

# State of Nebraska

## Heating Oil and Propane Program

### *2006/2007 Winter Heating Season*

## Annual Report

### June 2007

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#### Executive Summary

Nebraska's average [propane](#) prices were stable throughout the 2006/2007 heating season never venturing lower than \$1.40 or higher than \$1.50 per gallon. The average home heating charge price for delivery of consumer grade propane, excluding taxes and cash discounts, in Nebraska for the 2006/2007 heating season was \$1.45 per gallon.

[Heating oil](#) prices began the 2006/2007 heating season 48 cents per gallon lower than the previous heating season yet 51 cents higher than two years ago. Heating oil prices were relatively stable throughout the 2006/2007 heating season staying between \$2 and \$2.30 per gallon. During the 2005/2006 season, prices were still recovering from Hurricanes Katrina and Rita. If we omit those prices, we see that the 2006/2007 season fits in with the 2003/2004 and 2004/2005 seasons when prices increased more than 30 percent from the previous year.

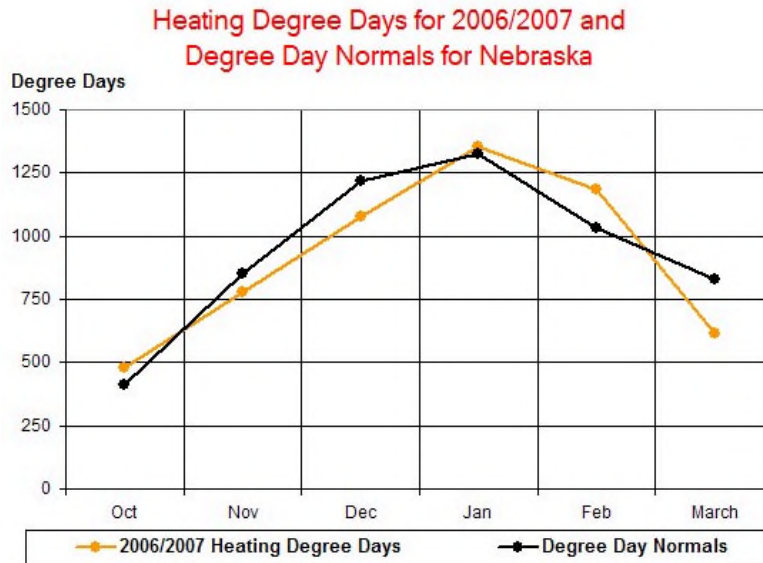
Factors that impact prices each season include: national and state inventory and import levels, refinery downtime, prices of crude oil and natural gas, the weather, the economy, and the political situation. Each of these factors can lead to increased demand or lower-than-normal supplies during the winter heating season. Factors that impacted prices during the 2006/2007 heating season included.

- Above-average regional distillate inventory levels at the beginning of the heating season, below-average levels throughout the season, and average levels at the end of the season. Nearly 7,000 of the state's households (one percent) use heating oil to heat their homes;
- The regional propane storage goal of 25 million barrels was attained during the traditional build season (April through September). Nearly 70,000 Nebraska households (more than nine percent) use propane to heat their homes;
- An above-average national propane stockbuild from April to September;
- High crude oil prices;
- High natural gas prices;
- Oil refinery shutdowns due to planned maintenance and unexpected hazards;
- Ongoing war with Iraq;
- Mild hurricane season;
- Severe weather conditions in the Houston Ship Channel and at Galveston and Texas City; and
- Three percent warmer-than-normal winter temperatures.

#### Weather

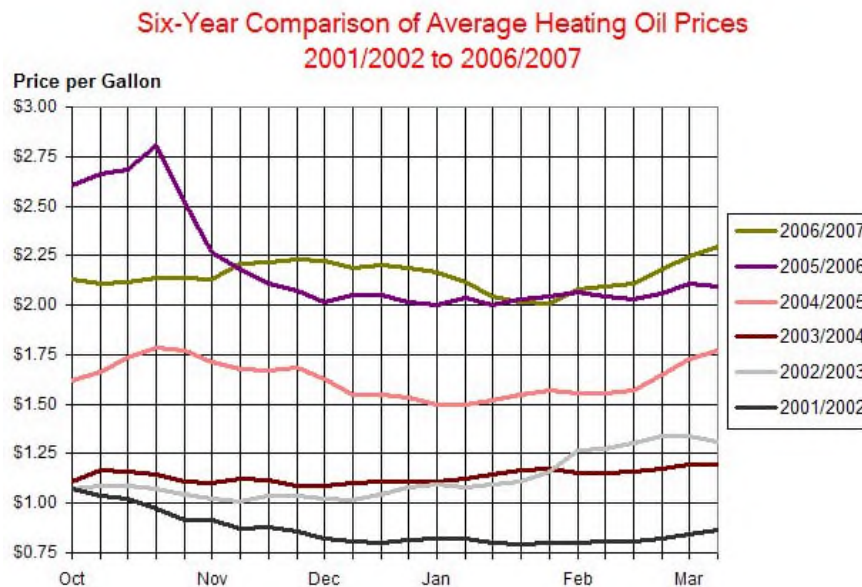
Of the factors that impact prices, weather remains the key wildcard each winter. An analysis of [heating degree days](#) indicated weather in Nebraska to be warmer than

