves the fuel consumption, especially at cruising speeds because it automatically adjust its settings to maintain the desired speed but keeping the fuel efficiency at the highest possible level.

Last but not least, there's the comfort it provides. Although it doesn't work as smoothly as traditional automatic transmissions and sometimes you may actually feel the shifting process, a dual-clutch transmission is much more appropriate for city driving than a regular manual unit that requires the driver to change gears every time when needed.

Continuously Variable Transmissions: Though there are several types of Continuously Variable Transmission (CVTs), most cars use a pair of variable-diameter pulleys, each shaped like a pair of opposing cones, with a metal belt or chain running between them. One pulley is connected to the engine (input shaft), the other to the drive wheels (output shaft). The halves of each pulley are moveable; as the pulley halves come closer together the belt is forced to ride higher on the pulley, effectively making the pulley's diameter larger. Changing the diameter of the pulleys varies the transmission's ratio, much like the way that a 10-speed bike routes the chain over larger or smaller gears to change the ratio. Making the input pulley smaller and the output pulley larger gives a low ratio (a large number of engine revolutions producing a small number of output revolutions) for better low-speed acceleration. As the car accelerates, the pulleys vary their diameter to lower the engine speed as car speed rises. This is the same thing a conventional automatic or manual transmission does, but while a conventional transmission changes the ratio in stages by shifting gears, the CVT continuously varies the ratio.

A CVT provides more useable power, better fuel economy and a smoother driving experience than a traditional automatic. It has been estimated that CVTs could improve the efficiency of the vehicle as much as 6%.

Variable Valve Timing/Lift: Also called *variable valve actuation (VVT), variable-cam timing and variable valve timing and lift electronic control (VTEC®).* As with traditional piston engines, variable valve timing (VVT) engines use cams on a camshaft to drive the flow of air into the intake and exhaust valves. The timing of this valve lift directly affects how much air is taken in during each engine cycle. At times when the engine requires more air flow (for example high speeds or acceleration), a traditional piston engine often does not allow enough air to flow during each cycle, resulting in lower output performance. Conversely, a traditional piston engine that has been designed to feature longer exhaust and intake cycles will result in reduced fuel efficiency at slower speeds.

There are several proprietary VVT nomenclatures and engine technologies that work slightly differently to prolong exhaust and intake cycles at high speeds and reduce cycles at slow speeds. The three major solutions to varying the valve timing of an engine are as follows:

- The actual timing of the intake or exhaust valves are slowed or sped up as needed
- The cam has two sets of lobes which are switched between as needed
- Timing and lift is continuously altered for maximum efficiency (called continuous variable valve timing)
- The accepted estimate of improved efficiency provided by VVTs is 5%.

Gasoline Direct Injection: In conventional multi-port fuel injection systems, fuel is injected into the port and mixed with air before the air-fuel mixture is pumped into the cylinder. In direct injection systems, fuel is injected directly into the cylinder so that the timing and shape of the fuel mist can be precisely controlled. This allows higher compression ratios and more efficient fuel intake, which deliver higher performance with lower fuel consumption. It has been estimated that direct injection could provide an efficiency improvement of up to 12%.

Cylinder Deactivation: Also called *multiple displacement, displacement on demand (DOD)*, and *variable cylinder management.* This technology merely deactivates some of the engine's cylinders when they are not needed, and temporarily turns a 8- or 6-cylinder engine into a 4- or 3-cylinder engine. This technology is not used on 4-cylinder engines since it would cause a noticeable decrease in engine smoothness.

It has been estimated that DOD could provide as much as 7.5% more efficiency to vehicle operation and therefore improve gas mileage.

Battery Cooling Technology: Dana Holding Corporation has developed a Long® heat exchanger designed to extend battery life in hybrid and electric vehicles. The technology, the first of its kind, recently debuted on Tesla Motors' 2010 all-electric Roadster Sport.

Mazda Chooses Hydrogen Over Electicity

According to Robert Davis, Senior Vice President of Product Development & Quality, Mazda North American Operations, Mazda is concentrating on hydrogen internal combustion engine technology rather than electric vehicles. Because of infrastructure issues and consumer EV adoption rates, Mazda sees more opportunities with hydrogen than electricity. In fact, Mazda has had hydrogen powered vehicles on the road in Japan for several years now—specifically the RX-8 Hydrogen RE.

The RX-8 Hydrogen RE is a hydrogen rotary engine vehicle which operates on both high-pressure hydrogen and gasoline. It is equipped with Mazda's dual-fuel system that enables switching between hydrogen and gasoline fuel modes. Since February 2006, cars have been leased to environmentally-

conscious government and private enterprises for use in initiatives and at events. Mazda has also announced its participation in the Norwegian hydrogen highway project "HyNor" and began delivering 30 RX-8 Hydrogen REs in succession starting in 2008.

The hydrogen rotary engine has a natural driving feel unique to internal combustion engines, while achieving excellent environmental performance with zero CO2 emissions. Since the rotary engine requires only a few design modifications to allow it to operate on hydrogen, hydrogen-fueled rotary engine vehicles can be realized at low cost. In addition, because Mazda's dual-fuel system allows the engine to run on both hydrogen and gasoline, it is highly practical and can be put into production very quickly.

Twin Scroll Turbocharger: Divided or "twin-scroll" turbos and manifolds have emerged as the preferred design of many of the top tuners and even OEMs, showing up on high-performance models like the Mitsubishi EVO, Pontiac Solstice GXP and JDM Impreza STI. The most recent addition is the BMW 535i Gran Turisimo, 3.0 liter six-cyclinder.

Expect to see the whole turbocharger market heat up as OEMs downsize engines in order to meet CAFÉ standards. There will be increased interest and competition from tier suppliers like Honeywell, BorgWarner, Bosch, IHI and Schaeffler Group.

Entertainment & Convenience

What we used to think of simply as telematics has evolved to something much bigger, and is referred to as connected vehicles. It started primarily as navigation and GPS services and then GM introduced OnStar and the game changed. Now there is Sync, which started with Microsoft and Ford, mbrace from Mecedes Benz, Lexus Enform and safety connect, to name some of the more notable offerings.

There continues to be an increasing amount of talk about connected vehicles. The promise of everyday life and all its social media options continuing as we move about in our vehicles is really amazing. Add to that the possibility of vehicle-to-vehicle and vehicle-to-infrastructure communications, and the scenario is nothing short of a chapter out of a science fiction novel.

When all of the connected vehicle bells and whistles become a reality there will be a huge opportunity to retrofit existing cars and light trucks on the road. So when will it become a reality?

The answer depends on who you listen to or what you read. In some cases it looks like we will see the full blown technology in just a couple of years, but there are some hurdles to overcome first. Keep in mind that the huge benefits also come with risks centered around safety, security, liability and privacy.

Even though dedicated short range communications (DSRC) needed to make it all possible already exist, the issue of data security and privacy has not been resolved yet. One of the many efforts around the world is the Connected Vehicle Proving Center (CVPC) at the University of Michigan which is working with various non-profit, community based, telecommunications and automotive related companies to find solutions.

There is even a trade association facilitating the progress toward connected vehicles: Connected Vehicle Trade Association (CVTA), and they had their first ever international conference in April 2009. The International Summit on the State of the Connected Vehicle was jointly sponsored by CVTA, the Michigan Department of Transportation and SAE.

Expect all the major OEMs to offer a connected vehicle solution of some type by 2015. But it's clear that starting with Ford and rapidly moving through the rest of the auto industry, automotive interiors will be built from the ground up around Internet connectivity.

That's a huge change, even though the technology for in-car Internet connectivity has already been around for a while, using hand-held devices and aftermarket accessories that are not original equipment in your car. What's new is that the car companies will start building interiors with that in mind, something that only the original-equipment manufacturers can do.

In-Car Connectivity: Ford's new, smarter, safer, simpler in-car technology connectivity system combines a variety of technologies into one powerful, intuitive connected driver experience called MyFord, which will begin rolling out on vehicles this year. This new in-vehicle connectivity experience replaces many of the traditional vehicle buttons, knobs and gauges. With more voice commands, clear, crisp LCD screens that can be customized and five-way buttons like those on cell phones and MP3 players, drivers can choose which information is front and center through a button click, voice command or touch-screen tap.

With the expiration of Ford's exclusive rights to the Microsoft automotive consumer electronics platform, Kia is the first OEM to take advantage of the situation by introducing its UVO (for "Your Voice") system.

The Kia system encompasses and integrates the vehicle/audio, display, and other electronics with a cell phone and applications it supports, plus music players and other hand-held devices that motorists already own.

What is changing the picture is the ability to bring low-cost cellular-sourced Internet data and music into the car. Ford is enabling the integration into Sync, via such cell phones as the Apple IPhone, and two popular Internet systems that provide personalized access to the motorist's favorite content, Pandora for music and Stitcher "smart radio" for news and

talk programming. Also enabled is OpenBeak, a Twitter "client" (data exchange application with a remote server that permits posting updates and reading messages).

Further, the next-gen Sync now integrates with mobile broadband modems used for laptops. Just plug a laptop modem into the USB port for Sync and it turns the entire passenger compartment into a secured WiFi hotspot. So a cabin of laptop users all can surf simultaneously, and as with a cell phone, the modem can be taken by the driver when he leaves.

In addition, Ford is upgrading the Sync navigation component, which uses the driver's cell phone to source driving directions as part of a vehicle personalization system called MyFord and MyLincoln. Both "My" vehicle models use small digital displays on each side of the speedometer to improve the turn directions already available, by adding street names, turn arrows, and distance markers. Also available on Lincoln MKX and Ford Edge crossovers is an 8-in touch screen in the center stack, to which Ford adds an SD plug-in card with map data. That touch screen also enables touch and voice command control of phone, climate control, and infotainment systems—with more to come.

Among the forthcoming touch-screen feature additions will be a web browser. That will be a step to enable Sync to eventually be integrated with Ford Work Solutions, an in-dash “mobile office computer” that is an option on the F-Series trucks, E-series vans, and Transit Connect. At present, the two are incompatible, because Sync operates with an onboard Microsoft module and derives feature content primarily from the driver’s cell phone. Estimated time to enable side-by-side operation is two to three years.

Kia's UVO will use a 4.3-in touch screen, to be installed on selected models to be announced this summer. It will be the first with Microsoft's own speech-recognition technology (Sync uses Nuance's Naturally Speaking).

UVO permits the user to employ simple, direct voice commands without going through a menu first, and get fast responses. For example, a Kia driver could press the "speak" button while a song is playing and just say, "call 555-555-1212," without having to switch from a "jukebox" function to phone. Or the driver could just ask for a different song stored in the one GB flash drive, which holds about 250 songs in the "jukebox." Microsoft says the voice-recognition system is quickly trained to either of two voices, in English, Spanish, or French.

Because the UVO screen is a touch type, functions also can be accessed via on-screen "buttons," and the touch feature provides for additional services that may be added. Kia has a separate navigation system at this time, but work is under way to integrate it into UVO, as Ford has into Sync, and there surely are new touch-screen apps coming.

The screen, like those on the Nissan Sentra and Versa with the new low-cost navi, also serves as a display for a rearview camera.

Denso Corp. is also offering a system called Blue Harmony that will go on sale next year.

Google Earth will be available for the first time in a production vehicle in the new Audi A8. The state-of-the-art online services allow the new A8 to retrieve up-to-date information from the internet via an optional integrated GPRS/EDGE modem in the latest generation MMI navigation plus. The user can search online with Google for points-of-interest directly from within the MMI. With Google Earth on the MMI's 8 inch LCD display the new Audi A8 allows its occupants to discover the world from above through high resolution three-dimensional satellite and aerial imagery for the entire globe. The Google Earth imagery and 3D terrain model are combined with the detailed street network from the onboard navigation database in a seamless integration of online and offline content.

Making Scents of Smells: Infiniti's Forest Air system helps reduce the intrusion of unpleasant odors into the cabin and provides a more natural breeze-like airflow.

MOST® Network Adopted in First Volkswagen Model: SMSC a semiconductor company providing Smart Mixed-Signal Connectivity™ solutions, recently announced that its Media Oriented Systems Transport (MOST®) networking technology has been selected as part of the infotainment system for the second generation of the Volkswagen Touareg. Worldwide MOST has been adopted in more than 85 vehicle models on the road today.

MOST multimedia networking technology enables the networking of feature-rich infotainment systems in vehicles by providing the means to distribute multimedia entertainment functions among the various control devices around the car. For example, a CD changer, radio, global positioning system, mobile telephone and DVD player can be established in an efficient ring network and can send crisp, static-free audio signals digitally to the amplifier by utilizing the MOST network.

SMSC and MOST are registered trademarks and Smart Mixed-Signal Connectivity, TrueAuto and RightTouch are trademarks of Standard Microsystems Corporation.

Voice Recognition: Voice control is seen as the most viable way to let vehicle operators manage the ever increasing number of portable consumer products as well as functions within the vehicle itself.

Strategy Analytics has forecast that by 2015 voice recognition technology will be present in 35 million production vehicles. There will be strong growth in the demand for voice technology from the auto industry as a result of increasing legal, car maker and consumer requirements to reduce driver distraction.

According to Kevin Mak, Industry Analyst of the Strategy Analytics Automotive Practice, "We expect significant opportunities and strong growth in automotive voice control applications. Hands-free communications systems, for

example, are expected to penetrate 85 percent of new cars produced in Europe and North America by 2013. To achieve this, suppliers will have to work closely with their clients to develop more consumer friendly voice systems, adding voice systems to other applications such as HMI, and making these systems more affordable, especially for economy and mid-range car segments."

HD Radio: Several carmakers have used the New York International Auto Show to highlight their expanded commitments to HD Radio Technology. BMW, Ford, Hyundai, Kia, Lincoln, Scion and Volvo have all extended their commitments to the technology with a mix of new vehicle launches, broader application and new services.

Ford, confirmed two new models equipped with HD Radio Technology are now available at dealerships - the 2011 model year Mustang and Super Duty.

With BMW's recent launch of the 2011 model year 5 Series, the automaker's entire product line has HD Radio Technology as standard equipment. The 7 Series, 6 Series, 3 Series, 1 Series, X5, X6, X3, Z4 Roadster and 5 Series Gran Turismo make up the rest of the balance of the HD Radio-equipped lineup.

Hyundai is also offering HD Radio Technology as standard with the introductory inclusion in the Equus, their high-end flagship model. Other Hyundai models offering HD Radio Technology as a factory-installed option include the Genesis sedan and the 2011 model year Sonata.

Also embracing HD Radio Technology, Kia has confirmed plans for factory-installed HD Radio receivers in multiple 2011 model year vehicles, including select sedans and SUVs.

Scion to announced the arrival of the new 2011 iQ and tC. Both these vehicles offer HD Radio Technology in the upgraded audio system packages. Those vehicles join the xB and xD in offering HD Radio-enabled enhanced audio systems.

And rounding out the announcements, Volvo will make HD Radio Technology standard on the new 2011 model year S60. The C30, C70, S40, TC, S80, V50, V70, XC60, XC70 and XC90, which are already standard, are currently available at dealerships today.

More automakers are accelerating their HD Radio adoption from a factory-installed option to standard equipment. BMW and Volvo both offer the technology as standard across their entire vehicle line-up.

Additional OEM brands that have announced intentions to install HD Radio receivers as either standard or optional equipment include:

Audi - standard on A6, A8 and Q7 2011 models; available on the navigation radio on A4, A5, and Q5 2011 models.
Jaguar - standard feature on the flagship 2010 Jaguar XJ, XF and XK models offer it as factory-installed option.
Land Rover - factory-installed option across entire Land Rover and Range Rover vehicle offering.
Mercedes - factory-installed option in popular premium packages in the E-, E-Coupe/Sedan , GL-, M-, R- and SLK-Class and standard equipment in the CL-, CLS-, G-, S-, and SL -Class models in dealerships today.
Mercury - factory-installed option on the 2011 model year Mariner.
MINI USA - factory-installed option in MINI Cooper, Convertible and Clubman in dealerships today.
Rolls-Royce - standard feature in Phantom Series.
Volkswagen announced that select 2010 models equipped with the DVD navigation system will include HD Radio Technology as a feature.

Vehicle Safety Technology Trends

Passenger Safety

Rear-Seat Center Airbag: Toyota has developed a rear-seat center airbag to help reduce the severity of passenger injuries in side-on collisions. The new Supplemental Restraint System (SRS) airbag is fitted in a large, fixed, rear-seat centre console and will feature in particular Toyota models to be released in the near future. When the vehicle is hit side-on, the airbag deploys from the top of the console to act as a barrier that helps lessen injuries caused by passengers colliding with each other or into the console.

Mercedes-Benz ATTENTION ASSIST(TM): This system monitors drivers so they don't get into dangerous situations in the first place. This is accident prevention at its best because it can help stop accidents before they happen. ATTENTION ASSIST(TM) uses an algorithm to produce an individual driver profile that recognizes typical patterns of behavior and then compares that profile with current data from sensors to detect the driver's transition from a state of alertness to a state of tiredness. The in-vehicle sensors used in ATTENTION ASSIST(TM) can detect unintentional lane departures, delayed reaction times coupled with over-corrective steering as well as driver inactivity. That data is then combined with information detailing the time of day and the length of time the driver has been behind the wheel. When drowsy driving is detected, ATTENTION ASSIST(TM) will sound an alarm and offer a visual warning in the form of a coffee cup displayed in the vehicle's instrument cluster.

External Safety

CMOS Imagers: Complementary metal oxide semiconductor (CMOS) imagers are gaining popularity in vehicles as active-safety systems expand their roles. Now that they have proven their usefulness in backup systems, cameras based on CMOS imagers are being used to look at all kinds of things in front of the vehicle.

Another safety-related role is to augment vision at night. Adding near-infrared lighting to headlight modules makes it possible to let cameras extend a driver's field of vision without blinding oncoming drivers.

In safety, one of the drawbacks for cameras has been their inability to see in fog and snow when drivers need them most. That is being alleviated by improved software that pulls more data from fewer bits, plus faster microprocessors make it possible to compare data from each frame even when cameras are running at 30 frames per second, letting developers do more with software code.

The imagers themselves have also been improved so they now can adapt to changing conditions. Improved depth-of-field and wider focusing areas make it possible for a single imager to watch lane stripes, road signs, or several vehicles on a busy highway all at the same time.

While improvements like these make cameras more useful in forward-looking applications, enhanced cameras are also extending their role in backup and parking systems. Some automakers use ultrasonic sensing in these applications. But camera makers say their technology can improve safety and even reduce parts count.

Pedestrian Detection: with Full Auto Brake is a groundbreaking technological solution found on the Volvo S60. It can detect pedestrians who walk into the road in front of the car, warn the driver - and automatically apply full braking power if the driver does not respond in time. The system can avoid a collision with a pedestrian when driving at speeds of up to 22 mph. In an emergency situation the driver first receives an audible warning combined with a flashing light in the windscreen's head-up display. At the same time, the car's brakes are pre-charged. If the driver does not react to the warning and an accident is imminent, full braking power is automatically applied.

If you think pedestrian detection is "too much" technology then consider that there is an expected shift to electric vehicles in the automotive industry. The existence of very quiet if not completely silent cars on the road will present a much increased hazard for pedestrians in the future.

Automotive Regulations

Executive Summary

Huge recalls, broader environmental awareness and the growth of big government make more government regulation a sure bet in the U.S. We have already seen moves to increase CAFÉ, and there is news everyday about more hearings about Toyota and their recalls. Expect as the year progresses the regulatory pace to increase and heat up.

Emissions/Inspections

DOT, EPA Set Aggressive National Standards for Fuel Economy and First Ever Greenhouse Gas Emission Levels For Passenger Cars and Light Trucks

On April 1, 2010, the following press release was issued by the US Department of Transportation. Responding to one of the first major directives of the Obama Administration, the U.S. Department of Transportation (DOT) and the U.S. Environmental Protection Agency (EPA) today jointly established historic new federal rules that set the first-ever national greenhouse gas emissions standards and will significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. The rules could potentially save the average buyer of a 2016 model year car $3,000 over the life of the vehicle and, nationally, will conserve about 1.8 billion barrels of oil and reduce nearly a billion tons of greenhouse gas emissions over the lives of the vehicles covered.

This action is one important step in fulfilling the Obama Administration’s commitment to moving towards a clean energy, climate friendly economy.

“These historic new standards set ambitious, but achievable, fuel economy requirements for the automotive industry that will also encourage new and emerging technologies,” said Transportation Secretary Ray LaHood. “We will be helping American motorists save money at the pump, while putting less pollution in the air.”

"This is a significant step towards cleaner air and energy efficiency, and an important example of how our economic and environmental priorities go hand-in-hand," said EPA Administrator Lisa P. Jackson. "By working together with industry and capitalizing on our capacity for innovation, we've developed a clean cars program that is a win for automakers and drivers, a win for innovators and entrepreneurs, and a win for our planet."

DOT and EPA received more than 130,000 public comments on the September 2009 proposed rules, with overwhelming support for the strong national policy. Manufacturers will be able to build a single, light-duty national fleet that satisfies all

federal requirements as well as the standards of California and other states. The collaboration of federal agencies also allows for clearer rules for all automakers, instead of three standards (DOT, EPA, and a state standard).

Today's final rules, issued by DOT's National Highway Traffic Safety Administration (NHTSA) and EPA, establish increasingly stringent fuel economy standards under NHTSA's Corporate Average Fuel Economy program and greenhouse gas emission standards under the Clean Air Act for 2012 through 2016 model-year vehicles.

Starting with 2012 model year vehicles, the rules together require automakers to improve fleet-wide fuel economy and reduce fleet-wide greenhouse gas emissions by approximately five percent every year. NHTSA has established fuel economy standards that strengthen each year reaching an estimated 34.1 mpg for the combined industry-wide fleet for model year 2016.

Because credits for air-conditioning improvements can be used to meet the EPA standards, but not the NHTSA standards, the EPA standards require that by the 2016 model-year, manufacturers must achieve a combined average vehicle emission level of 250 grams of carbon dioxide per mile. The EPA standard would be equivalent to 35.5 miles per gallon if all reductions came from fuel economy improvements.

Specifically, the new National Program:

Reduces carbon dioxide emissions by about 960 million metric tons over the lifetime of the vehicles regulated, equivalent to taking 50 million cars and light trucks off the road in 2030.

