NACS

2007 Gas Price Kit

Gasoline Prices and the Consumer: Perceptions and Realities

NACS Online Annual Gasoline Price Resource Kit

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Gasoline Prices and the Consumer: Perceptions and Realities

As the petroleum industry prepares for the beginning of the spring transition to summer-blend fuel, NACS examines the basic conditions that affect the industry, including a new report on consumer perceptions about gasoline prices, the *2007 NACS Consumer Fuels Report*.

Overview

How to Use These Resources
Information about why these resources were developed and how they can be used.

Backgrounders

Pennies Matter to Consumers at the Pump
(Findings from the *2007 NACS Consumer Fuels Report)*
High gasoline prices have not changed Americans' driving habits, but they have significantly changed their gas-purchasing habits, with price becoming more important than ever.

Consumer Perceptions of the Retail Gasoline Industry
(Findings from the *2007 NACS Consumer Fuels Report)*
The makeup of the retail locations at which they buy their gasoline – and how much the stores profit from gasoline sales – are a mystery to most U.S. consumers.

Consumer Expectations with Alternative Fuels
(Findings from the *2007 NACS Consumer Fuels Report)*
Consumers say they are "green," but the only green that tends to matter to them is in their wallets.

Who Sells Gasoline in the United States?
Convenience stores sell nearly 80 percent of the gasoline in the United States, and only a few percent are owned by the oil companies.

How Do Retailers Get and Sell Gasoline?
Retail prices directly track wholesale gasoline prices. How and when retailers purchase wholesale gasoline plays a significant role in the ultimate price at the pump.

Retailers' Pain at the Pump
Convenience stores dislike higher prices as much as their customers do, as margins decrease while costs -- particularly credit card fees -- increase.

Retailers' Margins Shrink as Prices Climb
Gasoline prices increased 60 cents last spring, but retailer margins tightened.

Diesel Fuel Market Also Sees Price Volatility
Diesel fuel prices, like gasoline prices, are heavily influenced by the price of crude oil.

Refining Capacity and Boutique Fuels
A variety of "boutique fuels" compounds the existing challenges of the domestic refining industry.

Statistics and Definitions
The latest information available on demand, supply, refining, distribution and retail.

100-plus Years of Gasoline Retailing
Some of the significant milestones in the industry since the first gas station opened in 1905.

Graphics

Where Does Your Fill-Up Go?
More than 90 percent of the cost of a gallon of gasoline is determined before it even leaves the refinery.

From Dollars in Cost to Cents in Profit
After expenses, retailers may only see a penny in pretax profit per gallon.

Related Fact Sheets

Gasoline Theft at Convenience Stores
When gasoline prices increase, many gasoline retailers report an increase in gasoline theft, commonly referred to as "drive-offs."

Motor Fuels Sales at Convenience Stores
Convenience stores sell nearly 80 percent of all gasoline purchased in the country.

Debit Holds for Fuel Purchases
As gas prices and the use of plastic at the pump have increased, consumers are increasingly concerned about the debit "holds" on their accounts.

Credit Card Fees a Growing Challenge
Fees now equal more than 90 percent of a store's profits -- and continue to grow.

Gasoline Myths…and Facts
A few of the more common myths - -and the actual facts -- about gasoline.

Other Resources

Online Resources on Gasoline Prices
Web sites and resources providing additional information.

Contact Information
Reporters can click here to access NACS media contacts. Also, retailers are encouraged to provide feedback to help NACS address the issues of most concern to you.

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How to Use These Resources

To address consumers' questions about gasoline prices, the National Association of Convenience Stores (NACS) has annually developed an online resource kit about the U.S. petroleum industry.

As the national trade association representing the convenience and petroleum retailing industry, which sells an estimated 80 percent of all the gasoline purchased in the United States, NACS developed these resources so that the media, legislators and the general public can better understand the petroleum industry, especially at the retail level. These resources also can be used by retailers who are interested in conducting their own outreach in communicating the issues behind today's higher gasoline prices.

For the first time, this kit also includes consumer perceptions about gasoline prices, sharing the results of the *2007 NACS Consumer Fuels Report*, a nationwide study conducted in late December 2006 and early January 2007.

Convenience store retailers dislike higher gasoline prices as much as their customers do, since margins decrease while costs — particularly credit card fees — increase. When wholesale prices go up, prices at the pump typically lag as retailers absorb some of the wholesale price increases by reducing their margins to remain competitive. Price volatility in 2004 and 2005, for example, helped lead to gasoline margins that were at their lowest levels since 1984. (Final NACS data for 2006 is not available yet, but data from the Oil Price Information Service suggests that margins were much slimmer in 2006.)

These convenience stores also do not benefit from the strong upstream profits announced by the major oil companies. Very few retail fuel outlets are owned by the major oil companies. In fact, less than 3 percent of all convenience stores selling gasoline are owned by one of the five major integrated oil companies. To counter slim profit margins for gasoline sales, these stores seek to drive profits by growing their in-store sales, whether coffee, sandwiches, financial services or cold beverages. Virtually any item in the store can carry a healthier profit margin that a fill-up at the pump.

This is the sixth year that NACS has developed an online resource kit addressing gasoline issues. While the circumstances may be different every year, the pattern seen in petroleum markets is eerily similar year to year, and will once again be of concern for consumers and retailers alike in the coming months. The first week of February traditionally marks the beginning of the spring transition to summer-blend fuels for the petroleum industry. Since 2000, gasoline prices have increased, on average, more than 30 cents between the first week in February and the time of the seasonal high price, typically late May. In 2005, gasoline prices jumped more than 60 cents in that period.

In a sense, the petroleum markets are similar to the Bill Murray movie *Groundhog Day* in which his character wakes up every day to find that it unfolds, event-by-event, exactly the same as the day he had just experienced. Like the character in *Groundhog Day*, the petroleum markets experience similar conditions over and over — except on an annual, rather than daily, basis.

It is because of the similarity to the movie *Groundhog Day* and the traditional start of the spring transition to summer-blend gasoline that NACS has annually launched its online resource kit on February 2, Groundhog Day.

We have tried to incorporate the most current data on the petroleum marketing industry, and some numbers are just days or weeks old. For NACS-specific data, we have used 2005 numbers, since NACS' 2006 industry data will not be available until April 2007.

It is difficult, if not impossible, to predict where crude oil or gasoline prices will go. There are simply too many variables that affect the supply of fuel in this country. The goal of this resource is to instead look at the underlying conductions and address perceptions and realities in the marketplace.

These resources are designed to provide resources for an open discussion about the issues impacting supply — and prices — during the seasonal transition and, through a better understanding of the petroleum markets, help ease the frustrations consumers often experience when prices increase. And, importantly, to help guide discussions on the issue of higher gasoline prices to solutions that can benefit us all.

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Pennies Matter to Consumers at the Pump

Findings from *2007 NACS Consumer Fuels Report*

High gasoline prices have not changed Americans' driving habits but they have significantly changed their purchasing habits, as price is by far the number-one reason why drivers select a specific store to purchase gasoline. In fact, more than one out of four drivers say they change their behavior to save as little as one penny per gallon. The typical fill-up at a convenience store ranges from 10 to 12 gallons, according to NACS estimates.

The following findings from the *2007 NACS Consumer Fuels Report* were released February 2 by NACS as part of its annual gas price kit, which examines conditions and trends that could impact gasoline prices. Convenience stores sell an estimated 80 percent of the gasoline purchased in the United States.

The *2007 NACS Consumer Fuels Report* was based on a nationwide survey of 1,238 consumers conducted in late December 2006 and early January 2007 by Penn, Schoen and Berland Associates LLC.

Consumers will change behavior for as little as a penny per gallon.

- **More than one in four drivers say they would take a left-hand turn across a busy street to save a penny per gallon, and nearly half would do it to save three cents per gallon.**

  Q: *Take a left hand turn across a busy street...*

	Overall
If you could save 1 cent per gallon of gas would you do this?	27
If you could save 2 cents per gallon of gas would you do this?	9
If you could save 3 cents per gallon of gas would you do this?	11
If you could save 4 cents per gallon of gas would you do this?	7
If you could save 5 cents per gallon of gas would you do this?	12

One in five drivers would drive five minutes out of their way to save a penny per gallon.

Q: *Drive 5 minutes out of your way…*

	Overall
If you could save 1 cent per gallon of gas would you do this?	20
If you could save 2 cents per gallon of gas would you do this?	8
If you could save 3 cents per gallon of gas would you do this?	10
If you could save 4 cents per gallon of gas would you do this?	7
If you could save 5 cents per gallon of gas would you do this?	19

- **One in nine drivers would travel 10 minutes out of their way to save a penny per gallon, and one in four would do it to save up to three cents.**

Q: *Drive 10 minutes out of your way…*

	Overall
If you could save 1 cent per gallon of gas would you do this?	11
If you could save 2 cents per gallon of gas would you do this?	5
If you could save 3 cents per gallon of gas would you do this?	9
If you could save 4 cents per gallon of gas would you do this?	7
If you could save 5 cents per gallon of gas would you do this?	15

While consumers will adjust their buying behavior as gasoline prices rise, most will not adjust their driving behavior.

- **More than half of all drivers say they drive the same amount when prices are high, and only one in nine say they drive a lot less when prices go up.**

Q: *When gas prices rise do you typically drive … ?*

	Overall
About the same amount	57
Somewhat less	31
A lot less	11
Don't know/refuse (vol.)	1

- **Two out of three drivers say price is the "most important" factor when shopping for gasoline, while only 22 percent say location is most important. Combined with consumers' "second most important" factor, price was important to 88 percent of consumers surveyed.**

  Q: When buying gas, which of the following factors is most important to you?

	Overall
Price	66
Location of store/station	22
Brand	9
In-store offer	1
Other (vol.)	1
Don't know/ refused (vol.)	1

Q: What would you say is the next most important factor?

	Overall
Location of store/station	56
Price	22
Brand	13
In-store offer	3
Other (vol.)	3
Don't know/refused (vol.)	3

The findings represent a significant shift in consumer behavior over the past seven years. In 1999, a NACS consumer study found that price ranked behind convenient location as a primary reason why consumers select a store to purchase gasoline.

Consumer price sensitivity has intensified competition among retailers, resulting in declining gasoline net margins over the past few years to approximately a penny per gallon. NACS estimates that the break-even mark-up for a gallon of gasoline was 13 cents per gallon in 2006, and the Oil Price Information Service reports that in 2006 the national average gross margins on gasoline were 13.76 cents per gallon.

- **Consumer price sensitivity also impacts retailers, as one in four consumers say they buy less inside the store when gasoline prices are high.**

  Q: *When you go into the store to pay for gas, which of the following statements best describes you?*

	Overall
When gas prices rise I typically buy fewer items inside the store to save money	27
When gas prices rise I typically buy more items than I would otherwise to combine trips	6
When gas prices rise I typically buy the same amount inside the store	52
Don't know/refuse (vol.)	14

- **Consumers are much more likely to pay with plastic when gasoline prices are high. Nearly half (47 percent) of all drivers said that they are much more likely to use a debit or credit card when gasoline prices rise, leading to additional credit card interchange fees for retailers and potential increases in personal debt for consumers.**

  Q: *When gas prices rise are you … ?*

	Overall
Much more likely to use a debit or credit card	47
Somewhat more likely to use a debit or credit card	10
Somewhat more likely to pay with cash	6
Much more likely to pay with cash	29
Don't know/refused (vol.)	8

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Consumer Perceptions of the Retail Gasoline Industry

Findings from *2007 NACS Consumer Fuels Report*

While the vast majority of drivers buy gasoline at least weekly and shop based on a store's specific price, the makeup of the retail locations at which they buy their gasoline – and how much the stores profit from gasoline sales – are a mystery to most U.S. consumers.

Most consumers believe that major oil companies own and operate the majority of fueling stations in the United States, far above the percentage that actually do. Consumers also believe profits made by gasoline retailers are much higher than they actually are.

The following findings from the *2007 NACS Consumer Fuels Report* were released February 12 by NACS as part of its annual gas price kit, which examines conditions and trends that could impact gasoline prices. Convenience stores sell an estimated 80 percent of the gasoline purchased in the United States.

The *2007 NACS Consumer Fuels Report* was based on a nationwide survey of 1,238 consumers conducted in late December 2006 and early January 2007 by Penn, Schoen and Berland Associates LLC.

Consumers believe that major oil companies dominate retail gasoline sales.

- **Over half of all consumers say that most of the gasoline retailing locations in the United States are owned and operated by one of the major oil companies.**
- **In reality, less than 3 percent of the more than 112,000 convenience stores selling gasoline are owned and operated by major oil companies. Roughly 60 percent of these stores are one-store operations, owned by independent entrepreneurs who may choose to sell a specific brand of fuel.**

Q: *What percentage of retail gas locations do you believe are owned and operated by major oil companies?*

	Overall
0%-5%	3
6%-10%	4
11%-25%	7
26%-50%	16
51%-75%	21
76%-100%	31
Don't know/refuse (vol.)	17

Consumers believe profits made by gasoline retailers are much higher than they actually are.

- **One in seven (14 percent) consumers aged 18 to 49 believe that retail profits top $1 per gallon.**
- **In reality, after factoring in all expenses, including credit card fees but excluding labor, the real average profit per gallon is closer to 1 cent, NACS estimates.**
- **Overall, one in 11 consumers say that gasoline retailers make more than $1 per gallon.**

Q: *If you are paying $2.50, how much do you think a retailer is making in profit on a gallon of the gas after subtracting costs such as the cost of the gas, taxes, rent insurance and employee salaries?*

	Overall	Age		
		18-34	35-49	50+
1-5 cents	14	6	14	15
6-10 cents	14	12	14	15
10-50 cents	28	36	26	27
51 cents to $1.00	10	16	13	8
More than $1.00	9	14	14	6
Don't know/refuse (vol.)	25	16	18	28

More than one in three consumers say that retailers make more per gallon when prices increase.

- **Only one in 20 (5 percent) consumers correctly said that profit margins typically decrease as gasoline prices increase.**

Q: When the price of gas goes up do you think the profit a retailer makes typically increases, decreases, or stays about the same?

	Overall
Stays about the same	55
Increases	36
Decreases	5
Don't know/Refused (vol.)	4

Consumers' idea of *fair* profit is actually a lot higher than *real* profit.

- **Three out of five consumers say it would be fair for a retailer to make a profit of 6 cents or more per gallon of gasoline, much higher than retailers' real profits.**
- **One in 9 consumers say that at least 50 cents per gallon in profit, after expenses, would be fair.**

Q: If you are paying $2.50, how much profit do you think it is fair for a retailer to make on a gallon of gas after subtracting costs such as the cost of the gas, taxes rent, insurance and employee salaries?

	Overall
1-5 cents	14
6-10 cents	19
10-50 cents	29
51 cents to $1.00	7
More than $1.00	4
Don't know/refuse (vol.)	27

Consumers consider price the main reason why they select a store to fill up.

- **Two out of three drivers say price is the "most important" factor when shopping for gasoline, while only 22 percent say location is most important.**
- **Combined with consumers' "second most important" factor, price was important to 88 percent of consumers surveyed.**

Q: When buying gas, which of the following factors is most important to you?

	Overall
Price	66
Location of store/station	22
Brand	9
In-store offer	1
Other (vol.)	1
Don't know/ refused (vol.)	1

Q: What would you say is the next most important factor?

	Overall
Location of store/station	56
Price	22
Brand	13
In-store offer	3
Other (vol.)	3
Don't know/refused (vol.)	3

The findings represent a significant shift in consumer behavior over the past seven years. In 1999, a NACS consumer study found that price ranked behind convenient location as a primary reason why consumers select a store to purchase gasoline.

American consumers frequently fill up their tanks.

