Although fuel prices have been declining since August, the price of unleaded gasoline is still 30 percent higher than same time last year. Not only is the price of fuel higher, but in some areas of the country, such as the Southeastern U.S., the availability of fuel was scarce following Hurricanes Gustav and Ike. “Fuel availability has become an issue in certain markets. While this is currently a result of stormy weather in the Gulf, it makes clear the vulnerability of the supply chain,” said Greg Corrigan, vice president, business analytics for PHH Arval.

Higher fuel prices have prompted many fleets to change the model mix on their selectors to increase overall miles per gallon for their fleets as a whole. “Fleets are reviewing the types of vehicles they use and are making changes. Usually, we see more six-cylinder vehicles ordered than four-cylinders. In 2008, we saw a significant increase in four-cylinder vehicles going into fleets,” said John Bau er, manager, fleet analytics for Wheels.

This observation is seconded by Joe McDonald, director of account management for Wheels. “We see a lot of movement on vehicle selector choices — higher mpg is the buzz, and rightfully so.”

In addition to four-cylinder models, another change evident in 2008 and 2009 selectors is the growing number of hybrids. “More companies are putting hybrids and four-cylinder vehicles on their selector lists. Those companies with fleets made up of six-cylinder vehicles, or SUVs and vans, have had to convert to more fuel-efficient vehicles without having the vehicle’s function compromised,” said Tony Blezien, vice president of operations for LeasePlan USA.

The transition from six- to four-cylinder models is viewed by some as a long-

For calendar-year 2008, the year-to-date cost of fuel has increased 30 percent, the price for replacement tires rose 5-10 percent, and the cost for non-warranty maintenance services was up 5 percent.

By Mike Antich

### Chart 1.

<table>
<thead>
<tr>
<th>2008 OPERATING COSTS</th>
<th>Compact Cars</th>
<th>Total Units: 28,341</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>&lt;24,000 Miles</td>
</tr>
<tr>
<td></td>
<td>Cents Per Mile</td>
<td>Dollars Per Month</td>
</tr>
<tr>
<td>Gasoline</td>
<td>0.1324 $224.60</td>
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<tr>
<td>Oil</td>
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<tr>
<td>Tires</td>
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<tr>
<td>Maintenance/Repair</td>
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<tr>
<td>Warranty Recovery</td>
<td>(0.0002) ($0.39)</td>
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</tr>
<tr>
<td>Total Operating Costs</td>
<td>0.1585 $254.42</td>
<td>0.1725 $247.13</td>
</tr>
</tbody>
</table>

At a Glance

- Year-to-date fuel prices are 30 percent higher in 2008 than same time last year.
- Motor oil change costs are forecast to increase in 2009.
- Replacement tire prices are up 5-10 percent in 2008.
- Maintenance expenses increased in 2008 due to higher labor rates and parts costs.
- Warranty recovery monies have decreased in 2008. This trend is forecast to continue into 2009.
term shift in buying patterns versus a near-term reaction to higher fuel prices.

“We have seen a ‘cultural’ shift to the mindset that four-cylinder vehicles are smart and economical, rather than being small and slow,” said Scott Singsank, senior account manager for Wheels.

Another reaction to higher fuel prices by some truck fleets has been increased consideration of spec’ing gasoline engines in lieu of diesels. “With the higher expense of a diesel engine and the current cost of diesel fuel, we have seen fleets leaning more toward gasoline engines on light-duty trucks,” said Dave Decker, manager of truck engineering for Wheels.

Fleet fuel reduction strategies are extending beyond spec’ing smaller engines. “Overall, fleets are trying to become more fuel efficient. The cost of fuel has caused a massive increase in methods to reduce fuel consumption. Many fleets are examining right-sizing, driver policy reviews, using the right vehicle for the job, proper vehicle cycling, and alternative-fuel vehicles in the quest to reduce consumption,” said Bob White, vice president of operations for Automotive Resources International (ARI).

Many fleets are incorporating a more versatile strategy to maximize fleet-wide fuel efficiency. “Fleet managers now are more interested in a multipronged approach that combines price awareness, controlling driver behavior, and looking at vehicle selection and maintenance as ways to control fuel consumption. Only through a coordinated effort can fleet managers hope to make an impact on their fuel budgets going forward,” said Kate Wesley, fuel product manager for GE Capital Solutions Fleet Services.