Conserves about 1.8 billion barrels of oil over the lifetime of the vehicles regulated.

Enables the average car buyer of a 2016 model year vehicle to enjoy a net savings of $3,000 over the lifetime of the vehicle, as upfront technology costs are offset by lower fuel costs

"We are delivering on our mission and President Obama's call for a strong and coordinated national policy for fuel economy and greenhouse gas emission standards for motor vehicles, and we will do so in a way that does not compromise safety," said NHTSA Administrator David Strickland.

"These are the first national standards ever to address climate change," said EPA Assistant Administrator for Air and Radiation Gina McCarthy. "Over the coming years, America will witness an amazing leap forward in vehicle technologies, delivering fuel efficiency that will save us money and protect the environment."

The joint final regulation achieves the goal set by President Obama to develop a National Program to establish federal standards that meet the needs of the states and the nation as a whole to conserve energy and reduce greenhouse gas emissions. President Obama first announced the effort last May with a broad coalition of automakers, the United Auto Workers, States, and the environmental community.

NHTSA and EPA expect automobile manufacturers will meet these standards by more widespread adoption of conventional technologies that are already in commercial use, such as more efficient engines, transmissions, tires, aerodynamics, and materials, as well as improvements in air conditioning systems. Although the standards can be met with conventional technologies, EPA and NHTSA also expect that some manufacturers may choose to pursue more advanced fuel-saving technologies like hybrid vehicles clean diesel engines, plug-in hybrid electric vehicles, and electric vehicles.

In conjunction with the United States, Canada is also announcing Light Duty Vehicle GHG-Emissions regulations today. U.S. EPA and NHTSA have worked closely with Environment Canada to ensure a common North American approach.

Climate change is the single greatest long-term global environmental challenge. Cars, SUVs, minivans, and pickup trucks are responsible for almost 60 percent of all U.S. transportation-related greenhouse gas emissions.

For the text of the rule and additional information go to the following website:

http://www.nhtsa.gov/staticfiles/DOT/NHTSA/Rulemaking/Rules/Associated%20Files/CAFE-GHG_MY_2012-2016_Final_Rule.pdf

If you are going to go there, you should be aware that the document is 1,469 pages long.

CAFÉ:

Corporate Average Fuel Economy (CAFÉ) was originally enacted in response to the gas crisis of the 1970s. It was supposed to gradually raise the average fuel economy standard in US. CAFÉ took production car fuel economy from 18 mpg in 1978 to 27.5 mpg in 1990. Currently CAFÉ stands at 27.5 mpg for cars and 23.1 mpg for light trucks. The relatively tame price of oil kept it there until 2008 when fuel costs skyrocketed.

Next year (2011), the CAFE rises from 27.5 mph to 30.2 mph. In other words, the average mileage of all the cars sold next year by each OEM will have to increase almost ten percent. If you have been wondering why all the emphasis on hybrids and electric vehicles, now you know.

The OEMs still have gas saving technologies they can turn to: displacement-on-demand, dual-clutch transmissions, switching to diesel, reducing overall vehicle weight, to name but a few. But the real gains in average fuel economy over a whole line of vehicles—10% gains—will only be possible if a good portion of those vehicles are 50 mpg or higher. The real question is—will US consumers buy? Keep in mind that technology costs extra.

Under the new regulations each size category of vehicle has its own standard to meet. For the OEMs to avoid fines they will have to design in the latest technology regardless of the size of the vehicle. That translates to extra costs—higher sticker prices—at all levels. What will consumer reaction be when the price of that subcompact goes up another $2,000 to cover the added technology? How about the pickup buyer who has to shell out an additional $8,000 to $10,000?

Then in 2015 (the 2016 model year for many of the vehicles on the drawing board right now), CAFÉ goes up to 35.5 mpg.

Expect to see a shift in engine size over the next few years. Engine displacement in the US will fall from an average of 3.6L to 2.9L. The OEMS will offer fewer and fewer V8s and 6-cylinders and move to four-cylinder turbocharged engines. Don't be surprised to see the real high volume engine production showing up in the 1.4L area. In addition, forecasters are calling for turbocharged gasoline engines to account for 25% of US production vehicles by 2014—quite a jump considering that today they represent around 5%.

The issue for the automotive performance parts and accessories industry is, will discretionary income go up enough to cover the additional costs of purchasing a new vehicle and the modifications consumers have traditionally made to their vehicles? Obviously, if the answer is no, then consumers will be forced to cut back on their customization expenditures.

State Laws

Brake Pads: (Washington State Legislation to Serve as Nationwide Model) SB 6557, a bill that will lead to the eventual banning of copper in vehicle brake pads. This first-in-the-nation can now serve as a model for all other states.

Brake pads can be made of several substances including copper and other materials. Motor vehicles are equipped with brake pads, designed to retard or stop the movement of a vehicle through friction against a rotor. When brakes are applied, the brakes generate dust which contains copper and other substances which can run off into waterways.

Provisions of SB 6557 include:

- Starting 2014, brake pads containing more than trace amounts of cadmium, chromium, asbestos, lead and mercury will not be permissible for sale in the state of Washington.

- The bill will establish a science-based process for a two-step reduction of copper in brake pad linings. Initially, it will limit the use of copper in brakes to a maximum of five percent by model year 2021. Additionally, it will establish an advisory committee of industry, safety, and environmental experts to assess the feasibility of lowering the mandate to .5 percent in later years.

Specialty Equipment Industry Trends

Executive Summary

Up until 2008 the automotive performance parts and accessories industry had only one down year, 1991. Then in 2008 the US economy went into the worst recession in recorded history. Now in 2010 the economy and the industry are showing signs of making a comeback.

The automotive performance parts and accessories industry has changed and evolved over the past couple years. Companies have gone out of business, others have been consolidated into larger organizations and everyone has cut expenses.

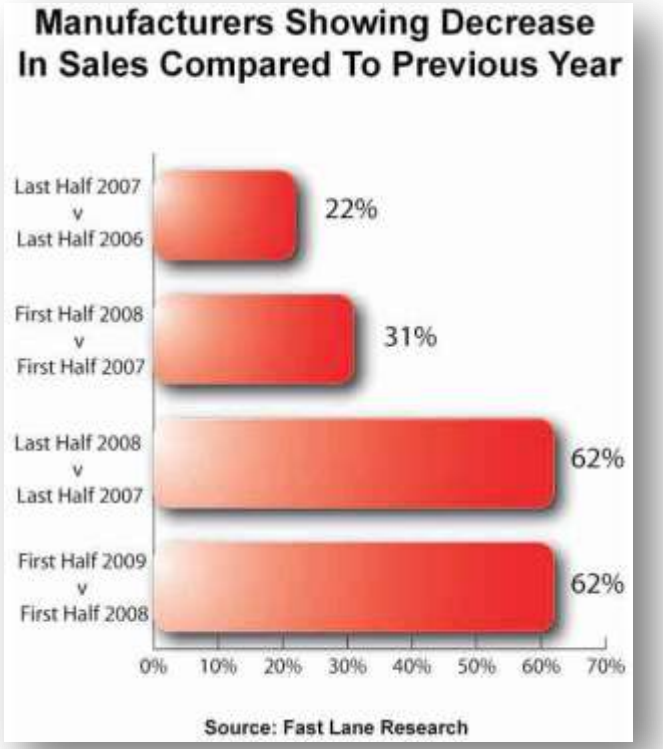
Industry Sales Trends

Much like in a race, when running a business we need to know where we are in relation to everyone else in the industry. The term used a lot today is benchmarking. Benchmarking can be about comparing a business to other businesses or comparing a business to some fixed standard. In this report we provide data that can be used to compare a company to other firms in the industry.

As the year progresses, we will do regular updates so that companies can see how they are doing compared to others in the industry.

A business performance element has been included within the 2010 Industry Benchmark Report to compare how members of the automotive performance parts and accessories industry have performed over the course of the past few years. Like most of the information within the report, these items lump together the information from participants to paint a broad picture.

The four elements within this metric compare the yearly sales performance for 2008, 2009 and the beginning of 2010 in a year-over-



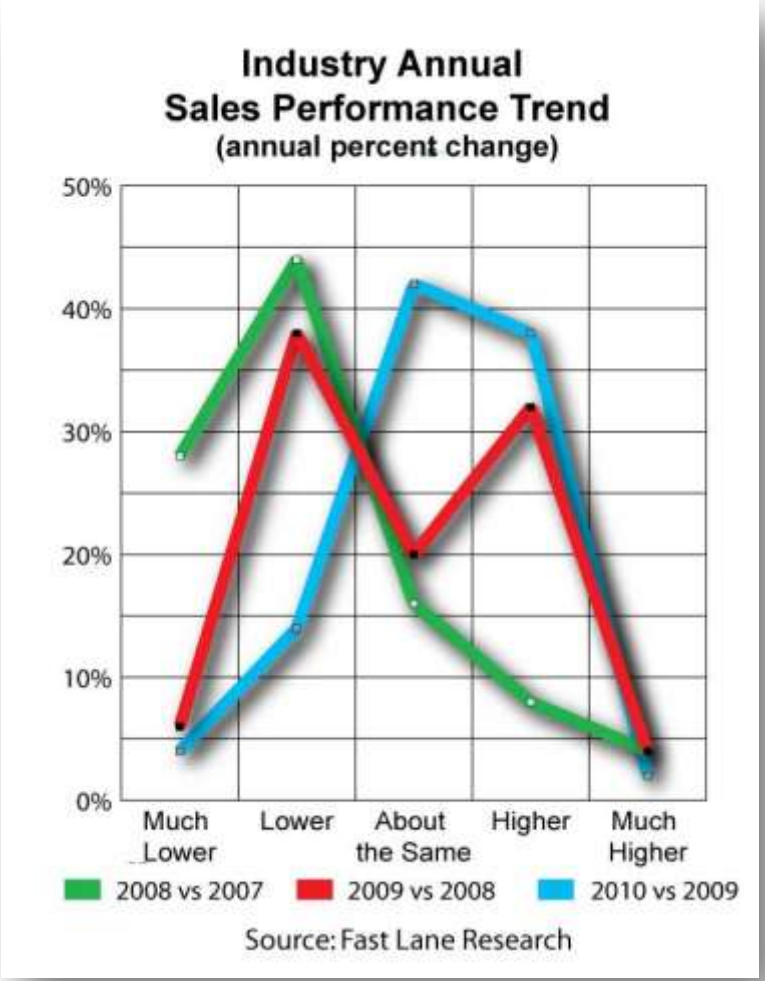
year format. Simply, we asked how business in one year compared to the previous year (ex. 2008 compared to 2007).

The first yearly comparison (2008 vs. 2007) was the most uniform and almost symmetric with the same amount of business reporting either stronger or weaker sales in 2008 than in 2007. At the middle of the group, 20% of business reported having the same sales while the remaining 80% was split.

For context, new-vehicle sales in 2008 declined 18% going from 16.1 million units in 2007 to 13.2 million units in 2008. The US Gross Domestic Product (GDP) was up 2.6% compared to 2007. Significantly, 2008 was on its way to even better growth until the fourth quarter when the bottom fell out and the economy dropped 5.4%. The overall Consumer Price Index (CPI) in 2008 was 3.8% higher than in 2007, and the CPI for automotive parts and equipment was up 5.9% over 2007.

During 2009 sales were heavily impacted by the struggling economy with 72% of businesses having reduced sales; 44% were lower and 28% were much lower. Only 12% of automotive performance parts and accessories businesses surveyed had a positive outcome for the year.

For context, new-vehicle sales in 2009 declined 21% going from 13.2 million units in 2008 to 10.4 million units in 2009. The US Gross Domestic Product (GDP) was down 1.3% compared to 2008. This was the first time there had been egative growth in US annual GDP since 1949. Significantly, 2009 was on its way to even worse showing but the third quarter was up 2.6% and the fourth quarter jumped 6.3%. The overall Consumer Price Index (CPI) in 2009 was 0.4% lower than in 2008, and the CPI for automotive parts and equipment was up 4.1% over 2008.



Interestingly, the CPI for automotive parts and equipment continued rising in both 2008 and 2009 even though the economy was obviously tanking. It makes one wonder about the cost structures that are causing the price index to continue climbing while sales are dropping so significantly.

Looking at the chart above it is easy to see the transitions the industry has gone through during the past few

years.

In 2008 business began softening for a number of companies that make up the automotive performance parts and accessories industry. At the same time there were still enough firms that were either holding their own or growing to counter-balance a lot of the losses.

Then in 2009 there was a major shift to the down side. Many of the companies that were counteracting the industry's slide into deeper negative growth began to lose business as well. Then an unbelievable thing happened—the slide seemed to slow noticeably.

Regardless of your position on the "cash for clunkers" program, it did have a positive impact on new-vehicle dealer traffic and car sales. The net effect for the automotive industry was a ray of hope in the midst of the gloomiest sales year in memory.

According to the Department of Transportation (DOT), the program generated a total of 690,114 applications valued at $2.88 million. That was obviously a shot in the arm for new vehicle sales in the month of August 2009. So much so that JD Power and Associates revised its sales forecast for 2009 from 10.0 million units to 10.3 million—an increase of 300,000 units due to the CARS program.

During the tail end of 2009 and the beginning of 2010 companies began to see a shift in market conditions and have reported a much more compliant business environment with 40% experiencing a growth in sales compared to the previous year; 38% higher and 2% much higher. The negative side of the chart has dropped to just 18% and 42% see sales remaining flat during this period.

For context, new-vehicle sales in January 2010 increased 6.3% going from 656,976 units in January 2009 to 698,346 units this year. The shift from light trucks to passenger cars continued with car sales being up 15% and light truck sales being down 2%. The really big winners in January 2010 were the domestics. In both passenger car and light trucks, sales were up—30.7% for passenger cars and 4.5% for light trucks.

As we begin 2010, many economic forecasters are projecting that the US Gross Domestic Product (GDP) will be flat the first quarter and then begin a growth pattern in April.

At the core of most the recessions the US has experienced in modern times was something that negatively impacted consumer confidence and therefore spending. It makes sense considering that consumer spending accounts for about 60% of the country's GDP. According to the Conference Board consumer confidence showed increases three months in a row beginning in November 2009. For January 2010 the index increased 6.8% reaching 56.5.

Looking forward the majority of businesses expect a strong rebound from 2009 for the remainder of 2010. When asked how they think the year will end 55% believe it will result in a positive swing forward. 43% of businesses think the year will be as bad as 2009 and a small group (2%) anticipate an even worse year.

Target Markets

The responses from our readers were generous and have helped to establish a current snapshot of market behavior. Most of the participants were manufacturers (66%), followed by warehouse/distributors (10%) and jobbers (8%). The remaining participants were a nearly even mix of retailers, installers and representatives from industry publications.

Each business was asked to highlight the markets they would target during 2010 and despite the reduced sales of consumer pickups and SUVs the largest segment selected was Light Trucks (69%). The next popular markets were Modern Domestic Muscle Cars (47%), Classic Muscle Cars (43%), Hot Rods/Street Rods (43%), Off Road (41%) and Restoration/ RestoMods (39%).

Modern muscle cars and the revived "pony war" mentality of OEMs, vehicle owners and fans are providing the specialty equipment industry with a vital shot in the arm. All of the new contemporary muscle platforms are capable in and of themselves, but they also enable enthusiasts the opportunity to continue the automotive love-affair and performance manufacturers to squeeze even more out of them. It should be no surprise then that nearly half (47%) of industry businesses will be targeting these models and their communities in the current year. Moreover, the convergence of automotive lifestyles of young and old enthusiasts paired with the overwhelming acceptance of these vehicle designs has broadened the market. In other words, more consumers are interested and the "pie" has grown.

When asked what markets industry companies are targeting this year the number one niche indicated was the street light trucks. Since respondents could mark multiple markets the percentages will not total 100%.

Industry Online Interactions

Two of the topics covered in the benchmark focus on interactions between companies within the industry and their end consumers, both measuring the levels of involvement at popular online venues. Together the questions aim to illustrate the relationship between conversations between both groups and the targeting of marketing across different platforms. We asked "Where do you engage with consumers online?" and "Where do you advertise?" Both questions allowed for multiple selections so the answers will exceed 100%.

Every company within the study interacts with consumers through their own website and there is little evidence to assume that the same circumstance should be different for the rest of the industry. Some exceptions may exist, but the reality is that consumers expect companies to have an online presence with a dedicated website as a minimum.

Frequency of Consumer Online Engagement

Frequency	Percent
Multiple times a day	39%
Multiple times a week	18%
Very rarely	14%
Never	14%
Once a week	6%
Only if it is necessary	6%
Once a day	4%

Online Locations For Consumer Engagement

Location	Percent
Website	75%
Automotive Forums	43%
Facebook	39%
Company	33%
Automotive Websites & Blogs	31%
YouTube	18%
Twitter	16%
We do not engage with consumers online	16%
Other, please specify	14%
StreetFire	10%
MySpace	6%
CarDomain	4%

Consumers are also expecting more than a basic website with simple information; they want to see companies developing tutorials, media content and product and company insight. They also encourage companies to become involved in other avenues of their hobby. Automotive forums, websites and content-specific blogs welcome a minimal and less-invasive approach while social networks allow consumers to establish a line of sight with companies on their own terms.

The most common online venues used to issue and address conversations with enthusiasts include automotive forums (43%), Facebook (39%) and automotive websites and blogs (31%). On the other end of the spectrum 16% of companies claimed not having any interaction online outside of their company website.

Conversely, 44% of companies currently issue no online advertising. Some of these stated that rely on traditional print media while others focus on events and television advertising.

The “other” category included 38% by email, 25% on eBay and the remainder scatter across other means of contact.

It is interesting that 44% of responding companies do not advertise on the very sites that they use to connect with consumers. It is not surprising that nearly 30% of industry manufacturers are involved in consumer communications through online forums.

Advertising Frequency on Consumer Engagement Sites

Response	Percent
We do not advertise online	44%
Automotive Forums	29%
Other, please specify	25%
Automotive Websites & Blogs	21%
Facebook	17%
CarDomain	6%
YouTube	4%
StreetFire	4%
Twitter	2%
MySpace	0%

Product Manufacturing & International Sales

The subject of product manufacturing has always been a secondary concern for enthusiasts and manufacturers, but during the economic downturn many people on both sides of the isle became much more cognizant of the situation. Furthermore, from our research enthusiasts have become irritated with substandard product quality and excessive outsourcing. The topic of manufacturing location has moved from the backburner to the forefront.

Percentage of Products That Are Made in the USA

Response	Percent
100%	35%
80-99%	25%
50-79%	15%
1-49%	17%
0%	4%
We neither manufacture nor sell products.	4%

When asked about the location of product manufacturing, 35% of companies claimed to produce all of their products in the U.S., 25% produced the majority of their products here (80-99%), 15% made more than half to three-quarters (50-79%), 17% made less than half (1-49%) and just 4% rely entirely on manufacturing in other countries.

Even as the automotive hobby extends throughout the world sales of products to U.S. -based consumers are significant to businesses. Nearly all (98%) of companies rely on more than

half of their sales to come from domestic clients, with 12% staying within the country completely. The next largest market is Canada where almost quarter (22%) of company's place 11-25% of their sales there.

International Sales

Area	0%	1-10%	11-25%	26-50%	51-75%	76-99%	100%
United States	0%	2%	0%	0%	29%	56%	12%
Canada	7%	71%	22%	0%	0%	0%	0%
Mexico	53%	44%	3%	0%	0%	0%	0%
Europe	19%	72%	9%	0%	0%	0%	0%
Asia	77%	19%	0%	4%	0%	0%	0%
Australia & New Zealand	29%	65%	6%	0%	0%	0%	0%
Other	36%	59%	5%	0%	0%	0%	0%

Manufacturers Average 7% Of Revenue On Marketing

As part of a study conducted by Fast Lane Research, manufacturers of automotive performance parts and accessories indicated that on average they spend 7% of annual revenues on marketing. Industry manufacturers reported investing anywhere from a minimum of 0% up to a maximum of 30% of their revenue in marketing.

Particularly in tough times, business owners and executives must evaluate all company expenditures. Unfortunately some attack the largest line items and try to compensate for falling revenues without regard to the impact the cuts will have on the operation or how the expenditures compare with what peers and competitors are doing.

MARKETING Budget

Specialty Equipment Industry

% of Revenue	% of Companies
0-2%	11.40%
3-5%	41.80%
6-10%	35.40%
11-15%	7.60%
16-20%	1.30%
20+%	2.50%

Other Industries

% of Revenue	% of Companies
No Budget	1.10%
0-2%	28.60%
3-5%	33%
6-10%	21.10%
11-15%	8.60%
16-20%	4.30%
20+%	3.20%

For comparison to other industries here is some benchmark data collected by Go-To-Market Strategies. Their recent survey of sales and marketing professionals and business leaders reported the following benchmarks:

A major element of marketing is advertising. According to TNS Media Intelligence, total measured advertising expenditures in the first six months of 2009 fell 14.3 percent versus a year ago, to $60.87 billion. Ad spending during the second quarter of 2009 was off 13.9 percent compared to last year: the fifth consecutive quarter of year-over-year declines.

“The rate of decline in ad spending was level throughout the second quarter,” said Jon Swallen, SVP Research at TNS Media Intelligence. “While it’s tempting to interpret this as a positive indicator that things aren’t getting worse, the fact remains that the market has been steadily tracking at around 14 percent declines for several consecutive months and this represents billions of lost revenue. Early data from third quarter hint at possible improvements for some media due to easy comparisons against distressed levels of year ago expenditures.”

Print media continued to suffer large rollbacks in ad pages from key categories and this resulted in aggregate spending declines of 24.2 percent for Newspaper media and 20.9 percent for Magazine media. Within these broad sectors, there was little difference in the performance of individual media sub-types. Total spending in Radio media was down 24.6 percent due to ongoing weakness in automotive, retail and local services.

Enthusiast Study

In late March over 650 members of Fast Lane Research’s enthusiast database contributed their thoughts and opinions on a variety of topics related to their automotive hobby. The study is part of an on-going program dedicated to capturing current and near-future trends within the specialty equipment industry. Participants in the group are self-described enthusiasts that engage in the automotive lifestyle, modify, race or restore their vehicles or attend automotive events.

Methodology

Sample size: N= 650

Profile: Self-described enthusiasts polled online.