- Virtually all consumers reported that they purchase gasoline at least weekly, with 93 percent indicating that they had purchased fuel in the past week.
- More than one in three consumers had purchased gasoline within the previous two days.

Q: When was the last time you bought gas for the vehicle you drive the most?

	Overall
Earlier today	16
Yesterday	20
Within the last few days	34
Some time within the last week	23
Some time within the last month	6

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Who Sells Motor Fuel in the United States?

Convenience stores sell the overwhelming majority of the gasoline purchased in the United States, and despite canopies that promote a specific brand of gasoline, very few of these stores – less than 3 percent – are owned and operated by one of the integrated, major oil companies.

It is much more likely that the business is owned by an independent entrepreneur who lives in the community. Of the roughly 112,000 convenience stores selling gasoline in the United States in 2005, about 60 percent were one-store operations, compared to only about 13 percent that were operated by a company having 500 or more stores.

Convenience stores sell more than three-quarters of the country's motor fuel

Convenience stores in 2005 sold an estimated 78 percent of all gasoline and diesel fuel purchased in the U.S. – a sharp increase from as recent as 1997 when convenience stores sold an estimated 59 percent of the country's motor fuel.

Overall, 79.2 percent of convenience stores sell motor fuels, and gasoline and diesel fuel sales account for 69.5 percent of the convenience store industry's total sales. (However, low gross margins on fuel – 6.9 percent in 2005 – mean that motor fuels sales contributed only about one-third of total store gross margins dollars – 39.9 percent.)

Contrast this to 1971, when only 6.8 percent of convenience stores – a total of only 1,401 stores nationwide – sold gasoline. What happened?

Following the 1973 OPEC oil embargo, more states began allowing self-service fueling (New Jersey and Oregon still prohibit it), so the number of convenience store gasoline outlets grew. By 1976, stores selling gasoline were profitable and the numbers were growing. There was a competitive battle in gasoline retailing as seen by the number of stores offering gasoline – the average margin dropped, while the average gallons sold per store went up. As the major oil companies withdrew from certain locations, convenience stores became more and more significant as a source of gasoline sales.

'Hypermarkets' increasingly are selling gasoline

Besides convenience stores, a growing percentage of gasoline sales in the U.S. are from "hypermarkets" or "hypermarts" – the terms collectively refer to the group of mass retailers that includes supermarkets, discount retailers and warehouse clubs. According to Energy Analysts International (EAI) and its "Outlook for the U.S. Fuels Business & Hypermart in Retail Business Study," as of July 2006, there were over 4,100 hypermart sites selling 12.8 billion gallons of gasoline, representing approximately 9.2 percent of the total U.S. market. Hypermarkets comprise approximately 2 to 3 percent of the motor fuels retailing outlets and have experienced a slowing fuel site growth rate over the 2004 to 2006 period, with recent levels at 320-plus sites per year, EAI reports.

One particular area of growth for fuels sales are supermarkets. In 2003, only 18 percent of new supermarkets had gas pumps. But almost 62 percent of grocery stores that were scheduled to be constructed in 2004 included fueling in their blueprints, according to the Food Marketing Institute.

Fuel-only stations on the decline

The rest of the gasoline purchased in the United States is sold at traditional service stations, but those that depend on gasoline sales alone are disappearing due to low and declining gasoline margins. An annual survey by the trade publication *NPN*, which tracks all retail outlets where the public can purchase gasoline (including very-low volume outlets such as marinas) bears that out. In 1995, *NPN* counted 195,455 fueling outlets. In 2006, that number dropped to 167,476 outlets.

Most stores are 'branded,' but few are operated by major oil

NPN also looks at the branded retail outlets by company. These were the top branded outlets in 2005:

- Citgo Petroleum Corp. (13,682 sites)
- ConocoPhillips (13,600 sites)
- Shell Oil Products U.S. (13,500 sites)
- BP America Inc. (13,000 sites)
- ExxonMobil (12,798 sites)

Also of note are Chevron Products Co. (9,354 sites), Sunoco Inc. (4,763 sites) and Getty Petroleum (1,965 sites.)

These figures include all gasoline retailers, not just convenience stores; cumulatively they represent roughly half of the country's fueling outlets.

One of the biggest areas of confusion today relates to branded gas stations and oil profits. In fact, according to the *2007 NACS Consumer Fuels Report*, more than half of the general public believes that major oil operates the majority of fueling outlets in the country. Therefore, most consumers assume that the strong profits announced by the major oil companies, which are derived from crude oil and natural gas exploration and production, chemical and refining operations, are also enjoyed by the station selling a specific brand of gasoline. Nothing could be further from the truth.

While most of the 112,007 convenience stores selling gasoline sell a branded gasoline, very few are owned and operated by the major oil companies. According to *Convenience Store News*, as of August 2006 only 2,718 convenience stores selling gasoline were owned and operated by one of the five major integrated oil companies – or 2.4 percent.

Here is the breakdown:

- BP North America: 1,131 stores
- Exxon Mobil Corp.: 896 stores
- ChevronTexaco Corp: 373 stores
- Shell Oil Products US: 168 stores
- ConocoPhillips Inc.: 150 stores

The confusion largely comes from the fact that the majority of neighborhood gas stations typically get marketing support from an oil company in exchange for carrying that brand of gasoline. This includes exterior signage, such as canopies, that lead some to believe that the store is owned by the oil company producing that specific gasoline brand. However, the reality is that there is no link beyond an agreement to sell a specific gasoline. The arrangement is similar to arrangements inside the store, where a store may choose to dispense a specific brand of soft drink and receive branded dispensers and other signage. But the business arrangement ends there.

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How Do Retailers Get – and Sell – Gasoline?

Retail gasoline prices directly reflect wholesale prices. However, how – and when – retailers purchase wholesale gasoline can differ significantly, leading to varying prices and/or margins on the gasoline they sell.

The wholesale market has complexities that lead to retailers having different cost structures, whether they are branded or unbranded, have long-term contracts or buy on the spot market or, in the case of tight supply periods and rising wholesale prices, even the time of day that wholesale product was purchased can play a role in determining the retail price.

Retail Gasoline Supply

Retailers obtain gasoline supplies based upon the nature of their relationship with their suppliers, and because there are several different ways that retailers can purchase gasoline, the cost structure and availability of gasoline may vary greatly from one retailer to another, even those operating under the same gasoline brand. There are three primary supply arrangements influencing a retailer's operations:

- **Major oil owned and operated** – It's estimated that less than 5 percent of the approximately 168,000 retail gasoline facilities in the United States are owned and operated by the major oil companies. (Less than 3 percent of the more than 112,000 U.S. convenience stores selling gasoline are owned and operated by major oil companies.) These retail locations receive product directly from the corporation's refinery assets and their profit or loss is integrated into that of the corporation.
- **Branded independent retailer** – Approximately 52 percent of retail gasoline facilities are operated by independent business owners who sign a supply contract and sell gasoline under a brand owned or controlled by a refining company. Not every contract is drafted equally, and various market conditions can influence the terms of the contract. Branded retailers pay a slight surcharge per gallon for using the refiner's brand, benefiting from the supplier's marketing and ensuring a more secure supply of product. Their wholesale costs are established by their refiner supplier. When supplies are constrained, these retailers are given a higher level of priority for accessing product, although access to supplies may be restricted.
- **Unbranded independent retailer** – Approximately 43 percent of retail gasoline facilities are operated by independent business owners who do not sell gasoline under a brand owned or controlled by a refining company. These retailers purchase gasoline off the unbranded wholesale market, which is comprised of gallons not dedicated to fulfill a refiner's contracts. These retailers do not pay a marketing surcharge like their branded competitors do; consequently, unbranded gasoline is typically sold at all levels of trade for a lower price than branded gasoline. However, when supplies are constrained, these retailers have the lowest level of priority to access gasoline, often incur the largest wholesale price increases and may be completely denied access to product. Their wholesale costs are also established by the refiner supplier(s).

A company's supply contracts and size determine its options for obtaining gasoline. Branded independent retailers have one option for gasoline – the refiner that provides it with supply. Some larger unbranded independent retailers also may have contracts with a specific refiner, or even multiple refiners. Others may simply purchase product off the open market.

Most retailers are small businesses that obtain their gasoline at a terminal, also known as "the rack." Prices at the terminal are known as "spot" prices, and these typically experience the most price volatility.

For those purchasing fuel at the rack, there are two options for delivery. Some companies may elect to have gasoline delivered to their stores by a "jobber" who delivers fuel to their store – branded or unbranded – for a

delivery fee. Other retailers have invested in their own fleets of trucks that go to a specific terminal – or terminals – to obtain gasoline. These companies may also serve as jobbers to other retailers.

Some larger unbranded retailers may purchase gasoline futures, attempting to lock in specific prices for delivery on a specific date in the future. This type of purchase, commonly referred to as "hedging," helps these retailers manage their costs in anticipation of volatile wholesale prices.

Retail gasoline pricing considerations

Wholesale gasoline is a commodity that is traded on the open market. As such, its price can change by the minute, which may influence the cost structure for a retailer.

In 2005, convenience stores sold, on average, about 3,500 gallons of gasoline per store per day. The average underground storage tank has a capacity of 8,000 or 10,000 gallons, so many retailers average a shipment of gasoline once every day or so. However, high-volume retailers – those selling three or even four times that amount – may receive multiple shipments each day. The cost of each delivery can vary significantly, especially when wholesale prices are in flux.

Competitive Considerations

While wholesale costs are a significant factor in retailer prices, the retail pricing decision also is heavily influenced by market conditions and local competition. Ultimately, movements in wholesale gasoline prices influence the cost structure of a retail facility, but competition for customers will dictate the store's profitability.

How a retailer reacts to wholesale market conditions is based upon its individual pricing strategy, which varies greatly from retailer to retailer.

For example, a retailer may seek to maintain consistent margins, matching its retail price with variations in the wholesale cost based upon a certain formula. This strategy may result in a retailer pricing gasoline contrary to the prevailing competitive market conditions. Consequently, when wholesale prices increase, the retailer may, in fact, become one of the more expensive stores in the market in order to maintain a consistent margin. The result could be reduced customer counts and diminished overall revenues. However, when wholesale prices decrease, the retailer may in turn become one of the least expensive stores in the market, thereby recovering customer counts and overall revenues. Margins for this retailer would remain consistent over time.

Conversely, a retailer may seek to remain competitive in the market place, in spite of changing wholesale market conditions. This strategy may enable the retailer to maintain customer counts and overall revenue by setting competitive prices; however, it could lead to reduced or even negative margins. Competitive retail prices may not increase as quickly as wholesale prices, resulting in lost margins for the retailer. This strategy anticipates that during a declining wholesale market, local competitive conditions may enable the retailer to recover lost margins by slowly reflecting wholesale price changes at the pump. This type of retailer is focused on the complete market cycle, trusting that market forces will result in an average positive margin on gasoline sales over time.

With either strategy, gross margins are likely similar over the course of a year. In 2005, a gasoline retailer's average gross margin (before expenses) was 16.6 cents per gallon, or 6.9 percent gross margin, according to NACS data. This percent margin was the same as in 2004 and the lowest recorded by the industry since 1985. After expenses, typical net profits per gallon are a few cents per gallon, at most. NACS estimates that in 2006 the break-even mark-up for a gallon of gasoline was 13 cents per gallon, and the Oil Price Information Service (OPIS) reports that average gross margins on gasoline in 2006 was 13.76 cents per gallon.

Replacement Costs

In a rapidly raising market, a gasoline retailer faces the significant challenge of maintaining sufficient operating capital to cover the cost of the product that will replace the inventory it is selling.

A gasoline retailer typically seeks to establish a retail price based on the cost of replacing the gasoline currently at the retail location, not the cost of that product itself. Basing prices on "replacement costs" is especially critical when wholesale prices fluctuate frequently. A retailer must generate sufficient cash from its current retail sales to purchase its next delivery of gasoline; otherwise, the retailer would be constantly using debt to finance wholesale gasoline purchases. When wholesale gasoline prices hit $2.50 per gallon, a fill-up of even 6,000 gallons of gasoline can cost a retailer $15,000.

With pricing influenced by replacement costs, there can be consumer misperceptions when prices rise, as some consumers observe prices changing at a retail location even though the station did not receive a new shipment of gasoline. However, the store may be responding to a notice from its supplier about how much its next shipment will cost. But even these decisions to respond to anticipated changes in wholesale costs are strongly influenced by competitive pressures and, often, a retailer is unable to adjust retail prices to match the change in wholesale costs. When prices retreat, market competition again influences a retailer's pricing decisions. Each retailer makes its own pricing decisions based upon its calculations of the best volume/margin equation to maximize its profits. During these periods, consumer interest in prices wanes and they usually don't notice that prices dropped even though a new shipment has not arrived.

Also, even if a store receives multiple shipments in one day, each priced differently, some states, such as New Jersey, limit retailers to one price change per day.

Retailer Costs
In addition to wholesale prices and competitive pressures, gasoline retailers must consider the following costs and expenses:

- Federal, state, and local excise and sales taxes, which average approximately 46 cents per gallon in the United States. (The federal gasoline tax is 18.4 cents per gallon and each state has additional gasoline taxes.)
- Transportation fees (1 to 3 cents per gallon, depending on distance).
- Credit card transaction fees (approximately 2.5 percent of the price of each transaction on plastic).
- Retailer overhead (employee wages, rent, electricity, depreciation and other costs of doing business).
- Retailer net profit (varies from day to day and market to market – retailer net profits can range from negative numbers to several cents per gallon). NACS estimates that the average retailer had a net pretax profit of between one and four cents in 2005, and about one cent in 2006.

There is a difference between gross retail margins (the difference between the tax-paid wholesale cost of gasoline and the retail price of gasoline at the dispenser) and net retail margins (the gross retailer margin minus the costs of doing business outlined above). For 2006, NACS estimates that a retailer's break-even margin was approximately 13 cents per gallon.

Wholesale Gasoline Pricing

Wholesale gasoline prices generally are tied to one of two data points:

- A price based on a differential from the current price of a future gasoline delivery contract from a commodities exchange (New York Mercantile Exchange, known as "the Merc" or "Nymex") or from a gasoline price tracking service, such as Platts, Oil Price Information Service, or DTN; or,
- A price based on the "cash" or "spot" market for gasoline.

Nymex- or Platts-based wholesale pricing is used primarily for short-, medium- and long-term contracts for gasoline supplies between refiners, blenders, importers and traders and gasoline wholesalers and retailers. Such a contract might call for a supplier to sell a certain quantity of gasoline at "Nymex plus 2 cents" or "local OPIS low rack minus one cent."

Spot market-based wholesale pricing is used primarily by gasoline wholesalers and retailers for immediate delivery of gasoline supplies by these parties. Such pricing might call for immediate delivery of 10,000 barrels of 87 octane unleaded at New York harbor for a set price.

Nymex and spot market gasoline prices move independently and are influenced by many factors, including national and regional gasoline inventories, the price of crude oil, weather and market events such as pipeline disruptions and refinery shutdowns.

When market conditions become more volatile because of weather or crude oil events, Nymex -based prices may rise somewhat, while spot market prices may soar. A gasoline market in which spot market prices are higher than NYMEX prices for future deliveries is termed a "backwardated market" and generally indicates that the markets believe that current upward pressures on prices will ease in the future.

Many gasoline wholesalers and retailers use the Nymex to hedge their gasoline supply needs, thereby reducing their exposure to future gasoline price movements. However, many trades of Nymex futures contracts are undertaken by "paper traders" – brokers and speculators that never expect to take physical delivery of a gallon of gasoline from a Nymex futures contract. These paper traders tend to lead Nymex contract prices up or down based on market conditions and breaking news events.