Impact on Other Commodities

The high cost of fuel has put upward pricing pressure on a variety of fleet-related commodities and services.

“The ever-increasing cost of fuel impacts all aspects of a fleet, from petroleum-based products to any type of mobile vehicle service,” said White of ARI. “Additionally, the costs of steel and aluminum have also increased. This directly impacts the costs to build and upfit vehicles, as well as affecting the costs of many replacement parts.”

Higher fuel prices have had a domino effect on the prices of other petroleum-based products. “Every industry or customer base that is reliant on fuel is impacted by the price of a barrel of oil. It’s the oil that goes into products such as tires and hoses, the gas that goes into tow trucks, and the fuel that ordinary drivers use,” said Corrigan of PHH.

Singsank of Wheels seconds this observation of the domino effect of higher oil prices. “We have seen tires and drive-away fees increasing. We have also seen fleets raising personal use charges in response to higher fuel costs.”

Likewise, higher fuel prices have increased transportation fees for upfitting services. “We definitely see transportation of vehicles from the upfitter (ship-to-units) to the final destination impacted by fuel costs,” said Decker of Wheels.

The pressure of higher fuel prices goes beyond transportation expense and impacts fleets on many different levels. “We’ve seen an increase in body shop costs due to high oil prices, which vendors are passing on to the customer. For example, body shops are experiencing increased heating costs because the booths where vehicles are painted must be heated to a certain temperature in order for the job to be done properly. To lessen their expenses, they are passing that cost onto the customer,” said Blezien of LeasePlan USA.

Another reaction to higher fuel prices has been increased interest in telematics products to modify driver behavior and vehicle usage to reduce fuel consumption. “More than before, fleets are looking at a mobile resource management (MRM) solution to help with the cost of fuel for their fleet. Telematics, properly deployed, can provide visibility into unnecessary idling, speeding, and unauthorized use, either off the route or at times when the vehicle should not be in use,” said Amit Jain, telematics product manager for GE Capital Solutions Fleet Services.

“Probably the biggest advantage to the fuel budget is to combine route planning, fleet optimization, and economic capacity management with a telematics/ MR M unit. That way, you can better plan the best route for a vehicle, and then ensure it follows that route. Miles saved through more efficient routes add up to thousands of dollars in the fuel budget,” said Jain.

2009 Fuel Price Forecast

The forecast for fuel prices in calendar-year 2009 is a little fuzzy due to the unpredictability of the current economic turmoil in the global economy.

“The Department of Energy forecast for October 2009 is $3.56 per gallon, fairly high compared with the $2.45 to $2.65 per gallon pump price implied by futures markets as of mid-October,” said Corrigan.
of PHH. “The cost of fuel has become a flashpoint for all fleet operating costs.”

The slowing U.S. and global economies is a key factor that will affect future fuel prices. One consequence of a slowing economy is a decrease in number of miles driven by the general population.

“Many people are simply not driving the way they used to, or at the very least, reassessing their normal driving patterns. It’s hard to tell if that will last; my sense is that fuel will remain a higher-than-normal cost issue for commercial fleets in 2009,” said McDonald of Wheels.

Many other factors will also influence the cost of fuel in calendar-year 2009.

One factor is future fuel demand from China and India. “With increasing industrialization, a growing middle class in both countries, and a new affordable car, we will be seeing billions of new consumers entering the automotive and therefore the fuel market. This demand will far outstrip supply,” said Wesley of GE Fleet Services.

Wesley also cited the factor of the nation’s aging refineries. “The U.S. has not built a new refinery in many years. The refineries we do have are operating 24/7 and are at high risk of breakdown or failures. The experience of Hurricane Ike showed that the aftermath of refinery shutdowns is felt long after the actual event occurs. This will continue to create uncertainty in the supply chain.”

In the final analysis, fuel is a volatile commodity, susceptible to unpredictable price swings by outside variables. “Gasoline cost has shown signs of decreasing; however, as we have seen in the recent past, it only takes one major event to drive the cost back up. It is very hard to predict where gasoline prices will be a year from now,” said Blezien of LeasePlan USA.

Replacement Tire Costs Increase

Replacement tire prices have increased 5-10 percent in 2008 due to higher oil prices and the shift by manufacturers to larger diameter tires.

