

## Effect of Rising Gas Prices on American Driving Habits

Quality Planning conducted phone interviews with drivers nationwide to determine how the sharp rise in gas prices might impact driver behavior, vehicle usage, vehicle preferences and vehicle mix at policyholder households. Based on these surveys, the firm concludes that a majority will drive less in the coming year, with the biggest planned cutback occurring in 'pleasure use'.

### Top-line findings

---

1. Americans plan to drive 125 billion fewer miles this year.
2. Drivers have responded slowly to rising gas prices.
3. Discretionary miles are going down, more so for rural drivers.
4. People with large SUVs are economizing the most.
5. Station wagons are emerging as popular alternative to SUVs.
6. Fewer driven miles will reduce oil consumption, but will likely not result in lower premiums.

### Commentary

---

#### 1. Americans plan to drive 125 billion fewer miles this year.

Based findings obtained during driver interviews, Quality Planning predicts a reduction in discretionary use of vehicles. Assuming gas prices remain at current levels, the firm projects a mileage decrease of four to five percent over the next 12 months. With approximately 250 million passenger cars on the road, this equates to roughly 125 billion fewer miles driven, or 500 miles per year per driver. At an average of 20 miles per gallon, this will result in a reduction in gasoline consumption of 6 billion gallons, equivalent to 307 million barrels of crude oil (a barrel of crude oil yields approximately 19.5 gallons of gasoline).

Although some commuters are reporting a shift to public transportation in areas that have well developed public transit systems, this shift has so far been insignificant and has not yet affected total commute miles driven.

#### 2. Why has mileage been so slow to decline?

Despite gas price hikes of 35 to 50 percent, only one percent fewer miles were driven in the past year. The rapid rise in prices at the pump took many consumers by surprise. Initially, consumers reacted with 'quick fixes' that could be implemented without reducing mileage driven. For example, despite recommendations of car manufacturers, some owners of high-end cars switched from premium to regular gasoline. Others tried to

reduce average speed or inflate their tires to help improve miles per gallon. Still others investigated public transit but may have found that those fares had also recently increased.

“In the short run, it is a challenge for most commuters to change their lifestyles or switch to public transit,” said Dr. Raj Bhat, president of Quality Planning. “For the majority of commuters, mass transit systems are just not available, and when they are, they are not always convenient, especially for those in non-metro areas. As a result, we did not see a significant decline in planned commute use of vehicles. Longer term, we may see an impact on commute miles as people move closer to their workplace or to locations that have access to better public transit. Some people may even change jobs to reduce their commute distance.”

### 3. Discretionary miles are the first to go

By the end of the second quarter of 2008, analysis by Quality Planning indicated a noticeable drop in projected annual mileage driven, with 60 percent of drivers reporting driving fewer miles than a year earlier. When Quality Planning compared projected mileage estimates obtained in the first and second quarters of 2008, there was a difference in the mileage reduction between areas that have well developed transit systems and those areas where availability of public transit is poor. Interestingly, annual estimates of mileage were more than 500 miles lower in rural areas with poor transit as compared to a 200-mile reduction in urban areas where transit alternatives are good or at least better.

**Major Metro Areas with the Highest/Lowest Use of Public Transit**

<i>City</i>	<i>State</i>	<i>Population</i>	<i>% Using Public Transport</i>
<b>Highest Transit Use:</b>			
New York	NY	8,143,197	54.6%
Washington D.C	DC	550,521	37.7%
San Francisco	CA	739,426	32.7%
Boston	MA	559,034	31.7%
Philadelphia	PA	1,463,281	25.9%
<b>Lowest Transit Use:</b>			
Arlington	TX	362,805	0.4%
Wichita	KS	545,220	0.4%
Virginia Beach	VA	438,415	0.5%
Oklahoma City	OK	547,274	1.0%
Tulsa	OK	382,457	1.0%

Source: 2005 American Community Survey, US Census Bureau

“Rural drivers, on average, drive 2,000 more miles per year than urban drivers. It appears that people living in areas with fewer transit options are cutting back more on their discretionary outings, such as a 20-mile round trip to Wal-Mart, compared to those living in areas with developed public transit,” said Dr. Bhat.

Quality Planning compared its findings with recent empirical research conducted by the Congressional Budget Office (CBO)<sup>1</sup>. In this study, a 10 percent increase in the price of gasoline is estimated to reduce Vehicle Miles Traveled (VMT) by just 0.2 to 0.3 percent in the short term, and by 1.1 to 1.5 percent in the long term. The CBO study used data from 2003 to 2006 in California, the state with the highest gas prices.

“So, with a whopping 50 percent increase in gasoline prices, which is what we have experienced, the CBO study suggests a 1.0 to 1.5 percent reduction in the short run and 5.5 to 7.5 percent in the long run. Our study is in line with these findings,” said Dr. Bhat.

#### 4. Taking the smaller car to fetch the groceries

The largest reduction in miles driven is coming from the large SUV segment (e.g. GMC Yukon, Lincoln Navigator, Toyota Land Cruiser). Quality Planning found that in multi-vehicle households with a mix of vehicles, owners of vehicles with larger engine sizes (SUVs, larger vans) planned to reduce miles driven by 5.5 percent and shift some of the miles to more fuel-efficient, smaller cars, resulting in an expected increase in miles driven on the smaller cars by about 2.8 percent.