Wholesale prices for gasoline generally are reported by most sources as excluding federal, state and local taxes, without the transportation costs from the wholesale market to the retail outlet, and do not include any retailer-related costs, including overhead, credit card fees and any profit margin the retailer may seek. Thus, a spot market price of $2.00 per gallon for 87 octane unleaded gasoline does not include any of the below the "rack" costs and expenses that ultimately determine a retailer's "laid-in" costs of gasoline. These costs vary by market and by other conditions, but generally add approximately 60 cents to the retail cost of gasoline.

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Retailers' Pain at the Pump

Convenience store retailers dislike higher gasoline prices as much as their customers do, as margins decrease while costs – particularly credit card fees – increase.

With competition for the gasoline customer intensifying, consumers are extremely price sensitive. In fact, the *2007 NACS Consumer Fuels Report*, the results of a nationwide survey conducted in late December 2006 and early January 2007, found that price is by far the number-one reason why consumers purchase gasoline at a particular location, and that more than one in four consumers would go out of their way to save as little as one cent per gallon.

Challenging Margins

When wholesale prices increase, retail prices generally increase at a slower rate as retailers often engage in a high-stakes game of chicken to remain competitive, absorbing some or all of wholesale price increases until they see others pass along their wholesale price increases.

For 2006, the U.S. Energy Information Administration (EIA) reports that average retail prices increased from $2.27 to $2.57. However, the percent attributed to "Distribution & Marketing" (retailer markup plus other factors, including distribution) remained stagnant at 9.0 percent, the same as in 2005. This is far below the 12.9 percent average from 2000 to 2004, when gasoline prices averaged $1.53. (NACS data for 2006 will not be available until April 2007. In 2005, NACS data shows that retail gross margins were 6.9 percent, at a 20-year low, as a result of gasoline prices jumping from an average of $1.85 in 2004 to $2.27 per gallon.)

The reason for continued margin erosion is that it typically takes seven to 12 weeks for wholesale price adjustments to be completely "passed-through" to retail consumers, according to EIA's 2003 report, *Gasoline Price Pass-through*. During this time, retailers typically absorb some of the wholesale price increases by reducing their margins.

Allocations

When gasoline is in short supply, retailers face more than just tighter margins. They may have difficulty obtaining fuel without additional surcharges. During severe supply/demand imbalances (such as in 2005 after Hurricanes Katrina and Rita, and in Spring 2006 with the rapid switchover from MTBE to ethanol) retailers with supply contracts may be put on allocation, or restricted access to supply.

Retailers on allocation can only get a percentage of what they got on the same day last year — typically suppliers initially begin with 100 percent allocations, which then decrease as supply conditions worsen. In this case, retailers can suffer both low margins and low volume, based on restricted supply. Retailers can get more than their specified allocations, but they must pay a lifting fee — similar to a luxury tax in sports — where they have to pay up to 25 cents, 50 cents, sometimes as much as $1.00 a gallon more to get extra product. Allocations only apply to retailers selling branded gasoline, and are intended by refiners to help maintain supply so that they can distribute product to all their contracts when supplies are or could be tight.

Unbranded retailers without supply contracts don't face allocations. However, they usually have it worse when supplies tighten. Because they don't have a supply contact, they get last dibs on gasoline, and they pay the going rate, which is usually the highest. This is similar to buying a walk-up airline ticket — you can only buy what is left and you pay a premium for it. If there are no seats available, you don't fly; if there is no gasoline available, you don't open for business.

The reality is, however, that no matter how much of the wholesale price increase they pass on, retailers still get accused of "gouging."

Rising Credit Card Fees

Gross margins aren't to be confused with profit margins. After factoring in expenses, most retailers make, at best, a few cents per gallon in pretax profit, and may even lose money on some sales when margins are tight and credit card expenses are high.

For stores that sell gasoline and accept plastic, credit card fees cost stores an average of $45,785 in 2005, a figure eclipsing the average per-store pretax profit of $42,196. On an industry-wide basis, the total cost of credit/debit fees was $5.4 billion.

When gasoline prices increase, more people pay by plastic, either because they don't have the cash on hand (or don't want to spend it) or because they try to displace the pain of the higher prices until their next billing statement. In fact, the *2007 NACS Consumer Fuels Report* found that nearly half of all consumers (47 percent) said they are "much more likely" to pay by plastic when gas prices increase.

The overall increase in average annual gas prices from 2004 to 2005 (from $1.85 to $2.27 per gallon) led to a significant increase in the use of plastic at the pump, with 58 percent of all gasoline customers paying with plastic in 2005. The huge increase in gasoline prices in 2005 has accelerated that trend, and NACS consumer data shows that 65 percent of consumers today typically pay for their gasoline with plastic.

One implication for the convenience store industry is that as credit card usage and gasoline prices increase, so does the payment amount per fill-up (since it is largely computed on a percentage basis). With razor-thin margins for retailers selling gasoline, credit card fees are often more than the retailer's net — or even gross — margin.

Convenience store retailers pay approximately 2.5 percent in credit card fees on each gallon of gasoline sold, no matter what the price of gasoline. The rise in credit card expenses has led to an increasing number of retailers to consider cash discounts, once popular in the 1970s. These retailers are generally offering a discount from one cent to six cents per gallon for customers paying by cash, sharing the savings of reducing credit cards expenses with their customers. There are strict requirements and limitations on its practice that vary by state.

'Reason Code 96'—Payment Card Authorization Limits

Authorization limits imposed by some banks can force retailers to cut off gasoline sales at a pre-set amount, such as $50, which is the current Visa authorization limit (although MasterCard raised its limit to $75 in response to energy prices), irritating customers with large-tank vehicles like SUVs that are unavailable to completely fill up.

This situation forces retailers to select one of two bad options. One choice is to adhere to this authorization limit, and hope that affected consumers don't take out their frustration on the store by refusing to return. If these frustrated customers do not immediately drive away and instead stay to continue fueling up, they must initiate a second "fill-up" authorization, which further alienates customers and adds more costs for retailers because of the fixed-cost pricing component of interchange related to the relatively small second sale.

The other option is to allow customers to exceed this authorization limit. Retailers who choose this option risk having the charge denied by the bank, even if the card is not fraudulent, and lose getting credited for the entire amount of the sale. Still, many retailers have taken on this risk to reduce customer inconvenience. (Customers are still assessed the full amount if the retailer is denied payment in this situation, but the bank, not the retailer, keeps the money, which, with low gasoline margins, can wipe out the day's gasoline profits.)

Reduced Sales of Higher Octane Fuel

Sales of premium and mid-grade gasoline, which have healthier margins than regular gasoline, have declined over the past few years as consumers "trade down" octane levels when prices increase. This leads to some consumers permanently switching to lower-octane fuel. The sale of mid-grade and premium has declined from 30.2 percent of gasoline gallons purchased in 1998 to 18.3 percent in 2005.

Reduced In-Store sales

As can be expected, when gas prices take a bigger bite out of consumers' wallets, customers are less likely to go inside the store and purchase other items. Because gas margins are so thin, retailers make most of their profits on in-store items. In 2005, motor fuels sales accounted for 69.5 percent of the convenience store industry's sales, but only 39.9 percent of profits. The *2007 NACS Consumer Fuels Report* found that nearly one in three consumers said they spend less on/buy fewer in-store items at convenience stores when gas prices increase.

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Retailer Margins Shrink as Prices Climb

Gasoline prices for the year 2006 averaged $2.574 per gallon, approximately 30 cents per gallon over the average in 2005. The U.S. Energy Information Administration (EIA) breaks down the cost of gasoline into four components: cost of crude oil, taxes, refining and distribution and marketing. (About a dozen states have sales taxes on gasoline, meaning the taxes increase as the price does.)

Breakdown of the Retail Price of Gasoline

	Retail Price	Crude Oil		Taxes		Refining		Distribution & Marketing	
	cents/gallon	%	cents/gallon	%	cents/gallon	%	cents/gallon	%	cents/gallon
2000	148.5	45.6	67.7	28.3	42.0	14.2	21.1	12.0	17.8
2001	142.6	38.6	55.1	30.1	42.9	17.1	24.3	14.3	20.4
2002	134.0	42.5	57.0	31.6	42.3	13.4	18.0	12.5	16.7
2003	155.9	44.0	68.6	27.0	42.1	14.6	22.7	14.2	22.1
2004	184.9	47.9	88.6	22.9	42.4	17.5	32.4	11.6	21.5
2005	226.8	53.0	120.2	19.7	44.7	18.1	41.0	9.0	20.5
2006	256.9	56.0	144.0	18.1	46.6	16.7	43.0	9.0	23.2

Source: U.S. Energy Information Administration
(Note: EIA began tracking this information in January 2000)

However, this is not retailer profit; EIA's Distribution & Marketing component includes other costs, notably pipeline, terminal and other transportation expenses. Here are some estimated costs (which vary by retailer):

- 4 cents – cost of pipelines/terminals/other costs before distribution to stores
- 3 cents – distribution to stores
- 1 cent – inventory fluctuation (drive-offs, underfilling, evaporation)
- 6 cents – store operating expenses (labor/utilities/insurance/maintenance/etc.)
- 4 cents – credit card fees[1]
- 2 cents – amortization of equipment[2]

With these expenses totaling approximately 20 cents per gallon, that leaves the retailer with approximately one to four cents in pretax profit per gallon.

For a point of reference, NACS 2005 numbers showed an average retail gross margin of 16.6 cents/gallon, which are comparable to EIA's numbers after taking out the 7 cents for the costs of pipeline/terminal costs, as well as distribution to stores.

(Margins were even tighter for diesel fuel in 2006. For the year, EIA's Distribution & Marketing" component was 7.0 percent. On a cents-per-gallon basis, this component was 19.0 cents per gallon based on the average price of diesel at $2.71 per gallon. And according to the *OPIS Retail Fuel Watch*, gross margins averaged 13.76 cents per gallon during 2006. Margins averaged 10.9 cents in the first quarter, 12.3 cents in the second quarter, 19.8 cents in the third quarter, and 12.0 cents in the fourth quarter. The typical break-even margin for retailers – factoring in all expenses, including credit card fees – is about 13 cents per gallon, NACS estimates.)

[1] Two-thirds of all transactions at the pump are paid by credit card. With fees averaging 2.6 percent of transaction cost, at least 4 cents per gallon represents the average for all gasoline sales.
[2] Based on 7-year amortization of $300,000 of equipment, with the typical store selling 1.3 million gallons of fuel/year.

From 2003 to 2006, according to EIA data, annual average gasoline prices jumped 101.0 cents, while "Distribution & Marketing" rose only 1.1 cents. Since most of the transportation costs have either increased or remained the same, it's obvious that retailer margins as a percent of sales have tightened.

The reason for continued margin erosion is that it typically takes seven to 12 weeks for wholesale price adjustments to be completely "passed-through" to retail consumers, according to EIA's 2003 report, *Gasoline Price Pass-through*. During this time, retailers typically absorb some of the wholesale price increases by reducing their margins.

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Diesel Fuel Market Also Sees Price Volatility

What happens with diesel fuel impacts more than those who drive diesel-powered vehicles. The United States economy runs on the backs of diesel-powered trucks. Higher fuel prices add to the cost of shipping food, clothes and other goods, and that expense eventually shows up in the retail prices everyone pays. Therefore, although not all consumers pay attention to diesel fuel prices, the movement of this market has significant implications for the economy.

Ultra Low Sulfur Diesel

The big event for diesel fuel in 2006 was the implementation of the U.S. Environmental Protection Agency's (EPA) Ultra Low Sulfur Diesel (ULSD) program. In June 2006, 80 percent of all on-road diesel fuel produced by refineries was required to comply with a sulfur limit of 15 parts per million (ppm); this level represented a 97 percent reduction in the sulfur content. Although retailers are not yet required to sell ULSD (a gradual phase-in continues until 2010), the overwhelming majority of diesel fuel produced by refineries as ULSD led many to convert their tanks to the new fuel. By October 15, 2006, any retail dispenser selling fuel as USLD could contain no more than 15 ppm. Meanwhile, both ULSD and Low Sulfur Diesel (LSD) were produced and available in the market.

Despite widespread concerns regarding the potential challenges of this transition, which was one of the most significant transitions ever for diesel fuel, it has been relatively smooth, in large part because of industry-wide cooperation over the past five years with EPA. (Evidence of this cooperation can be seen with the Clean Diesel Fuel Alliance – www.clean-diesel.org). But the conversion to a new fuel does put statistics into a new perspective.

From a paltry 24,000 barrels per day in 2005, production of ULSD in 2006 nearly matched that for LSD, recording 1.432 million barrels per day compared to 1.621 million barrels per day. Imports added another 95,000 barrels per day ULSD and 86,000 barrels per day of LSD. Net production totaled nearly 3.1 million barrels per day, an increase of 8.5 percent over the previous three year average and 4.3 percent over 2005.

Convenience Stores and Diesel Fuel

Convenience stores sell a considerable amount of diesel fuel. In 2005, nearly 40 percent of all convenience stores sold diesel fuel and the product accounted for 7.1 percent of the industry's total motor fuels sales. In 2005, when retail prices averaged $2.41, retailers' diesel fuel gross margins averaged 15.5 cents per gallon, or 6.4 percent of the retail price.

Diesel fuel prices, like gasoline prices, are heavily influenced by the price of crude oil, which alone constitutes roughly half of the total retail price at the pump. In 2006, crude oil prices increased 16.6 percent above 2005 to average $66.04 per barrel, thereby leading to a bump in retail diesel prices. Like with gasoline prices, retail diesel fuel prices topped $3.00 per gallon in August. The Energy Information Administration (EIA), which does not distinguish between ULSD and LSD retail pricing, reports the average retail price of diesel fuel in 2006 was $2.71 per gallon, up 30 cents from 2005 and 79 cents over the previous three year average.

It is worth noting that diesel fuel taxes are higher than those for gasoline. The federal tax per gallon for diesel fuel is 24.4 cents per gallon, six cents higher than the federal gasoline tax.

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Refining Capacity and Boutique Fuels

Demand and Production Capacity

Despite higher prices, in 2006 gasoline demand increased 1.43 percent over demand in 2005, according to the U.S. Energy Information Administration (EIA). Demand in 2006 was 5.35 percent greater than the five-year average from 2001 to 2005, and nearly 10 percent over 2000. EIA predicts that demand will increase another 1.2 percent in 2007. In 2006, Americans consumed 9.24 million barrels per day of gasoline, and a total of 20.61 million barrels per day of petroleum products in general. In short, demand for gasoline remains strong in the United States.

The steady increase in demand outpaces slightly the domestic refining industry's increase in production capacity. In 2006, the industry posted a strong increase in production (4.9 percent over 2005) largely because of its recovery from long-term outages caused by Hurricanes Katrina and Rita. Since 2000, refining production is up 7.8 percent, but this increase is less than the 10 percent increase in demand over the same time period. Consequently, imports are up 116 percent. This is a clear indication that domestic refining capacity is not keeping up with demand, increasing U.S. reliance on imported finished product and reducing the ability of the refining industry to efficiently respond to disruptions.

The last domestic refinery was built in 1976, and since 1981 the number of domestic refineries has dropped by more than 50 percent. While the number of refineries has been cut in half, the refining industry has upgraded its existing facilities to increase per-unit capacity by 97.3 percent, thereby minimizing the overall loss in production capacity to approximately 9 percent. But this expanded capacity has come at a price.

The typical U.S. manufacturing industry operates at a capacity utilization rate of approximately 82 percent. In 2004, the average U.S. refinery utilization rate was 93.0 percent of capacity, the highest rate in six years. In 2005, due to disruptions associated with the hurricanes, capacity utilization dropped to 90.6 percent. Although refineries have proven capable of maintaining such high levels of operability, this leaves little excess capacity to accommodate any type of supply disruption. When a refinery experiences an unexpected disruption, other refineries are unable to increase production, thus leaving the market in a shortage situation.