General vs. Niche - There is no clear-cut way to truly slice the specialty equipment industry into neat market niches. Enthusiasts are rarely focused on one singular section of the automotive lifestyle and become aware of elements outside of their sphere as they attend events, meet and discuss topics with friends or check into their preferred news, lifestyles

and automotive culture publications. They may often spend the majority of their time focused on one particular “scene”, but they are often exposed to other elements at the same time.

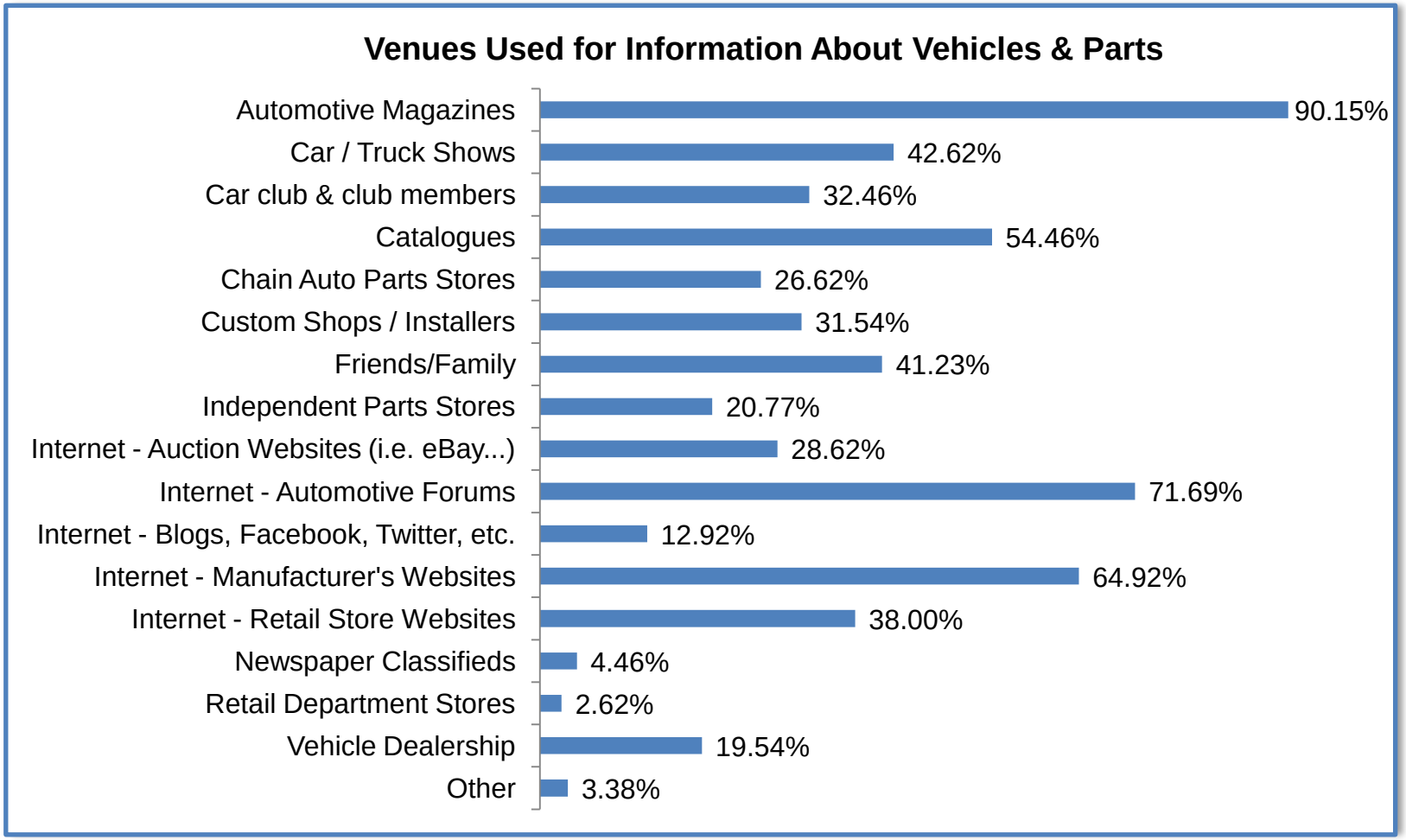
This difficulty, however, can be minimized with creative statistical stratifications; in other words using filters or preference questions. Fast Lane Research uses an opt-in method for determining who belongs to each niche by directly asking enthusiasts to rank their level of interest in specific vehicle types. For this study the following prompt was issued early in the questionnaire:

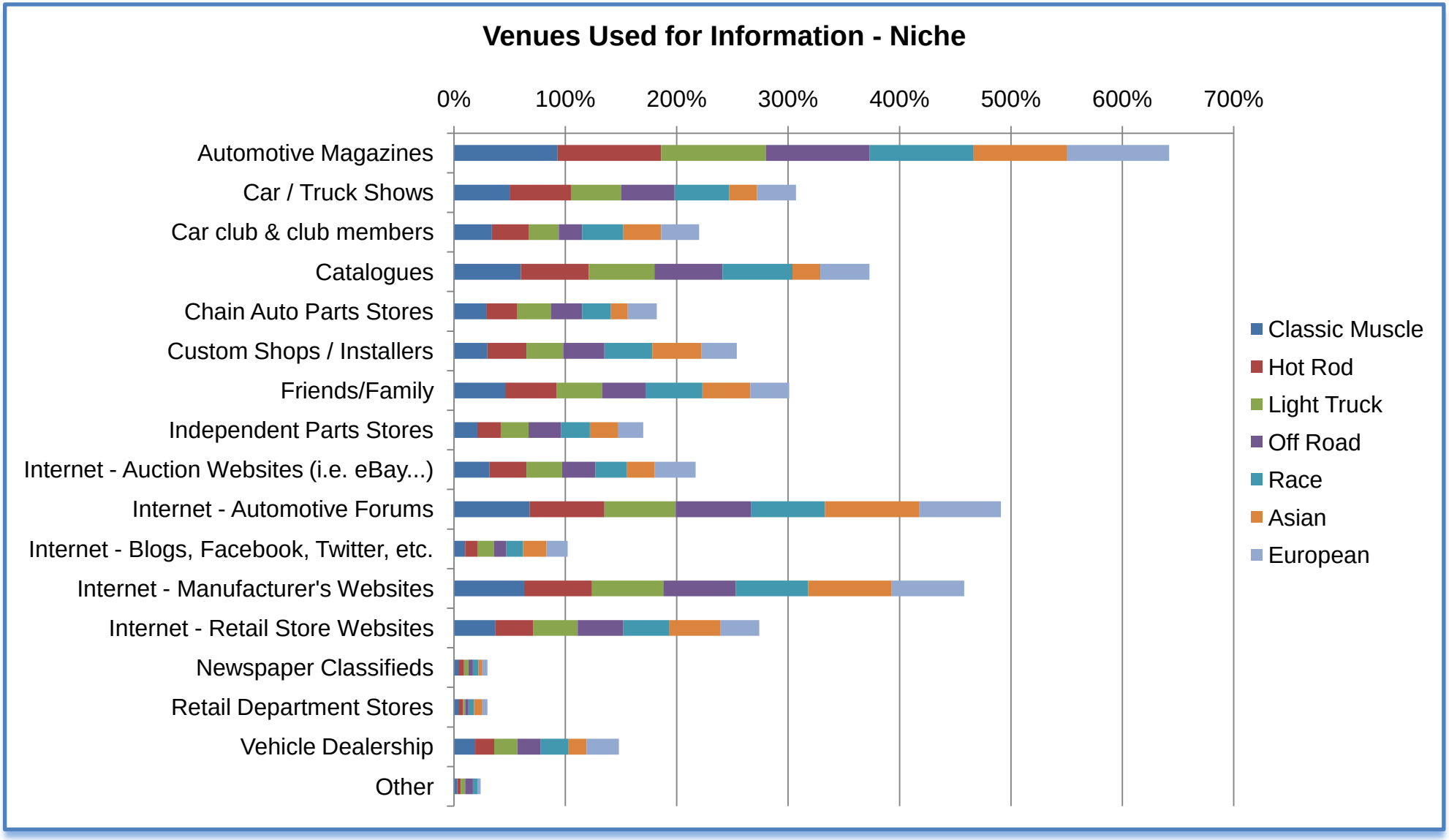
When it comes to cars we all have our favorites and typically they can be grouped into types. Please indicate which of the following are your favorites and your level of interest in each of the other vehicle types.

For this study, participants keyed in their opinion based on the following options; “My Favorite”, Very Interested”, “Somewhat Interested” or “Not Interested”. To stratify the results and distinguish which niche people belonged to we filtered the responses into categories as participants chose “My Favorite” and “Very Interested”. If either choice was selected, that person’s results were omitted for those sections.

Where Enthusiasts Go For Information

In general, consumers continue to venture online for product information prior to making purchases. However, traditional print sources are still the leading go-to venue for information with 90.15% of people interested in this medium for product details. Magazines have helped establish the automotive lifestyle that the hobby now enjoys and some outlets continue to produce valuable content that hobbyists are willing to pay for; most magazines even have an online counterpart. That being said, the second and third most used venues are online resources. Nearly 72% of people check in with others on forums and just shy of 65% go directly to manufacturers websites to find answers to their questions. Over half (54.46%) still use catalogues as a means for information and product scouting prior to making their final decisions.





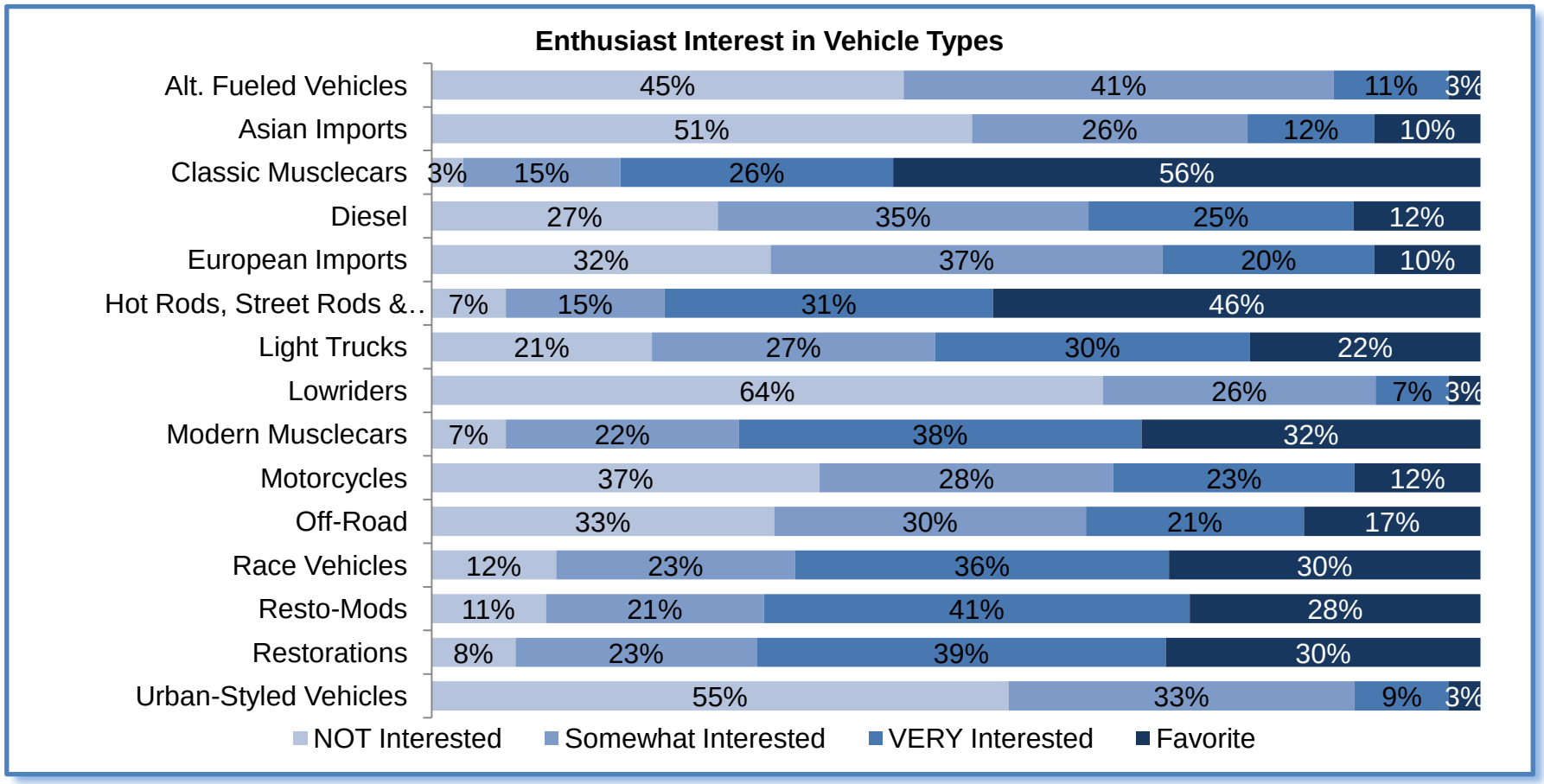
The chart above is a cumulative summary of the previous chart and illustrates how each niche contributed to the total pool of results. Enthusiasts in each niche have slightly different preferences for the venues they use for information, but some of the preferences are nearly identical across the spectrum. The purpose of this graphs design is to put the small nuances

into visual perspective. For example, catalogues are fairly important to most consumers and the average for the market is relatively high. Catalogues, however, are not particularly popular with enthusiasts that own asian imports.

Enthusiast Interest in Vehicle Types

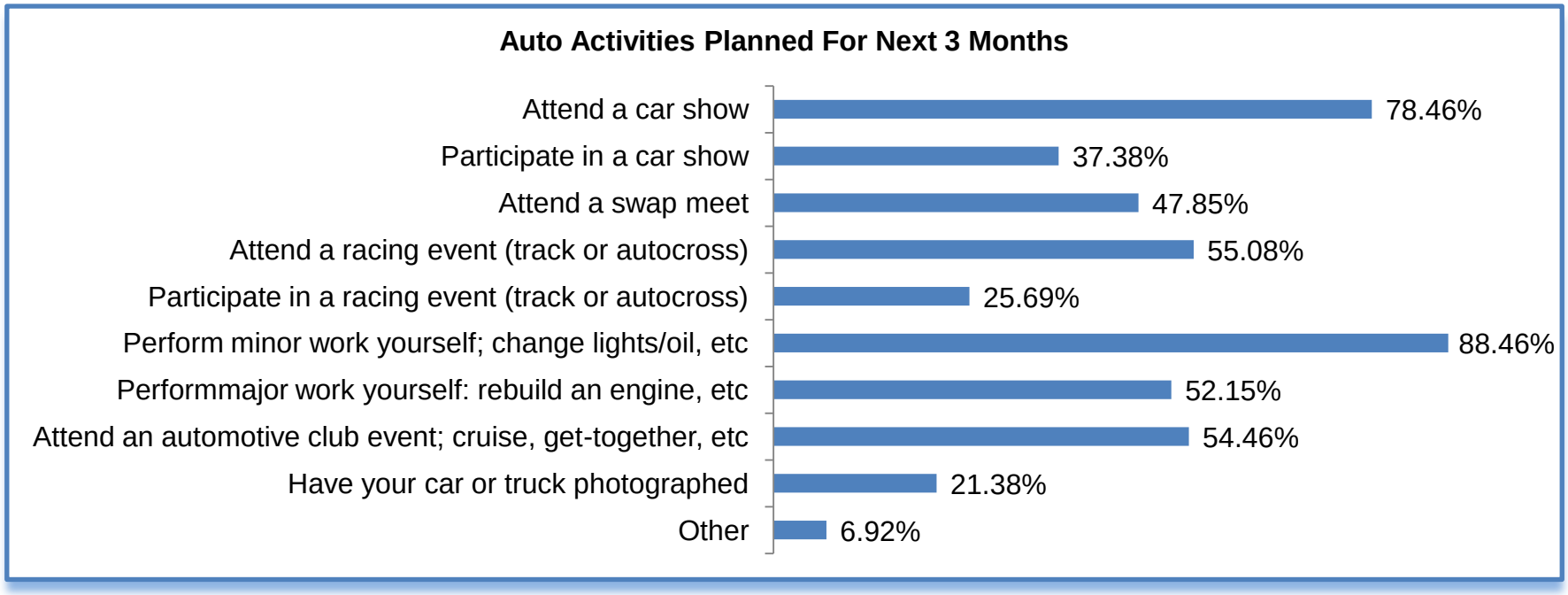
Classic musclecars continue to be the most “favorite” group of vehicles for enthusiasts (56%), followed by Hot Rods, Street Rods & Customs (46%). Modern musclecars were ranked third with 32% of people claiming they are their favorites. At the other end of spectrum, the categories with the largest disinterest were lowriders (64%), urban-styles vehicles (55%) and Asian imports (51%).

Note: participants were able to select more than one favorite; therefore the sum is larger than 100%.

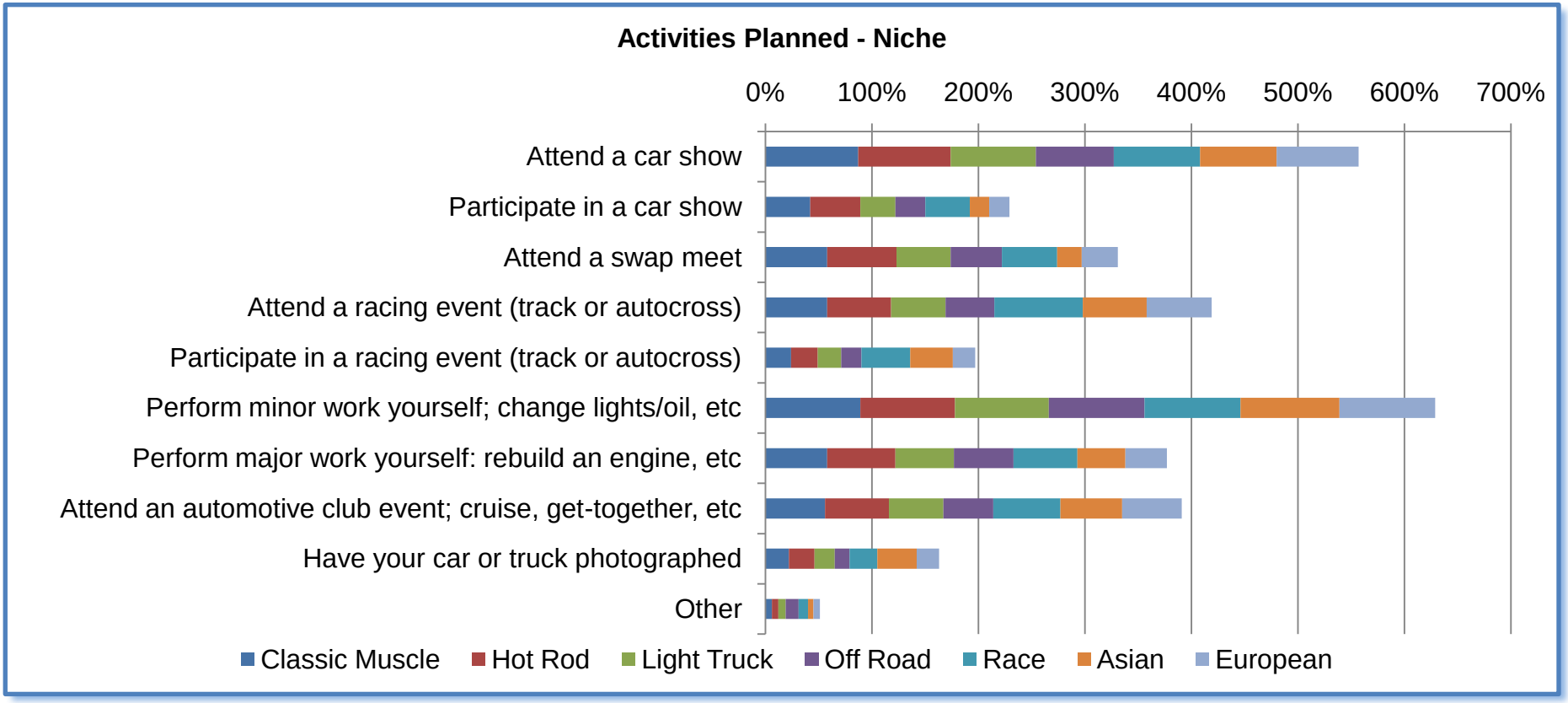


Enthusiast Automotive Activities

For many enthusiasts, simply owning a vehicle to customize is not enough to satiate their hunger for the automotive hobby. Many extend their participation to other interests, activities and lifestyle elements far beyond wrenching on their projects alone. In order to get a feel for the types of events they plan to join in on we offered some basic options for participants to select and also gave them the opportunity to write in other suggestions.



Some of the answer options were designed to compare the rates of involvement to highlight which activities would be casual versus more serious. For example, when we focus on the Hot Rodders and European import fans we notice that the difference between performing minor work and performing major work yields two different results. Hot Rodders have less “fall off” and are nearly just as committed to doing either type of work, whereas the European import owners are less likely to perform major work themselves.

