

How Are Consumers Coping with Higher Fuel Prices?

By

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Outline

What are recent trends in Hawai'i's fuel prices?

What are the impacts of recent trends?

- Automobile sales

- Transit use

- Vanpool, carpool, moped and bicycle use

- Telecommuting

How are consumers coping?

- AAA Hawai'i Survey

- USA Today/Gallup Poll

- Roper Poll

- ICCMA Survey

What is the forecast for oil prices?

Which way out of rising gasoline costs?

What are recent trends in Hawai'i's fuel prices?

| <u>Hilo</u> | <u>Date</u> | <u>Regular</u> | <u>Diesel</u> |
|-------------------------|-------------|----------------|---------------|
| Current | | \$4.34 | \$5.40 |
| Yesterday | | \$4.32 | \$5.40 |
| Month Ago | | \$3.94 | \$4.60 |
| Year Ago | | \$3.38 | \$3.50 |
| Highest Recorded Price: | | | |
| Regular Unleaded | 6/17/08 | \$4.34 | |
| Diesel | 6/17/08 | | \$5.40 |
| | | | |
| <u>Honolulu</u> | | <u>Regular</u> | <u>Diesel</u> |
| Current | | \$4.23 | \$5.18 |
| Yesterday | | \$4.22 | \$5.18 |
| Month Ago | | \$3.83 | \$4.58 |
| Year Ago | | \$3.32 | \$3.49 |
| Highest Recorded Price: | | | |
| Regular Unleaded | 6/17/08 | \$4.23 | |
| Diesel | 6/16/08 | | \$5.18 |
| | | | |
| <u>Wailuku</u> | | <u>Regular</u> | <u>Diesel</u> |
| Current | | \$4.55 | \$5.30 |
| Yesterday | | \$4.53 | \$5.27 |
| Month Ago | | \$4.22 | \$4.87 |
| Year Ago | | \$3.71 | \$3.69 |
| Highest Recorded Price: | | | |
| Regular Unleaded | 6/17/08 | \$4.55 | |
| Diesel | 6/17/08 | | \$5.30 |

Source: AAA Daily Fuel Gauge Report, June 17, 2008

What are the impacts of recent trends on automobile sales?

Hawai'i:

New car registrations in Hawai'i fell 10.9% in 2007.

In the first three months of this year compared to the same period last year, total new vehicle registrations fell from 14,431 to 11,921 or 17.4%.

Auto Outlook forecasts a 4.5% decline for the second half of this year. That would be a decline of 9.7% for all of 2008.

Auto Outlook expects a 3.1% increase in sales next year.

Toyota/Scion had the largest share of the Hawai'i market at 27.5%, followed by Honda and Nissan. The three Japanese companies accounted for 53.7% of the total Hawai'i market.

United States:

Percentage change in U.S. sales for January through May, 2008, compared to first five months of last year:

| | |
|--------------|--------|
| All vehicles | - 8.4% |
| SUVs | -31% |
| Pickups | -21% |

Source: Andrew Gomes. "New car, truck sales down 17.4%," *The Honolulu Advertiser*. May 22, 2008. pp. A1, A6.
Robert J. Samuelson. "Learning from the oil shock," *Newsweek*, June 23, 2008, p. 39.

What are the impacts of higher fuel prices on sales of new hybrid vehicles in Hawai'i?

First Quarter Data for 2005 through 2008

| | 2005 | 2006 | 2007 | 2008 |
|------------------------------------|-------------|-------------|-------------|-------------|
| Hybrid total | 223 | 368 | 343 | 371 |
| Percentage share of industry sales | 1.3% | 2.2% | 2.4% | 3.1% |

Sales of Toyota's popular Prius model increased 41% during the first quarter of this year compared to the same period last year.

Source: Lynda Arakawa. "Hybrids in heavy demand: Appeal of gas-electric vehicles increasing with rising fuel costs," *The Honolulu Advertiser*. May 27, 2008. pp. A1, A5.