Demand is so strong that the refining system had no choice but to continue to push itself to the limit. In 2006, U.S. gasoline production was 8.87 million barrels per day (2.4 percent over the previous five years' average) and on-road diesel production was 3.05 million barrels (8.5 percent over the previous five years' average).

Only two developments can ease the pressure on the refining system: reduced consumer demand for refined petroleum products or increased domestic refining capacity.

The first component is a long-term problem that will not be resolved in the near future. It will require a national change in consumer behavior, characterized by a much more deliberate approach to enhancing fuel economy or reducing vehicle miles traveled.

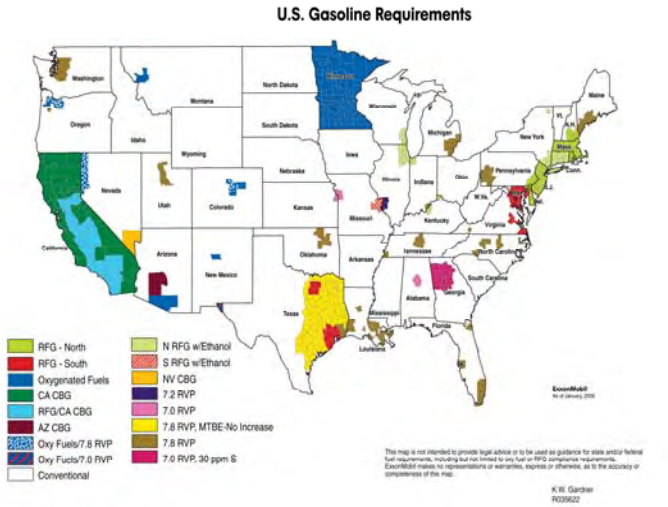
The second option is likewise a long-term problem. Historically, the refining industry has earned a five percent return on investment, far below the 10 percent required by many market analysts and investors in New York. The cost of expanding or building a new facility is often reported in the billions of dollars, not to mention the difficulty in obtaining permits for such work. For example, estimates place the per-barrels cost

of building a new refinery at $17,000, while the per-barrel cost of expanding capacity at an existing facility typically ranges between $9,000 to $12,000.

Boutique Fuels

Compounding the challenges of insufficient spare capacity in the domestic refining industry to respond to supply disruption is the condition of the U.S. gasoline distribution infrastructure, which remains a significant challenge for the industry in 2007 and beyond.

Throughout the United States, individual localities and states have adopted specific fuel formulation regulations to control for specific air quality concerns. While many of these regulations have been environmentally successful, they have sacrificed the efficiency of the distribution system. Today, the U.S. pipeline system, designed to originally handle six fuel types, transports and delivers more than 90 distinct products, including gasoline, on-road and off-road diesel fuel, home heating oil, kerosene, and jet fuel. (Ethanol cannot be transported via pipeline and instead must be trucked.) With gasoline alone, there are approximately 20 distinct fuel formulation requirements, not including the multiple octane grades marketed. Each product must be kept segregated and distinct from the others and delivered to its specific market. If there is any disruption to the delivery schedule, the integrity of the entire distribution system can be compromised.



(In rulemaking and a December 2006 report, the U.S. Environmental Protection Agency (EPA), determined that there were in actuality only seven distinct boutique fuels as defined by the Energy Policy Act of 2005. This definition, however, did not include the special fuels used in California, the federal Reformulated Gasoline Program, nor any state biofuel program.)

The proliferation of these unique, “boutique fuels” has affected the efficiency of the pipeline system, reduced the storage capacity for specific products at terminals and contributed to the loss of spare capacity at refineries. Rather than producing, delivering and storing interchangeable product for each market, the system now must operate according to small market regulations, thereby rendering each market more susceptible to disruption and resultant shortages and price spikes than would otherwise be the case. In some instances, retailers operating in a market experiencing a supply disruption must travel more than 500 miles one way to obtain compliant product for sale to their consumers because product is simply not available anywhere closer. This is neither time nor resource efficient.

The greater consumer demand and the more tightly balanced the supply situation, the more likely there could be a disruption in the distribution system. The Energy Policy Act of 2005, which contained legislation prohibiting the adoption of new boutique fuels, empowered EPA to intervene to offset supply

shortages, like those caused by the hurricanes in 2005. By authorizing the temporary sale of non-compliant gasoline, and diesel fuel, in markets where shortages were experienced or anticipated, EPA was able to mitigate the market implications of the disaster. The boutique fuels provisions of the legislation not only specifically authorize EPA to grant these temporary waivers, they also protect market participants from legal retribution when abiding by such administrative orders. Such certainty provided necessary flexibility to the market place and hastened the return to stable conditions.

The actions taken by Congress and EPA in recent years will begin the process of restoring fungibility to the motor fuels supply and distribution system. However, this is a long-term process that will take time for implementation and even longer to reflect in actual market conditions. Consequently, the risk of distribution-related supply disruptions remains unabated.

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The U.S. Petroleum Industry: Statistics, Definitions

Demand:

Oil

World demand for oil was approximately 84.4 million barrels per day in 2006, an increase of 1.1 percent over that of 2005. Demand is expected to increase 1.7 percent in 2007.
(Source: International Energy Agency)

The United States uses more petroleum for transportation needs (67 percent of total demand) than for heat and power. As a result, demand peaks in the summer as people travel more, the opposite of most of the rest of the world where demand for oil peaks in the coldest months.
(Source: U.S. Energy Information Administration)

U.S. petroleum demand in 2007 is projected to average 20.89 million barrels per day, up from 20.61 million barrels per day in 2006.
(Source: U.S. Energy Information Administration)

West Texas Intermediate spot oil prices averaged $66.02 per barrel in 2006, and are projected to dip to $64.42 per barrel in 2007.
(Source: U.S. Energy Administration, Short-Term Energy Outlook, released January 2007)

Motor fuels

It is projected that Americans will drive an average of 8.239 billion miles every day in 2007, an increase from the 8.162 billion miles in 2006.
(Source: U.S. Energy Information Administration)

U.S. gasoline consumption in 2006 averaged 9.24 million barrels per day (approximately 388 million gallons per day, or about 35 million fill-ups per day), and is expected to increase to 9.35 million barrels a day in 2007.
(*Source: U.S. Energy Information Administration)*

U.S. demand for gasoline significantly increases beginning every February, and peaks in August.
(*Source: U.S. Energy Information Administration)*

U.S. gasoline demand is approximately 43 percent of the United States' petroleum needs. Here are the components that are typically made from a barrel of oil:
Gasoline: 42 percent
Diesel and heating oil: 24 percent
Jet fuel: 10 percent
Heavy fuel oil: 4 percent
Liquefied petroleum gas: 4 percent
Other products: 22 percent
(Source: Government Accountability Office analysis of 2000-03 U.S. Energy Information Administration)

Supply:

U.S. oil production in 2006 was an estimated 5.14 million barrels per day and is expected to increase to 5.31 million barrels per day in 2007.
(Source: U.S. Energy Information Administration)

U.S. Imports
The U.S. imported 12.23 million barrels per day of crude oil and finished petroleum products in 2006. Imports account for approximately two-thirds of U.S. petroleum supply.
(Source: U.S. Energy Information Administration)

The top five importers of petroleum (crude oil and finished products) to the United States:

- Canada (2.103 million barrels per day)
- Mexico (1.493 million barrels per day)
- Saudi Arabia (1.454 million barrels per day)
- Venezuela (1.399 million barrels per day)
- Nigeria (1.134 million barrels per day)

(*Source: U.S. Department of Energy, Jan.-Oct. 2006 averaged data*)

The United States imports the majority of its oil from non-OPEC countries: 45 percent of total imports came from OPEC; only 18 percent of total imports came from Persian Gulf countries.
(*Source: American Petroleum Institute, Jan.-Oct. 2006 averaged data*)

The top five importers accounted for more than one-third of all U.S. petroleum consumed:

- Canada (10.2 percent)
- Mexico (7.3 percent)
- Saudi Arabia (7.1 percent)
- Venezuela (6.8 percent)
- Nigeria (5.5 percent)

(*Source: American Petroleum Institute, Jan.-Oct. 2006 averaged data*)

Stocks and Inventories
There are 7-8 billion barrels of oil tied up in worldwide stocks at any given time, from the wellhead to the consumer, filling tankers, pipelines, railcars, trucks and linking all of the markets.
(Source: U.S. Energy Information Administration)

Holding inventory costs money – approximately $1.50 a barrel for oil if a company owns the tank storage facility and $4 per barrel is the storage is rented. For gasoline, the costs are approximately $2 and $6, or about 1 cent per gallon per month if the storage space is rented. Thus, companies try to manage their inventories as efficiently as possible.
(Source: U.S. Energy Information Administration)

As of early January 2007, U.S. crude inventories were about 320 million barrels, roughly the average of 325 million barrels of inventory from 1982 to 2006.
(Source: U.S. Energy Information Administration)

Strategic Petroleum Reserve
The U.S. Strategic Petroleum Reserve (SPR) is the largest stockpile of government-owned emergency crude oil in the world. It was established in 1975 in the aftermath of the 1973-74 oil embargo to provide emergency crude oil supplies for the U.S. The oil is stored in underground salt caverns in Texas and Louisiana.

In November 2001, President Bush directed the U.S. Department of Energy to fill the SPR to its capacity (capacity is approximately727 million barrels). In January 2007, before his State of the Union address in which he requested that the holdings of the SPR be doubled, it held approximately 688.6 million barrels, a decrease from the high of 700.7 million barrels reached in late August 2005, prior to Hurricanes Katrina and Rita.

The maximum drawdown capability of the SPR is 4.4 million barrels per day. It would take 13 days from the time a Presidential decision were made to tap the reserves for oil to enter the U.S. market.
(*Source: U.S. Department of Energy*)

Refining:

The largest refinery in the United States is the ExxonMobil Baytown, Texas facility, which produces 557,000 barrels per day.
(Source: U.S. Energy Information Administration, 2004 data)

Planned periodic shutdowns of refineries, called "turnarounds," allow for the regular maintenance, overhaul, repair, inspection, and testing of plants and their process materials and equipment. They are scheduled at least 1-2 years in advance, and usually when demand for refined product is at its lowest level, typically early in the year. At this time, refineries also convert their "crackers" so that they can refine summer-blend fuel.
(*Source: American Petroleum Institute*)

The length of a refinery turnaround is typically 1-4 weeks, depending on the unit and the amount of maintenance that needs to be done. The industry average is about four years between turnarounds for catalytic cracking units.
(*Source: American Petroleum Institute*)

The total number of U.S. refineries has been significantly reduced since 1980. Approximately half of the U.S. refineries have closed since then; as of January 2006, there were149 refineries in United States (plus two in Puerto Rico and one in the U.S. Virgin Islands). The last major refinery built in the United States was in 1976.
(*Source: U.S. Energy Information Administration*)

Distribution:

Tankers

Shipping oil from Venezuela to the U.S. takes approximately 6-8 days (roundtrip); shipping oil from the Middle East to the United States takes between 40 and 45 days (roundtrip). During this journey, the price – and ownership – of the oil can change a number of times.
(Source: American Petroleum Institute)

Crude oil from the Middle East is moved mainly by Very Large Crude Carriers (VLCCs) capable of delivering 2 million barrels per trip.
(Source: U.S. Energy Information Administration)

Pipelines

Pipelines are, by far, the most important petroleum supply line in the United States for transporting crude oil, refined fuel and raw materials. Pipelines move nearly two-thirds (66 percent) of the ton-miles of oil transported annually. The rest is transported via water carriers (28 percent), trucks (4 percent) or rail (2 percent).
(*Source: Association of Oil Pipe Lines*)

Product pipelines, which range in size from eight inches to over 30 inches, transport more than 50 refined petroleum products such as: various grades of motor gasoline, home heating oil, diesel fuel, aviation fuel, jet fuels, and kerosene.
(*Source: Association of Oil Pipe Lines*)

Interstate pipelines deliver more than 540 billion gallons of petroleum each year, of which 59 percent is crude oil; the remaining is refined product. The cost to transport a barrel of refined gasoline from Houston to the New York harbor is about $1, which equates to about 2.5 cents per gallon.

(*Source: Association of Oil Pipe Lines*)

The Colonial Pipeline is the major product pipeline that stretches from Texas to New Jersey, transporting almost 40 different formulations of gasoline alone – different grades of each mandated type of gasoline, the requirements for which vary seasonally and regionally. Liquefied ethylene, propane, butane, and some petrochemical feedstocks are also transported through oil pipelines.
(*Source: Association of Oil Pipe Lines*)

Product moves through pipelines at three to eight miles per hour (roughly walking pace) depending upon line size, pressure, and other factors such as the density and viscosity of the liquid being transported. At these rates, it takes from 14 to 22 days to move liquids from Houston to New York City.
(*Source: Association of Oil Pipe Lines*)

There are approximately 200,000 miles of oil pipe lines in the United States; they are in all 50 states.
(*Source: Association of Oil Pipe Lines*)

Wholesale:

Petroleum products may be sold at any of the following levels:

- Spot market – refers to the one-time sale of a quantity of product "on the spot," in practice typically involving quantities in thousands of barrels at a convenient transfer point, such as a refinery, port, or pipeline junction. Spot prices are commonly collected and published by a number of price reporting services.
- Terminal, or "rack" – sales of product by the truckload (typically about 8,000 gallons) at the loading rack of a product terminal, supplied from a refinery, pipeline, or port.
- Dealer tankwagon, or "DTW" – sales of a truckload or less of product, delivered into storage at a retail outlet.
- Retail – sales to the consumer, normally occurring at a service station, convenience store, or other retail outlet. (Larger consumers, such as commercial or government vehicle fleets, may buy directly from wholesalers in larger quantities.)

(*Source: "Gasoline Price Pass-through," published January 2003 by the U.S. Energy Information Administration)*

Taxes:

The federal excise tax on gasoline is 18.4 cents per gallon and 24.4 cents per gallon for diesel fuel.

Motor gasoline taxes averaged 46.8 cents per gallon through July 2006, including 18.4 cents per gallon in federal taxes, and 28.4 cents per gallon in average state taxes.
(*Source: American Petroleum Institute*)

Retail:

Prices

In general, with 42 gallons in each barrel of oil, a $1 change in the price of a barrel of oil roughly translates to a 2.4-cent change at the pump.

According to the *OPIS Retail Fuel Watch*, gross margins averaged 13.76 cents per gallon during 2006. Margins averaged 10.9 cents in the first quarter, 12.3 cents in the second quarter, 19.8 cents in the third quarter, and 12.0 cents in the fourth quarter. The typical break-even margin for retailers – factoring in all expenses, including credit card fees – is about 13 cents per gallon, NACS estimates.

Estimates showed that the price "pass-through" from the spot to the retail market is complete within two-and-one-half months, with about 50 percent of the change occurring within two weeks and 80 percent within four weeks. The average speed of pass-through is significantly more rapid for diesel fuel, possibly reflecting fewer middlemen, on average, transacting for each gallon of diesel fuel as opposed to gasoline.
(*Source: "Gasoline Price Pass-through," published January 2003 by the U.S. Energy Information Administration)*

Over the past six years, crude oil prices have fluctuated between a low of $18.28 in November 2001 to a high of $78.40 per barrel on July 14, 2006. Gasoline prices fluctuated between a low of $1.06 in December 2001 to a high of $3.06 in September 2005.
(Source: U.S. Energy Information Administration data)

Over the past seven years, the seasonal transition to summer-blend fuel has helped gasoline prices increase 20 to 60 cents each spring.