“Tires, the materials for which are 60-70 percent oil-based, have increased about 4 percent over the past year. Not only are material costs going up, but the cost of production, transportation, and virtually everything in the tire supply chain is going up,” said Corrigan of PHH.

Others echo this observation. “Most tire manufacturers have increased tire prices from 5-10 percent in 2008 due to the increased cost of the petroleum contents and raw materials of tires,” said White of ARI. “The cost of tires contributing to total operating expenses has increased from 2007 to 2008. The bulk of the increases occurred in the compact, intermediate, and minivan segments.”

The trend by manufacturers to offer larger diameter tires has been another factor contributing to higher tire costs.

“As manufacturers continue to offer larger diameter tires as standard equipment on more models, average tire costs will continue to increase. Compounding this issue is the ever-increasing cost of petroleum. Most tire manufacturers have already increased tire costs by as much as 10 percent,” said White of ARI.

Eric Strom, maintenance product manager for GE Capital Solutions Fleet Services, also cites increased tire diameters as a key factor for increased tire costs. “A major reason for increased fleet tire costs is the OEMs’ transition to larger tire diameter sizes. The 18-inch wheel has become the norm while 14-inch, 15-inch, and 16-inch tires are all decreasing in numbers. Compounding this is the industry transition to higher speed-rated tires, which also adds costs.”

Blezien of LeasePlan USA agrees with these assessments. “Where we see the biggest increase to the cost of tires is from the manufacturers continuing to increase the size of the original tires on newer model vehicles, eventually leading to higher replacement costs. In essence, the larger the tire, the more material it takes to make the tire, thus, the more it costs.”

Larger-size tires on new models also create situations in which replacement tires, at least in the early years of a new model, are more expensive. “When new tire sizes are introduced, it poses challenges since the manufacturing of replacement tires in those new sizes is limited; hence, replacement tires don’t always become available as quickly as required by high-mileage fleets. Demand outstrips supply and prices rise,” said Bauer of Wheels.

One indirect cost contributing to higher tire costs are repair facility labor rates, a cost passed on to consumers. “The cost to run service facilities has risen due to the higher cost of labor, equipment, utilities, insurance, etc.,” said Corrigan of PHH.

The trend to longer service lives for fleet vehicles is causing many vehicles to get an extra set of replacement tires. “Many fleets have extended the lifecycle of their fleets. While this lowers depre-
Tire availability is another issue. “The breadth of tires is expanding exponentially, and tire manufacturers are not able to carry every size in all of their tire lines,” said Blezien of LeasePlan USA. “Where in the past, you could always seem to find a ‘house brand’ tire for less on just about all sizes, now you may find a particular tire is only produced in the manufacturer’s ‘name brand’ line. This trend has already started, but is going to become more common through the coming year.”

However, just because tire manufacturers announce tire price increases, retailers may not be able to raise prices due to local market competitive pressures.

“The retail market will have a lot to do with what happens to fleet pricing. If demand picks up, it could release pricing pressures, and we could see an increase in tire pricing. If not, I believe tire pricing will remain fairly flat,” said Jeff Whiteside, director of maintenance and collision services for Wheels.

Maintenance Costs are Up

The cost of fleet maintenance has increased in 2008 due to higher labor rates, materials, shipping, and equipment costs.

“The cost of maintenance has gone up about 5 percent for nonwarranty services, and we have also noticed that the domestic manufacturers (GM, Ford, and Chrysler) are using much stricter guidelines regarding warranty coverage. Two examples of this are denying warranty coverage if recommended PM services are not performed and only paying for replacement of defective parts, not wear/tear items,” said Corrigan of PHH. “This philosophy tends to reduce motor company expenses and increase what the customer pays.”

In 2008, fleet maintenance cost increased across the board. “There have been price increases for routine and unscheduled maintenance services with additional moderate increases coming. Also, additional services and more frequent servicing for powertrain components are being required by some OEMs to maintain new warranties,” said Lange of GE Fleet Services. “The powertrain warranty coverage changes will save fleets catastrophic individual expenses, but may actually add more costs overall,” said Lange.