Can we hasten shifts to more fuel-efficient cars?

| | 2008 Honda Civic EX | 2008 Honda Civic Hybrid |
|--|----------------------------|--------------------------------|
| MSRP (a) | \$19,510 | \$22,600 |
| Tax credit (b) | \$0 | \$1,050 |
| Combined city/highway miles per gallon (mpg) (c) | 29 | 42 |
| Annual gallons purchased (d) | 345 | 238 |
| Annual gas cost (e) | \$1,346 | \$928 |
| Cost after 4.9 years | \$26,105 | \$26,097 |

- (a) Manufacturer's suggested retail price. Honda Motor Co. is coming out with hybrid cars starting early next year that will cost about \$1,900 more than comparable gas-only models. The present gap between such models can now reach \$4,800.
- (b) The federal Alternative Motor Vehicle Credit is available for certain hybrid vehicles, with the credit amount depending on the model of the car and when it is purchased. The IRS has phased out the alternative motor vehicle credit for the popular Toyota and Lexus hybrids. Reduced tax credits for Honda hybrids purchased this year will shrink further in July and end beginning in 2009. The IRS begins phasing out the tax credit in the second calendar quarter after the quarter in which the manufacturer records its 60,000th sale of hybrids and alternative fuel vehicles.
- (c) Miles per gallon (mpg) according to U.S. Environmental Protection Agency
- (d) Assumes the vehicle is driven 10,000 miles per year.
- (e) Assumes a regular gas price of \$3.90 at the end of May, 2008.

Source: Lynda Arakawa. "Hybrids in heavy demand: Appeal of gas-electric vehicles increasing with rising fuel costs," *The Honolulu Advertiser*. May 27, 2008. pp. A1, A5.

Impacts on Fuel Consumption

Hawai'i Report

State tax data show gasoline consumption continuing to rise despite prices pushing toward \$4 for a gallon of regular. There were 23.8 million gallons of gasoline sold on O'ahu in February, 2008, compared with 19 million gallons for the same month a year earlier.

Source: Robbie Dingeman. "Fight back against rising fuel prices," *The Honolulu Advertiser*. April 17, 2008. p. C1.

National Report

So far this year, high prices and a weak economy have reduced nationwide vehicle miles of travel by 4.3% as of March, 2008. U.S. gasoline consumption is down 1% from a year ago. The Energy Department projects that 2008 will see the first annual drop in demand for gasoline since 1991.

Source: Wolf, Richard and Paul Davidson. "Which way out of rising gasoline costs?" *USA Today*, June 12, 2008
[www.usatoday.com/money/industries/energy/2008-06-12-gasoline]

Robert J. Samuelson. "Learning from the oil shock," *Newsweek*, June 23, 2008, p. 39.

Impacts on Transit: O'ahu

Ridership on TheBus increased 5% in March 2008 compared to March 2007.

Average weekday bus ridership increased from 185,553 in October 2003 to 221,453 in March 2008.

About 100,000 people in Honolulu held valid bus passes in April, 2008. Compared to April 2007, this was an increase of 7% for adults and 9% for school-age children. Bus pass purchases grew by 3% in May 2008.

Bus drivers reported:

- a thousand riders per shift--up from 700 or 800 riders per shift last month.
- that their buses reached capacity 25-30 times each day.
- that many riders are not able to get on board the bus.

Most of the larger increases in ridership occur for commuter trips into town from Central and Leeward O'ahu. These riders realize larger savings in gas, because they must travel long distances to reach in-town destinations. They also benefit from the flat fare policy. Riders pay the same fare regardless of distance traveled.

Question: Will O'ahu Transit Services buy more buses to satisfy this new demand?

Wayne Yoshioka, No plans to add more buses onto already packed highways.
DTS Director: Rail transit will free up more buses to connect with neighborhoods.

O'ahu Transit Services Plans to Buy More Hybrid Buses

Higher diesel prices have significantly affected bus operations.

Oahu Transit Services has 50 hybrid electric-diesel buses. They hope to gradually convert half of the fleet, which now includes 525 buses, to hybrid by 2013.