Year	Price 1st week in Feb	Peak seasonal price	Increase
2006	234.2 (Feb. 6)	294.7 (May 15)	+60.5
2005	190.9 (Feb. 7)	228.0 (April 11)	+37.1
2004	161.6 (Feb. 2)	206.4 (May 24)	+44.8
2003	152.7 (Feb. 3)	172.8 (Mar. 17)	+20.1
2002	111.6 (Feb. 4)	141.3 (Apr. 8)	+29.7
2001	144.3 (Feb. 5)	171.3 (May 14)	+27.0
2000	132.5 (Feb. 7)	168.1 (June 19)	+35.6

(Source: U.S. Energy Information Administration)

Branding
While the majority of the roughly 112,000 convenience stores selling gasoline are "branded" outlets selling a specific major oil company's brand of fuel, NACS estimates that less than 3 percent, are owned and operated by own of the five major oil companies.

Top five branded retail outlets by company in 2005:
- Citgo Petroleum Corp. (13,682 sites)
- ConocoPhillips (13,600 sites)
- Shell Oil Products U.S. (13,500 sites)
- BP America Inc. (13,000 sites)
- ExxonMobil (12,798 sites)

(Note: These figures include all gasoline retailers, not just convenience stores)
(Source: National Petroleum News' Market Facts 2006)

Hypermarts
According to Energy Analysts International (EAI) and its "Outlook for the U.S. Fuels Business & Hypermart in Retail Business Study," as of July 2006, there were over 4,100 "hypermart" sites (big-box retailers) selling 12.8 billion gallons of gasoline, representing approximately 9.2 percent of the total U.S. market. Hypermarkets comprise approximately 2 to 3 percent of the motor fuels retailing outlets and have experienced a slowing fuel site growth rate over the 2004 to 2006 period, with recent levels at 320 plus sites per year.

Margins
Retailer gross margins for motor fuels continue to erode, and in 2004 hit at their lowest level, on a percentage basis, since 1984 when they were 6.0 percent:
2005 gross margin: 6.9 percent
2004 gross margin: 6.9 percent
2003 gross margin: 8.8 percent
2002 gross margin: 9.1 percent
2001 gross margin: 9.2 percent
2000 gross margin: 9.3 percent

1999 gross margin 11.7 percent
(*Source: NACS data*)

Retail consultant Francis Bologna estimates that for each 35-cent increase in price (the average price increase each spring since 2000), retailers lose a penny in margin.

Sales
Motor fuels sales in convenience stores totaled $344.2 billion in 2005, with a total of 145.8 billion gallons sold.
(*Source: NACS data*)

Motor fuels sales accounted for more than two-thirds of the convenience store industry's sales in 2005 (69.5 percent). However, because of low margins, motor fuels sales contributed only about one-third of total store gross margins dollars (39.9 percent). (When factoring in only stores that sold gasoline, the revenue percentage climbs to near 75 percent.)
Source: NACS data

As of December 31, 2005, there were 112,007 convenience stores selling motor fuels in the United States. This represents 79.6 percent of the 140,655 convenience stores in the country.
(Source: NACS/TDLinx)

The number of convenience stores selling motor fuels has increased significantly in 30 years:
2005: 112,007 stores (78 percent of all stores)
1995: 73,803 stores (73 percent of all stores)
1985: 49,995 stores (55 percent of all stores)
1975: 7,334 stores (21 percent of all stores)
(*Source: NACS data*)

Motor fuels sales per convenience store have increased in 30 years:
2005: 108,733 gallons/month
1995: 81,000 gallons/month
1985: 41,000 gallons/month
1975: 20,900 gallons/month
(*Source: NACS data*)

Motor fuels sales at convenience stores are an increasing part of total industry revenues:
2005: $344.2 billion in motor fuels sales (69.5% of total sales)
1995: $79.0 billion in motor fuels sales (51.5% of total sales)
1985: $25.1 billion in motor fuels sales (34.4% of total sales)
1975: $0.5 billion in motor fuels sales (6.1% of total sales)
(*Source: NACS data*)

Sales of premium and mid-grade have declined over the past few years as consumers trade down octane levels when prices increase. This leads to some consumers not returning to higher octanes as prices decline. The sale of mid-grade and premium has declined from 30.2 percent of gasoline gallons purchased in 1998 to 18.3 percent in 2005.
(*Source: NACS data*)

In 2005, an estimated $300 million was lost to gasoline theft. With overall gasoline sales of $334.2 billion, this means one in every 1,100 fill-ups was stolen, or roughly one or two per week per store.
(*Source: NACS data*)

In 2003, 18 percent of new supermarkets had gas pumps. And almost 62 percent of grocery stores that were scheduled to be constructed in 2004 including fueling in their blueprints.
(Source: Food Marketing Institute)

Credit Card Fees
Credit cards fees cost convenience stores that sell gas $45,785 per store in 2005. . For the convenience store industry, the total cost of credit/debit fees was $5.4 billion in 2005, a huge increase over the $3.8 billion in fees in 2004, making this the third-largest expense at the store level.
(*Source: NACS data*)

In 2005, credit/debit card usage at the pump at convenience stores was 58 percent. However, the huge price increases in 2006 accelerated the trend to pay by plastic, and NACS estimates that 65 percent of all gasoline purchases are now paid with plastic.
(*Source: NACS data*)

Glossary of Terms:

Balkanization: The end-result of the patchwork quilt of unique fuels required throughout the United States Unique fuel regulations have created gasoline zones across the U.S. where only certain fuels can be sold. This “Balkanization” of the fuel supply has made it more expensive and difficult to produce and deliver gasoline.

Boutique fuels: Unique gasoline blends required for a specific region or metropolitan area of the U.S. Prior to 1990, six types of gasoline were sold in the U.S. Today, there are approximately 20 unique gasoline formulations manufactured for, and sold within, specific markets throughout the United States that are mandated by federal, state, and local governments. These "boutique" fuels are not interchangeable with fuel blends sold in other areas of the country.

Branded retail outlet: A retailer that sells a motor fuel with the name of a major oil company, but is not necessarily owned (and is usually not owned) by that oil company. Branded retailers benefit from marketing and advertising support, consumer brand loyalty, and priority access to gasoline supplies. In return, the branded marketer pays a surcharge for the use of the brand and the benefits that come with it.

Capacity: A measure of how close a manufacturer is operating at peak efficiency, based on 24-hour operations. Domestic refineries currently operate at between 93 and 95 percent of capacity (which in reality is full capacity given refinery downtime for maintenance). By contrast, the average American industry operates at approximately 82 percent of capacity.

Federal Reformulated Gasoline: Also known as RFG. The 1990 Clean Air Act required the nation’s most polluted metropolitan areas to sell a special blend of gasoline during summer months in order to reduce the emissions of ozone forming volatile organic compounds (VOCs) and toxic air pollutants. The regulations require specific fuel content levels for oxygen, benzene and aromatics and set performance standards for nitrogen oxides, VOCs and toxics. Requirements vary by region but generally terminals are required to sell RFG beginning May 1; retailers must sell RFG beginning June 1.

Fungible: Interchangeable. The U.S. gasoline system was designed to facilitate the efficient flow of gasoline to all regions of the nation, allowing the same gasoline formulation to be sold in all markets. The system is no longer fungible, with approximately 20 unique gasoline formulations required in specific markets throughout the United States.

OPEC: The Organization of Petroleum Exporting Countries. OPEC is an international organization of 11 developing countries – from Africa, Asia, the Middle East, and Latin America – that are heavily reliant on oil revenues as their main source of income. OPEC’s members – Algeria, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates and Venezuela – collectively supply about 40 per cent of the world’s oil output, and possess more than three-quarters of the world’s total proven crude oil reserves. Twice a year, or more frequently if required, the oil and energy ministers of OPEC member countries meet to

decide on its output level, and consider whether any action to adjust output is necessary in the light of recent and anticipated oil market developments.

PADD: Petroleum Administration for Defense Districts. The U.S. Department of Energy divides the United States into five regions for planning purposes. The result is a geographic aggregation of the 50 states and the District of Columbia into five Districts, each operating essentially as its own market. The five districts are: PADD I (East Coast, PADD II (Midwest), PADD III (Gulf Coast), PADD IV (Rocky Mountain) and PADD V (West Coast).

(Graphic courtesy of Association of Oil Pipe Lines)

Pass-through: The time from which wholesale price changes fully reach consumers. Wholesale gasoline price increases — or decreases — paid by retailers are not immediately passed on to consumer, but spread over a period of time. A large portion of the price change is passed through immediately, with the rest spread over a period of time that could be as long as eight weeks. Pass-throughs help minimize the price volatility of gasoline.

Refinery: Where crude oil is refined into a specific blend of gasoline or other fuels (such diesel, kerosene, etc.) or for other oil-based applications. There are currently only 150 refineries in the U.S. — less than half the number 20 years ago. In addition, production capacity has decreased from 18.6 to 16.5 million barrels per day since 1981. No new refinery has been built in the United States since 1976.

Replacement costs: The cost to acquire the next shipment of fuel. This price is almost always different than the cost of the gas that retailers have in their tanks. Because of the enormous volume of fuel sold — a typical store sells more than 100,000 gallons of gas a month — retailers must price their fuel based on their estimated cost of the next delivery. Even slight wholesale price variations can increase a retailer's replacement cost by hundreds — or even thousands — of dollars. The importance of replacement costs is particularly acute for smaller businesses, which have less cash on hand to meet payments.

Retailer: Refers to convenience stores that sell motor fuels. As of Dec. 31, 2005, a total of 112,007 convenience stores were selling motor fuels in the U.S. (79 percent of country's 140,655 convenience stores). These retailers are also referred to as "petroleum marketers."

Spot market: This market is usually comprised of motor fuel that has not been pre-allocated to the integrated or branded outlets. Retailers and other fuel distributors purchase fuel at terminals, or "racks," where costs fluctuate based on current prices.

Summer-fuel blends: Several state and local governments have developed fuel regulations to control for the formation of smog during summer months. These generally require that gasoline sold during the summer have a lower Reid vapor pressure (RVP), which measures the gasoline's potential to emit vapors, which contribute to the formation of smog.

Tight supplies: Describes a situation in which demand for gasoline — or crude oil — exceeds the supply available, and prices rise based on this supply/demand imbalance. Also known as "market shorts" or "upsets."

Ultra Low Sulfur Diesel (ULSD): ULSD is a clean-burning diesel fuel that is defined by the United States Environmental Protection Agency (EPA) to have a maximum sulfur content of 15 parts per million (ppm). ULSD will eventually replace the current on-highway diesel fuel, known as Low Sulfur Diesel (LSD), which can have as much as 500 ppm sulfur content. ULSD is required for use in vehicles that will be equipped with advanced emission control systems starting with the 2007 model year, and is being phased into use between 2006 and 2010.

NACS

2007 Gas Price Kit

100-plus Years of Gasoline Retailing

It took two decades from Gottlieb Daimler's 1885 invention of what is generally recognized as the prototype of the modern gas engine for the first gas station to open. In the ensuing 100-plus years there have been a number of developments that have helped shape the petroleum marketing industry to what it is today.

1905: In St. Louis, Automobile Gasoline Co., a subsidiary of Shell of California, opens what is believed to be the first gas station in St. Louis in 1905. Some other accounts suggest that the first gas station was opened by SOCAL in Seattle in 1907. At these early stations, shopkeepers would fill a five-gallon can from behind the store and bring it to the customer's car to fill it.

1908: While there are already approximately 300,000 automobiles on the road, the introduction of the first affordable Model T leads to a rapid growth in automobile sales within several years.

1911: The U.S. Supreme Court declares John D. Rockefeller's Standard Oil Trust to be an "unreasonable" monopoly. The trust, which controlled much of the production, transport, refining and marketing of petroleum products in the United States, is broken up into a number of distinct companies, including:

- Standard Oil of Ohio (Sohio), now part of BP
- Standard Oil of Indiana (Stanolind), renamed Amoco, now part of BP
- Standard Oil of New York (Socony), merged with Vacuum, renamed Mobil, now part of ExxonMobil
- Standard Oil of New Jersey (Esso), renamed Exxon, now part of ExxonMobil
- Standard Oil of California (Socal), renamed Chevron, now part of ChevronTexaco
- Atlantic and Richfield, merged to form Atlantic Richfield (Arco), now part of BP (Atlantic operations were spun off and bought by Sunoco)
- Standard Oil of Kentucky (Kyso) was acquired by Standard Oil of California, now part of ChevronTexaco
- Continental Oil Company (Conoco) is now part of ConocoPhillips

1913: Gulf Refining Co. opens what is believed to be the nation's first drive-up service station on December 1 in Pittsburgh. On its first day it sells 30 gallons of gasoline at 27 cents per gallon. This is also the first architect-designed station and the first to distribute free road maps.

1916: The first canopy is introduced, as Standard Oil of Ohio unveils a prefabricated canopy prototype.

1927: The Southland Ice Company introduces the first convenience store in May in Dallas. "Uncle Johnny" Jefferson Green, who ran the Southland Ice Dock in Oak Cliff, realized that customers sometimes needed to buy things such as bread, milk and eggs after the local grocery stores were closed. Unlike the local grocery stores, his store was already open 16 hours a day, seven days a week, so he decided to stock a few of those staples in addition to items he was already offering.

Late 1920s: By the end of the decade, 24-hour service stations already are in operation, serving the needs of, among others, the commercial trucking industry. The first 24-hour convenience store didn't open until 1961.

1932: Congress enacts the first excise tax on gasoline on June 21, a one-cent-per-gallon tax, with the proceeds going into the general fund. Since 1997, the federal tax on gasoline has been 18.4 cents per

gallon, with the bulk of revenues going to the highway account. Virtually every state already had its own additional gasoline tax at this time; the first state gasoline taxes go back to the 1910s.

1947: Frank Ulrich opens the first modern self-serve gas station, at the corner of Jilson and Atlantic in Los Angeles. (The 20-store Hoosier Petroleum Co. tried self-serve in 1930 but the state fire marshal stopped it, calling it a fire hazard.) With the slogan "Save 5 cents, serve yourself, why pay more?" Ulrich's station sells more than 500,000 gallons its first month. A number of other independent stations begin to offer self serve, primarily in California, the Southwest and the Southeast, but the total number of stations offering self serve remain less than 3,000 until the early 1970s. By 1973, self-serve was permitted in 42 states. In addition, the 1973 energy crisis helped spur consumer demand for self-service, which is now available in 48 states. (New Jersey and Oregon still require full-service operations – New Jersey's law was enacted in 1949; Oregon's in 1951.)

1950: Frank McNamara and Ralph Schneider introduce the concept of a credit card with their Diners Club Card. In 1958, American Express and BankAmericard are introduced. Today, an estimated two-thirds of all gasoline purchases at convenience stores are paid by plastic.

1960: OPEC – the Organization of Petroleum Exporting Countries – is founded by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. The five founding members were later joined by Qatar (1961), Indonesia (1962), Socialist Peoples Libyan Arab Jamahiriya (1962), United Arab Emirates (1967), Algeria (1969), Nigeria (1971). Ecuador (1973-1992) and Gabon (1975-1994) also were OPEC members.

1973: The U.S. Environmental Protection Agency (EPA) issues regulations calling for the incremental reduction of tetraethyl lead (TEL) in gasoline. TEL had helped reduce engine knock and spurred the way for the development of high-power, high-compression engines. Starting with the 1975 model year, U.S. automakers respond by equipping new cars with pollution-reducing catalytic converters designed to run only on unleaded fuel.

1973: OPEC announces an oil embargo against countries (including the United States) that supported Israel during the October 1973 Yom Kippur War. Arab nations cut production by 5 million barrels per day, but increased production in other countries adds 1 million barrels of day back into the system. Still, the net loss of 4 million barrels a day represents 7 percent of the free world production and causes oil prices to shoot up from $3.01 to $11.65 per barrel by December. The combination of short supply and price controls initiated by President Nixon to control inflation lead to the closing of thousands of stations. By March 1974, the embargo ends and the shortage abates.