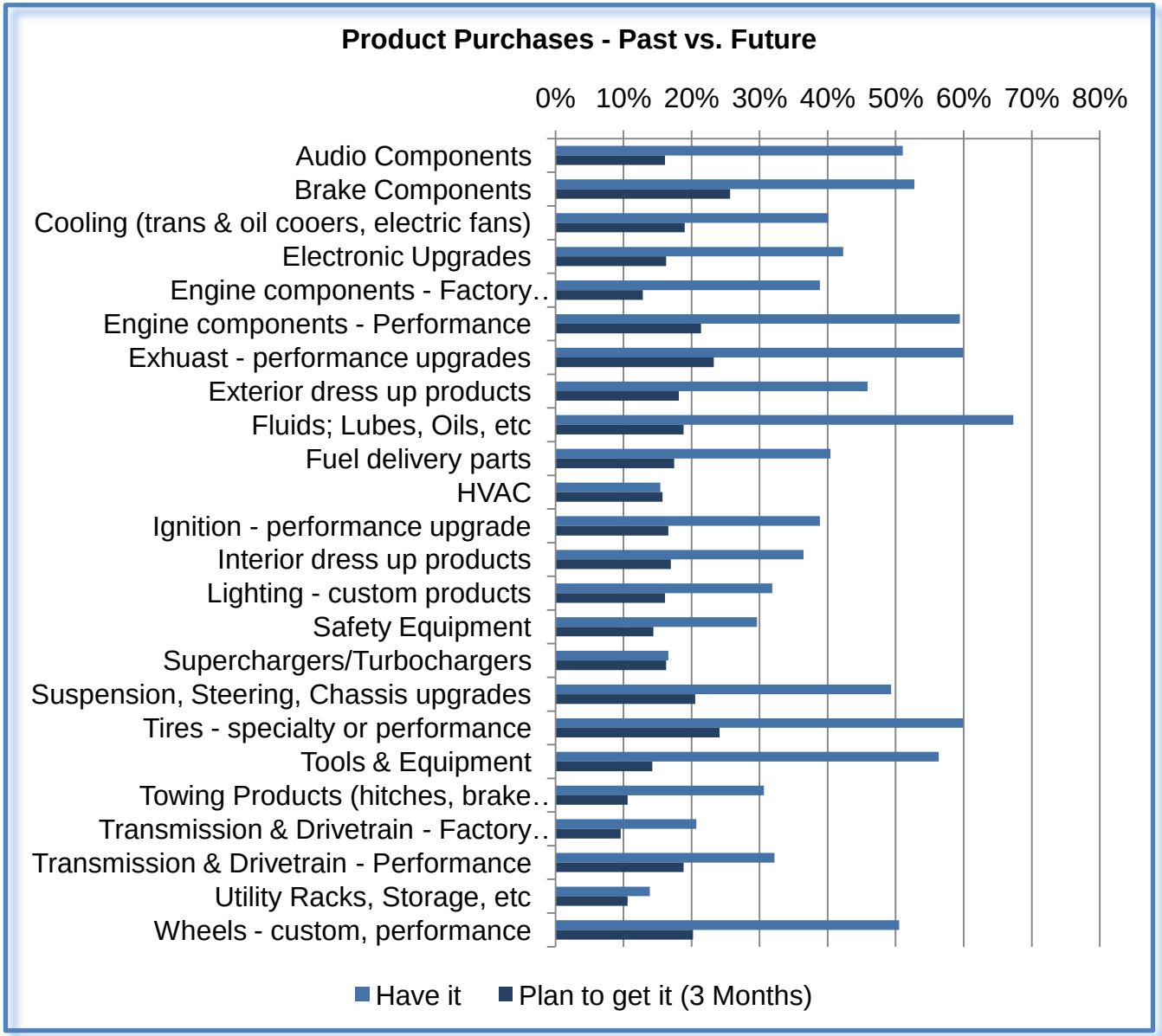

Activities Planned - Niche
0%
100%
200%
300%
400%
500%
600%
700%
Attend a car show
Participate in a car show
Attend a swap meet
Attend a racing event (track or autocross)
Participate in a racing event (track or autocross)
Perform minor work yourself; change lights/oil, etc
Perform major work yourself: rebuild an engine, etc
Attend an automotive club event; cruise, get-together, etc
Have your car or truck photographed
Other
Classic Muscle
Hot Rod
Light Truck
Off Road
Race
Asian
European

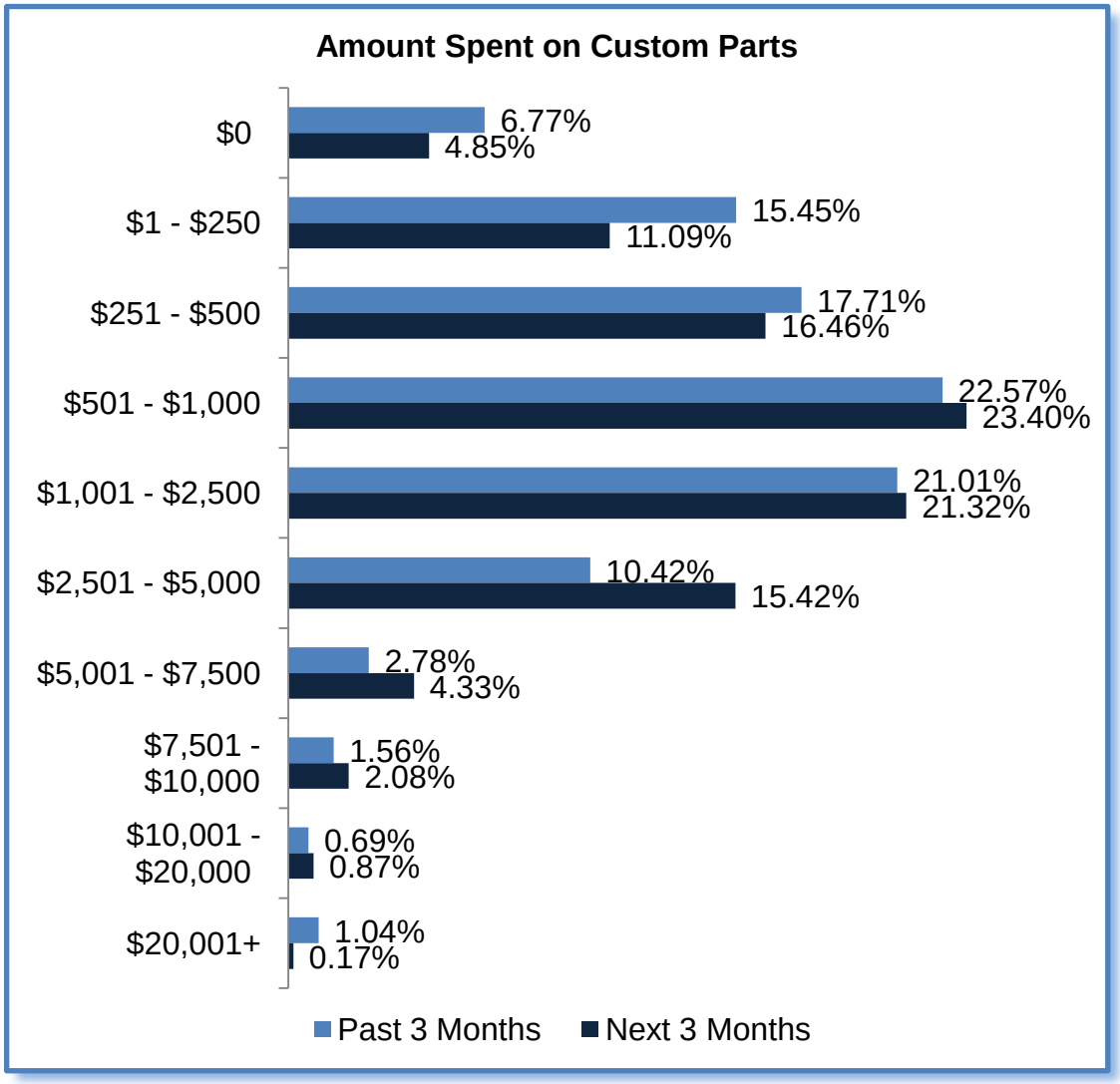
Sample of responses for **“Other”;**

-Go 4 Wheelin'!
-Drive the hell out of it
-Smoke Tires in my Challenger R/T
-Build off road truck
-Rebuilding a Nissan from the ground up
-Jeep Club off road trip
-Test-drives at dealerships
-Build some bumpers
-Do engine swap in truck
-Take my jeep off road on trails
-Organize car club drives
-Road Trip
-Participate at Hot August Nights.
-I will go rockcrawling
-Custom fabrication, chassis& body
-Detailing - show preparation
-Attend model car show
-Drifting
-Put on my own Car Show
-Sponsored Corvette road trips
-Buy a car in a foreign country for use in the US
-Watch movies in my car, ha!
-Photograph my own cars and truck
-Power Tour/Bull Run
-Continue mods to my PT Cruiser
-Recreational offroading
-Finish building my 1936 Ford
-Jeep trail rides.
-Off Road riding - just getting in the woods
-Restore '27, REO, '30-31 Models A, & Puma
-I own three dirt circle track racecars
-Detail cars
-Nostalgia drags
-Hot Rod magazine power tour
-Go 4-wheeling
-Drive!
-Build a tubular sub frame for my 71' NOVA

Product Purchases

As the foundation for future trend analysis and forecasting, enthusiasts were asked to submit which products they have purchased and also which items they plan to purchase within the next three months. Some of the most popular items already purchased include replacement fluids, exhaust upgrades, specialty tires and performance engine components. These are also items that people plan to buy in the near future. Also at the top for near-future purchases are brake components, suspension/chassis upgrades, custom wheels and cooling products.



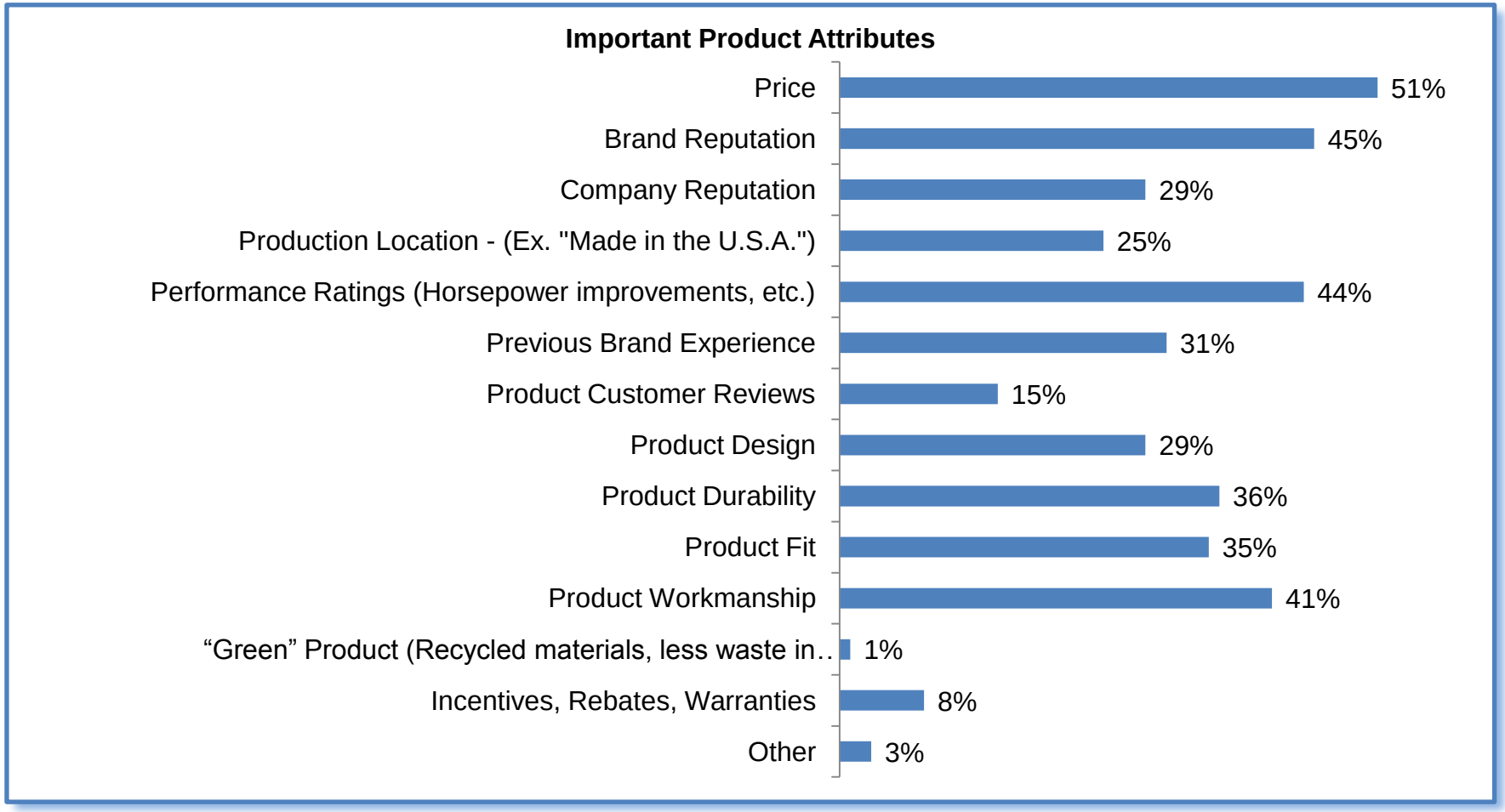


Amount Spent on Custom Parts

With the car show, race and cruise seasons upon us and some indications that the economy may be turning a corner enthusiasts seem optimistic with their near-future spending for custom parts and accessories. Planned spending for the next three months has shifted higher with an increased amount of people claiming to allocate spending more in the range from $500 to $5,000. The more dedicated and/or financially capable enthusiasts foresee spending above $5,000; even upwards towards $20,000.

Product Attributes

The things that matter most to enthusiasts are not much different than what you might expect from traditional consumers of other commodities. Price, value and product performance are universally accepted standards regardless of industry. When given the list of product attributes below and asked to select the ***top 3*** characteristics that most impact purchasing decisions, just over half (51%) ranked price as the most important feature. Brand reputation (45%), performance ratings (44%) and workmanship (41%) followed closely behind. The least desirable features from the list include “green” design (1%), incentives/rebates (8%) and customer reviews (15%).

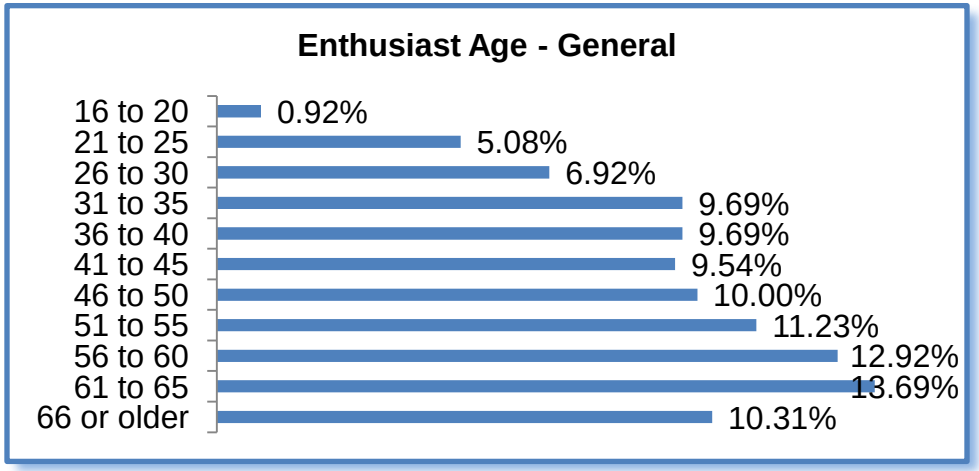


Members of each niche have unique sets of priorities that they deem desirable. When designing a new product line or marketing to a new set of customers, understanding their preferences can make or break the success of the product. For instance, rebates and incentives are more important to the Light Truck (14%) and Off-Road (15%) customers than to owners of European (4%) and Asian (7%) imports. Similarly, selecting the proper price points would be a more critical factor for owners of Asian imports and Hot Rods than European imports.

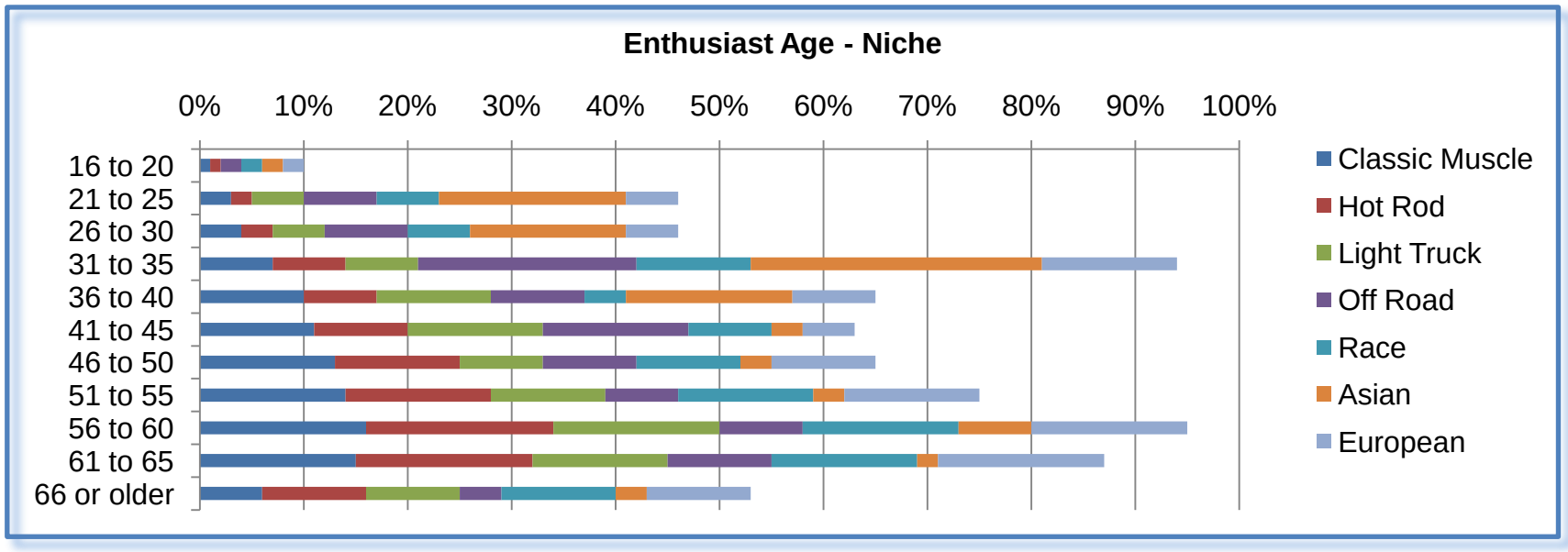
Another area where preference dissimilarities exist is in the location of production. Classic musclecar (30%) and Light Truck (30%) owners consider this feature more important than either Asian (7%) or European (6%) import owners.

Enthusiast Age

The questionnaire included a few demographic items and one of the most revealing was enthusiast age. The two charts to the right are portrayals of the sample population surveyed and from experience we know that the 16-20-age range should be slightly higher. Nevertheless, the totality of the data is a reasonable representation of the composition of enthusiasts.

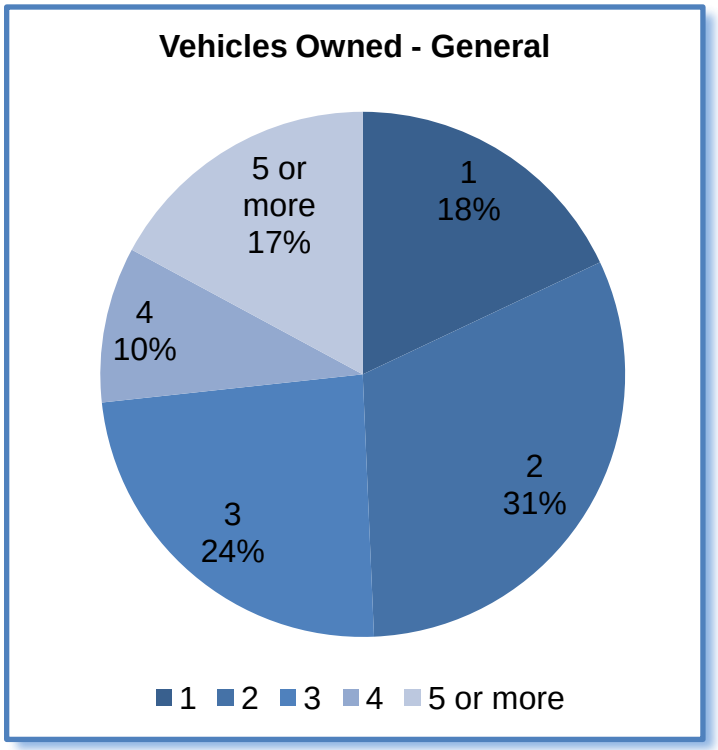


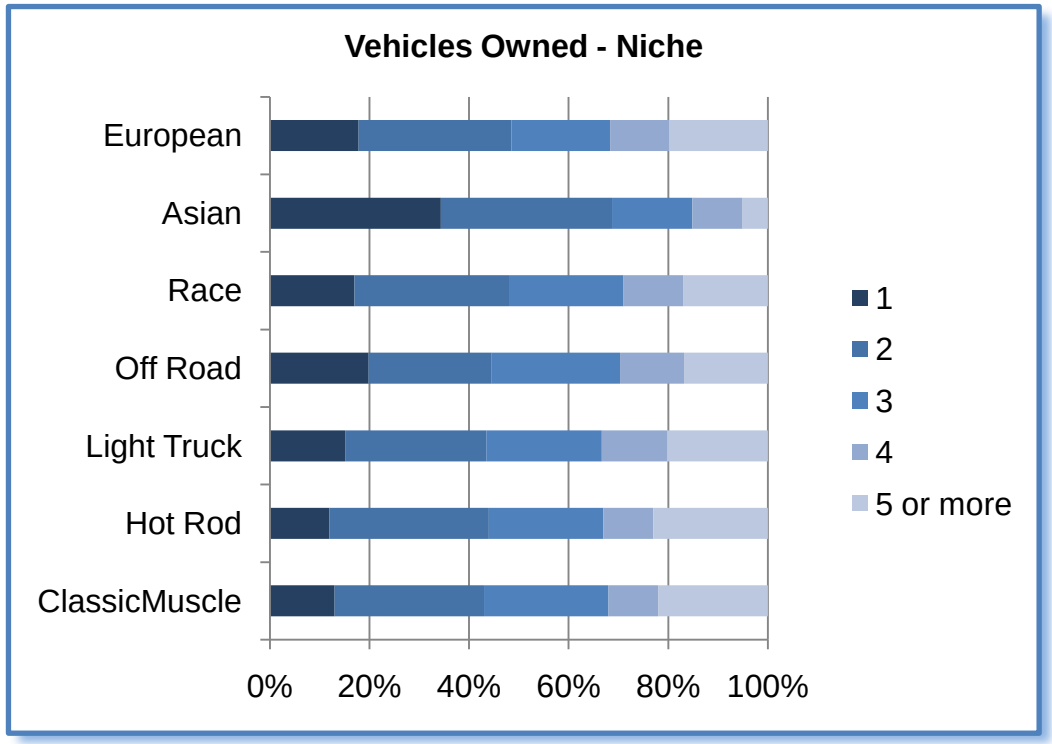
The two charts exhibit the breakdown of enthusiast age in general and by niche and the table is the raw data for the niche chart that shows how each age range is populated by each different market. When digesting the information from the niche chart it becomes apparent that classic musclecars, hot rods and light trucks have an older fan base than the other groups. It should also become more clear that the enthusiasts that own asian imports are not only slightly younger than the other markets, but that they are also aging. The largest portion of those consumers now fall in the 31-35 age bracket as opposed to the early 20's.