normal by three percent. The state had an estimated 5491 heating degree days from October to March compared to 5667 normal heating degree days for that period. The month of October was 17 percent colder than normal. Both November and December were warmer than normal—eight percent warmer during November and 12 percent warmer during December. January was two percent colder than normal, while February was 15 percent colder than normal. March was 26 percent warmer than normal.



#### Multi-Year Comparison of Weekly Average Heating Oil Prices

Heating oil prices began the most recent heating season 48 cents lower than the previous season yet 51 cents higher than two years ago. Heating oil prices were lower than 2005 October prices because the 2005 market was dealing with nationwide supply disruptions in the aftermath of Hurricanes Katrina and Rita. The average price at the end of the 2006/2007 heating season was 17 cents higher than the price at the beginning of the season.



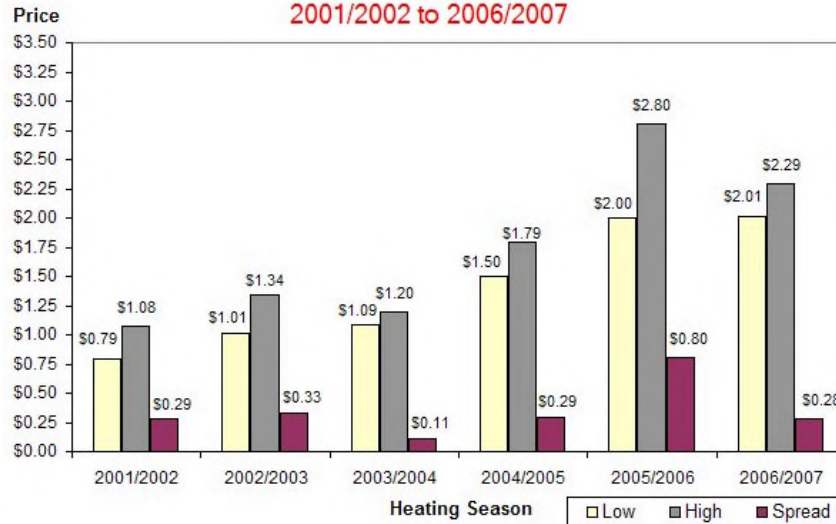
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#### Heating Oil Price Range and Spread

The graph below shows the price range which is the highest average price and the lowest average price per gallon of heating oil from the last six heating seasons and the difference, or spread, between the high and low prices. A low price spread is

indicative of stability, i.e. no large increases or decreases in price during the heating season. The price spread for the 2006/2007 heating season (\$0.28) was much smaller than the price spread for the 2005/2006 heating season (\$0.80). The 80-cent spread may be attributed to supply shortages and disruptions as a result of the hurricanes in 2005.

**Heating Oil Price Range and Spread  
Each Heating Season  
2001/2002 to 2006/2007**

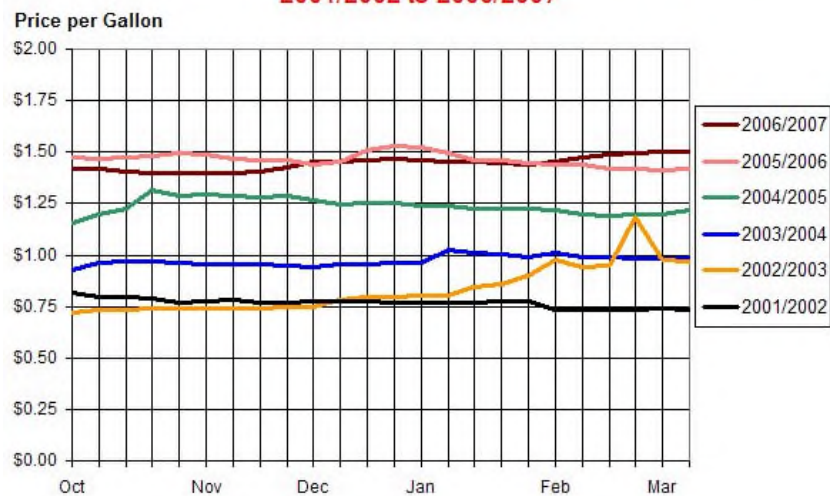


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**Multi-Year Comparison of Weekly Average Propane Prices**

The 2006/2007 heating season began with a propane price that was six cents lower than last year but 60 cents per gallon higher than five years ago. High crude oil and natural gas prices remain major factors that impact propane prices. Winter weather was warmer than previous years, although only three percent warmer than normal. The 2005/2006 heating season saw a continuation of the high prices from the 2004/2005 heating season.