1974: A national speed limit of 55 miles per hour is enacted (some states are later permitted to increase the limit to 65 MPH on rural interstates). Ten years later, Sammy Hagar's song, "I Can't Drive 55" is a hit. In 1995, President Clinton signs a bill lifting federal control over speed limits. Today some states have speed limits of as much as 75 MPH.

1976: The last major grassroots refinery in the United States is built in Garyville, Louisiana.

1977: The Strategic Petroleum Reserve, the world's largest supply of emergency crude oil, is established. As of January 2006, it held approximately 684 million barrels of oil in underground salt caverns in Texas and Louisiana.

1979-81: In February 1979, the revolution in Iran begins, and in November the U.S. Embassy in Iran is stormed and hostages are taken. Midway through the year, Saudi Arabia cuts production and the price of crude oil soars. The Iran/Iraq war also reduces production in both countries. The world price of crude oil jumps from around $14 per barrel at the beginning of 1979 to more than $35 per barrel in January 1981 (approximately $80 in today's dollars, adjusted for inflation) before stabilizing. Gasoline prices peak in March 1981 at $1.42 per gallon, which, adjusted for inflation, is about $3 per gallon.

1981: The U.S. Government responds to the oil crisis by removing price and allocation controls on the oil industry. For the first time since the early 1970s, market forces replaced regulatory programs and

domestic crude oil prices were allowed to rise to a market-clearing level. Decontrol also set the stage for the relaxation of export restrictions on petroleum products.

1986: Pay-at-the-pump is introduced, with dispensers featuring a built-in credit/debit card reader system. Only 13 percent of convenience stores have the technology by 1994, but 80 percent of convenience stores are using the technology by 2002. In 2004, Sheetz is the first to use touch-screen kiosks at the pump where customers can also order in-store foodservice items that they pick up after fueling.

1988: Underground storage tank (UST) regulations are passed, requiring all operators to upgrade their storage tank systems with spill-prevention and leak-detection equipment within a decade. While convenience store owners invest millions of dollars to ensure that their underground storage tanks are compliant with current regulations, many local, state and federal government owners and operators, as well as some tribes and commercial fleets, continue to dispense fuel from non-compliant tanks.

1990: Congress passes the Clean Air Act Amendments of 1990, which contain six provisions to be implemented by the U.S. Environmental Protection Agency (EPA) in stages between November 1, 1992, and January 1, 2000. Among the provisions is one for the Reformulated Gasoline Program, requiring the most polluted metropolitan areas, representing more than one-fifth of the nation's population, to sell a reformulated gasoline; other areas may "opt in" to the program by applying to the EPA. This program introduces into widespread use the additives MTBE and ethanol to satisfy the oxygen content requirement.

1990-91: In August 1990, Iraq invades Kuwait. The United Nations approves an embargo on all crude oil and products originating from either Iraq or Kuwait, creating concern over supply shortages that leads to a run-up in crude oil prices. Within a month, the price of crude oil climbs from about $16 per barrel to more than $28 per barrel. The price escalates to a high of about $36 per barrel in September 1990. The Gulf War begins in January 1991, but by then oil prices had already stabilized.

Early 1990s: Hypermarkets selling fuel begin to make inroads in the United States as H-E-B is among the stores selling fuel in the Southwest. Interestingly, the concept was first introduced to the United States in the 1960s when a number of supermarket chains and retailers like Sears tried to sell fuel, but it did not generate sufficient consumer interest. Wal-Mart is the largest hypermarket selling fuel, with about 1,100 locations offering fueling. Today there are more than 3,600 hypermarket stores selling fuel, representing an estimated 8 percent of total U.S. gasoline sales.

1996: Wallis Companies, a convenience store chain based in Cuba, MO, serves as the test market for the introduction of Speedpass. In tests, Speedpass reduced the average three- to four-minute fueling time by 30 seconds. Within five years, more than 5 million customers were considered regular Speedpass users at Mobil or Exxon branded stations.

1999: Consolidation of the industry begins with the merger of British Petroleum and Amoco, and, later that year, Exxon and Mobil. In 2001, Chevron and Texaco merged, and Conoco and Phillips merged in 2002.

2001: Terrorists strike the United States on September 11. The market reacts to a rapid decline in demand for crude oil and petroleum products prompted by reduced air traffic. Crude oil prices drop from nearly $28 per barrel on September 7 to $17.50 on November 15. Gasoline prices, likewise, drop from $1.52 per gallon on September 10 to $1.06 December 17, with many areas of the country seeing gasoline prices under $1.00 per gallon.

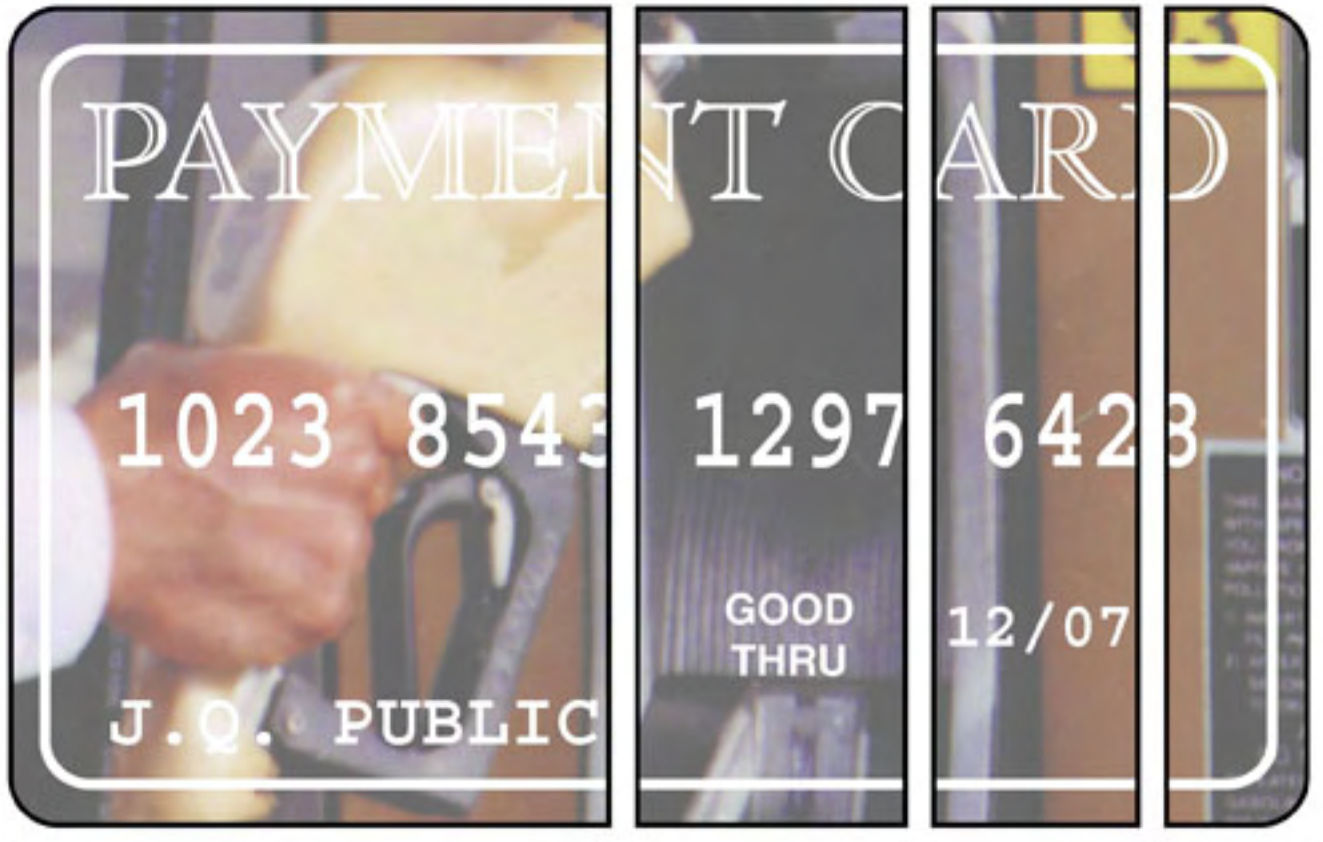
2002-03: A general strike in Venezuela beginning on Dec. 2, 2002, deprives the United States of a critical source of imported crude oil and refined petroleum product for several months. (Venezuela supplied approximately 8 percent of total U.S. petroleum products.) Crude oil prices increase from a pre-strike level of $26.83 to a mid-February 2003 level of $35.50 per barrel. Domestic crude oil stocks drop to their lowest level since October 1975. Meanwhile, gasoline prices increase from $1.36 per gallon for the week the strike begins to $1.73 per gallon by mid-March 2003.

2004: Crude oil prices hit a then-record high of more than $55 per barrel in October. High crude oil prices throughout the year help lead to record prices at the pump, and gasoline prices peak at $2.06 per gallon weekly national average on May 24.

2005: Gasoline prices experience a seasonal peak on April 11 when prices reach a then-record $2.28 per gallon. Gasoline prices fall for the next six weeks as oil prices drop. However, oil prices climb again in May, and gasoline prices follow suit. Oil prices hit a record $70.85 per barrel on August 30 following Hurricane Katrina, and retail gasoline prices also rise, peaking at a record $3.07 per gallon for the week of September 5.

2006: Gasoline prices begin to take off in April with the rapid elimination of MTBE as a fuel additive, and diesel fuel is affected by the transition to Ultra Low Sulfur Diesel. Crude oil prices again rise, hitting a record $78.40 per barrel on July 14. Gasoline prices hit a weekly high of $3.00 per gallon on August 7. Also, more nontraditional fuel retailers begin selling fuel, including a drug store chain in upstate New York and The Home Depot in Tennessee.

Where Does Your Fill-Up Go?



Crude Oil	Taxes	Refining	Post-Refinery
56%	18%	17%	9%*

* The costs associated with pipelines, terminals, distribution, payment card expenses (approx. 2.5%) and retailing.

Graphic: Courtesy of NACS. National Association of Convenience Stores

Source: U.S. Energy Information Administration 2006 data

From Dollars in Cost to a Penny in Profit

Retail Price

In 2006 gasoline prices averaged $2.57.

Source: Oil Price Information Service

Retail Gross Margin

The national average retailer markup for gasoline in 2006 was 13.76 cents per gallon. The estimated costs per gallon averaged 13 cents.

Estimated costs per gallon (varies by retailer):

6 cents – store operating expenses
4 cents – credit card fees
2 cents – amortization of equipment
1 cent – inventory shrink

Source: Oil Price Information Service, NACS estimates

Retail Pretax Profit

After factoring in expenses, retailers are left with an average of less than a penny pretax profit.

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2007 Gas Price Kit

Gasoline Theft at Convenience Stores *(updated January 2007)*

When gas prices increase, many gasoline retailers report an increase in gasoline theft, or "drive-offs."

Gasoline theft is a more than quarter-billion-dollar-a-year problem.

- Gasoline price volatility throughout 2006 once again led to a significant increase in gasoline theft, brought on by misdirected consumer anger at higher prices.
- Nationwide, numbers are not yet available for 2006, but gasoline theft cost the industry $300 million in 2005. The average loss per store selling gasoline was approximately $2,678 in 2005, and that figure is conservative, since it is based on all convenience stores that sell gasoline, including those in states that mandate full-serve (New Jersey and Oregon) and stores in areas where prepay in the norm, such as California and many major metropolitan areas including New York, Las Vegas, Chicago and Atlanta, for example.
- Gasoline theft increased significantly in 2005 compared to 2004 -- a 27 percent increase from the $237 million reported in 2004. The problem of gasoline theft would have been even greater in 2005 if so many retailers hadn't begun to mandate preapy in September (after Hurricane Katrina) when gasoline prices reached record levels of $3.06 per gallon.
- With convenience stores reporting total motor fuels sales of $334.2 billion in 2005, that means that, on average, one in every 1,100 fill-ups was gasoline theft. While this is not a "conga line" of theft, at two cents per gallon profit, a retailer would need to sell an extra 3,000 gallons to offset each $60 stolen.
- Gasoline theft tends to be a problem in densely populated metropolitan areas and near interstates where there's a greater anonymity; in these areas, retailers have reported losses as much as $1,500 per store per month. At stores in communities, where everyone tends to know each other, the problem generally is not as significant.
- Gasoline theft is not a "Robin Hood" crime of robbing the rich -- retailers typically make pennies a gallon on the sale of gasoline. In fact, they can often make as much, or more, from the sale of a 12 oz. cup of coffee than a 12 gallon fill-up.
- The increase in gasoline theft is directly related to price increases, as opposed to high prices. Theft increases every time prices increase.

The profile of a typical gasoline thief has evolved.

- Typically, convenience stores can experience a few gasoline thefts a week; however, when prices increase, some stores see several gas thefts a day. With retailers making a penny or two profit on the sale of gasoline, a retailer needs to sell thousands of additional gallons of gasoline just to make up for the loss. Oftentimes, it only takes one $50 theft a day to significantly erode -- or wipe out -- a retailer's daily gasoline profits.
- Gasoline theft has always been an issue for the industry, and was often teenagers taking a few dollars of gasoline for a thrill. Today, the problem of theft is across all demographics, and the cars involved with the crime are everything from "junkers" to late-model SUVs.
- Just as the frequency of gasoline theft increases, so does the size of the fill-up stolen. And with higher prices, the amount lost from just one gasoline theft can easily top $100 when an SUV in involved.

- A disturbing trend over the past few years is the emergence of gasoline theft rings, in which specially designed trucks are used to siphon fuel from stations' underground storage tanks. Members of a theft ring operating in Florida were arrested in June 2005 for using trucks that could siphon upwards of 1,000 gallons of fuel undetected. Also in June 2005, a man in Cottondale, AL, was severely burned in an explosion while allegedly trying to siphon hundreds of gallons of fuel from a station.

The problem of gasoline theft can be addressed by mandating prepay -- but it comes at a cost.

- Requiring customers to prepay for their fuel would virtually eliminate the problem of gasoline theft. However, consumers, wanting convenience, will usually choose to go to another retailer that does not require prepay if one is close. Even so, the problem of gasoline theft in 2006 led to a record number of retailers mandating that customers prepay for the ir fuel.
- The town of Mt. Pleasant, SC (a suburb of Charleston), enacted an ordinance in early 2004 that mandates that all retailers require prepay. Similar laws have since been enacted in Twin Falls, ID (late 2004), Myrtle Beach, SC (July 2005), Bowling Green, KY (January 2006), Kansas City, MO (July 2006) and Flower Mound, TX (Oct. 2006). These are believed to be the only laws of their kind in the United States, although in some areas of the country prepay is the norm, especially California. Other areas of the country have looked at mandating prepay, including Conway, AR; Fayetteville, NC; Topeka, KS and Milwaukee.
- Besides the risk of losing customers, retailers usually elect to require prepay as a last resort, since generally customers will underestimate their gasoline purchases because they don't want to have to go back in the store for change. Also, they tend to shop less inside the store, where margins are healthier, because they have already been inside the store once to prepay and find going back inside to be inconvenient. There also are concerns that mandating prepay could lead to cash customers instead paying by credit card at the pump to avoid the inconvenience of prepay. Since credit card fees are 2.5 to 3 percent, that means that retailers could incur an additional 5 to 8 cents per gallon in fees when gasoline is $2.50 per gallon.
- Usually, retailers will look at requiring prepay for certain pumps or certain hours before requiring it all the time at a store.

Gasoline theft makes a bad situation worse for retailers.