The city's first 10 hybrid buses, which have a 75-passenger capacity and began operating in late 2004, cost \$749,000 each. The buses initially cost about \$200,000 more than standard buses, but the differential has since decreased, according to Roger Morton of OTS. He said hybrid buses save up to 33% in fuel costs compared with standard buses.

Besides the fuel savings, hybrid buses are more reliable, have better brake life, provide a smoother ride, are quieter, and release less emissions into the environment, Morton said.

It will cost \$25,000 to replace the battery pack for a hybrid bus. The cost of recycling the battery is still being studied.

Source: Lynda Arakawa. "TheBus plans to expand hybrid fleet," *The Honolulu Advertiser*. May 27, 2008. p. A5.

Impacts on Transit: Kaua'i

Bus ridership on Kaua'i averaged 35,000 trips in April 2008. This was an increase of 29.6% over April 2007, according to Janine Rapozo of the Kaua'i County Transportation Agency.

A month's bus pass on Kaua'i is \$15.

The county added an additional bus from Hanalei to Lihue to meet demand.

Sources for transit impacts:

Gordon Y.K. Pang, "Drivers ditch cars to board TheBus: Cheaper commute into town wins over riders as gas prices keep rising," *Honolulu Advertiser*, June 7, 2008, pp. A1, A5.

Olena Rubin, KHON TV2 Newscast, June 13, 2008.

Mary Vorsiono. "Drivers near 'tipping point' as Hawaii gas prices climb: Dramatic shift seen in budget-friendly ways to commute," *The Honolulu Advertiser*. May 9, 2008. pp. A1, A2.

Transit Bill in Congress

On May 15, 2008, the House Transportation and Infrastructure Committee approved a measure intended to encourage more public transportation use as part of a strategy to conserve energy.

The Saving Energy Through Public Transportation Act of 2008 (H.R. 6052) would authorize \$1.7 billion over two years in grants to transit agencies for fare reduction and expanded services.

Source: American Planning Association. "House committee approves transit bill: Measure links transit to energy conservation," APA Advocate May 20, 2008. p. 4. [www.planning.org/apaadvocate/default.htm]

Impacts on the Vanpool Hawai'i Program

Vanpool Hawai'i is operated by VPSI Inc., a national commuter service based in Michigan. It pays for vehicles with federal money paid through a multi-year contract with the state DOT. It receives about 60 calls a day from interested drivers – double the number of daily calls last year.

42 new vans hit the road in the past six months for a record total of 265, an increase of 38% since November 2007. About 300 new riders have signed up with Vanpool Hawai'i since then. Vanpool Hawai'i purchased 23 new vehicles to meet increased demand.

Vans carry between 7 and 15 riders, which equates to between 1,800 and almost 4,000 riders.

Cost Sharing Features:

On O'ahu, vanpool riders pay \$55 a month for a seat in a seven-passenger van. Neighbor island rates are slightly higher and vary according to daily round trip miles. Riders split gas costs and parking fees. Vanpool Hawai'i pays the maintenance, insurance and vehicle registration costs.

A group of four vanpoolers in Kapolei paid \$191 per month to commute to Waikiki. This covers gas, parking and the \$55 vanpool program fee. A tank of gas was enough for 8 round trips.

Source: Nanea Kalani. "With gas out of sight, Vanpool suddenly cool," *Pacific Business News* 46 (9): 1, 32.

Mary Vorsiono. "Drivers near 'tipping point' as Hawaii gas prices climb: Dramatic shift seen in budget-friendly ways to commute," *The Honolulu Advertiser*. May 9, 2008. pp. A1, A2.

Impacts on Other Modes of Travel in Hawai'i

Registration of other modes

| | <i>Mopeds</i> | <i>Bicycles</i> |
|---------------------|---------------|-----------------|
| December 31, 2002 | 119,224 | 11,039 |
| December 31, 2007 | 234,483 | 19,659 |
| Percentage increase | 96.7 | 78.1 |

Source: Mary Vorsiono. "Drivers near 'tipping point' as Hawaii gas prices climb: Dramatic shift seen in budget-friendly ways to commute," *The Honolulu Advertiser*. May 9, 2008. pp. A1, A2.