**Six-Year Comparison of Average Propane Prices  
2001/2002 to 2006/2007**

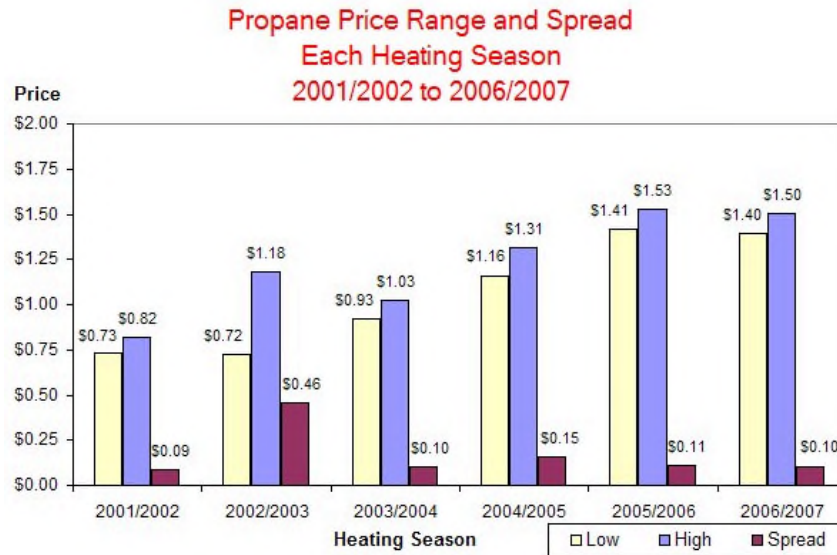


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**Propane Price Range and Spread**

The graph below shows the price range which is the highest average price and the lowest average price per gallon of propane from the last six heating seasons and the difference, or spread, between the high and low prices. A low price spread is

indicative of stability, i.e. no large increases or decreases in price during the heating season. The 2006/2007 heating season had comparable spread and prices to the 2005/2006 heating season. In fact, an analysis of the six years for which data is available indicates price stability within each heating season except for 2002/2003.



## Introduction

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This report summarizes the results of the heating oil and propane price survey during the 2006/2007 winter heating season in Nebraska. The Nebraska Energy Office conducted the survey under a cooperative agreement with the U.S. Department of Energy's [Energy Information Administration](#).

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## Program Objectives

According to the latest [American Community Survey](#) conducted by the U.S. Census Bureau, over nine percent, or 65,386 homes, in Nebraska use propane as the primary home heating fuel. Nearly 7,000 homes in Nebraska, or one percent, use heating oil as the primary home heating fuel. The Nebraska Energy Office recognizes the need for winter fuels price information to fulfill these objectives: (1) to provide information to the Governor and the public regarding the price and status of winter fuels, (2) to prepare the agency to respond in an effective, efficient manner to potential heating fuel problems, and (3) to strengthen the state, regional, and national analyses of winter heating fuel prices.

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## Program Performance

The responsibilities of the Nebraska Energy Office included:

1. Collection of each Monday's retail heating oil and propane prices from suppliers during the winter heating fuel season,
2. Maintenance of a price database,
3. Weekly submission of the price data via an internet data collection system to the Energy Information Administration on a company-identifiable level to the extent permitted by State laws, and
4. Preparation and submission of a midseason report and an annual report.

The responsibilities of the Energy Information Administration included:

1. Preparation of a list of companies to be surveyed and the development of an estimation formula,

2. Technical assistance,
3. Publication of state, regional, and national data online,
4. Review of the midseason report and the annual report for accuracy and consistency,  
and
5. Preparation and distribution of a report to Congress, the states, and the public.

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## Methodology

The Nebraska Energy Office has participated in the State Heating Oil and Propane Program (SHOPP) for six years. Each year, the Energy Information Administration provides a list of companies to the Nebraska Energy Office. The companies are identified as residential distributors to be contacted regarding their participation in the price survey. The residential price survey for this heating season began on October 2, 2006, and was completed on March 12, 2007. Data from the survey was transmitted to the Energy Information Administration using the Internet Data Collection System. The Energy Information Administration compiled, processed, and aggregated each state's reported data, weighted and stratified against other data streams, to estimate each state's average price.

The Nebraska Energy Office publishes the data in these reports: [Average Residential Propane Prices](#), [Average Wholesale Propane Prices](#), [Average Residential Heating Oil Prices](#), and [Average Wholesale Heating Oil Prices](#). The Energy Information Administration publishes the data in the following reports: Residential Propane Prices by Region and State, Wholesale Propane Prices by Region and State, Residential Heating Oil Prices by Region and State, and Wholesale Heating Oil Prices by Region and State.