- Retailers are being hit hard by the higher gasoline prices. During periods of price increases, retailers' wholesale costs rise faster than they can recover them at the pump so profit margins are down significantly. NACS reports that gasoline margins in 2005 were 6.9 percent, the lowest level since 1984, and much of the reason for declining fuel margins is price volatility for gasoline.
- Because theft is typically linked to elevated prices, gasoline theft usually hits retailers when the value of that stolen property is at an all-time high.
- In addition to reduced profit margins on gasoline, more customers pay for their gasoline by credit card (approximately 60-70 percent of gasoline customers in 2006). The processing fees for credit cards (as much as 3 percent) further shrink already reduced margins to the point where retailers often make less per gallon than the credit card company.
- Higher gas prices contribute to lower in-store sales, where margins are more robust, because people have less disposable income. While customers may spend $50, that money is now all going toward gasoline, as opposed to the $40 paying for a fill-up and additional in-store items where margins are healthier.

Gasoline theft also negatively impacts consumers.

- Law-abiding customers must pay the cost of the theft in higher prices.
- Some drive-offs leave the gas island at unsafe speeds to avoid being caught, creating a more dangerous environment.

- An increase in the incidence of gasoline theft makes more retailers consider mandating prepay, which consumers do not prefer to have as their only option. If more areas mandate prepay, it will be one less product available to consumers on the "honor system" where they can obtain a product before they pay for it.

What do stores do to stop gasoline theft? Technology may play a big role in 2007.

- Low-tech solutions can be effective. Simply greeting all customers -- whether by intercom or in person -- can be effective. This takes away the feeling of anonymity.
- Technologies like the patented program developed by Pump-on LLC largely protect the customer's convenience and still ensures that theft is eliminated. With this program, cash customers use their driver's licenses (where basic identification information is read) at the pump to authorize dispensing. As of January 2007, a number of retailers have committed to work to further develop this program, including Sheetz, Wawa, RaceTrac and QuikTrip. In fact, QuikTrip has been using this type of program to great success in a number of cities. If customers fill up and fail to pay, their names are turned over to police. In Tulsa and Kansas City, gasoline theft was "reduced to a trickle," QuikTrip reports.

A number of states have been successful in gaining passage of legislation to prosecute those committing gasoline theft.

- As of June 2005, 27 states passed laws in which a judge has the discretion to suspend the driver's license of someone convicted of gas theft. Missouri's law requires (making it mandatory, not permissive) that a judge suspend the driver's license of a person who pleads guilty to, or is convicted of, stealing fuel.
- Here are the states and the year the law took effect:
  1998: Georgia
  1999: Alabama, Florida, Mississippi
  2000: Kansas, South Carolina, Michigan, Tennessee, West Virginia
  2001: Arkansas, Indiana, Kentucky, Virginia, Washington, North Dakota, Louisiana, Missouri, Texas, North Carolina
  2002: Colorado, Pennsylvania
  2003: Maryland, Connecticut, Wisconsin, Ohio
  2005: Iowa, Minnesota
- In 2005, Oklahoma and Virginia increased the fine for those convicted of gasoline theft. Also in 2005, South Dakota passed a law (which took effect July 1) that makes the owner of the vehicle used by someone who drives off without paying for gas liable for the cost of the gasoline plus a service charge. If the fee isn't paid, a civil fine is assessed.
- Gas thieves are getting their driver's licenses suspended. According to the Indiana Bureau of Motor Vehicles, the state recorded 171 license suspensions for gasoline theft in 2002, 366 suspensions in 2003 and 246 suspensions in the first half of 2004.
- An important part of Georgia's campaign, developed by the Georgia Association of Convenience Stores and Georgia Oilmen's Association, and many of the other states, included stickers on the gas dispensers that warned customers of the impact of gas theft. A typical message showed a state trooper holding someone's driver's license, accompanied by the message: "Pay for your gas or lose it!"
- A provision of the South Dakota gasoline theft law states that if an operator can get a license plate number and description of the vehicle, they can request information in writing to law enforcement, obtain the drivers information and send them a bill in the mail.

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2007 Gas Price Kit

Motor Fuels Sales at Convenience Stores *(updated July 2006)*

Convenience stores sell the majority of gasoline purchased in the country -- an estimated three quarters of all fuel sold in the United States in 2005. Of the 140,655 convenience stores in the United States, 112,007sell motor fuels (80 percent); 87 percent of new convenience stores have fueling operations. (Unless otherwise stated, all information is from the 2006 *NACS State of the Industry* report.)

Industry information:

- In 2005, convenience stores sold $344.2 billion in motor fuels, a more than four-fold increase from 10 years earlier. In 1995, convenience stores sold $79 billion in motor fuels; in 1985, motor fuels sales at convenience stores were $25 billion and in 1975 they were $0.5 billion.
- Motor fuels sales account for 69.5 percent of revenues in the convenience store industry. However, because of their extremely low profit margins, motor fuels accounted for only 39.9 percent of gross profit dollars.
- The bulk of a convenience store's motor fuels sales are gasoline -- 92.7 percent. The rest comes from diesel fuel (7.1 percent) and "other fuel" such as kerosene (0.2 percent).
- Unleaded regular gasoline accounted for four fifths of the gasoline sold at convenience stores (81.6 percent) in 2005, followed by mid-grade (10.7 percent) and premium (7.6 percent). Sales of mid-grade and premium have declined over the past few years as consumers have traded down octane levels in reaction to escalating gasoline prices. In 1998, when prices averaged $1.05 per gallon, regular gasoline accounted for 69.8 percent of gasoline sales.
- Like previous years, 2005 saw extreme price volatility for motor fuels. Prices averaged $2.36 per gallon, a sharp increase from the average of $1.55 in 2003 and $1.83 in 2004. While prices climbed, motor fuels profit margins continued to shrink. Gross margins in 2005 were 16.3 cents per gasoline. After incorporating expenses, such as credit cards fees, which are 2.5 to 3 percent, operating expenses, depreciation and taxes, profit margins in 2005 typically were two cents per gallon. On a percentage basis, margins in 2005 were 6.9 percent, the lowest since 1984.
- Gasoline theft, or "drive-offs," in which customers fuel up without paying, cost the convenience store industry $300 million in 2005. Gasoline theft over the past few years has largely been tied to seasonal price increases. Drive-offs have increased most in metropolitan areas where there's greater anonymity. However, by July 2005, 27 states have increased the penalties for gas theft, and more people are facing prosecution --and even license suspension.
- "Heavy" gas shoppers -- those who most frequently purchase gasoline, rate low gasoline prices as the most important criteria for where they purchase gasoline, followed by frequent purchaser cards and promotions. All other shoppers rate "convenient location" as the most significant factor in their motor fuels purchases *(Source: NACS' 2000-2005 "Future Study").*

Store averages:

- The average convenience store posted $3.08 million in motor fuels sales in 2005.
- The average store sold 108,733 gallons per month.
- The average convenience store had 8.6 fueling positions in 2005.

- New convenience stores in urban areas (populations 50,000 or greater) require an investment of $388,392 for motor fuel equipment and $47,520 for motor fuel inventory. For rural stores, the figures are $289,387 and $40,594. For both types of stores, motor fuel equipment is roughly half of total equipment costs for stores.

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Debit Holds for Fuels Purchases *(updated April 2006)*

As gas prices and the use of plastic at the pump have increased, consumers are increasingly concerned about the debit "holds" on their accounts.

Retailers are *not* responsible for the amount of the hold or the length of the hold when a customer conducts a signature debit transaction; both the amount and the length of the hold are determined by the bank issuing the debit card.

- Both Visa and MasterCard require that retailers place "preauthorizations" of $1 on signature debit (check card)and credit card gas purchases. Once the transaction is preauthorized, the bank that issued the debit or credit card places a "hold" on that account. Most consumers don't notice holds on their credit cards because they have sufficient credit lines that they don't exceed, even with holds.
- Holds are not unique to gas purchases: they are standard practice for any business that accepts plastic as a form of payment in a situation where the final dollar amount to be assessed is unknown in advance. Holds placed on gas purchases are similar to the preauthorizations that hotels do with a credit card when someone checks in or with car rentals.
- Most hold today are between $50 to $100 to approximate the cost of a fill-up. The amount of the hold has increased as gas prices have increased; $35 was previously a common amount.
- Under all normal circumstances, it's not the retailer who is responsible for continuing the hold, since credit/debit card network rules make it impossible for the retailer to extend the hold.
- For signature-based debit transactions (such as using a check card as a credit card), holds, like the holds on credit cards that can affect someone's spending limit, can remain for 48-72 hours, since the processing times are slower. Generally, they should last a shorter period of time. Retailers conduct "batch" transactions at least daily; any time that the hold lasts beyond that time for signature-based debit is due to bank settlement processes.
- Retailers have nothing to gain from holding on to consumers' money – it freezes accounts that could be used to spend money in the store. Further, retailers do not benefit from fees incurred from overdrafts that happen as a result of unanticipated holds.

PIN-debit transactions are the only debit transactions in which the retailer controls the amount of the hold. However, these are real-time and holds should be released immediately.

- For PIN-based debit transactions, which are real-time, online transactions, the hold should last minutes. When consumers swipe their cards and the pump says "authorizing," that is when the hold is being charged to the customer's account. After the fill-up is complete, the issuing bank is automatically notified, and the hold amount should immediately change to the amount that the customer actually purchased.
- Retailers set the amount of the hold for PIN-debit transactions. Because the processing time is nearly instantaneous, the consumer would likely never be affected by the hold, even if he or she was to use the debit card right away for an additional purchase.
- Retailers face challenges with the amount they set the hold for with PIN-debit. If the amount is too high, it might deny a potential customer the opportunity to fill up, since the amount of the hold must be available in the account. If, for example, a customer only wants to get $30 because the debit account is low, the transaction could be denied if the hold is $75 and the customer doesn't have that amount in the account. If the hold amount is too low, the retailer risks not getting paid by the bank. Retailers are liable for the full amount of the transaction, even a valid one, if they accept a transaction amount higher than the hold amount. The customer ends up getting charged

by the bank, but the bank keeps the money and does not give it to the retailer (known as "Reason Code 96").

Customers on tight budgets can make choices about what is best for them.

- If you want the hold to be released immediately, pay inside where you can use your PIN, since PIN debit transactions should be registered immediately. An increasing number of stations – an estimated 60 percent – also have PIN pads at the pump.
- Consumers should ask their banks what is the policy is regarding the length of debit holds. If the hold lasts longer than a few minutes for PIN-based transactions, or longer than three days for signature-based debit transactions, customers need to discuss the matter with their banks to learn why the holds are lasting so long. Most banks print their phone numbers on the backs of their cards.
- When posed with the option of credit or debit, consumers should always choose the PIN debit option because that transaction will be immediate, whereas a credit or signature-based debit transaction can take days. Plus, PIN-based debit is much more secure for the customer.
- Also check online bank statements regularly and call the bank if when something looks out of the ordinary on a statement.

More consumers are choosing to pay for their gas with plastic.

- The overall increase in average annual gas prices from 2003 to 2004 (from $1.55 to $1.83 per gallon) led to a significant increase in the use of plastic at the pump, with 54 percent of all gasoline customers paying with plastic in 2004. The huge increase in gasoline prices in 2005 and 2006 has accelerated that trend.
- For the first time in 2003, Americans made more in-store payments electronically than they did with cash or checks, according to a Dove Consulting/American Bankers Association study — 52 percent of all purchases were made with debit and credit cards.
- American consumers purchased $872 billion in goods with debit cards and $1.75 trillion with credit cards in 2005, according to the *Nilson Report*.
- Consumers 18 to 24 years old now use plastic to pay for more than half of their purchases (50.4 percent), according to Visa.

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Credit Card Fees a Growing Challenge for Convenience Stores *(updated July 2006)*

While convenience stores were able to rein in most of their expenses in 2005, a significant expense continued to grow: credit/debit card fees. These fees in 2005 were more than 90 percent of a store's profits, totalling $38,383 per store in 2005, and are expected to grow in the coming years.

Credit card fees are high — and growing.

- In 2005, credit/debit card fees, as a percent of gross profit, were 7.9 percent of gross profit dollars, an increase from 6.1 percent in 2004. On an industry-wide basis, the total cost of credit/debit fees was $5.4 billion, a huge increase from the $3.8 billion in fees in 2004 and $3.2 billion in fees in 2003.
- Credit-card fees are the third-largest expense at the store level. Only labor and rent costs are more.
- Particularly with the rising cost of gasoline and the higher transactions at the pump, retailers are seeing the impact of credit-card transaction fees. The overall increase in average annual gas prices from 2003 to 2005 (from $1.55 to $2.36 per gallon) led to a significant increase in the use of credit cards at the pump, with 58 percent of all gasoline customers paying with plastic in 2005. The huge increase in gasoline prices in 2006 has accelerated that trend, and NACS estimates that 60-70 percent of all motor fuels purchases are now paid with plastic.
- With razor-thin margins for retailers selling motor fuels, the credit card associations often make more profit on a gallon of gasoline than the retailer selling the gasoline.
- For the first time in 2003, Americans made more in-store payments electronically than they did with cash or checks, according to a Dove Consulting/American Bankers Association study — 52 percent of all purchases were made with debit and credit cards.
- The rise in credit card fees has prompted an increasing number of retailers to consider cash discounts at the pump.
- Retailers also are hit with additional costs because of chargebacks, known as "Reason Code 96." While retailers have not seen the specific rule (no retailer has seen the complete credit card operating rules that they are told to follow) they can be denied payment by the banks if they authorize a pay-at-the-pump transaction for more than $50 for Visa and more than $75 for MasterCard, even though the transaction is not challenged by the customer. As long as fuel prices remain high, "Reason Code 96" will substantially increase the cost of credit card aceptance.

Credit card fees cost a typical convenience store 2.5 to 3 percent of the transaction, which is made up us several components, some of which can be costlier for convenience stores than other channels.

- The largest component of credit card fees — interchange — accounts for roughly two-thirds of the fees charged to convenience stores. Many convenience stores are charged higher interchange rates set by the card associations whose members are card-issuing banks. Each type of card carries different fees that reflect factors like fraud rates, risk factors, transaction volume and processing path. American Express and Discover also set interchange rates, but operate as independent entities as opposed to the association approach that governs Visa and MasterCard and their respective member banks.
- There is a considerable difference between the fees charged for a PIN-based debit transaction and a credit transaction. Convenience stores, which generate approximately two-thirds of their

sales volume from motor fuels, tend to be charged a higher rate than that other retail channels because they are not as easily able to steer pay-at-the-pump customers to choose debit and enter a PIN as other retailers. As a result, many debit purchases, which should carry the lower rates, are processed as credit and carry higher costs to convenience store retailers.

- The other major component of credit card fees is acquiring fees; credit card companies have increased their acquiring fees, such as authorization, capture and settlement fees, charged to retailers over the past few years — even though the per-unit processing costs have declined.
- Another concern for convenience store retailers is that they are often hit twice for fees from the same customer visit – once when the customer pays at the pump, and once when he or she pays inside the store, if that is also a credit/debit card transaction.

Solutions — regulatory and otherwise — need to be found to reduce these credit card fees before they become even more burdensome.