Telecommuting

The Telework Coalition estimates that more than 26 million Americans now telecommute at least some days, which would be about 18 percent of people employed nationwide.

Telecommuting has gained traction year by year in many parts of the country with advances in video conferencing, instant messaging and other communications technologies. Employers typically adopt it as a way to save money, boost morale and retain workers.

In early June, the U.S. House of Representatives approved legislation requiring the head of each federal agency to set policies allowing qualified workers to work from home or another convenient location. Giving relief from high gas prices was one factor cited by the sponsor, Rep. Danny Davis, D-III.

In Hawai'i, the state government has some policies to encourage telecommuting for its workers. State Rep. Gene Ward introduced a resolution during the 2008 legislative session urging the executive branch to strengthen these measures, but it failed to even get a hearing. Other bills that would have created tax credits for employers that allow their employees to telecommute made it through several committees but were not approved.

Source: Michael Hill. "Telecommuting gets a new boost," *The Honolulu Advertiser*. June 9, 2008. pp. C1, C2.

Impacts on Driving Behavior: Hypermiling

Hypermilers try to increase the fuel economy of their cars in a variety of ways as described by this Web site: www.ecomodder.com.

Hypermilers claim that anybody can improve their fuel economy by at least 50% over EPA ratings in the summer and maybe 20-25% in the winter, according to Wayne Gerdes. Traffic on his Web site, www.CleanMPG.com, has doubled in recent months, as people swap strategies and learn the basics.

Some hypermilers use a fuel consumption gauge, which sells for under \$200 and can be plugged into most cars built after 1996. The gauge monitors average miles per gallon (mpg) and provides feedback on small adjustments in driving techniques, like turning off the engine at stop lights or driving at—or just below—the speed limit on the highway.

Source: Bill Weir. “‘Hypermiling’ to save big on gas: Change the way you drive, save money on gas,” ABC News Report. June 11, 2008. [www.abcnews.go.com/print]

AAA Hawai'i Survey, April 24-30, 2008

Methodology

AAA Hawaii surveyed 372 of its members via email during the week of April 24-30, 2008. The survey asked how members are coping with higher gas prices.

Survey Results

- 63% combine errands.
- 46% reduced overall driving.
- 31% regularly check tires for proper inflation.
- 29% reduced average driving speed to increase fuel efficiency.
- 26% cut back on eating out or entertainment.
- 21% make more frequent use of the household vehicle with the best fuel economy.
- 17% have not made any changes.
- 16% use another means of transportation such as transit, biking or walking.
- 10% canceled a planned vacation.
- 8% have switched to carpooling or vanpooling.
- 6% have switched to telecommuting.
- 5% bought a car that gets better gas mileage.

**AAA Hawai'i Survey, April 24-30, 2008
(continued)**

Other actions taken include shopping for the cheapest gas and setting strict limits on how many miles they drive or how often they use the car.

Most of the listed actions are more often taken by people with annual household income less than \$50,000. They are more likely to cut back on trips to restaurants and entertainment, and make greater use of transit, bikes, and walking.

Source: Richard Velazquez. "AAA Hawaii Member Survey Reveals Habit Changes as a Result of Record High Gas Prices," *Hawaii Reporter*. May 29, 2008.

Web site: www.hawaiireporter.com/storyPrint.aspx?0b85cf35-leaf-4752-961c-7b61f4544104.

USA Today/Gallup Poll, May 2-4, 2008

Methodology

The Gallup Poll did telephone interviews of 1,017 Americans, aged 18 and older, between May 2 and 4, 2008. Interviewers contacted respondents who had land-line telephones (for respondents with a land-line telephone) and cellular phones (for respondents who have a cell phone only). The poll asked respondents to pick from among 10 different approaches for coping with higher gas prices. The poll has a sampling error of ± 3 percentage points and a confidence level of 95%.

Survey Results

60% of Americans now say they are cutting back significantly on their household spending to compensate for higher gas prices. Only 38% said this when gas prices rose three years ago.

More than 70% of Americans say they have seriously considered buying a more fuel-efficient car for their next vehicle. Closer to 50% of Americans were contemplating this at times of rising gas prices in 2004 and 2005.