**Change in Annual Miles Driven by Engine Size**

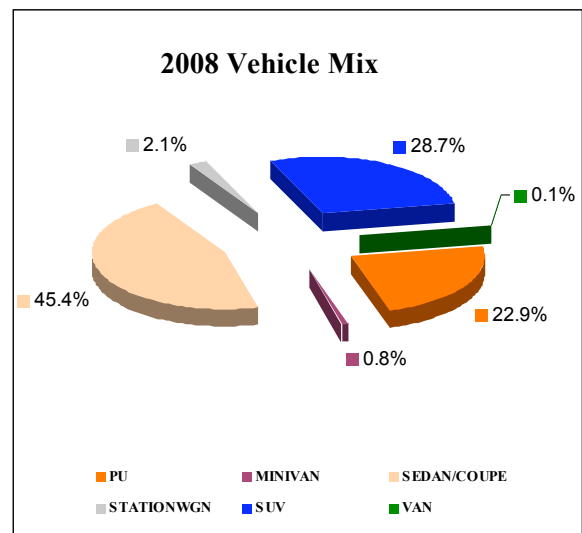
<i>Engine Size</i>	<i>Vehicle Example</i>	<i>% Change in Annual Miles 2007-2008</i>
2-3 liter	Honda Accord, Toyota Camry, Toyota Prius	2.8%
3-4 liter	BMW 325i, Acura 3.2 TL, Ford Taurus	0.3%
4-5 liter	Jeep Wrangler, Range Rover, Mercedes Benz ML 430	-1.1%
5-6 liter	Lincoln Navigator, Toyota Land Cruiser, GMC Yukon	-5.5%

Source: Quality Planning data

#### 5. We’re keeping the mini-van (for now)

Quality Planning did detect change in the composition of insured vehicles from the first half of 2007 as compared to the first half of 2008. But, contrary to expectations, there was virtually no reduction in the proportion of SUVs/minivans/vans/pickups, which remained at 52.5 percent. The proportion of sedan/coupe category dropped from 46.6 percent to 45.4 percent. The big change was in the station wagon category, which increased from 0.9 to 2.1 percent.

“Although there have been reports of reduced demand for SUVs and minivans, it just means



<sup>1</sup> Effects of Gasoline Prices on Driving Behavior and Vehicle Markets, (January, 2008). Congress of the United States, Congressional Budget Office.

that there are fewer buyers for new vehicles in this category. It will take time for owners of these vehicles to replace them with fuel-efficient alternatives. However, what is evident is that there are early indications that station wagons may be back in vogue as an alternative to big SUVs when those replacements are made,” said Dr. Bhat.

“The average price of gasoline increased significantly in 2008 over 2007, but we are witnessing only minimal short-term declines in annual miles driven,” added Bob U’Ren, senior vice president at Quality Planning. “That’s expected to change by the end of next year if gas prices remain at current high levels. In addition to vehicle switching – first to the most economical vehicle within a household and ultimately when a vehicle is replaced – we will see more fundamental societal shifts take place. Employers will be more inclined to embrace work-from-home schedules, compressed work weeks, carpooling and remote office locations. Pedestrian live/work communities are beginning to spring-up and mass transit proposals that were rejected by voters 10 years ago are being dusted-off and re-evaluated.”

## **6. Will lower mileage mean lower insurance premiums?**

Drivers expecting to see lower insurance premiums because they are driving less may be in for a surprise. The rapidly rising price of oil has affected much more than the just the price of gasoline. It has had a similar dramatic impact on the parts that go into our cars and trucks. Rubber (tires and hoses used in engines), plastic (steering wheel, knobs and trim) and polyester (seats and carpeting) are petroleum-based products that are also becoming more expensive to produce. These higher costs will be reflected in higher loss severity and, as a result, will act as a counterforce to the reduction in annual mileage.

Our conclusion is that for the first time in more than 20 years, annual mileage driven on American roads is declining, and the rate of that decline is accelerating. The many factors causing this decline make for a very complex pattern,” said Robert U’Ren, senior vice president at Quality Planning. “As individuals and families adjust their lifestyles to the impact of higher oil prices, fundamental change will occur. In no sector is this truer than for auto insurance companies, which must focus their pricing and products to address the consumers emerging switch to new vehicle designs, new household vehicle mix, new driver usage patterns and a changing underlying cost structure. The latter is due to the fact that the increased price of oil and other goods also impacts the cost of goods and services for which auto insurance pays. ”

### **About Quality Planning**

An ISO business, Quality Planning is focused exclusively on providing rating integrity solutions to auto insurers. Quality Planning works with insurance companies to identify areas of significant rating errors using sophisticated database management, statistical analysis and modeling, customized survey design, and highly targeted customer interaction. Quality Planning helps clients work within their existing rating plans and charge fair prices to policyholders based on a true representation of risk. The company was founded in 1985 and is headquartered in San Francisco. For more information, visit [www.qualityplanning.com](http://www.qualityplanning.com).

**About ISO**

A leading source of information about risk, ISO provides data, analytics, and decision-support services to professionals in many fields, including insurance, finance, real estate, health services, government, human resources, and risk management. Using advanced technologies to collect, analyze, develop, and deliver information, ISO helps customers evaluate and manage risk. The company draws on vast expertise in actuarial science, insurance coverages, fire protection, fraud prevention, catastrophe and weather risk, predictive modeling, data management, economic forecasting, social and technological trends, and many other fields. To meet the needs of diverse clients, ISO employs an experienced staff of business and technical specialists, analysts, and certified professionals. In the United States and around the world, ISO helps customers protect people, property, and financial assets. For more information, visit [www.iso.com](http://www.iso.com).