Number of Vehicles Owned

The final piece of the study that we are reporting is the number of vehicles owned by enthusiasts. Nearly half (49%) of people own one or two vehicles while 17% own five or more. Younger consumers – like those that are more likely to favor Asian imports – typically own fewer vehicles due to limitations of income and storage. Older enthusiasts, on the other hand, are just marginally more likely to own multiple vehicles. In terms of niche, Hot Rodders and classic musclecar owners are the most dominant collectors with roughly 23% of people that own five or more.





Technology in General

Executive Summary

Today much of what we see and hear about in the realm of new technology has to do with electronics, nano technology or IT.

According to the US Patent and Trademark Office (PTO), there were 485,500 patent filings in 2009. That's 75% more than were filed just 10 years ago in 1999—nearly double! That translates to a lot of new "stuff" to keep up with.

Patents

Thomson Reuters Analysis of 2009 Patent Activity Shows U.S. Increases Presence Among Top 25 Patentees

The IP Solutions business of Thomson Reuters released the results of its 2009 Top Patentees analysis today, ranking the top 25 companies receiving patents in the U.S. over the past year. The study found that IBM was the leader in U.S. patent activity, reaching an all-time one-year high by publishing 4,843 patents in 2009.

The 2009 Top Patentees analysis shows an increase in patent activity by U.S. firms. U.S. firms now make up 36 percent of the top 25, up 4 percent from last year. Asian firms, which represent 56 percent of the top 25 patentees, are down 4 percent from 2008. The top 25 firms receiving the most patents in the U.S. in 2009 are listed in the table.

The top technology areas receiving the most U.S.-granted patents in 2009 were: Electric

Rank	Company Name	2009 Patents	Country of Origin
1.	IBM	4,843	US
2.	SAMSUNG ELECTRONICS CO LTD	4,049	KR
3.	MICROSOFT CORP	3,157	US
4.	CANON KK	2,200	JP
5.	PANASONIC CORP 1	1,933	JP
6.	TOSHIBA KK	1,911	JP
7.	SONY CORP	1,829	JP
8.	INTEL CORP	1,505	US
9.	HITACHI	1,428	JP
10.	FUJITSU LTD	1,414	JP
11.	SEIKO EPSON CORP	1,349	JP
12.	HEWLETT PACKARD DEV CO	1,266	US
13.	LG ELECTRONICS INC	1,148	KR
14.	HON HAI PRECISION IND CO LTD	1,060	TW
15.	RICOH KK	999	JP
16.	GENERAL ELECTRIC	961	US
17.	MICRON TECHNOLOGY INC	951	US
18.	NOKIA CORP	920	FI
19.	CISCO TECH INC	898	US
20.	HONDA MOTOR CO LTD	886	JP
21.	FUJIFILM CORP	875	JP
22.	DENSO CORP	728	JP
23.	SIEMENS AG	712	DE
24.	BROADCOM CORP	704	US
25.	HONEYWELL INT INC	659	US

Digital Data Processing (25,241 patents), Semiconductor Devices (13,483 patents), Transmission of Digital Information (10,349 patents), Preparations of Medical, Dental &Toilet Purposes (7,362 patents), and Pictorial Communications (7,071 patents). Notably, Electric Digital Data Processing saw a 9 percent increase over 2008.

Smartphones

Today, it seems that everything is centering on the smart phone. There are applications (apps) for just about anything. There is even a guy, Dave Phipps, who has rewired a 1969 GTO with a central switch panel that allows him to control many of the functions of the car with his iPhone. He can start the engine and rev it, raise and lower windows, open doors, open the trunk and control the sound system—James Bond would be jealous.

Obviously these devices will have an impact on the automotive design and production and provide opportunities for the automotive performance parts and accessories industry.

Smartphones Set for Rapid Growth: Although only 21% of American wireless subscribers were using a smartphone as of Q4 2009 compared to 19% in Q3 2009 and 14% at the end of 2008, Nielsen expects smartphones to account for more than half of the US mobile phone market by 2011. Nielsen predicts smartphones will account for 24% of the US mobile phone market in Q1 2010 and rise to about 33% market share by Q4 2010.

Growth will then accelerate in 2011, hitting 40% in Q1 2011 and about 50% by Q3 2011. Based on this rapid increase, smartphones should pass the 50% mark during Q4 2011.

Smartphone Users Show Loyalty: In a piece of good news for smartphone carriers, smartphone users demonstrate a good amount of wireless operator loyalty. In the last six months, roughly 77% of new smartphone buyers remained loyal to their wireless operator, while 18% switched to a new provider to get their new smartphone with the remaining percentage made up of first-time smartphone buyers. Interestingly enough, the percentage of people who switched carriers and got a new smartphone is not higher than that of the average wireless subscriber.

Smartphones Drive Web 2.0: The increasing popularity of smartphones will be a key driver in the expected growth of the web 2.0 market to almost $19 billion by 2014,according to Juniper Research. Juniper sees the mobile phone as a central catalyst for web 2.0 (which encompasses social web, geolocation and presence), because it is carried with the user at most times, is ideally placed to capture information at its source, and is a key enabled of user-generated content and social web interaction.

39% of Blackberry owners plan to switch to an iPhone when it's time to replace their device, and 32% plan to switch to a Google Android phone,
reports Crowd Science.

Smartphones Expand GPS Capabilities: The growing screen size and touch capabilities of smartphones are making them formidable rivals to standalone navigation devices. According to NPD Group's Mobile Phone Track, four out of five cell phones sold in the fourth quarter of 2009 had GPS capabilities, and half had screen sizes of 2.5 inches or larger.

In the past, phone-based navigation capabilities were used primarily for pedestrian navigation. Google, however, changed that game by introducing free turn-by-turn directions on the fast-selling Motorola Droid, along with plans to proliferate the feature to the many smartphones that use Google Maps.

Motorola even offers a car dock that places the Droid in navigation mode. And on the iPhone, where Google's turn-by-turn directions are not present, companies such as TomTom and Navigon have returned to their roots, selling apps that include turn-by-turn navigation.

Many have seen the Google giveaway as the death knell for standalone GPS devices, and some may see the free Nokia Ovi Maps and Navigation client in a similar light, but manufacturers still have no problem selling lots of entry-level GPS systems to those who would still rather avoid a recurring fee or data plan.

Tablet Books

Downsizing is not unique to just the automotive industry. One of the most discussed technology topics of 2009 was the upcoming surge of tablet computers and smartbooks – two different styles of portable computers. Now, those mockups and concepts are becoming tangible products that should start shipping to retailers in the first quarter of 2010.

Smartbooks are relatively hardware-light PCs that allow consumer the ability to access the internet and perform basic computing functions without the bulk and energy-consuming nature of full-sized laptops. Think of them as large smartphones with full QWERTY keyboards and an inexpensive price tag of roughly $300.

Tablets are also like large cell phones but typically do not have a standard tactile keyboard. Instead, they have a large touch screen with digital keyboards, superior computing speed and graphic processors. Moreover, a Nvidia spokesperson, the chip manufacturer for most of the devices, claims the performance is 10 times greater than a typical smart phone. Tablets are extremely portable, light and have battery times of 10 hours or more; a great characteristic for business travelers looking to cut the cord and bulk of a standard laptop.

Boiling down to basics, both devices will ultimately perform the function of accessing the internet better than laptops and more intensely than smartphones, enabling users to communicate with others and access information more readily. More likely than not, the early adopters will be tech-savvy with more moderate followers to come shortly after. Down the road, however, the lower cost and improved availability of mobility could spread to a greater audience of people wanting or needing to stay connected while not wanting to rely soley on a miniscule phone.

Micro Projectors

The other quirky tools that seemed to grab the headlines were miniature projectors. Procket-sized versions have been around for a few years, but now they are becoming even smaller while maintaining acceptable power and clarity. Digital cameras and smartphones are beginning to become targets of this old concept with a modern twist. Essentially, developers are looking for ways to make hand-held devises perform like their much larger counterparts. Instead of sharing a video, picture or business presentation on a small screen the image can be projected on a nearby wall for a small group to see without straining. The performance is not going to shake-up movie theaters or rival flat-screen televisions, but the option allows people to share content with others more freely.

The automotive hobby is continuing to accept rich media and portable devices can aid in the dispersal and consumption of these forms of entertainment.

3D TV

The other technology getting a lot of buzz these days is 3D TV. Global Patent Analysis Shows Accelerated Growth in 3-D Television, Photography and Cinematic Technologies.

3-D interest does not stop in Hollywood. According to an analysis of world patent activity published by the IP Solutions business, Coming Soon in 3-D? Everything consumers will soon be able to experience 3-D technology on their televisions at home. The report tracks unique inventions published in patent applications and granted patents from 2003 to 2009 to identify the areas showing the sharpest growth over the last five years.

The findings include:

3-D TV in Your Living Room: It will only be a matter of time before you can enjoy 3-D television programs from your couch. Between 2003 and 2008, patent activity in the 3-D television space grew by 69 percent. Breakthrough new technologies include lenticular lenses, which create a more natural 3-D viewing experience without the need for special glasses.

Capture Moments with 3-D Photos: 3-D photographic technology is also on the rise; it has grown by 57 percent between 2003 and 2009 as the digital camera industry works to combat declines in other areas.

3-D Glasses Are Big Business: A great deal of 3-D cinema innovation has less to do with movie production than it does with ancillary products. Between 2003 and 2008, patent activity in the 3-D cinema space grew by 45 percent. Areas receiving the most attention include: projection systems, specialized glasses, cleaning apparatus and registration systems for glasses.

The data in this report was compiled using the Thomson Reuters Derwent World Patents Index® (DWPI) database, where patent activity is used as a benchmark for innovation. The research aggregates granted patents and published applications (examined and unexamined) in 2003 and 2008 through the first quarter of 2009. Results from both time periods were then compared to determine the overall growth trend over the last five years.

To view the full report, Coming Soon in 3-D? Everything, please go to http://ip.thomsonreuters.com/info/3D/

LG Electronics, the world's No.2 TV brand, said on Thursday it was aiming to sell nearly 1 million 3D TVs this year to take one-fourth of the market, joining a growing number of global tech firms betting 3D will become the next hot product.

Many manufacturers hope the technology will be as big a boost for the industry as the transition to color TVs from black and white, although a lack of 3D content and the need for special glasses may keep people from adopting the technology outside the cinema.

South Korea's LG Electronics said on Thursday it wanted to increase market share in 3D TVs more aggressively, hoping to keep its lead over close rival Sony and fight falling prices with premium models.

"Our goal is boosting market share in 3D TVs and you can clearly see that, as our target for 3D market share is 10 percentage points above our LCD TV sales target," Havis Kwon, LG's vice president and head of the LCD division told reporters.

LG, which competes with local rival Samsung Electronics Co Ltd and Japan's Sony Corp, said it expected the global 3D TV market to grow to around 3.8 million units this year and to more than 13 million in 2011.

The maker of the Infinia TV brand showcased 3D TVs with LED-backlit LCD screens that are 22.3 millimeters thick and said its 47-inch LX9500 model would cost around 4.7 million won ($4,134) including two pairs of glasses.

The product will go on sale next week in South Korea ahead of a global launch around May.

At 0535 GMT, shares in LG Electronics jumped 6 percent to a one-month high of 115,500 won, with trading volume rising to almost three times the average 30 day volume.

"Shares have really been beaten down lately amid concerns about its smart phone performance, and on new worries that its strong television business may face a slowdown in the second half, after the World Cup," said Kim Kap-ho, analyst at LIG Investment & Securities.

"But as its sector peers have rallied in recent weeks, LG Electronics shares at the current level offer attractive valuations."

LG, which wants to increase its global market share in LCD TVs to 15 percent this year from 11 percent last year, said it sold around 5.2 million LCD sets in the first quarter versus a 2010 target of 25 million sets.

Economic Environment

Executive Summary

We could not write a better executive summary than what is produced by the Federal Reserve an published as part of what is called the Beige Book.

The Beige Book, is a report published by the Federal Reserve Board eight times a year. Each report is a compilation of anecdotal information on current economic conditions submitted by each Federal Reserve Bank. The following is an excerpt from the April 14, 2010 report.

Overall economic activity increased somewhat since the last report across all Federal Reserve Districts except St. Louis, which reported "softened" economic conditions. Districts generally reported increases in retail sales and vehicle sales. Tourism spending was up in a number of Districts. Reports on the services sector were generally mixed. Manufacturing activity increased in all Districts except St. Louis, and new orders were up. Many Districts reported increased activity in housing markets from low levels. Commercial real estate market activity remained very weak in most Districts. Activity in the banking and finance sector was mixed in a number of Districts, as loan volumes and credit quality decreased. Agricultural conditions were mixed as well, with positive conditions reported in Districts from the central and western parts of the country, while negative conditions were reported in the mid and southern Atlantic Districts. Mining and energy production and exploration increased for metals, oil and wind.

While labor markets generally remained weak, some hiring activity was evident, particularly for temporary staff. Wage pressures were characterized as minimal or contained. Retail prices generally remained level, but some input prices increased.

Consumer Spending and Tourism: District reports indicated that consumer spending increased during the first quarter. New York and Cleveland reported that recent sales strengthened, while sales rebounded in Richmond and Kansas City. Slight sales gains were reported in Philadelphia. Retail sales in San Francisco continued to improve, but remained somewhat sluggish on net.

Several Districts described consumers as somewhat more confident. Businesses were cautiously optimistic regarding future sales: Cleveland, Atlanta, Kansas City and Dallas noted that retailers expect sales to improve during the upcoming months.. Atlanta reported that retailers continued to keep inventory levels lower than normal, and retailers in New York reported that inventories are in very good shape.

Vehicle sales improved in a number of Districts during March. New York, Philadelphia, Atlanta, Chicago, St. Louis, Minneapolis, Dallas and San Francisco noted that auto sales picked up in recent weeks. Cleveland described sales as decent, while sales were steady in Kansas City and mixed in Richmond. Several Districts noted that favorable pricing and credit terms helped lure buyers into showrooms. Dealers in Philadelphia indicated that they expect sales to increase during the next few months.

Nonfinancial Services: Business services were mixed, with some signs of economic recovery. Boston and Minneapolis reported increased activity. Richmond and Dallas were mixed, while San Francisco said demand remained lackluster. St. Louis reported that the sector continued to decline. Advertising and consulting firms in Boston said demand is up substantially from the first quarter of 2009, while an advertising contact in Richmond and professional media services firms in San Francisco characterized sales as flat at low levels. Dallas reported sluggish demand for nontax-related accounting and legal services. Law firms in Minneapolis specializing in debt collections and bankruptcy saw strong demand, while a Richmond property manager noted a large number of repossessions.

Manufacturing: Manufacturing activity increased since the last report across most of the country, with all Districts other than St. Louis reporting increases in orders, shipments, or production. Boston, Cleveland, Chicago, Dallas and San Francisco reported positive results in metals and fabrication. Cleveland, Richmond, Atlanta and Chicago reported increased auto or auto component production. Boston, Richmond, Dallas, and San Francisco saw increased production in electronic, computers or high-technology goods. Chicago and Minneapolis saw increased production of energy-related products. However, for construction-related goods, Chicago and Dallas reported mixed conditions, Boston reported flat activity and St. Louis reported decreases. Overall, St. Louis saw more plant closures than plant openings.

Banking and Finance: Bank lending activity was mixed by category in most Districts. Atlanta, St. Louis and Kansas City saw weaker loan demand across categories, while activity in San Francisco was flat at low levels and Dallas said that demand appears to be stabilizing. Demand for consumer credit decreased in New York and increased slightly in Philadelphia. Most banks in Cleveland reported weak consumer loan demand, although a few contacts saw a slight increase due to seasonal factors. Business and industrial loan volumes decreased in Philadelphia, Cleveland and Chicago and were flat in New York. San Francisco noted continued modest gains in venture capital funding.

Credit standards remained generally unchanged across the nation, while credit quality was mixed. New York, Cleveland and Kansas City reported tighter lending standards for commercial mortgages. In Atlanta several business contacts reported difficulty getting credit. Dallas and San Francisco said standards continued to be tight. New York saw increased delinquency rates for all categories except consumer loans, which were flat. Philadelphia and Richmond saw little change in credit quality, while Cleveland was mixed. Dallas reported that credit quality was either stabilizing or improving, and

appeared to have turned a corner. Chicago noted an improvement in consumer and business loan quality, although credit quality for many small firms continued to decline.

Real Estate and Construction: Residential real estate activity increased, albeit from low levels, in most Districts, with the exceptions of St. Louis, where it was mixed, and San Francisco, where it was flat. Contacts in Philadelphia, Cleveland and Kansas City expressed concern about whether sales would continue to grow after the expiration of the first-time home buyer tax credit. New York, Kansas City, Dallas and San Francisco noted sluggish sales for high-end homes. Home prices were stable across most Districts, but decreased in parts of the New York and Atlanta Districts. Residential construction activity increased slightly in New York, Atlanta, St. Louis, Minneapolis and Dallas, but remained weak in Cleveland, Chicago and San Francisco.

Commercial real estate activity was slow across the nation. Notable exceptions were Richmond, which saw an uptick in commercial leasing, and Dallas, where the sector was mixed and might be nearing bottom. In Boston, leasing activity consists largely of renewals, with many renewing tenants leasing less space. Manhattan Class A office rents were down 20 percent to 25 percent year over year. Contacts in Philadelphia, Richmond, Kansas City and Dallas expressed concern that lease concessions from landlords were putting downward pressure on rents. Commercial construction continued to be weak in most Districts. Cleveland saw some development in the energy and industrial segments.

Employment, Wages, and Prices: While overall labor markets remained weak, some hiring activity was evident, particularly for temporary staff. Employment in the manufacturing and services sectors in Boston remained relatively unchanged, while very little hiring occurred at major legal and financial firms in New York. In the Richmond District, job cuts subsided at retail businesses, and employment was stable at most other services firms. In Kansas City overall employment levels held steady, but more manufacturers and several energy-related firms planned to increase payrolls. Cleveland, Richmond, Atlanta, and Chicago reported strong demand for temporary workers. A pickup in employment was noted in the manufacturing sector by Cleveland, with little change in staffing for retail, energy, transportation and banking. Atlanta noted that many businesses continued to increase hours worked for existing staff. Minneapolis reported that while labor markets remained weak, some signs of hiring were noted.

Wage pressures were characterized as minimal or contained. In Boston, most firms reported instituting or planning to institute modest wage increases of 2 percent to 3 percent in 2010, while performance bonuses in the services sector were generally down. Richmond reported that average wages edged higher in March in the services sector, but declined slightly in manufacturing. Most companies hiring new workers in the Kansas City District were not offering higher salaries to attract qualified applicants. Dallas reported that just a handful of firms were planning on partially reinstating employer matches to retirement plans or giving small pay increases. In Chicago wage pressures were minimal; however, an

increase in health-care costs was noted. San Francisco also reported significant increases in the costs of employee benefits, such as health insurance and pensions.

Retail prices generally remained level, but some input prices increased. Where producers faced cost pressures on inputs, they were largely unable to pass those prices downstream to selling prices, although in Kansas City some manufacturers were considering raising selling prices due to higher raw materials costs. In Boston retail vendor and selling prices were stable. Philadelphia reported that prices of most goods and services have been steady, although there were increased reports of rising prices for basic materials and construction-related products. Apart from rising prices for steel and petroleum-based products in Cleveland, raw materials and product pricing were generally stable. Richmond noted moderate price increases in the manufacturing and services sectors. Chicago reported upward pressure on prices for plywood, industrial metals and petroleum-based fuels. In the Dallas District prices of chemicals and related products rose sharply, primarily due to plant outages. Natural gas prices slipped during the reporting period because of continued high levels of production, low industrial demand and the end of the winter season. Richmond and San Francisco reported increased overseas shipping costs.

US Gross Domestic Product (GDP)

The US Bureau of Economic Analysis (BEA) reported that the gross domestic product (GDP) grew at an annual rate of 3.2% in the first quarter 2010, following an increase of 5.6% in the fourth quarter of last year. That marked the third quarterly increase since last summer.

The healthy first quarter GDP gain was driven by a big rebound in consumer spending, which expanded at an annual rate of 3.6%, the best showing in three years. But economists said spending gains of that size could not be maintained without greater income growth.

The 0.6% rise in consumer spending, which matched last October's gain, followed a 0.5% increase in February and 0.3% January growth.

The increase in real GDP in the first quarter primarily reflected positive contributions from personal consumption expenditures (PCE), private inventory investment, exports, and nonresidential fixed investment that were partly offset by decreases in state and local government spending and in residential fixed investment. Imports, which are a subtraction in the calculation of GDP, increased.

The deceleration in real GDP in the first quarter compared to the fourth quarter 2009, primarily reflected decelerations in private inventory investment and in exports, a downturn in residential fixed investment, and a larger decrease in state and local government spending.

Motor vehicle output added 0.52 percentage point to the first-quarter change in GDP after adding 0.45 percentage point to the fourth-quarter change. Final sales of computers added 0.19 percentage point to the first-quarter change in GDP after adding 0.01 percentage point to the fourth-quarter change.

The price index for gross domestic purchases, which measures prices paid by U.S. residents, increased 1.7% in the first quarter, compared with an increase of 2.0% in the fourth. Excluding food and energy prices, the price index for gross domestic purchases increased 1.1% in the first quarter, compared with an increase of 1.5% in the fourth.

The federal pay raise for civilian and military personnel added 0.2-percentage point to the change in the first-quarter gross domestic purchases price index.

Real personal consumption expenditures (PCE) increased 3.6% in the first quarter, compared with an increase of 1.6% in the fourth. Durable goods increased 11.3%, compared with an increase of 0.4%. Nondurable goods increased 3.9%, compared with an increase of 4.0%. Services increased 2.4%, compared with an increase of 1.0%.