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## Residential Heating Oil Prices

In the following sections, additional indicators of price volatility may be viewed. The indicators include the heating season's average price, the average price for the month of October, the weekly average price, the price range, the price spread, a multi-year wholesale price comparison, a retail/wholesale price comparison, and rack-to-retail margins.

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### Heating Season's Average Price

The average home heating charge price for delivery of No. 2 heating oil, excluding taxes and cash discounts, in Nebraska for the 2006/2007 heating season was \$2.15 per gallon. The season average decreased four cents from last season's average of \$2.19, but remained 63 cents higher than the six-year average of \$1.52 per gallon.

The season averages for the last six years are listed in the following table:

Heating Season	Average Price	Percent Increase/(Decrease) From Prior Year
2006/2007	\$2.15	(2%)
2005/2006	\$2.19	34%
2004/2005	\$1.63	43%
2003/2004	\$1.14	1%
2002/2003	\$1.13	30%
2001/2002	\$0.87	
<b>Average Six-Year Price</b>	<b>\$1.52</b>	

### October's Average Price

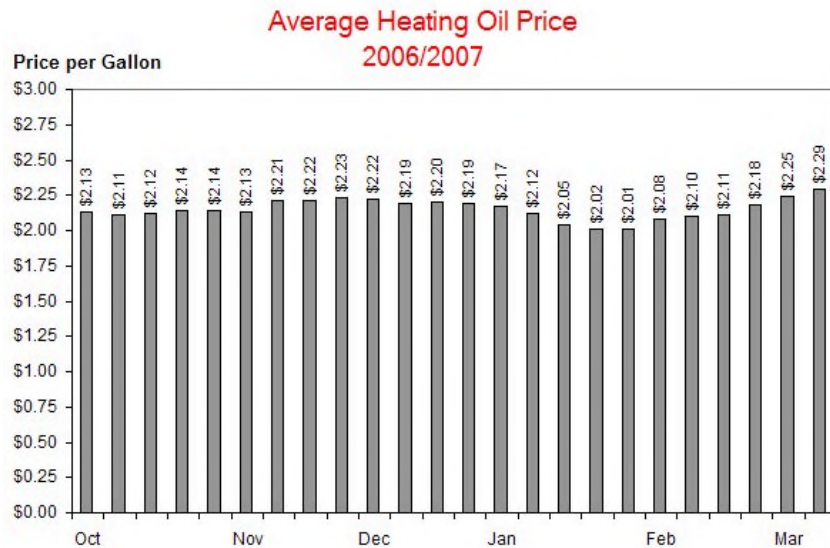
The average price of heating oil in October is indicative of weather conditions and the winter supply outlook. Due to El Nino conditions, the National Oceanic Atmospheric Administration expected a warmer-than-normal winter in 2006/2007. At the end of

September, the Midwest Region had 4.5 million barrels of heating oil in stock, a level of inventory which was above normal. The average price for October was \$2.13, which was 51 cents higher than the six-year average, but 53 cents less than the previous October. The October averages for the past six years are listed in the following table:

Heating Season	Average October Price	Percent Increase/(Decrease) From Prior Year
2006/2007	\$2.13	(20%)
2005/2006	\$2.66	56%
2004/2005	\$1.70	48%
2003/2004	\$1.15	6%
2002/2003	\$1.08	7%
2001/2002	\$1.01	
<b>Average Six-Year October Price</b>	<b>\$1.62</b>	

### Weekly Average Price

The average price of heating oil was relatively stable during the 2006/2007 season. The price never ventured lower than \$2.01 or higher than \$2.29 and closed out the heating season only 16 cents higher than the price at the beginning of the season.