- NACS is working with dozens of retailers — representing more than 2,000 stores — regarding their participation in a new money-saving credit-card processing program. NACS, in partnership with First Data Corporation, introduced the new program designed to reduce card-processing fees for convenience store and petroleum marketers in October 2003. This "interchange plus" program allows retailers to choose between a card processor that charges a percentage of the sale versus one that charges cents per transaction. An advantage of the cents-per transaction approach is that as the dollar value of the transaction grows (such as with the rising price of gasoline), the card processing fees remains the same.
- In April 2003, Wal-Mart and thousands of other retailers won a class-action lawsuit against Visa and MasterCard that claimed that the credit-card companies, individually, and in conspiracy with their member banks, violated the federal antitrust laws by forcing merchants who accept Visa and/or MasterCard-branded credit cards for payment also to accept Visa and/or MasterCard-branded debit cards for payment, and by conspiring and attempting to monopolize a market for general-purpose point-of-sale debit cards. Retailers said that these actions caused merchants to pay excessive fees for credit and debit transactions. As a result, the card companies settled the case and agreed to pay back damages, temporarily reduce fees and establish clear and distinct visual as well as electronic markers for identifying a credit from a debit card carrying a Visa or MasterCard logo.
- A greater use of PIN-based debit cards — which customers prefer for convenience and greater security — could also help reduce fees — as long as retailers are rewarded by the lower interchange for these more-secure transaction methods. With PIN-based debit cards accounting for only 5 percent of total cashless sales, and 60 percent of all pay-at-the-pump dispensers already equipped with PIN pads, the potential to increase debit sales is enormous if we can educate consumers on the benefits. By 2007, PIN debit cards will be used for 45.1 percent of all POS payments and will actually exceed POS credit card payments, according to *Financial Insights*.
- NACS is a founding member of the Merchants Payments Coalition, a group made up of trade associations representing retailers, restaurants, supermarkets, drug stores, convenience stores, gas stations, on-line merchants and other businesses that accept credit and debit cards and are concerned about the increasing interchange fees charged by banks and credit card companies to process credit and debit transactions.

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Gasoline Myths... and Facts *(updated April 2006)*

Any time consumers face higher gasoline prices, conspiracy theories and urban legends are sure to follow and proliferate, especially via e-mail. Here are a few of the more common myths – and the actual facts -- about gasoline – with the debunking courtesy of the popular site that examines urban legends, Snopes.com.

Myth: Boycotting a couple of gasoline brands will bring overall gas prices down
Sample copy: "GAS WAR! Join the resistance!!!! I hear we are going to hit close to $3.00 a gallon by the summer. Want gasoline prices to come down? We need to take some intelligent, united action…"It then urges: "Here! 's the idea: For the rest of this year, DON'T purchase ANY gasoline from the two biggest companies … If they are not selling any gas, they will be inclined to reduce their prices. If they reduce their prices, the other companies will have to follow suit."

Facts:

- Companies can't alter the basics of supply and demand: prices go up when people buy more of a product, and they go down when people buy less of a product.
- A boycott of specific brands wouldn't result in lower overall prices: Prices at all the non-boycotted outlets would probably rise due to the temporarily limited supply and increased demand, and would actually make the original prices look cheap by comparison.
- The only practical way for consumers to help bring about a decrease in gasoline prices is by decreasing demand by buying less gasoline, not just shifting where it's bought.

Details at http://www.snopes.com/inboxer/petition/gasout.htm.

Myth: Participating in a one-day 'gas out' will help bring the retail price of gasoline down
Sample copy: "It has been calculated that if everyone in the United States did not purchase a drop of gasoline for one day and all at the same time, the oil companies would choke on their stockpiles.

At the same time it would hit the entire industry with a net loss of over 4.6 billion dollars which affects the bottom lines of the oil companies.

Therefore May 19th has been formally declared 'stick it up their behinds day' and the people of this nation should not buy a single drop of gasoline that day."

Facts:

- By definition, a boycott involves the doing without of something. What the "gas out" calls for isn't consumers swearing off using or buying gasoline, even for a short time, but for them to simply shift their purchases by one day.
- Gasoline is a fungible, global commodity, its price subject to the ordinary forces of supply and demand. No amount of consumer gimmickry and showmanship will lower its price in the long run; only a significant, continuous reduction in demand will accomplish that goal.
- Moreover, the primary effect of the type of boycott proposed in the "gas out" messages is to hurt those at the very end of the oil-to-gasoline chain, service station operators — the people who

have the least influence in setting gasoline prices and survive on the thinnest of profit margins. As such, the "gas out" is a punch on the nose delivered to the wrong person.

Details at http://www.snopes.com/politics/business/nogas.asp

Myth: Spurning gasoline from certain major oil companies will cut off the funding of terrorists
Sample copy: "Nothing is more frustrating to me than the feeling that every time I fill-up the tank, I am sending my money to people who are trying to kill me, my family, and my friends. It turns out that some oil companies import a lot of middle eastern oil and others do not import any. I thought it might be interesting for Americans to know which oil companies are the best to buy their gas from."

Facts:

- The idea that oil companies sell gasoline only through their branded service stations is wrong. Oil companies sell their output through a variety of outlets other than their branded stations; as well, by the time crude oil gets from the ground into our gasoline tanks, there's no telling exactly where it came from.
- Complex problems rarely lend themselves to simple, painless answers. Simply shifting where we gasoline is purchased isn't nearly as good a solution as curtailing the amount of gasoline bought.

Details at: http://www.snopes.com/inboxer/outrage/nogas.htm

Myth: Cellular phones have touched off explosions at gas stations
Sample copy: "In case you do not know, there was an incident where a driver suffered burns and his car severely damaged when gasoline vapors ignited an explosion while he was talking on his mobile phone standing near the attendant who was pumping the gas. All the electronic devices in gas stations are protected with explosive containment devices, (intrinsically safe) while cell phones are not. READ YOUR HANDBOOK!"

Facts:

- The Cellular Telecommunications Industry Association has said, "There is no evidence whatsoever that a wireless phone has ever caused ignition or explosion at a station anywhere in the world. Wireless phones don't cause gas stations to blow up."
- The American Petroleum Institute notes, "We can find no evidence of someone using a cell phone causing any kind of accident, no matter how small, at a gas station anywhere in the world."
- In fact, creating an fire from a cell has not been demonstrated experimentally that it's even possible – which a 2004 broadcast of The Discovery Channel's Mythbusters program confirmed.
- It is unlikely that cell phone batteries could ignite gasoline fumes, given that they are the same voltage as automobile batteries (12V D.C.) but deliver far less current. Likewise, cellular phone "ringers" do not produce electricity -- they produce audio tones that simulate the sound of a ringing telephone.

Details at http://www.snopes.com/autos/hazards/gasvapor.asp

Static electricity is the cause of an increase in gas station refueling fires
Sample copy: "Bob Renkes of Petroleum Equipment Institute is working on a campaign to try and make people aware of fires as a result of "static" at gas pumps. His company has researched 150 cases of these fires. His results were very surprising…"

Facts:

While the complete e-mail has numerous errors, many parts of this are accurate.

- The Petroleum Equipment Institute did study the issue and released a report that noted: "Americans pump gasoline into their cars between 16 and 18 billion times a year generally without incident," but fires related to refueling at gas stations seem to be on the rise, and many of these fires are apparently not the result of the usual causes: open flames (mostly from cigarette smokers), sparks from the engine compartments of automobiles (primarily from drivers refueling cars with their motors running), or a lack of electrical continuity between nozzles and grounded dispensers."
- The PEI states that they "don't have any definitive answers" about the reasons for this increase, but notes that the refueler became charged prior to or during the refueling process through friction between clothing and the car seat to such an extent that electrostatic discharges to the vehicle body, fuel cap or dispensing nozzle occurred, and this often happens in cool, dry weather.
- Another potential causes for the increase in fires is improper handling and filling gas cans.

Here are generally recommended tips for safe refueling:

- Stay near your vehicle's fueling point when using a self-serve station.
- Do not go back into your vehicle when refueling, regardless of whether you use the nozzle's hold-open latch.
- If you must re-enter your vehicle while refueling, discharge the static electricity by touching a metal part of the outside of your car away from the filling point before touching and removing the gas nozzle.
- Always turn your engine off before refueling.
- Never smoke, light matches or use a lighter while refueling.
- To avoid spills, do not overfill or top off your gas tank.
- Let the fuel dispenser shut off automatically and leave the nozzle in the tank opening for six to eight seconds so the gasoline in the tank neck can settle down and any remaining gas in the nozzle can drip out of it into the tank.
- When filling a portable container always place it on the ground, and don't move away from it until you're through and the cap is back in place.

Details at http://www.pei.org/static/ and http://www.snopes.com/autos/hazards/static.asp

Myth: Infected needles are being placed on the underside of gas pump handles.
Sample copy: "My name is Captain Abraham Sands of the Jacksonville, Florida Police Department. I have been asked by state and local authorities to write this email in order to get the word out to car drivers of a very dangerous prank that is occurring in numerous states.... Some person or persons have been affixing hypodermic needles to the underside of gas pump handles. These needles appear to be infected with HIV positive blood. In the Jacksonville area alone there have been 17 cases of people being stuck by these needles over the past five months. We have verified reports of at least 12 others in various states around the country..."

Facts:

- There is no Capt. Sands, for starters.
- The hoax, which has been around since 2000, does not contain any truth to it.

Details at: http://www.snopes.com/horrors/mayhem/gaspump.asp

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Online Resources on Gasoline Prices

There are a number of excellent online sources for data and information on the petroleum markets. Here are a few of them:

U.S. Energy Information Administration (www.eia.doe.gov)

- **Basic Petroleum Statistics** (http://www.eia.doe.gov/neic/quickfacts/quickoil.html)
  Topline statistics for industry data, as well as links for detailed information.

- **Petroleum Information at a Glance**
  (http://www.eia.doe.gov/oil_gas/petroleum/info_glance/petroleum.html)
  A starting point to access information including EIA data from as far back as 1949 and reports looking as far forward as 2030.

- **Gasoline and Diesel Fuel Update** (http://tonto.eia.doe.gov/oog/info/gdu/gasdiesel.asp)
  EIA's weekly report on gasoline and diesel fuel prices provides current weekly prices by region, as well as compared to the week and year prior. The site also includes a percentage breakdown of "What We Pay for in a Gallon of Regular Gasoline," using the agency's latest monthly data.
- **This Week in Petroleum** (http://tonto.eia.doe.gov/oog/info/twip/twip.asp)
  Typically released every Wednesday afternoon, this report analyzes the week's supply and demand numbers and factors that could impact them.

- **Forecasts & Analyses** (http://www.eia.doe.gov/oiaf/forecasting.html)
  Analyses and projections of energy information, including EIA's Short-Term Energy Outlook and Annual Energy Outlook.

- **State Energy Page** (http://www.eia.doe.gov/emeu/states/_states.html)
  Overviews of each state's energy resources, and detailed information on state-specific supply and demand, fuel requirements and petroleum infrastructure.

- **Oil Market Basics**
  (http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/oil_market_basics/default.htm)
  From the wellhead to the gas tank, this primer explains how oil markets operate, from with hotlinks to oil price and volume data.

- **A Primer on Gasoline Prices**
  (http://www.eia.doe.gov/pub/oil_gas/petroleum/analysis_publications/primer_on_gasoline_prices/html/petbro.html)
  EIA's MVP (most valuable publication) explains the components of the cost of gasoline, why gasoline markets fluctuate and why gasoline prices differ regionally.

- **Gasoline Price Pass-through**
  (http://www.eia.doe.gov/pub/oil_gas/petroleum/feature_articles/2003/gasolinepass/gasolinepass.htm)
  Why do retail prices seemingly jump suddenly? EIA examined the movement of gasoline prices over time and found that most of the movement in retail prices (on a national and regional basis) is predetermined by previous movements in spot prices.

- **Eliminating MTBE in Gasoline in 2006**

- (http://www.eia.doe.gov/pub/oil_gas/petroleum/feature_articles/2006/mtbe2006/mtbe2006.pdf)

A primer on the petroleum industry's rapid transition away from MTBE as a fuel additive.

- **Hurricane Impacts on the U.S. Oil and Natural Gas Markets**
  (http://tonto.eia.doe.gov/oog/special/eia1_katrina.html)
  EIA's final report on the impacts of Hurricanes Katrina and Rita. (*last updated Dec. 27, 2005*)

NACS (www.nacsonline.com)

- **Gasoline Prices 2006: Oh No, Not You Again** *(published February 2, 2006)*
  (http://www.nacsonline.com/NACS/Resource/PRToolkit/Campaigns/Cover_GasPrices_2006.htm)

- **Hurricane Katrina: The Impact on the Retail Gasoline Market** (*published September 2005*)
  (http://www.nacsonline.com/NACS/Resource/PRToolkit/Campaigns/Cover_HurricaneKatrina_Gasoline.htm)

- **Gasoline Prices: The Impact of World, Local Events** (*published February 2005*)
  (http://www.nacsonline.com/NACS/Resource/PRToolkit/Campaigns/Cover_GasPriceImpact_2005.htm)

- **Gasoline Price Volatility in 2004: What's Going On?** (*published February 2004*)
  (http://www.nacsonline.com/NACS/Resource/PRToolkit/Campaigns/Cover_GasPriceVolatility_2004.htm)

- **NACS' Motor Fuels Supply Fungibility and Market Volatility Analysis** (*published September 2003*)
  (http://www.nacsonline.com/NACS/Resource/PRToolkit/Campaigns/Cover_BoutiqueFuels.htm)

- **Gasoline Prices: What Impacts Them?** (*published March 2003*)
  (http://www.nacsonline.com/NACS/Resource/PRToolkit/Campaigns/Cover_GasPrices.htm)

- **Motor Fuels Supply and Price Volatility** (*published September 2002*)
  (http://www.nacsonline.com/NACS/Resource/PRToolkit/Campaigns/Cover_MotorFuels.htm)

American Petroleum Institute (api-ec.api.org)

- **State Motor Fuel Excise Tax Rates**
  (http://www.api.org/policy/tax/stateexcise/index.cfm)
  Motor fuel tax information for all 50 states.

- **Industry Statistics** (http://www.api.org/statistics/)
  A collection of facts, figures and other energy-related material.

U.S. Environmental Protection Agency

- **Boutique Fuels: State and Local Clean Fuels Programs**
  (http://www.epa.gov/otaq/boutique.htm)
  A listing of the eight low-emission "boutique fuels" that states will be allowed to use to comply with the Clean Air Act.

U.S. Department of Energy (www.energy.gov)

- **Energy Price & Trends** (http://www.energy.gov/pricestrends/index.htm)
  Provides information and historical data for energy sectors.

- **Strategic Petroleum Reserve** (http://www.fe.doe.gov/programs/reserves/spr/spr-facts.html)
  Information about the U.S. Government complex of four sites created in deep underground salt caverns that hold emergency supplies of crude oil.

Association of Oil Pipe Lines (www.aopl.org)

- **Home page** (http://www.aopl.org/go/site/888/)
  Pipelines move nearly two-thirds of the ton-miles of oil transported annually.

- **Pipeline 101** (http://www.pipeline101.com/Introduction/)
  Basic information compiled from industry, government and research experts and published materials.

Clean Diesel Fuel Alliance (http://www.clean-diesel.org)

Provides the basics on Ultra Low Sulfur Diesel fuel.

AAA (www.fuelgaugereport.com)

- **Daily Fuel Gauge Report** (http://www.fuelgaugereport.com/sbsavg.asp)
  Provides daily averages for fuel by grade for each state.

Merchants Payments Coalition (http://www.unfaircreditcardfees.com)

The Merchants Payments Coalition is fighting for a more competitive and transparent credit card fee system that better serves American consumers and merchants, including convenience stores and gas stations.

NACS 2007 Gas Price Kit

Contact Information for Reporters:

If you'd like to speak to someone at NACS about issues related to gasoline prices, contact Jeff Lenard, NACS vice president of communications, at (703) 518-4272, e-mail jlenard@nacsonline.com, or John Eichberger, NACS vice president of government relations, at (703) 518-4247, e-mail jeichberger@nacsonline.com.

Retailers:

How are you coping with today's higher gas prices? What resources do you need? Which resources did you find most helpful in this kit or from other sources? What issue has the media covered best in discussing the issue of higher gas prices? Please take a moment to provide your feedback to help us address your ongoing needs related to motor fuels issues.
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