Real nonresidential fixed investment increased 4.1 percent in the first quarter, compared with an increase of 5.3% in the fourth. Nonresidential structures decreased 14.0%, compared with a decrease of 18.0%. Equipment and software increased 13.4 percent, compared with an increase of 19.0%. Real residential fixed investment decreased 10.9%, in contrast to an increase of 3.8%.

Real exports of goods and services increased 5.8% in the first quarter, compared with an increase of 22.8% in the fourth. Real imports of goods and services increased 8.9%, compared with an increase of 15.8%.

Real federal government consumption expenditures and gross investment increased 1.4% in the first quarter, compared with no change in the fourth. National defense increased 1.2%, in contrast to a decrease of 3.6%. Nondefense increased 1.7%, compared with an increase of 8.3%. Real state and local government consumption expenditures and gross investment decreased 3.8%, compared with a decrease of 2.2%.

The change in real private inventories added 1.57 percentage points to the first-quarter change in real GDP after adding 3.79 percentage points to the fourth-quarter change. Private businesses increased inventories $31.1 billion in the first quarter, following decreases of $19.7 billion in the fourth quarter and $139.2 billion in the third.

Real final sales of domestic product—GDP less change in private inventories—increased 1.6% in the first quarter, compared with an increase of 1.7% in the fourth.

Gross domestic purchases: Real gross domestic purchases—purchases by U.S. residents of goods and services wherever produced—increased 3.8% in the first quarter, compared with an increase of 5.2% in the fourth.

Disposition of personal income: Current-dollar personal income increased $115.1 billion (3.9%) in the first quarter, compared with an increase of $92.5 billion (3.1%) in the fourth.

Personal current taxes increased $73.3 billion in the first quarter, in contrast to a decrease of $1.9 billion in the fourth.

Disposable personal income increased $41.7 billion (1.5%) in the first quarter, compared with an increase of $94.4 billion (3.5%) in the fourth. Real disposable personal income was unchanged in the first quarter, compared with an increase of 1.0%.

Personal outlays increased $130.4 billion (5.0%) in the first quarter, compared with an increase of $96.5 billion (3.7%) in the fourth. Personal saving -- disposable personal income less personal outlays -- was $340.8 billion in the first quarter, compared with $429.3 billion in the fourth. The personal saving rate -- saving as a percentage of disposable personal income -- was 3.1% in the first quarter, compared with 3.9% in the fourth. For a comparison of personal saving in BEA's national income and product accounts with personal saving in the Federal Reserve Board's flow of funds accounts and data on changes in net worth, go to http://www.bea.gov/national/nipaweb/Nipa-Frb.asp.

Industrial Production

Industrial production edged up 0.1 percent in February, beating expectations and marking the eighth straight monthly increase. But the key manufacturing sector — for months a rare bright spot — produced less, as heavy storms slowed the economic recovery. The Federal Reserve reported that manufacturing, the index's largest component, fell 0.2 percent; while mining and utilities increased by 2.0 percent and 0.5 percent, respectively.

With inventories razor thin, businesses will need to place more orders to meet even a small uptick in demand. Once businesses have replenished their inventories, though, economists said the recovery will gain momentum only if consumer demand increases. Persistently high unemployment and stagnant wages have so far prevented any surge in consumer spending.

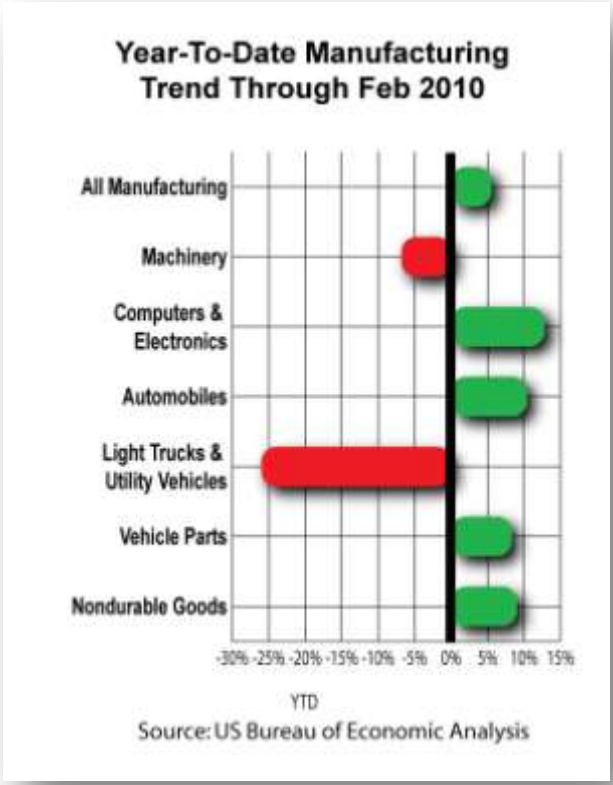
American industry was operating at 72.7 percent of its full capacity. The eighth straight monthly gain, it was a 0.2 percent increase from January — though still 7.9 percentage points below its average from 1972 to 2009.

Manufacturers' Shipments, Inventories and Orders

The US Department of Commerce reported that orders to U.S. factories rose 1.3 percent in March. That was much better than the 0.1 percent decline analysts had expected. Excluding the volatile transportation sector, orders gained 3.1 percent, the biggest increase since August 2005. The increase offers further evidence that U.S. manufacturers are helping drive the recovery.

At the moment, manufacturing is the leading star of the economic rebound and economists are predicting that will continue for the rest of the year, helping to offset weakness in other areas. Manufacturers are benefiting not only from the rebound in the United States but also rising demand for U.S. exports as the global economy recovers at a faster rate than had been expected.

For March, demand for durable goods, items expected to last at least three years, fell 0.6 percent, a better showing than a preliminary report on April 23 which had put the decline in durable goods at 1.3 percent.



The overall durable goods number was heavily influenced by a big swing in commercial aircraft, a volatile category, which plunged 66.9 percent in March after having posted huge gains in the two previous months.

Total transportation orders were down 12.3 percent. That was the biggest drop since June of last year as a 2.7 percent rise in demand for motor vehicles and parts only partially offset the plunge in aircraft.

But excluding transportation, factory orders posted a 3.1 percent rise, the best showing since a 3.6 percent increase in August 2005.

The strength in other industries was widespread, Orders for primary metals, including iron and steel, increased 4.7 percent while demand for machinery was up 8.6 percent, led by a 28.1 percent surge in construction machinery.

Orders for computers and other electronics products increased 22.7 percent.

The report showed that demand for nondurable goods, products such as

oil and chemicals, rose 2.9 percent in March. The strength in nondurables included strong increases in demand for petroleum, chemicals and tobacco.

New orders for manufactured goods in February, up ten of the last eleven months, increased $2.1 billion or 0.6 percent to $383.5 billion, the U.S. Census Bureau reported today. This followed a 2.5 percent January increase. Excluding transportation, new orders increased 0.7 percent.

Shipments, down following five consecutive monthly increases, decreased $0.5 billion or 0.1 percent to $384.9 billion. This followed a 0.7 percent January increase.

Unfilled orders, up two consecutive months, increased $3.3 billion or 0.5 percent to $722.2 billion. This followed a 0.2 percent January increase. The unfilled orders-to-shipments ratio was 5.55, up from 5.51 in January.

Inventories, up four of the last five months, increased $2.5 billion or 0.5 percent to $498.3 billion. This followed a 0.3 percent January increase. The inventories-to-shipments ratio was 1.29, unchanged from January.

Manufacturers Optimistic: The latest edition of the PricewaterhouseCoopers LLP Manufacturing Barometer reports that more than half of industrial products manufacturers (53%) are optimistic about the U.S. economy's prospects over the next 12 months. Only 10% are pessimistic, a sharp contrast to 55% a year ago; while 37% remain uncertain.

One-third of panelists believed the U.S. economy was growing in Q1 2010, and 12% believed it was declining. The majority (55%) believed that the U.S. economy was unchanged, similar to the prior quarter. International panelists expressed an even higher level of optimism regarding the world economy in Q1 2010, with 44% viewing the world economy as growing and 16 percent believing it was declining. Additionally, 40% felt the world economy was unchanged.

For U.S.-based industrial manufacturers that sell abroad, international markets showed further improvement in the first quarter of 2010. Forty-nine percent of respondents reported an increase in sales, up from 38% last quarter. The number of manufacturers reporting a decrease dropped to 24%, down significantly from one year ago, when 60% reported a decrease, and 27% were about the same this quarter. Additionally, of respondents selling abroad, the projected contribution of international sales to total revenue is 40% over the next 12 months, notably above the prior quarter's 34% and last year's 36%.

Looking at the next 12 months, 75% of panelists expect positive revenue growth for their companies, up 18 points from the prior quarter. Of that group, 63% expect single-digit growth, and 12% anticipate double-digit growth. Only 15% forecast negative growth, and 7% forecast zero growth.

Legislative/regulatory pressures unseated lack of demand as the most cited issue that could slow growth over the next 12 months, with 73% of panelists naming it as a concern (up 21 points from last quarter.) The number concerned about lack of demand is down but remains a chief barrier, cited by 63% of respondents. Other barriers cited this quarter include decreasing profitability, the monetary exchange rate and capital constraints.

Twenty-seven percent of those surveyed plan to add employees to their workforces over the next 12 months, and 17% plan to reduce the number of full-time equivalent employees, which is similar to the prior quarter. The net workforce projection is plus 0.5%, similar to last quarter's plus 0.4%.

Inventory remained down for 41% of U.S.-based industrial manufacturers and up for 23%, for a net minus of 18%. This compares to a net minus of 37% in the previous quarter and indicates that some activity in inventory replenishment has begun as of Q1 2010.

Twenty-eight percent plan major new investments of capital during the next 12 months, compared with 35% last quarter. Although the number is down, the mean investment as a percentage of total sales is notably higher -- 8.4% this quarter compared with 4.6% the fourth quarter of 2009.

Looking at the next 12 months, 70% plan to increase operational spending, up five points from last quarter's 65%. Among increased expenditures, new product or service introductions lead the way, cited by 43%, with research and development remaining in second place at 28%.

In the first quarter of 2010, gross margins were relatively flat: higher for 33%t of panelists and lower for 35 percent, for a net minus of 2%, below the prior quarter's plus 6%. Costs were slightly up: higher for 20% of U.S.-based industrial manufacturers and lower for 15% -- for a net plus 5%. On the pricing side, prices showed pressure this quarter -- only 13% raised prices, and 28% lowered them, for a net minus 15%, notably below the prior quarter.

Corporate Profits

Here is a sample of what some major automotive suppliers are reporting.

TRW Automotive Holdings Corp. reported first-quarter 2010 sales of $3.6 billion, an increase of $1.2 billion or 50% from the prior year period. The 2010 quarter benefited from a higher level of sales resulting from improved global vehicle production volumes compared to the prior year quarter when industry production fell to its lowest point of the cycle. Currency movements during the quarter also had a positive impact on sales compared to the same period a year ago.

Operating income for the first quarter of 2010 was $307 million, which compares to an operating loss of $71 million in the prior year period. The year-to-year improvement of $378 million was driven primarily by the positive profit impact from the higher level of sales between the two quarters, the positive impact of the Company's restructuring and cost containment actions implemented over the past year, lower raw material prices and, to a lesser extent, a favorable currency outcome.

Lear Corporation, a leading global supplier of automotive seating and electrical power management systems, today reported financial results for the first quarter of 2010 and updated its outlook for the full year of 2010. Highlights include:

First quarter net sales of $2.9 billion, up 36% from a year ago
First quarter core operating earnings of $138 million; positive free cash flow
Refinanced capital structure, resulting in improved financial flexibility, lower total debt and no significant debt maturities until 2018
Quarter-end cash balance of $1.3 billion; total debt of $745 million
Increased full year outlook for net sales, core operating earnings and free cash flow

For the first quarter of 2010, Lear reported net sales of $2.9 billion and pretax income of $80.2 million, including restructuring costs and other special items of $18.0 million. Income before interest, other expense, income taxes, restructuring costs and other special items (core operating earnings) was $138.2 million in the first quarter of 2010. This compares with net sales of $2.2 billion, a pretax loss of $257.1 million and negative core operating earnings of $66.7 million in the first quarter of 2009. A reconciliation of core operating earnings to pretax income (loss), as determined by generally accepted accounting principles ("GAAP"), is provided in the attached supplemental data page.

In the seating segment, net sales were up 32% to $2.3 billion, primarily driven by the improvement in global vehicle production and favorable foreign exchange. In the electrical power management segment, net sales were up 50% to $625 million, primarily driven by the improvement in global vehicle production, new backlog coming on line and favorable foreign exchange. Operating margins in both segments improved significantly, reflecting the increase in sales, favorable operating performance and the benefit of operational restructuring actions.

Standard Motor Products, Inc., an automotive replacement parts manufacturer and distributor, reported its consolidated financial results for the three months ending March 31, 2010.

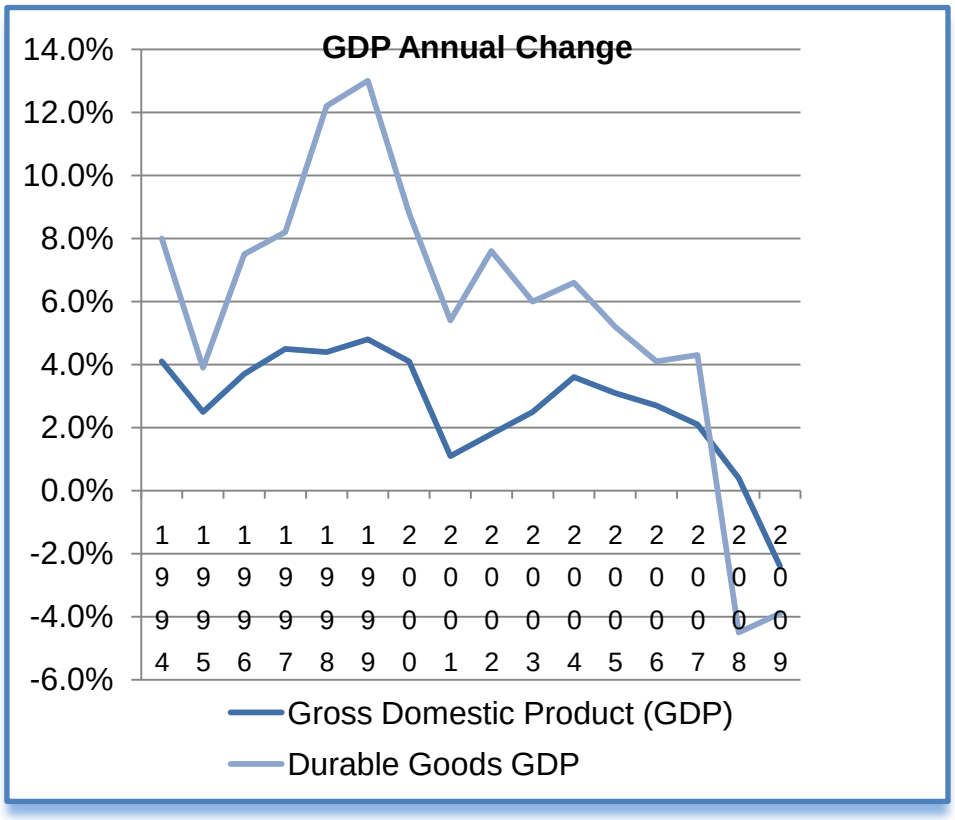
Consolidated net sales for the first quarter of 2010 were $179.4 million, compared to consolidated net sales of $172.2 million during the comparable quarter in 2009. Earnings from continuing operations for the first quarter of 2010 were $2.9 million, compared to $787 thousand in the first quarter of 2009.

"Overall, the aftermarket appears quite healthy, and we are seeing Engine Management increases in all three channels of our business--traditional, retail, and OE/OES. The positive sales trend continued into April.

Cooper Tire & Rubber Company reported net income of $12 million for the quarter ended March 31, 2010, a $33 million improvement from the same period in 2009. Net sales were $754 million, a substantial increase of $183 million, or 32%, from the prior year. Operating profit was $33 million for the quarter, a $49 million improvement compared with a loss of $16 million in 2009.

North American Tire Operations sales were $532 million during the first quarter, up significantly from 2009 net sales of $439 million. Total light vehicle tire shipments for Cooper's North America segment in the United States increased by 19%, outpacing the total industry shipment increase of 13% reported by the Rubber Manufacturers Association. This improvement occurred across nearly all product segments as the Company was able to increase market share.

Operating profit of $14 million for the first quarter rose by $17 million when compared with the same period in 2009. Excluding restructuring charges, which dropped by $7 million, the improvement from the prior year was $10 million. Manufacturing operations improved by $29 million, primarily as a result of better capacity utilization. Higher volumes improved results by $22 million.



2009 GDP

Real GDP decreased 2.4% in 2009, in contrast to an increase of 0.4 percent in 2008.

The decrease in real GDP in 2009 primarily reflected negative contributions from nonresidential fixed investment, exports, private inventory investment, residential fixed investment, and personal consumption expenditures (PCE) that were partly offset by a positive contribution from

federal government spending. Imports, which are a subtraction in the calculation of GDP, decreased.

The downturn in real GDP in 2009 primarily reflected downturns in nonresidential fixed investment and in exports and a larger decrease in private inventory investment that were partly offset by a larger decrease in imports and a smaller decrease in residential fixed investment.

The price index for gross domestic purchases was unchanged in 2009, compared with an increase of 3.2 percent in 2008.

Current-dollar GDP decreased 1.3 percent, or $185.1 billion, in 2009. Current-dollar GDP increased 2.6 percent, or $363.8 billion, in 2008.

During 2009 (that is, from the fourth quarter of 2008 to the fourth quarter 2009), real GDP increased 0.1 percent. Real GDP decreased 1.9 percent during 2008. The price index for gross domestic purchases increased 0.6 percent during 2009, compared with an increase of 1.9 percent during 2008.

Retail Sales

U.S. retail sales posted a gain in February of 0.3% despite falling car demand and fierce blizzards that crippled the East Coast for days. Retail sales data are an important indicator of consumer spending. Consumer spending makes up 70% of demand in the U.S. economy.

Excluding the car sector, all other February retail sales rose 0.8%. The retail sales report showed U.S. car and parts sales dropped by 2.0% last month. It is no surprise that Toyota suffered because of fallout from recalls and quality problems. Its sales fell 8.7% to 100,027 vehicles.

Filling station sales in February rose 0.3%.

Excluding sales of gasoline and cars, other retailers' sales jumped 0.9% last month, the biggest gain in three months.

January sales inched only 0.1% higher, rather than the hefty 0.5% gain first reported.

New Residential Construction

The U.S. Census Bureau and the Department of Housing and Urban Development jointly announced the following new residential construction statistics for February 2010:

Sector% Change to 2009

Building Permits (privately owned housing units) +11.3%

Housing Starts (privately owned housing units) +0.2%

Housing Completions (privately owned housing units) -15.5%

Unemployment

There has been a great deal of talk and concern over the US unemployment trend. Not surprising considering that in 2009 US unemployment reached 9.3 percent—the highest it has been in 26 years. Not since 1983 has the US experienced unemployment this high.

The question being debated is whether we will have a jobless recovery or a traditional one.

National Association for Business Economics (NABE) panelists characterize the outlook as largely a traditional economic recovery—with sizable gains in discretionary spending by businesses and households—though still restrained by past wealth losses and excessive indebtedness. —We see a healthy expansion under way, although it will take time to reduce economic slack and repair damaged balance sheets,‖ said NABE President Lynn Reaser, chief economist at Point Loma Nazarene University.

- **The NABE forecast panel expects the economic recovery to remain firmly on track.** Real GDP growth of 3.1 percent is projected over the four quarters of 2010, nearly identical to last November's prediction of 3.2 percent. That pace is also expected for 2011, comparing favorably with the panel's 2.7 percent assessment of the economy's underlying trend.
- **The consensus regarding growth in 2010 has narrowed**, with the more optimistic forecasts being trimmed and the more pessimistic ones being lifted. The dispersion among forecasters (as measured by the standard deviation of predictions on a Q4/Q4 basis) tightened to 0.9 percentage point from 1.1 percentage point.
- When asked to qualitatively characterize the economic recovery, panelists ascribed to no dominant view but suggested a variety of characterizations. The most popular view, by a small margin, describes the outlook as a traditional economic expansion in its early phase, with above-trend growth and gradually firming inflationary pressures. Only nine of the panelists firmly hold this position, however. Many NABE panelists fear that financial headwinds will hold growth short of what might typically be expected. Very few foresee a—stagflation‖ scenario—blending of slow growth and high inflation—with none regarding this scenario as very likely.

- While —financial headwindsǁ are expected to remain problematic, they are also likely to abate. **Specifically, bank lending is expected to become less restrictive over the course of 2010**, as bank earnings and economic conditions improve, according to 70 percent of respondents. Thirty percent, alternatively, believe conditions will remain restrictive due to regulatory guidance, capital pressures and a general climate of risk aversion.

Nonfarm payroll employment increased by 162,000 in March, and the unemployment rate held at 9.7 percent, the U.S. Bureau of Labor Statistics reported on April 2, 2010. Temporary help services and health care continued to add jobs over the month. Employment in federal government also rose, reflecting the hiring of temporary workers for Census 2010. Employment continued to decline in financial activities and in information.

Monthly U.S. Unemployment

Year	Average	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2000	4.00%	4.00%	4.10%	4.00%	3.80%	4.00%	4.00%	4.00%	4.10%	3.90%	3.90%	3.90%	3.90%
2001	4.70%	4.20%	4.20%	4.30%	4.40%	4.30%	4.50%	4.60%	4.90%	5.00%	5.30%	5.50%	5.70%
2002	5.80%	5.70%	5.70%	5.70%	5.90%	5.80%	5.80%	5.80%	5.70%	5.70%	5.70%	5.90%	6.00%
2003	6.00%	5.80%	5.90%	5.90%	6.00%	6.10%	6.30%	6.20%	6.10%	6.10%	6.00%	5.80%	5.70%
2004	5.50%	5.70%	5.60%	5.80%	5.60%	5.60%	5.60%	5.50%	5.40%	5.40%	5.50%	5.40%	5.40%
2005	5.10%	5.30%	5.40%	5.20%	5.20%	5.10%	5.00%	5.00%	4.90%	5.00%	5.00%	5.00%	4.90%
2006	4.60%	4.70%	4.80%	4.70%	4.70%	4.60%	4.60%	4.70%	4.70%	4.50%	4.40%	4.50%	4.40%
2007	4.60%	4.60%	4.50%	4.40%	4.50%	4.40%	4.60%	4.60%	4.60%	4.70%	4.70%	4.70%	5.00%
2008	5.80%	5.00%	4.80%	5.10%	5.00%	5.40%	5.50%	5.80%	6.10%	6.20%	6.60%	6.90%	7.40%
2009	9.30%	7.70%	8.20%	8.60%	8.90%	9.40%	9.50%	9.40%	9.70%	9.80%	10.10%	10.00%	10.00%
2010		9.70%	9.70%	9.70%									

Source: Bureau of Labor Statistics

New hiring rose in March to its highest level in more than a year. The Labor Department reported that employers hired 4.24 million people in March, up from 4 million the previous month. Job openings edged up by 47,000 to 2.69 million.