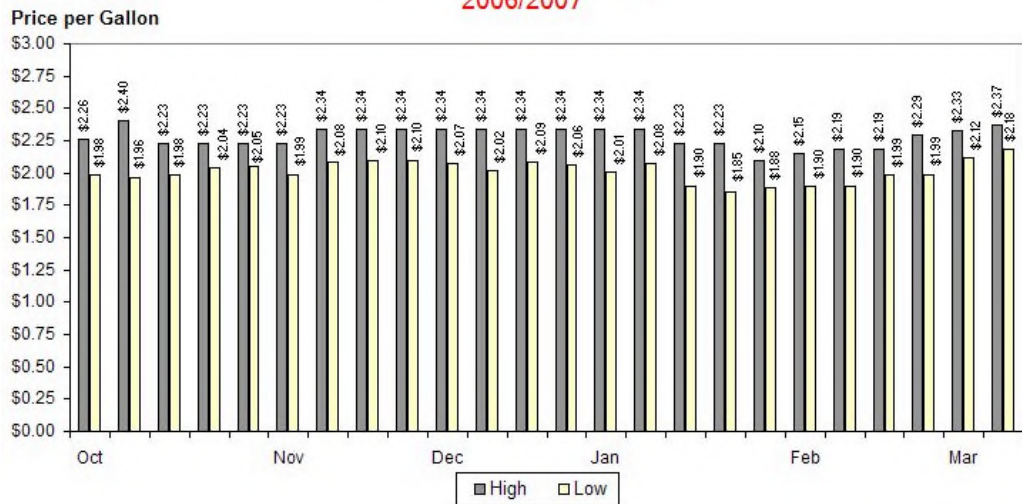


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### Price Range

The high to low price range of heating oil from each Monday's survey is shown in the graph below. During the 2006/2007 heating season, the highest price ranged from \$2.10 to \$2.40, and the lowest price ranged from \$1.85 to \$2.18.

## Heating Oil Price Range 2006/2007

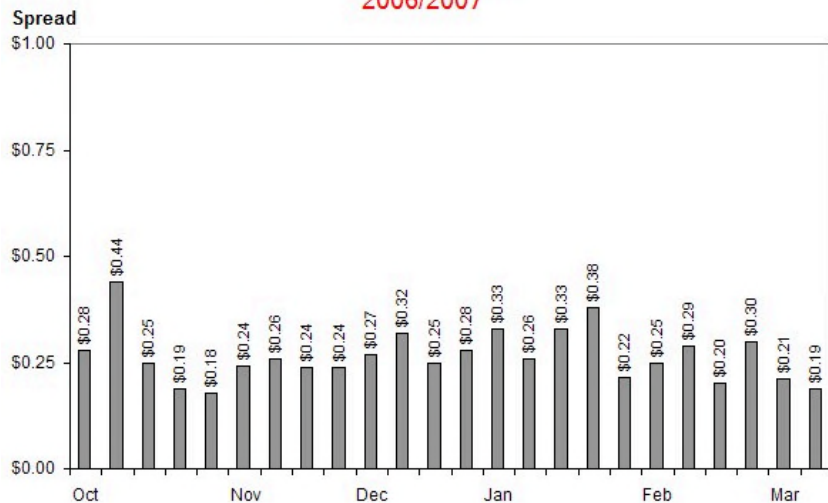


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### Price Spread

The price spread between the high price and the low price from each Monday's survey is shown in the graph below. During the 2006/2007 heating season, the price spread ranged from 18 cents to 44 cents.

## Heating Oil Price Spread 2006/2007



### Multi-Year Wholesale Price Comparison

Wholesale heating oil prices began the 2006/2007 heating season 65 cents (nearly 30 percent) lower than the previous season, but 37 cents higher than two years ago. Heating oil prices were lower than October 2005 prices because the 2005 market was dealing with nationwide supply disruptions in the aftermath of Hurricanes Katrina and Rita. The average price at the end of the 2006/2007 season was 34 cents, or 18 percent, higher than the price at the beginning of the season.

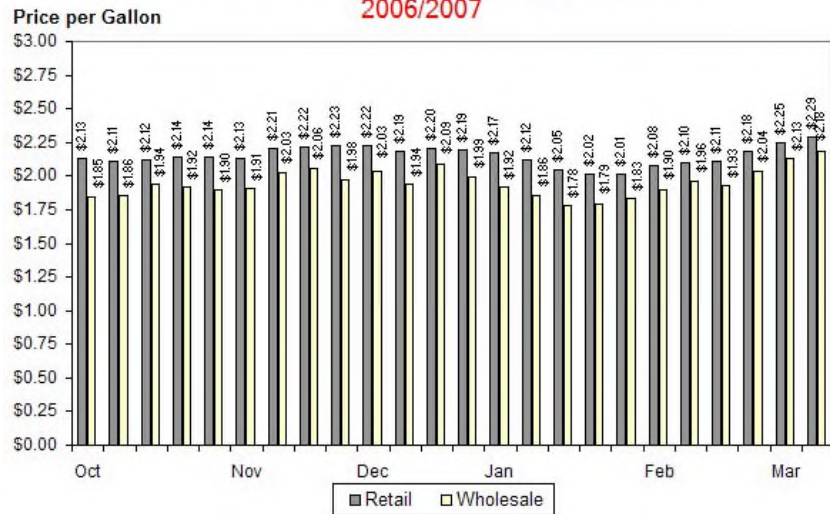
### Three-Year Comparison of Average Wholesale Heating Oil Prices 2004/2005 to 2006/2007



#### Retail Versus Wholesale

A comparison shows that retail prices during the 2006/2007 heating season ranged from \$2.01 to \$2.29, while wholesale prices ranged from \$1.78 to \$2.18.