On the plus side, more widespread use of vehicle diagnostic equipment is helping moderate maintenance cost increases. “Vehicle diagnostics have impacted overall repair costs. However, with advanced technology comes the need for advanced diagnostics. Highly qualified technicians capable of diagnosing complex issues are in short supply. As a result, higher labor rates become unavoidable, adding to overall costs. Helping to offset some of the increases are the extended intervals and life expectancies for fluids and brake linings,” said White of ARI.

Another factor that promises to increase overall maintenance costs is that more fleets are electing to keep vehicles in service at higher miles. “Due to the weak economy, we are experiencing fleets keeping vehicles longer than they have in the past. This trend is putting an even bigger and/or renewed emphasis on proper maintenance fleet vehicles,” said Blezien of LeasePlan USA. “This added emphasis on maintenance will benefit fleets by ensuring they get the best possible fuel economy out of their vehicles and should even reduce costs associated with larger, more costly repairs, such as engines, transmissions, and other powertrain components.”

Although overall vehicle quality
2008 OPERATING COSTS

Chart 5.

<table>
<thead>
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<th></th>
<th>2008 OPERATING COSTS Light Trucks</th>
<th></th>
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<td>Total Operating Costs</td>
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</table>

has improved, the cost per repair has increased. “We are seeing fewer repairs over the same amount of vehicle usage, but individual repair costs are going up,” said Bauer of Wheels.

The increased electronic content of new vehicles is impacting maintenance expenses. “Some high-tech options on newer vehicles, such as tire air pressure sensors, can drive up the cost of routine maintenance,” said Corrigan of PHH.

As hybrids proliferate in fleets, the cost to repair them will increase. “Hybrid vehicle maintenance cost and repair frequency has not been an issue and there have not been significant battery replacement issues. Many non-dealers are still not comfortable performing routine services on hybrids,” said Lange of GE Fleet Services.

Another positive aspect to future fleet maintenance expenses is that manufacturers are designing vehicles to require less maintenance. “Manufacturers have increased the efficiency of engine management systems in recent years, making the vehicles more fuel efficient. Additionally, they have increased the base warranties that many of their vehicles come with in an effort to be competitive with imports. These benefits have been offset by increases in labor costs, parts price increases, and the equipment required to interface with and diagnose engine management systems,” said White of ARI.

Several other factors may impact fleet maintenance costs in 2008. “Dealer consolidations may have some impact, depending on geography, if you have fewer dealers in a given area that can perform in- and out-of-warranty repairs. Travel time and tow costs might go up, though we review our geographic coverage versus our vehicle locations on an ongoing basis to make sure strategically we are managing our network coverage effectively,” said Whiteside of Wheels.

“In some cases, changes in emissions technology in trucks may also result in additional downtime for diagnosis and repair of emission components.”

In addition, the cost of running a maintenance facility is increasing. “The cost of doing business for repair facilities is taking big hits and these costs are being passed through to customers — employee healthcare and labor cost increases, and parts price increases from suppliers. Parts availability and limited inventory are contributing to delayed repair cycle time and increased use of rental vehicles,” said Strom of GE Fleet Services.

**Forecast of Maintenance & Repair Costs**

The forecast is for fleet maintenance costs to increase for fleets in 2009.

“One reason is that there has been a trend to higher parts prices. “Expect higher parts prices due to the higher price of raw materials, labor, and shipping costs,” said Corrigan of PHH.

Also, certain types of repairs are anticipated to increase in cost. “Cost increases will continue, as economic pressures on repair facilities will require selective service price increases. Routine services, such as front and rear brakes, alignments, oil changes, and filter replacements will likely have 3-5 percent increases,” said Strom of GE Fleet Services.

“Overall maintenance and repair expenses can experience inflationary increases in parts and labor costs, but with the improvement in vehicle technology and extended powertrain warranty coverage over the past few years, fleets’ exposure to major repair expenses are minimal,” said White of ARI.

In addition, a slowing economy may put a lid on how much labor and material rates can increase. “I believe labor rates and material costs will continue to increase, but in these economic times it is hard to predict just how far they will go,” said Blezien of LeasePlan USA.

**Upward Price Pressure on Motor Oil Changes**

There has been a trend by OEMs to extend oil drain intervals; however, motor oil change fees are feeling the pricing pressure impacting petroleum-based products. Counteracting this is a competitive retail market exerting pressure to keep oil change charges low.

“The cost of oil changes remained fairly flat in 2008 with the national providers,” said Whiteside of Wheels.