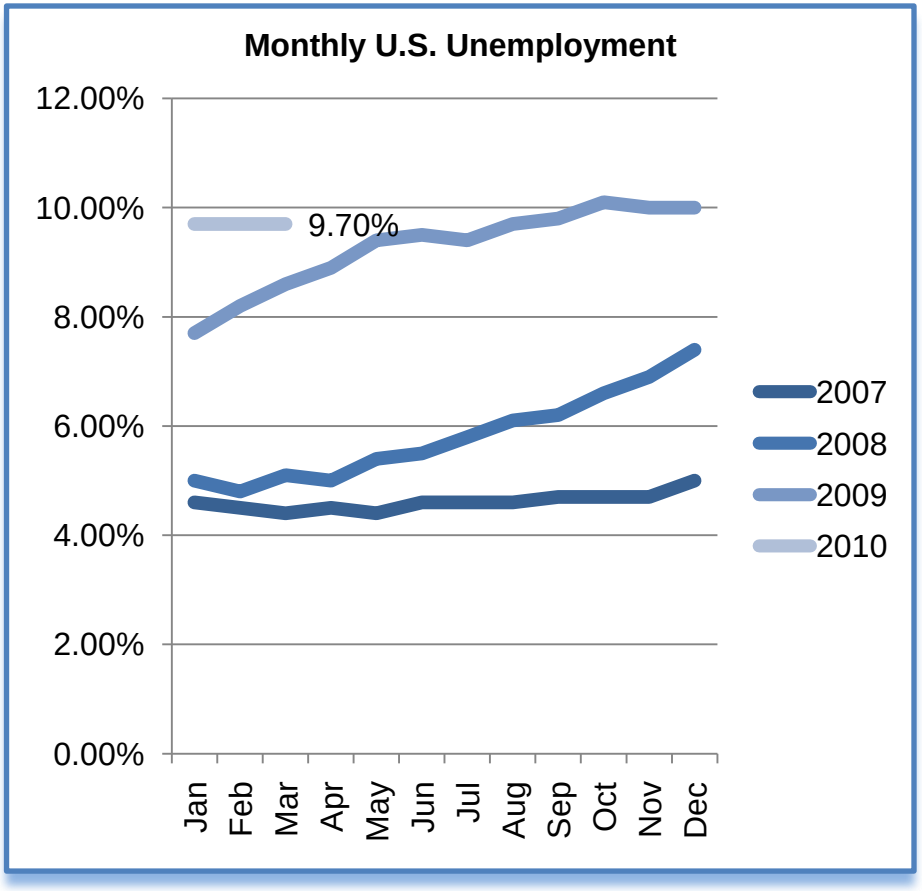
But new hires and job openings remain well below pre-recession levels, as many employers are still cautious about adding to payrolls.

In the government's report, the construction and retail industries reported the largest increases in hiring. The increase in construction hiring is likely a rebound from February, when severe weather shut down many projects.

With nearly 15.3 million people unemployed, competition for jobs remains stiff. On average there were nearly 5.6 jobless workers for each opening in March. That compares to 1.7 jobless workers for every opening in December 2007.

Employment Projections: 2008-2018

Total employment is projected to increase by 15.3 million, or 10.1%, during the 2008-2018 time frame, the U.S. Bureau of Labor Statistics reported recently.



The projections show an aging and more racially and ethnically diverse labor force, and employment growth in service-providing industries. More than half of the new jobs will be in professional and related occupations and service occupations. In addition, occupations where a postsecondary degree or award is usually required are expected to account for one-third of total job openings during the projection period. Job openings from replacement needs—those which occur when workers who retire or otherwise leave their occupations need to be replaced—are projected to be more than double the number of openings due to economic growth.

The projected growth for the 2008-2018 period is larger than the increase of 10.4 million over the 1998-2008 period, or 7.4%. The relatively slow growth rate for the earlier 10-year period was affected by the recession which began in December 2007, and the projected growth rate is higher than would otherwise be expected because the 2008 starting point is a recession year.

Labor Force

The civilian labor force is projected to grow by 12.6 million between 2008 and 2018, to 166.9 million persons. Slower population growth and a decreasing over-all labor force participation rate are expected to contribute to a slowdown in labor force growth. The projected 8.2% increase for the 2008-2018 period is less than the 12.1% growth that occurred between 1998 and 2008.

Civilian Workforce by Age
(in thousands)

Age	1998	2008	2018	% Change	
				1998 to 2008	2008 to 2018
16 to 24	21,894	22,032	21,131	0.6%	-4.1%
25 to 54	98,718	104,396	105,944	5.8%	1.5%
55 and older	17,061	27,857	39,836	63.3%	43.0%
Total16 and older	137,673	154,287	166,911	12.1%	8.2%

As the members of the large baby boom generation grow older and continue their trend of increased labor force participation, the number of people age 55 years and older in the labor force is expected to increase by 12.0 million, or 43.0%, during the 2008-2018 period. Folks in the 55 years and older age group are projected to make up nearly one-quarter of the labor force in 2018. Young people (age 16-24) are expected to account for 12.7% of the labor force in 2018, and persons in the prime-age working group (age 25 to 54) to account for 63.5% of the 2018 labor force.

The labor force in 2018 will be more diverse. As a result of higher population growth among minorities--due to higher birth rates and increased immigration, along with higher labor force participation rates by Hispanics and Asians--the share of the labor force held by minorities is projected to increase significantly. Whites will remain the largest race group in the labor force in 2018 (79.4%) despite growing by just 5.5% between 2008 and 2018. The number of Asians in the labor force is projected to increase by 29.8% and the number of blacks by 14.1%. In 2018, Asians are projected to comprise 5.6% of the labor force and blacks to make up 12.1%.

Hispanics (who can be of any race) will join the labor force in greater numbers than non-Hispanics. The number of Hispanics in the labor force is projected to grow by 7.3 million or 33.1%. Their share of the labor force will expand from 14.3% in 2008 to 17.6% in 2018. In contrast, the number of persons in the labor force not of Hispanic origin is expected to grow by 4.0%, and their share of the labor force to decline to 82.4%.

Industry Employment

Projected employment growth is concentrated in the service-providing sector, continuing a long-term shift from the goods-producing sector of the economy. From 2008 to 2018, service-providing industries are projected to add 14.6 million jobs, or 96% of the increase in total employment. The 2 industry sectors expected to have the largest employment growth are professional and business services (4.2 million) and health care and social assistance (4.0 million). By 2018, nearly 79% of all US jobs will be in the service sector.

Goods-producing employment, as a whole, is expected to show virtually no growth. While employment in the construction industry is projected to increase by 1.3 million, declines in manufacturing (-1.2 million) and mining (-104,000) will nearly offset this growth. By 2018, the goods-producing sector is expected to account for 12.9% of total jobs, down from 17.3% in 1998 and 14.2% in 2008.

Three of the 10 industries projected to have the most employment growth are in professional and business services: management, scientific, and technical consulting; computer systems design; and employment services. Altogether, these 3 industries are expected to add 2.1 million jobs. Four of the top 10 gainers are in health care and social assistance industries. Employment in offices of physicians, home health care, services for the elderly and persons with disabilities, and nursing care facilities is expected to grow by 2.0 million.

Top Ten Industries With Projected Employment Increases (in thousands)

Industry	Employment		Percent Change
	2008	2018	
Management, scientific, technical consulting services	1,009	1,844	82.8%
Offices of physicians	2,266	3,038	34.1%
Computer systems design/related services	1,450	2,107	45.3%
Other general merchandise stores	1,490	2,097	40.7%
Employment services	3,144	3,744	19.1%
Local government	5,819	6,306	8.4%
Home health care services	958	1,399	46.1%
Services for elderly/persons with disabilities	585	1,016	73.8%
Nursing care facilities	1,614	2,007	24.4%
Full-service restaurants	4,598	4,942	7.5%

Of the 10 industries with the largest projected employment declines, 4 are in the manufacturing sector and 2 each are within retail trade and information. The largest decline among the detailed industries is expected to be in department stores, with a loss of 159,000 jobs, followed by manufacturers of semiconductors (-146,000) and motor vehicle parts (-101,000).

Top Ten Industries With Projected Employment Declines
(in thousands)

Industry	Employment		Percent Change
	2008	2018	
Department Stores	1,557	1,398	-10.2%
Semiconductor/electronic component manufacturing	432	287	-33.7%
Motor vehicle parts manufacturing	544	443	-18.6%
Postal service	748	650	-13.0%
Printing/related support activities	594	499	-16.0%
Apparel manufacturing	155	67	-57.0%
Newspaper publishers	326	245	-24.8%
Mining support activities	328	252	-23.2%
Gasoline stations	843	769	-8.9%
Wired telecommunications carriers	666	593	-11.0%

Occupational Employment

Two major occupational groups--professional and related occupations and service occupations--are projected to provide more than half of the total employment growth during the 2008-18 period. Production occupations are projected to decline.

The 30 detailed occupations with the largest gains in employment are expected to account for nearly half of all new jobs, and 17 of these occupations are professional and related occupations and service occupations. The detailed occupation projected to add the most jobs is registered nurses (582,000), followed by home health aides (461,000) and customer service representatives (400,000). All but 3 of the top 30 fastest-growing detailed occupations are found within professional and related occupations and service occupations. Seventeen of these rapidly growing occupations are related to healthcare or medical research.

Of the 30 detailed occupations projected to have the largest employment declines, 12 are production occupations and 11 are office and administrative support occupations.

Education and Training

Occupations that usually require a postsecondary degree or award are expected to account for nearly half of all new jobs from 2008 to 2018 and one-third of total job openings. Among the education and training categories, the fastest growth will occur in occupations requiring an associate degree.

Short- and moderate-term on-the-job training are the most significant sources of postsecondary education or training for 17 of the 30 detailed occupations projected to have the largest employment growth. However, in terms of percent growth, 14 of the 30 fastest growing detailed occupations have a bachelor's degree or higher as the most significant source of postsecondary education or training.

Of the 30 detailed occupations projected to have the largest employment declines, 17 are classified as having short-term on-the-job training as the most significant source of education and training, and 10 are in the moderate-term on-the-job training category.

Total job openings during the 2008-18 period are projected to be 50.9 million, and 19.6 million of these jobs are expected to be in the short-term on-the-job training category. Sixteen of the 30 detailed occupations with the most job openings will have short-term on-the-job training as the most significant source of education and training.

A Note on Labor Shortages in the Context of Long-Term Economic Projections

Users of these data should not assume that the difference between the projected increase in the labor force and the projected increase in employment implies a labor shortage or surplus. Employment and labor force measures differ in concept. Employment is a count of jobs, and persons who hold more than one job would be counted for each job. Labor force is a count of individuals, and a person is counted only once regardless of how many jobs he or she holds. In addition, the BLS projections assume a labor market in equilibrium, that is, one where labor supply meets labor demand except for some degree of frictional unemployment.

Manufacturers' Shipments, Inventories and Orders

The US Department of Commerce reported that orders to U.S. factories rose 1.3% in March. That was much better than the 0.1% decline analysts had expected. Excluding the volatile transportation sector, orders gained 3.1%, the biggest increase since August 2005. The increase offers further evidence that U.S. manufacturers are helping drive the recovery.

At the moment, manufacturing is the leading star of the economic rebound and economists are predicting that will continue for the rest of the year, helping to offset weakness in other areas. Manufacturers are benefiting not only from the

rebound in the United States but also rising demand for U.S. exports as the global economy recovers at a faster rate than had been expected.

For March, demand for durable goods, items expected to last at least three years, fell 0.6%, a better showing than a preliminary report on April 23 which had put the decline in durable goods at 1.3%.

The overall durable goods number was heavily influenced by a big swing in commercial aircraft, a volatile category, which plunged 66.9% in March after having posted huge gains in the two previous months.

Total transportation orders were down 12.3%. That was the biggest drop since June of last year as a 2.7% rise in demand for motor vehicles and parts only partially offset the plunge in aircraft.

But excluding transportation, factory orders posted a 3.1% rise, the best showing since a 3.6% increase in August 2005.

The strength in other industries was widespread, Orders for primary metals, including iron and steel, increased 4.7% while demand for machinery was up 8.6%, led by a 28.1% surge in construction machinery.

Orders for computers and other electronics products increased 22.7%.

The report showed that demand for nondurable goods, products such as oil and chemicals, rose 2.9% in March. The strength in nondurables included strong increases in demand for petroleum, chemicals and tobacco.

New orders for manufactured goods in February, up ten of the last eleven months, increased $2.1 billion or 0.6% to $383.5 billion, the U.S. Census Bureau reported today. This followed a 2.5%January increase. Excluding transportation, new orders increased 0.7%.

Shipments, down following five consecutive monthly increases, decreased $0.5 billion or 0.1% to $384.9 billion. This followed a 0.7%January increase.

Unfilled orders, up two consecutive months, increased $3.3 billion or 0.5 percent to $722.2 billion. This followed a 0.2%January increase. The unfilled orders-to-shipments ratio was 5.55, up from 5.51 in January.

Inventories, up four of the last five months, increased $2.5 billion or 0.5% to $498.3 billion. This followed a 0.3% January increase. The inventories-to-shipments ratio was 1.29, unchanged from January.

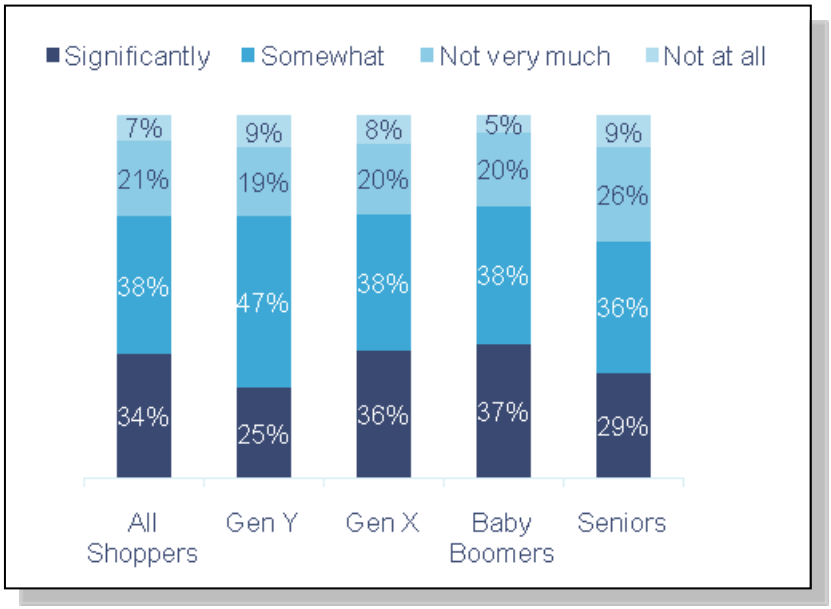
Consumer Changes

GenX and Millennials Driving Recovery

According to a new report from PricewaterhouseCoopers and Retail Forward, entitled The New Consumer Behavior Paradigm: Permanent or Fleeting?, for the first time in the last three recessions, it will not be Baby Boomers at the heart of the economic recovery, as the recession has taken a bite of their savings and retirement accounts. This time it is the Gen Xers and Millennials who will be driving the recovery.

And, the report notes, shoppers will be more deliberate and purposeful in their spending, as conspicuous consumption will give way to more conscious or practical consumerism. Rampant deal-seeking will be replaced by more purchase selectivity and the use of shopping techniques and tools discovered during the recession. Additionally, the affluent segment of Generation X and the young Generation Y will lead spending in the recovery. For the complete report from PriceWaterhouseCoopers, please visit the following webpage

http://www.pwc.com/us/en/retail-consumer/publications/the-new-consumer-behavior-paradigm.jhtml



How much shopping behavior has changed due to the economy

Gen Y: Shoppers born 1982 to 2000; Gen Y shoppers included in this report are 18–27 years old Gen X: Shoppers born 1965 to 1981 Baby Boomers: Shoppers born 1946 to 1964 Seniors: Shoppers born prior to 1946

Source: Retail Forward ShopperScapeTM, October 2009

Among Gen Y consumers (those between 18 and 27 for this report) just 25% say the economy has significantly changed their spending behavior, while 36% of Gen Xers say it has, and 37% of Boomers say they have significantly changed shopping habits.

In the past two recessions, Baby Boomers quickly led the recovery. However, this group has been hit hard by the recession at a point in life when their financial commitments loom large and retirement is on the horizon. Marketers will

need to look to the Gen X generation and Gen Y population to fuel growth in the initial stages of the post-recession recovery.

A higher proportion of Gen Y's income is discretionary as a result of fewer debts and a less-urgent need to accumulate wealth in the immediate term. Furthermore, as this generation is accustomed to instant gratification and demands the latest gadgets, spending on technology staples like MP3 players and smart phones will remain a priority and create unique opportunities for tech-oriented retailers.

Findings included in study indicate that one-fifth of consumers will continue to forgo buying items that seem too expensive, resulting in a contraction for the luxury and gourmet foods markets. The emergence of a more thoughtful approach to spending on luxury and non-discretionary goods means shoppers will place a premium on goods that have qualities of timeliness, usefulness, and versatility.

Shopping Behaviors Likely to Continue As Economy Improves

Group	Deal-seeking Behavior: Taking advange of good sales/deals	Limiting Behaviors: Buying only things I truly need	Trading-down Behaviors: Buying more store brands instead of national or high-end brands
All Shoppers – Aug 2008	41%	38%	23%
All Shoppers – Oct 2009	35%	32%	17%
Gen Y – Oct 2009	23%	21%	12%
Gen X – Oct 2009	33%	29%	15%
Baby Boomers – Oct 2009	39%	35%	18%
Seniors – Oct 2009	36%	34%	19%

Source: Retail Forward ShopperScapeTM, Aug 2008 and Oct 2009

Advertising that Is Most Helpful When Bargain Hunting According to US Adults, by Age, December 2009 (% of respondents)

	18-34	35-44	45-54	55+	Total
Newspaper/magazine ads	15%	16%	24%	33%	23%
Online ads	22%	26%	17%	12%	18%
Direct mail and catalogs	13%	13%	14%	10%	12%
TV commercials	17%	12%	8%	7%	11%
Radio	2%	3%	*	1%	2%
None—the type of ad makes no difference	31%	31%	36%	36%	34%

*Note: numbers may not add up to 100% due to rounding; *indicates less than 0.5%*
Source: Adweek Media/Harris Poll, January 22, 2010

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To win in the recovery, retailers and suppliers will need to:

• Recognize that even in the recovery, some shopper segments will still be in "recession" shopping mode.

• Make sure customer targets are aligned with the marketplace—which means that many companies need to tune up their understanding of Gen X shoppers and tune in, perhaps for the first time, to Gen Y.

• Leverage all components of their offerings that are "need to haves" and create more "must haves" by building the case—through marketing, positioning and merchandising—that their offer is responsive and relevant to shoppers' needs.

As much as retailers and suppliers hope that shopping behavior will return to "normal" as the economic environment starts to improve, the changed circumstances of key shopper segments and the individual behaviors of shoppers themselves are indicating that there will not be a wholesale return to previous shopping patterns and behaviors.

Ways that US New Media Users Would Like Companies/Brands to Use New Media for Consumer Interaction, by Industry, September 2009 (% of respondents)

	Solve my problems/ provide product/ service informa-tion	Offer me incen-tives	Solicit my feed-back on products/ services	Develop new ways for me to interact with their brands	Enter-tain me	Mar-ket to me
Apparel/footwear	30%	32%	28%	26%	23%	23%
Automotive	31%	28%	24%	24%	21%	21%
Food/beverage	26%	39%	29%	28%	21%	26%
Financial services, banking, insurance	32%	25%	25%	24%	20%	20%
Consumer products	28%	35%	26%	25%	24%	25%
Healthcare and pharma	31%	31%	26%	25%	19%	19%
Retail stores	31%	33%	25%	27%	25%	28%
Telecommunications	32%	28%	23%	27%	25%	20%

Note: n=587
Source: Cone, "2009 Cone Consumer New Media Study," provided to eMarketer, October 22, 2009

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76% of Americans would rather spend more time with their families than make more money, according to *Ogilvy & Mather*.

Job Stability Leads to Spending: Seven in 10 Americans consider their job situation today "just as stable" or "more stable" than last year, **according to** the March 2010 **American Express** Spending & Saving Tracker. The Tracker also indicates this feeling of job stability often leads to higher spending.

Most Consumers Feel Stable at Work

Fifty-four percent of Americans consider their current job situation "just as stable" as last year. Another 16% consider it "more stable," for a combined 70% of Americans who report having some level of job stability. In contrast, 24% consider their current job situation "less stable" than last year.

Young professionals in particular are experiencing high levels of job stability. Thirty-four percent of respondents in this group report having more job stability, compared to 14% of affluents and 16% of the general population. Fifty percent of young professionals report having the same level of job stability, more in life with the general population (54%) and affluents (60%).

Stability Equals Spending: In good news for marketers, a majority of consumers who report having higher levels of job stability also report increased spending. Sixty percent of respondents reporting they have more job stability have increased their spending and investments. Popular areas for increased spending include discretionary categories such as dining out (35%) and travel (31%).

Consumers Prepare for the Worst: Despite feeling secure in their jobs and spending habits, almost three out of four respondents (71%) have a financial backup plan. The vast majority of young professionals (88%) and affluents (81%) reported having a plan as well.

Baby Boomers Making Unexpected Car Buying Choices: Baby boomers make up about a third of the United States' driving population, and purchase almost half of all new cars sold, but automakers are somewhat surprised about the choices they are making today, according to Edmunds.com.