### Retail Versus Wholesale Heating Oil Prices 2006/2007



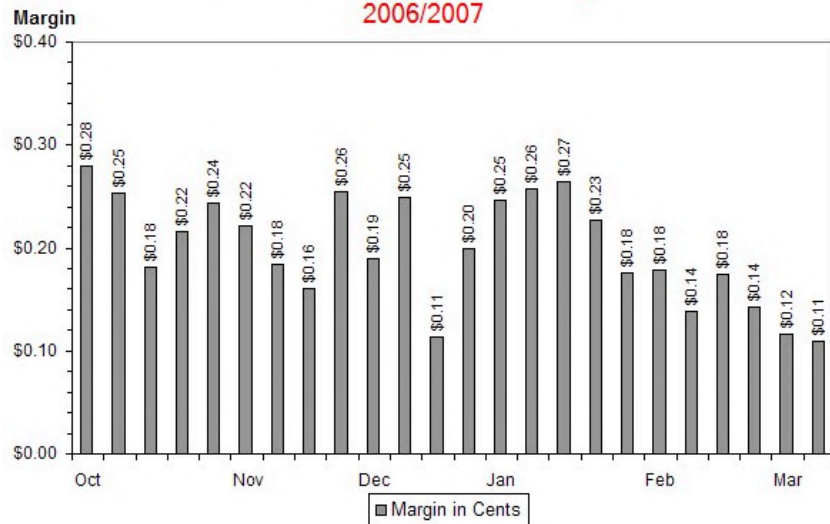
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#### Margins

The graph below shows the [rack](#)-to-retail margins per gallon of heating oil for each Monday's survey. During the 2006/2007 heating season, the margin ranged from 11 to 28 cents.



## Rack-to-Retail Heating Oil Margins 2006/2007



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### Residential Propane Prices

In the following sections, additional indicators of price volatility may be viewed. The indicators include the heating season's average price, the average price for the month of October, the weekly average price, the price range, the price spread, a multi-year wholesale price comparison, a retail/wholesale price comparison, and rack-to-retail margins.

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#### Heating Season's Average Price

The average home heating charge price for delivery of consumer grade propane, excluding taxes and cash discounts, in Nebraska for the 2006/2007 heating season was \$1.45 per gallon. The season average was one cent lower than last season's average of \$1.46 and 33 cents more than the six-year average of \$1.12 per gallon.

The season averages for the last six years are listed in the following table:

Heating Season	Average Price	Percent Increase/(Decrease) From Prior Year
2006/2007	\$1.45	(1%)
2005/2006	\$1.46	18%
2004/2005	\$1.24	28%
2003/2004	\$0.97	17%
2002/2003	\$0.83	8%
2001/2002	\$0.77	
<b>Average Six-Year Price</b>	<b>\$1.12</b>	

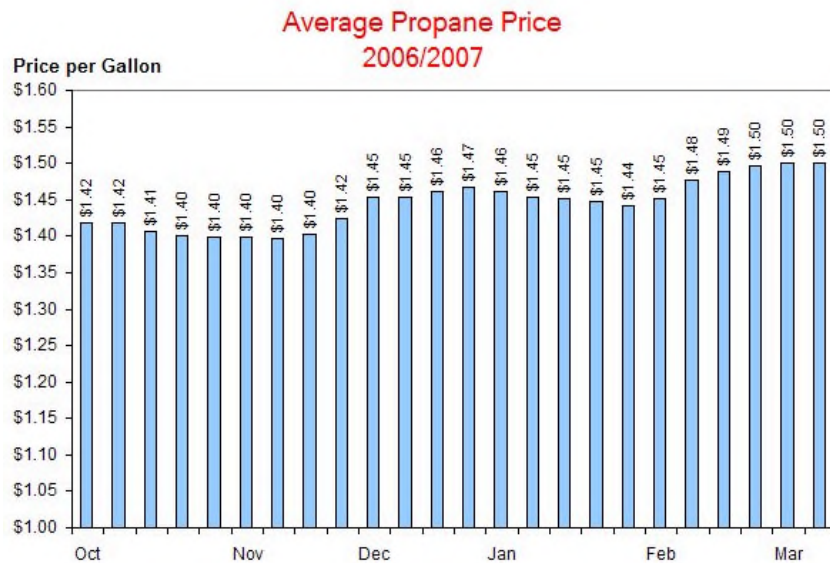
#### October's Average Price

The average price of propane in October is indicative of weather conditions and the winter supply outlook. Due to El Nino conditions, the National Oceanic Atmospheric Administration expected a warmer-than-normal winter in 2006/2007. At the end of September, the Midwest Region had 26.2 million barrels of propane in stock, a level of inventory which was above normal. October's average price had increases on average of nearly 27 percent from one year to the next over the past three years. The 2006/2007 heating season saw an end to that trend. The average price for October was \$1.41, which was 31 cents higher than the six-year average, but seven cents less than the previous October. The October averages for the past six years are listed in the following table:

Heating Season	Average October Price	Percent Increase/(Decrease) From Prior Year
2006/2007	\$1.41	(5%)
2005/2006	\$1.48	21%
2004/2005	\$1.22	27%
2003/2004	\$0.96	32%
2002/2003	\$0.73	(8%)
2001/2002	\$0.79	
<b>Average Six-Year October Price</b>	<b>\$1.10</b>	

### Weekly Average Price

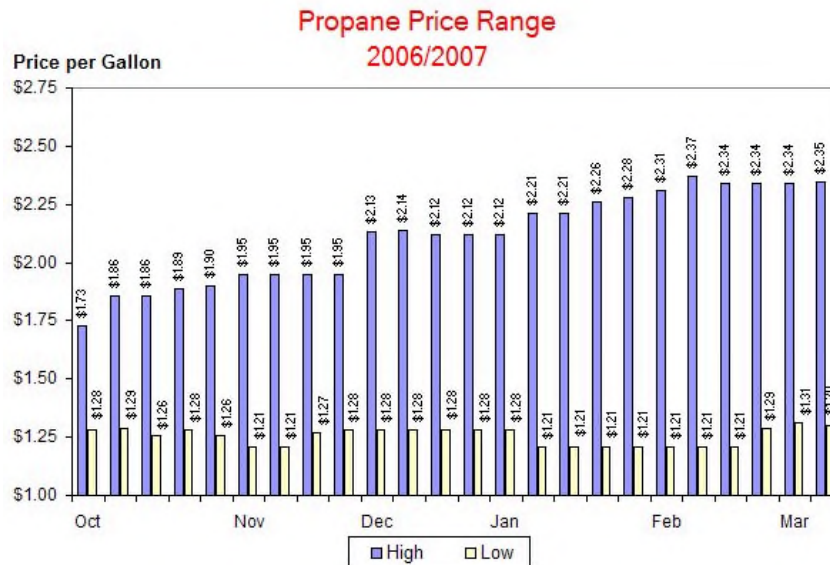
The average price of propane remained relatively flat, or stable, during the 2006/2007 heating season. The average price never ventured lower than \$1.40 or higher than \$1.50 and closed out the heating season only eight cents higher than the price at the beginning of the season



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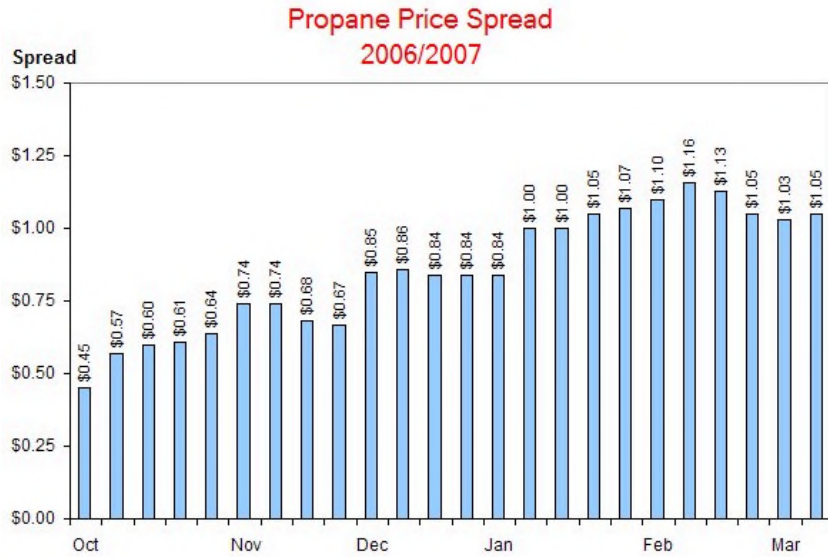
### Price Range

The high to low price range of propane from each Monday's survey is shown in the graph below. During the 2006/2007 heating season, the highest price ranged from \$1.73 to \$2.37, and the lowest price ranged from \$1.21 to \$1.31.



### Price Spread

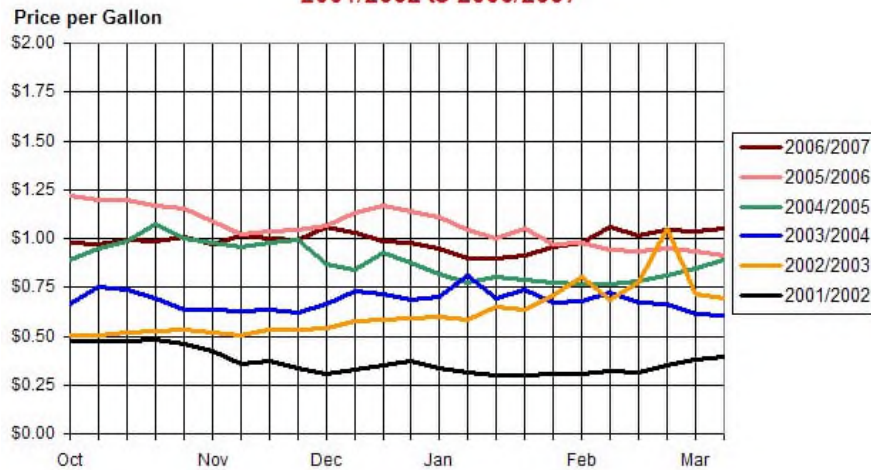
The price spread between the high price and low price of each Monday's survey is shown in the graph below. During the 2006/2007 heating season, the price spread ranged from 45 cents to \$1.16