One reason is that many fast-lube vendors use the basic oil change as a loss leader to generate customer traffic. “There were moderate increases in the cost of oil changes for fleets as many repair facilities lead with oil changes to generate repair order traffic,” said Strom of GE Fleet Services.

However, many independent repair shops have been forced to succumb to higher prices for oil changes.

“With oil costs going up, we’ve seen an increase in oil change costs at independent repair facilities, but not at the national account vendors,” said Blezien.
OEMs have been extending oil drain intervals, helping keep a lid on oil change costs. “In some instances, motor companies have tried to reduce the cost of oil services by extending the oil change interval. In GM’s case, they provide and promote their engine oil life system, while other manufacturers have mileage reminders,” said Corrigan of PHH.

Bauer of Wheels agrees. “Generally, with lengthened service intervals and technology like GM’s oil life monitors, we see less oil use, so it has not had as big an impact as you might expect.”

In another trend, fleets have been extending PM intervals for oil changes. “Some fleets have moved preventive maintenance intervals out farther, and others have started to look at this same idea, though we are not getting as many questions on it now as we had previously,” said Bob Clark, manager of client support for repair services for Wheels.

Some predict oil change prices will increase in 2009. “We expect oil change prices to increase $2 to $3 for each service, but other routine service prices will likely increase more significantly,” said Strom of GE Fleet Services.

Whiteside of Wheels seconds this view. “Based on input from several of our network partners, I believe there will be a 10-15 percent increase in the average cost of an oil change, though this varies by geography and other factors.”

The increased expense in disposing of used motor oil is prompting suppliers to pass this cost on to customers. “I foresee the cost of an oil change continuing to increase, mostly due to vendors charging more to dispose of waste oil. They are paying more to dispose of the oil, so to offset their cost, they are passing it onto the customer,” said Blezien. “Drivers need to be aware that even though the menu price may be $22.95, once you add in all of the charges, including waste disposal, you may walk out the door with a $35 charge.”

Another factor influencing oil change prices is the trend by some OEMs to require synthetic or semi-synthetic motor oils. “The recommendation by several OEMs that semi-synthetic motor oil or 5-20 weight motor oil be used continues to add cost to individual oil changes,” said Lange of GE Fleet Services.

Larger macroeconomic trends are also influencing the cost of oil. “The weakening U.S. dollar and large demand in Asia have also affected the global price of oil,” said White of ARI.

One danger of higher costs is that they could contribute to inflationary pressures on the economy. “If the cost of raw materials continues to go up, this will impact inflation and the overall cost of operation for shops. Eventually these costs will be seen in the price consumers pay,” said Corrigan of PHH.

**Warranty Recovery is Down**

Warranty recovery monies are forecast to decrease. “Manufacturers have increased the base warranties of many of their vehicles in an effort to be competitive with imports. This increased coverage coupled with declining sales has caused the reduction in post-warranty recoveries offered,” said White.

Blezien of LeasePlan USA said, “We expect the manufacturers’ extended warranties to start to decrease the overall amount of post-warranty claims; repairs will be covered under warranty, and post-warranty claims will not have to be filed,” said Blezien. “As a result of moving to these extended warranties, manufacturers will be scrutinizing vehicle maintenance history before they cover a repair under warranty. Now, more than ever, if you don’t follow the maintenance schedule suggested by the manufacturer, the warranty claim can be denied.”

Also, dealers are becoming more restrictive in the warranty work they do. “There has been a shift in the warranty recovery process, as some dealerships may not honor warranty-covered high-dollar repair items without OEM confirmation,” said Lange of GE Fleet Services.

Another prediction is that “goodwill” warranty monies will be harder to get in the future. “The motor companies are investing in building better products and are taking a hard look at the way they spend money for goodwill assistance for those ‘just out of warranty’ repairs. We expect goodwill money to be much harder to come by in the coming years,” said Corrigan of PHH.

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**Survey Methodology**

This survey is based on operating cost data provided by survey partners: Automotive Resources International (ARI), GE Capital Solutions Fleet Services, LeasePlan USA, PHH Arval, and Wheels Inc. This year’s annual operating cost survey is based on analysis of actual operating costs incurred by 648,110 vehicles operated by commercial fleets and managed by those five fleet management companies.