"It was once thought that when baby boomers could put college tuition payments and other parenting expenses behind them, they would reward themselves with expensive luxury cars," commented Edmunds.com Senior Analyst Michelle Krebs. "But that was before economic catastrophe struck. Now that their kids can't find jobs and their nest eggs have shrunk, they are re-thinking everything, including their vehicle choices."

Their vehicle choices fall into one of three sweeping categories: efficiency, lifestyle and indulgence.

Many baby boomers are choosing vehicles that allow them to save money and gasoline while presenting an environmentally conscious image. A smaller vehicle not only means a smaller gas bill but likely also a smaller monthly payment and cheaper insurance—but not much sacrifice in the driving experience, since today's compact cars are stylish and can be loaded with features.

Baby boomers seeking efficiency are often drawn to Chevrolet Volt, Ford Fiesta, Honda Fit, Mini Cooper, Nissan Leaf, Toyota Prius and Volkswagen Jetta TDI (diesel).

In February 2010, sub-compact model sales were 23.8% more than in 2009 and compact model sales beat last year by 14.5%. Year-to-date sales for the two categories are up 11.0% and 14.4% respectively. On an individual model basis year-to-date, the real winners are the Chevy Cobalt (up 100.3% over last year), Nissan Versa (up 74.4% over last year) and the Volkswagen Beetle (up 89.1% over last year).

Other baby boomers—especially those who often carry the grandkids or have hobbies that require hauling capability—are not ready to give up the functionality of a larger vehicle. Since their SUVs have become politically incorrect, many are buying crossovers—which have the interior space and versatility of an SUV but ride on the architecture of a car instead of a truck and therefore get better fuel economy.

The midsize CUV segment is showing sales that are 35.3% ahead of last year at this time. The models leading the charge in an increase in sheer number of units sold are the Hyndai Santa Fe which is up nearly 5,000 units and the Ford Edge showing more than 4,000 units this year than last.

Of course, some baby boomers are rewarding themselves—but luxury leaders Audi, BMW, Cadillac, Lexus, Lincoln and Mercedes are not the only automakers attracting their attention. Some boomers who are nostalgic for the past want the car they had in their youth – or the car they wanted in their youth. This segment is giving new life to Detroit muscle cars such as Chevy Camaro, Dodge Challenger and Ford Mustang. And performance is being redefined to mean not just raw horsepower but fuel efficiency in a luxury or sport package. We're seeing highly efficient diesel-powered Audis, BMWs and Mercedes, and hybrid versions of the BMW X5 and Mercedes S-Class.

Within the premium lines, the Mercedes E-Class is up 69.6% and the Acura MDX which has increased sales by 37.0%.

"At the recent Geneva motor show, I also saw Porsche and Ferrari hybrids—perhaps the dream cars of many baby boomers," notes Krebs. "Ultimately, we boomers haven't changed: we still want it all."

Finally, indulgence comes in all segments and price categories. Just because boomers downsize doesn't mean they are willing to give up the pampering and rewards they have grown accustomed to. They want not only heated but cooled seats, navigation, phone—hands-free and voice-activated—their own music. And automakers are accommodating with features like Ford's Sync.

Shoppers Likely to Buy Used: More Americans say they will buy a used car when it comes time to replace their current vehicle, according to a recent telephone survey conducted for CarMax, Inc.

Thirty percent of respondents surveyed indicated that buying a used car is what they will do once their current car stops running. A greater percentage of women chose this answer (34 percent) than men who were surveyed (26 percent). One in five (18 percent) respondents said that they purchased a car in the past year despite the recession, while seven percent say that they are ready for a new car, but will buy a used car to be smart.

The following are the results of the recent telephone poll that asked adults: As the weather and the economy both show signs of possible thawing, which of the following statements best describes your attitude toward shopping for your next car?

Responses Offered	Percent
I'll wait until my car doesn't run anymore, then I'll buy used	30%
I bought a car this past year despite the recession	18%
It's still too early, I'm nervous about spending that kind of money	13%
I am ready for a new car but I will buy used to be smart	7%
I'm doing my research online to find the right car to purchase	7%
I'm looking for something with fewer bells and whistles to keep the cost low	2%

The survey was conducted by Ipsos Public Affairs on behalf of CarMax. The national, random sample consisted of more than 1,000 U.S. adults who were interviewed by telephone during February 18 – February 22, 2010. Of those surveyed, 23 percent responded "none of the above/not applicable."

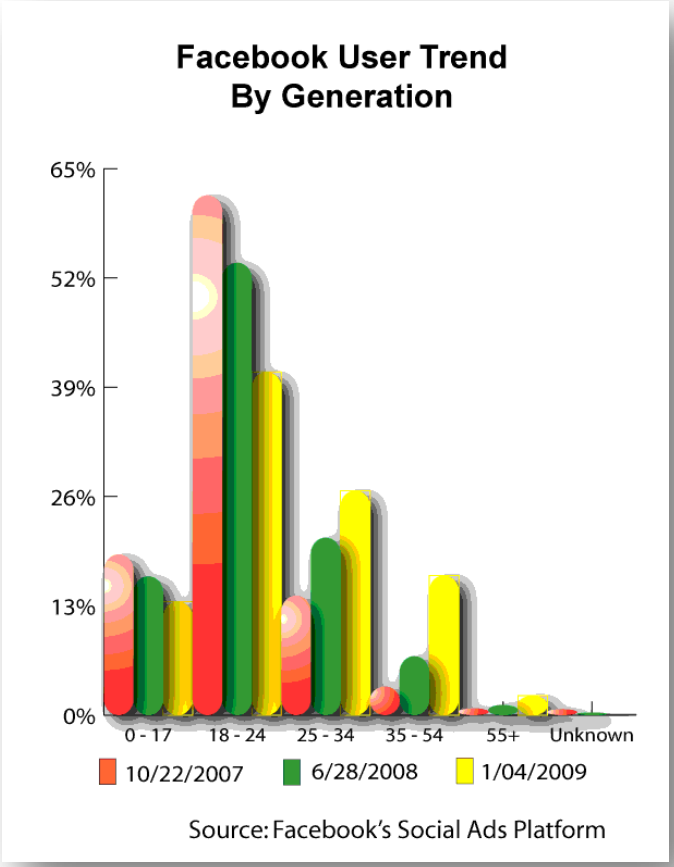
According to ADESA, in February used vehicle average wholesale prices reached their highest level in eight months and passed the $10,000 mark for the first time since July 2009. This represents an 8.3% year-over-year gain, and a 3% upswing compared to January.

Looking at individual segments, there were year-over-year increases across the board, with full-size vans (up 33%) leading the way. Full-size SUVs (up 10.8%) and luxury cars (up 10.7%) also showed double-digit gains.

Overall, car segments climbed 6.2% from February 2009, and truck segments grew 11%. On a month-over-month basis, only full-size cars (down 4.8%) saw their values fall. Sporty cars (up 5.6% from January) led the rise, as car segments jumped 3.9% and trucks climbed 2.3%.

Social Media

Did you realize that the 55 and older crowd is one of the fastest growing segment on Facebook? Between October 2007 and January 2009 there was a 194.3% jump in the number of Baby Boomers using Facebook. This growth has taken Baby Boomers from less than 1% to 2.3% of the total Facebook users. It is no surprise that the largest increase in Facebook users was in the 35 to 54 age group with 276.4%.



Notice in the graph how the yellow bars and the red bars have changed proportions for each of the generations during the course of less than 2 years.

Whatever happened to the conventional wisdom that marketing on the Internet was a waste of time when it came to Baby Boomers? Would you believe that there are now social media opinion leaders among Baby Boomers just like there are for Gen X and GenY? There are, and they have been dubbed Social Media Mavens.

Continuum Crew, recently announced the findings of their 2009 survey conducted by CPH Research. The survey is a follow-up to their Economic Impact Study released in December 2008. The findings show that there has been a shift in the media consumption of Baby Boomer-aged respondents', as the only media activity to rise dramatically was time spent on the Internet. This is one of

several insights on the emergence of the new 'social media maven' among Baby Boomers, and indicates that social media has significantly carved out time generally reserved for traditional media.

Baby Boomers are defined as the generation born between 1946 and 1964, according to the U.S. Census Bureau. The generation is so large that some have come to call the younger Baby Boomers “Generation Jones,” for those born between 1954 and 1964. Meanwhile many have come to refer to the older Baby Boomers as “Generation Ike” (Ikes) representing those born between 1934 and 1945.

In interpreting all the responses about media consumption, they reflect the convergence of technology and content. Boomers are becoming more aware that national and local news, magazines, and to some extent television and movies, are available to them via the Internet. This may even indicate an increasing preference to access content this way. Also, these responses illustrate a seismic shift among older adults experimenting in the social media arena. This makes an inviting challenge to product marketers (beyond the platform networks themselves) as to how they will work to engage those users who are merely ‘lurking' and not fully participating.

In the survey's measurement of levels of social media involvement, clear respondent types appeared, based on levels of interpersonal contact (whether in-person or not) and levels of recommendation of products or services to those in their personal or social network. One of these respondent types forms a significant segment to emerge within the Boomer group, which is dubbed the new 'Social Media Maven': the Boomers who said they connected with the most contacts each day and made the most recommendations. The profile of this group is one that is heavily connected, exploring and expanding their networks.

These Social Media Mavens have more frequent contact with individuals across all types of groups within their social network, not just family or neighbors, but issue-oriented groups and co-workers as well (73% responded ‘People often come to me for advice'). Not merely amassing ‘friends' or ‘connections' within these networks, they are communicating regularly. They also have more face-to-face contact and use smart phones more than other Boomers or Generation Jones respondents (78% responded ‘New technology plays an important role in my life'). They are equally likely to be male as female, which defies the stereotypical female profile of the voracious social media consumer. Of this Social Media Maven group the majority are still working, more likely than the other segments to own their own business, most likely to engage in volunteer activity and to have the highest household income. Social Media Mavens are more likely to try new products, technologies and seek new experiences. They are recommenders who embrace the role of technology in their lives.

Vintage Millennials

Automotive enthusiasts are a funny bunch of people. Consider this: people are spending a great amount of their wealth shipping obsolete pieces of technology around the world when newer, faster, safer, more efficient and cheaper options can be found a few miles away. It's not rational, it's not pragmatic and it's not always explainable to people that never caught the "car bug." It is, however, a lot of fun!

Hot rodders, salt flat racers, speed junkies and gearhead pioneers deserve to have their history chronicled and catalogued, but as a "young'n" in the industry that grew up with a vastly different vision of automotive culture I feel the duty to highlight one of the new eras of automotive nostalgia – millennials and vintage Japanese cars.

Are you aware that enthusiasts in their 20s & 30s are importing classic cars from Japan to United States? Enthusiasts from around the world have been exporting classic American cars to far off reaches of the globe for decades, but now the transfers are no longer unilateral.

Take this 1967 Chevrolet Camaro from Akira Yamamoto. Mr. Yamamoto belongs to a large and deeply passionate sub-culture of hobbyist and mechanics from Japan that import and customize American muscle. The same scenario can be replayed throughout Europe, South America, Canada and most parts of the world where enthusiasts have resources.

On the newer side of the spectrum are the young enthusiasts that are lining up to import, modify and restore Japanese cars that were, like Akira's Camaro, never sold domestically in large numbers; some not at all. For example, urban-apparel storeowner and automotive community founder Mark Arcenal has obtained a 1972 Nissan Skyline from Japan much like the one below. He is part of a growing crowd of enthusiasts that are taking it upon themselves to collect cars that embody the history and lineage of the Japanese marquees. These are rare, expensive, moderately difficult to import and especially challenging to repair. But the

passion easily overrides the obstacles because these are the ancestors to the cars of the scene we grew up with. Car shows, magazines, retailers, custom builders and racing associations have begun to embrace and nourish the swelling appreciation of these vehicles, but manufacturers have not yet matched the support.

When the Japanese brands launched operations in the United States the reception was mixed. Some of the cars ultimately earned a cult-like following with a few notable models receiving museum-like accolades. It is very common for the Toyota 2000GT sports car to bring auction prices above $200,000 and some historic racecars like this 1974 Datsun 240Z IMSA GTU Championship car have appraisals even higher.

This is Barrett-Jackson territory; this is also a great thing for the automotive performance parts and accessories industry as it keeps the momentum going for another generation. Make no mistake, those of us in the under-30 crowd are still interested and fascinated by traditional hotrods, street rods and musclecars and we would like to add them to our garages, but they do not hold the same nostalgia as felt by previous generations and we have a heightened sense of connection with cars from the 70s, 80s and 90s

Globalization

Executive Summary

Globalization is not new. For centuries, people and corporations have bought from, sold to and invested in enterprises in other countries. But policy and technological developments of the past few decades have accelerated increases in cross-border trade, investment, and migration.

Since 1950 the volume of world trade has increased by 20 times, and from just 1997 to 1999 foreign investment flows nearly doubled, from $468 billion to $827 billion. Distinguishing this current wave of globalization from earlier ones, is that today globalization is “farther, faster, cheaper, and deeper.”

Look back at the global economy in the middle of the 20th century and you'll find:

- The shock of a great depression, two world wars, and restrictions on immigration had led to little economic interconnectedness between countries.
- The United States was the world's greatest economic power, producing 27% of the world's Gross Domestic Product (GDP).
- The world's poorest economies were China and India, each making up only 4% of the world's GDP.

Now fast forward to the state of the global economy more than a half-century later and you'll see that much has changed:

- International institutions, radical changes in communication and information technology, and stronger national commitments to globalization have led to increased economic interconnectedness.
- In 2006, the U.S. share of the global GDP was only 22%
- China and India are experiencing unprecedented economic gains. By 2040, the economy of China could become larger than the economies of the United States, Western Europe, and Japan—combined.

These are just some of the many dramatic changes that are underway as globalization continues to be a force in our economic climate.

Taking advantage of new opportunities in foreign markets, corporations have built factories in other countries and established production and marketing arrangements with foreign partners. A defining feature of globalization is an international industrial and financial business structure.

Globalization is deeply controversial, however. Proponents of globalization argue that it allows poor countries and their citizens to develop economically and raise their standards of living, while opponents of globalization claim that the creation of an unfettered international free market has benefited multinational corporations in the Western world at the expense of local enterprises, local cultures, and common people. Resistance to globalization has therefore taken shape both at a popular and at a governmental level as people and governments try to manage the flow of capital, labor, goods, and ideas that constitute the current wave of globalization.

Forces Shaping the Global Economy

Recent data indicate that only half of the world's 100 largest economies are "nation-states." The rest are multinational corporations. As you will see from the list below, five of the top thirty are corporations. From another perspective, international sales make up nearly half of all revenue reported by S&P 500 companies. What's more, international revenue growth has surpassed domestic increases since 2003. In 2008, domestic B2B sales gained 0.4%, while international B2B revenue grew by 10.8%.

Top 30 Global GDP/Revenue Sources

(in millions US dollars)

Entity	GDP/Revenue
US	14,256,275
Japan	5,068,059
China	4,908,982
Germany	3,352,742
France	2,675,951
UK	2,183,607
Italy	2,118,264
Brazil	1,574,039
Spain	1,464,040
Canada	1,336,427
India	1,235,975
Russia	1,229,227
Australia	997,201
Mexico	874,903
South Korea	832,512
Netherlands	794,777
Turkey	615,329
Indonesia	539,377
Switzerland	494,622
Belgium	470,400
Royal Dutch Shell	458,361
Poland	430,197
Exxon Mobil	442,851
Wal-Mart	405,607
Sweden	405,440
Norway	382,983
Austria	381,880
Taiwan	378,969
BP	367,053
Chevron	263,159

According to the latest McKinsey Global Survey, the top global developments that executives around the world view as the most important for business and the most positive for their own companies' profits over the next five years include:

- An ongoing shift in global economic activity from developed to developing economies
- growth in the number of consumers in emerging markets
- technologies that enable a free flow of information worldwide
- increasingly, global labor markets
- natural resource management

In this sixth annual survey asking executives about the forces shaping the world economy, there is little change in how respondents view the importance of global trends compared with previous years—either for business in general or for their own companies' profits. Clearly, the financial crisis and economic downturn have not had a major impact on these key trends. Continued faith in the positive effects of globalization combined with a move away from short-term planning likely reflects rebounding optimism about global economic prospects and is consistent with the findings of other McKinsey surveys on the economy.

The findings show that the global economy faces significant challenges as it continues to integrate. For example, most respondents—63% expect increased overall volatility to become a permanent feature of the global economy, and another 23% see sharply higher levels of volatility that will undermine the economy's robustness. In addition, high levels of public debt are a headache in Europe and North America, where most executives fear the debt will have a negative impact on GDP growth.

Impact Of Trends On Companies' Profitability Over The Next 5 Years

Trend	*Viewed as Very or /Somewhat positive*
Growth of consumers in emerging economies/changing consum	58%
Development of technologies that empower consumers and con	64%
Increase in labor productivity in developed markets	N/A
Shift of economic activity between and within regions	48%
Increasingly global markets for labor and talent	52%
Growth of public sector	44%
Increase in sophistication of capital markets	30%
Growth in consumer demand for corporate contributions to the b	33%
Increase in constraints on supply or usage of natural resources	31%
Geopolitical instability	14%

Source: McKinsey, May 2010

Over the years we have seen trading alliances formed between groups of countries. There is OPEC, NAFTA and the EuroZone just to name a few. But the one trading alliance that could dominate global economies is about to be formed.

India and China are forming an economic bloc containing 40% of the world's population. The number of business flights between the two countries has more than doubled each year since 2006. Last year, formal talks began to make this arrangement more official. Establishment of an Asian common market could make China and India the center of the global economy.

China Automotive Industry Climate Index At Record High

Here are the current trends for the China automotive market. First, the index of Q1 continues to increase, hitting an historic record high. Secondly, the indicators of production, sales, profit, tax, etc. all record increases to different extents. Thirdly, the capital occupation rates for finished products and accounts receivable rise quickly, but their proportions in sales revenue are decreasing, indicating that the inventory and account sales are in a normal condition. Finally, entrepreneurs are optimistic about the market development, but the Dealer Manager Index records a significant drop, revealing that the over-heating market in the second half of the previous year has somewhat cooled down.

China Economic Monitoring Center of China National Bureau of Statistics and Sinotrust International Information & Consulting (Beijing) jointly release the "2010 Q1 China Automotive Industry Climate Index."

1. The Comprehensive China Automotive Industry Climate Index registers 105.8 points

The China Automotive Industry Climate Index records 105.8 points in the first quarter of 2010 (2001=100), up 3.8 points over the fourth quarter of 2009. In 2009, the economy of China overcame the financial crisis successfully and attracted worldwide attention. The automotive industry developed rapidly with production and sales volumes surpassing the U.S., becoming a key power promoting the stable recovery of the economy of China and making China become the world number 1 auto market. In 2010, under the influence of supportive policies from the government and the improving external environment, the Automotive Climate Index continues to rise and makes a good start.

2. The Pre-warning Index of China Automotive Industry records 133.3 points

The Pre-warning Index is an important indicator reflecting the climate of the auto industry. In Q1 of 2010, the indicator reaches 133.3 points, 16.6 points higher than in Q4 of 2009, showing a recovery trend in the four consecutive quarters and experiencing a fast increase. The index is in the "Yellow Zone," indicating that the automotive industry has already recovered to normal growth after being beaten by the financial crisis in the second half of 2008.

3. The Entrepreneur Expectation Index of China Automotive Industry registers 115.6 points

The Auto Industry Entrepreneur Expectation Index reflects automakers' perception of the current market situation as well as their future anticipations. The index registers 115.6 points in Q1 of 2010, down as much as 10.7 points from Q4 of 2009, but still higher than 100 points. This indicates that entrepreneurs are basically satisfied with the current market status and are still optimistic about the overall market operation in Q2.

4. The Dealer Manager Index of the China Automotive Industry registers 97.9 points

The Dealer Manager Index demonstrates dealers' perception of the current market situation as well as their future anticipations. The index registers 97.9 points in Q1 of 2010, below 100 points for the first time in history and 19.5 points lower than in the previous wave, showing that dealers are not that optimistic about the future market trend.

According to the survey of automakers and dealers, we should pay attention to the following three issues.

- Firstly, automakers predict that a possible surge in raw material and energy prices will add to cost pressure. A full 60.0% of automakers report that the prices of the raw materials and energy they purchased in 2010 Q1 are higher than those purchased in 2009 Q4, and 80.0% think the prices will go further up in 2010 Q2.
- Secondly, dealers' sales close rates show a decline. According to the survey, 71.5% of the respondents report that in 2010 Q1 their sales close rate experienced a decline from 2009 Q4. However, when asked to predict their sales close rate in 2010 Q2, 41.8% think the rate will rise. The figure (41.8%) is nearly 20 percentage points higher than the proportion of the people who think the situation will deteriorate.
- Thirdly, dealers are a bit overstocked. Nearly 40% of the dealers report they are somewhat overstocked and more than 50% think their inventories will continue to increase in 2010 Q2.

In conclusion, the price surge of raw materials and energy will add to automakers' costs, and meanwhile the decline in sales close rates and the increase in inventories will bring down vehicles' prices, which in some degree will reduce automakers and dealers' profits. In addition, the "cooling off" of the passion of dealers will soon pass on to automakers and finally slow down the fast growth of auto production and sales.

The China Automotive Industry Climate Index was developed jointly by China Economic Climate Monitor Center of China National Bureau of Statistics and Sinotrust International Information & Consulting (Co., Ltd.) at the beginning of 2009. The index gives a quantitative description of the development trends of the auto market in China.

The quarterly-issued China Automotive Industry Climate Index consists of the Comprehensive Climate Index, Pre-warning Index, Entrepreneur Expectation Index, Dealer Manager Index and Regional Buying-power Index, based on which, the Reports for the Research on China Automobile Industry Climate is compiled to analyze the reasons and trends of climate changes, estimate industry development period, identify the peak and bottom of industry development, and give pre-warning signals. All this paves the way for national macroeconomic control over the auto sector and the creation of production and sales plans by automakers, and guides the sound development of China's auto industry with its accurate and most-up-to-date information.

Sinotrust is a leading supplier of marketing solutions to the Chinese automotive market. With offices in Beijing, Shanghai and Guangzhou..

Source: Sinotrust

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