USA Today/Gallup Poll, May 2-4, 2008 (continued)

Other results:

- 84% have consolidated errands or taken other steps in order to cut back on daily driving.
- 81% have driven the most fuel-efficient car that they currently own whenever possible.
- 76% have taken steps to increase gas mileage of the car they drive, such as driving slower, getting a tune-up, or using the air conditioning less often.
- 74% made more of an effort to find the gas station with the cheapest gas in their area.
- 71% seriously considered getting a more fuel-efficient car the next time they buy a vehicle.
- 62% shared rides with friends or neighbors when they were going to the same place.
- 60% cut back significantly on their household spending because of higher gas prices.
- 51% decided not to take a trip that they had taken regularly in previous years.
- 34% switched to using a lower grade of gasoline, such as from premium to regular.
- 31% used alternative means of travel, such as bus, subway, bicycle or walking.

The low-income group (less than \$20,000) had slightly higher percentages in almost every case. The high-income group (\$75,000 and more) had slightly lower percentages. The percentages above are similar to those for the middle-income group (\$30,000 to \$74,999).

Source: Lydia Saad. "Majority now cutting back elsewhere to afford gas: Appeal of fuel-efficient cars is surging among Americans," May 9, 2008.

[Web site: www.gallup.com/poll/107203/Majority-Now-Cutting-Back-Elsewhere-to-Afford-Gas.aspx]

Roper Poll, May 16-18, 2008

Methodology

GfK Custom Research North America of GfK Roper Public Affairs and Media did a national survey for CreditCards.com. Using random digit dialing, they did telephone interviews of 1,004 American adults (18 and over) from May 16-18, 2008. Respondents included 523 females and 481 males. The researchers employed five variables (age, sex, education, race, and geographic region) to weight the raw data in order to extrapolate survey results to the national population. The total margin of error on weighted data for the full sample was ± 3 percentage points at the 95 percent confidence level.

Survey Results

80% of Americans have given up something -- whether it's driving for enjoyment or errands, visiting friends and family, vacation road trips or commuting to work -- because of the gas crisis.

Americans say high gas prices have caused them to cut back on driving for the following trips:

- 66% for enjoyment
- 56% to run errands
- 54% for vacation
- 53% to visit friends or family
- 25% to work

Roper Poll, May 16-18, 2008 (continued)

- Older adults are least likely to give up visits to family members and friends because of gas prices. Only 45% of people 65 and older say they cut back on these outings because of gas prices. Nearly 59% of people 18 to 34 years old and 57% of those 35 to 49 years old say they have cut back on visits to family and friend.
- The groups reporting the most cutbacks on family vacations are those earning \$30,000 to \$49,900 a year, young adults, and those living in the South.
- Americans with lower household incomes (under \$30,000) are more likely to say they are cutting down on their drive to work, compared to their higher income counterparts.
- Younger adults (ages 18 to 34) have cut back on driving to work more than any of their older counterparts.
- Driving for enjoyment has taken a big hit from gas prices: Of all Americans, 66 percent say they've curtailed that activity. Those in Western states are least likely to cut back on pleasure cruises (62 percent).

Source: Connie Prater. "Gas prices take toll on family visits, Exclusive poll: Most cutting back on driving to see family, friends," May 22, 2008. [Web site: www.creditcards.com/credit-card-news/gas-card-price-poll-1277.php#methodology]

ICCMA Survey

Methodology

The International City/County Management Association (ICCMA) surveyed 474 cities and counties for *USA Today*. The date of the survey was not reported.

Survey Results

62% of the cities and counties reported increases of 10% to 20% in fuel costs since January, 2008.

Two-thirds of city and county managers are dealing with fuel costs by replacing vehicles with poor gas mileage and switching to vehicles that run on alternative fuels. Austin, San Francisco and Seattle lead the trend.

According to the Executive Director of the National Association of Counties, Larry Naake:

Counties are using reserve funds to buy fuel, limiting the use of official cars, reducing the number of school field trips and scaling back senior programs like Meals on Wheels.