### Multi-Year Wholesale Price Comparison

The 2006/2007 heating season began with a wholesale propane price that was 24 cents lower than last year, but nine cents higher than two years ago. Propane prices were lower than 2005 prices because the 2005 market was dealing with nationwide supply disruptions in the aftermath of Hurricanes Katrina and Rita. The average price at the end of the 2006/2007 season was only seven cents higher than the price at the beginning of the season.

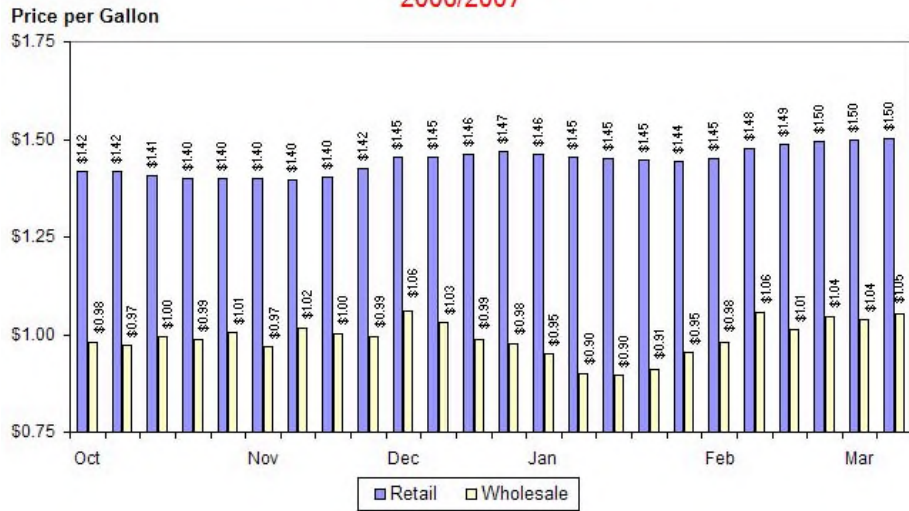
### Six-Year Comparison of Average Wholesale Propane Prices 2001/2002 to 2006/2007



### Retail Versus Wholesale

During the 2006/2007 heating season, the retail propane price ranged from \$1.40 to \$1.50, while the wholesale price ranged from \$0.90 to \$1.06.

## Retail Versus Wholesale Propane Prices 2006/2007

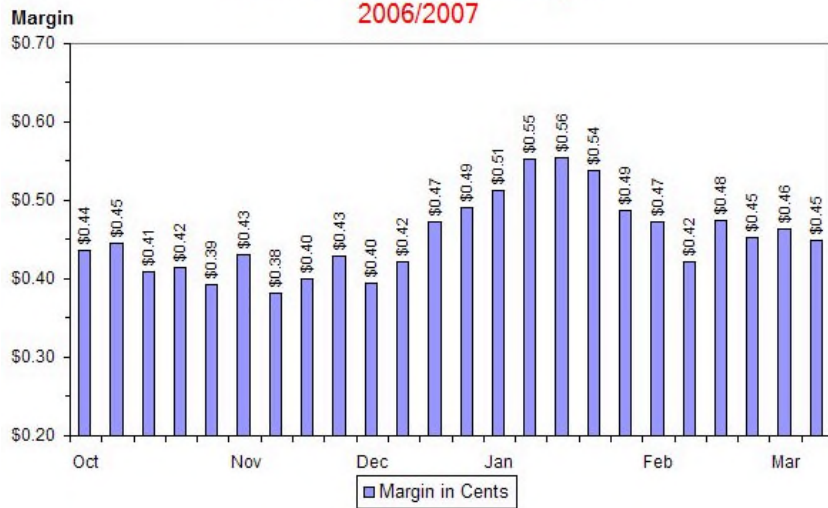


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### Margins

The graph below shows the [rack](#)-to-retail margin per gallon of propane for each Monday's survey. During the 2006/2007 heating season, the margin ranged from 38 to 56 cents.

## Rack-to-Retail Propane Margins 2006/2007



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**Sources:** State Heating Oil and Propane Survey and the Weekly Petroleum Status Report. Energy Information Administration, Washington, DC. Nebraska Energy Office, Lincoln, NE.

*This report was completed on June, 2007.*