“Counties are in the early stages of ... financial crisis as a direct result of the mortgage and foreclosure crisis and are getting hit again with record high gas prices.”

Source: Marisol Bello. “High gas prices hurt government services,” *The Honolulu Advertiser*. May 9, 2008. p. A2.

What is the forecast for oil prices?

| | |
|---------------------------------------|--|
| CIBC World Markets | Oil prices will reach \$225 a barrel and gasoline will be \$7 a gallon by 2012. |
| Goldman Sachs: | Oil could average \$110 a barrel by 2010, up from a previous forecast of \$80. A spike to \$200 a barrel is possible, if there is a major supply disruption. |
| Deloitte & Touche: | Oil prices will settle back to \$90 to \$100 a barrel in coming months. |
| Strategic Energy & Economic Research: | Prices could fall to \$80 a barrel this year, and perhaps as low as \$50 in the next three or four years, as more supply comes on line worldwide. |

Commentary

Supply is at the heart of soaring prices. Analysts see production declines in Mexico, an unstable oil industry in Venezuela, and possible shrinking production capacity in the Middle East.

A weak dollar could be a bigger factor than supply and demand, because a soft dollar draws investors worried about inflation into commodities such as oil and gold.

It's unclear how much a drop in oil prices could reduce gasoline prices. The prices of oil and gasoline do not always move together because they are subject to separate supply and demand forces. While oil prices have risen 80 percent in a year (April 2007 to April 2008), gasoline prices climbed only 24 percent.

Higher oil prices have allowed companies to extract oil from sources too expensive to tap only a few years ago, like the Canadian oil sands and deepwater sites in the Gulf of Mexico. These major exploration projects will continue even if oil prices fall back to \$60 to \$70 a barrel.

Source: John Porretto. "Oil prices likely to remain high for a long time." *The Honolulu Advertiser*. April 26, 2008. p. C7.

Which way out of rising gasoline costs?

USA TODAY asked more than two dozen energy specialists what could cut the price of gas. The consensus: A mix of measures could boost supply and cut demand over several decades. Here are three ideas that are relevant to Hawai'i.

Alternate fuels

By 2012, U.S. automakers plan to roll out large numbers of flexible-fuel vehicles that can handle blends with up to 85% ethanol. Yet at such high levels, corn-based ethanol costs 30 cents a gallon more than regular unleaded gas because it yields lower mileage per gallon, according to AAA.

The answer: cheaper cellulosic ethanol, now being developed, made from switch grass, wood chips and municipal solid waste. Such ethanol, if widely used, could bring back \$2-per-gallon gasoline, says David Friedman of the Union of Concerned Scientists.

Cellulosic ethanol is at least several years away because breaking down the waste materials into sugar-based fuel is challenging.

Source: Wolf, Richard and Paul Davidson. "Which way out of rising gasoline costs? *USA Today*, June 12, 2008 [www.usatoday.com/money/industries/energy/2008-06-12-gasoline]

Which way out of rising gasoline costs? (continued)

Make fuel-efficient cars more affordable

Congress raised the minimum fuel economy standard for 2020 fleets to 35 miles per gallon in last year's energy bill, making another increase unlikely for now.

Hybrid cars offer a shorter-term solution. The Toyota Prius costs \$2,000 more than a comparable compact car but gets 45 miles per gallon. At \$4 a gallon for gas, the Prius saves about \$700 a year in fuel costs vs. a similar car, assuming 12,000 miles of driving a year, according to David Friedman, Union of Concerned Scientists. Waiting lists to buy a Prius can be several months.

Friedman says plug-in hybrids are still in development and may arrive by 2010. They will get even better mileage, but are projected to cost \$10,000 more than similar gas-based cars.

Hydrogen-fuel cell cars have huge potential because hydrogen is ubiquitous. But there are few fueling stations, so broad use is likely two decades away. "By 2050, there really shouldn't be many cars on the road using gasoline," Friedman says.

Drive less, go slower and think smaller

Switch to mass transit. Join a car pool. Buy a smaller car. Drive slower. Avoid rush-hour traffic. Maintain the right tire pressure.