

State of Nebraska Heating Oil and Propane Program *2008/2009 Winter Heating Season*

Annual Report May 2009

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Executive Summary

Nebraska's average [propane](#) prices continued to be high during the 2008/2009 heating season although the prices steadily decreased as the heating season progressed. The average home heating charge price for delivery of consumer grade propane, excluding taxes and cash discounts, in Nebraska for the 2008/2009 heating season was \$1.61 per gallon.

[Heating oil](#) prices began the 2008/2009 heating season 80 cents per gallon higher than the previous heating season. Heating oil prices were in a downward trend during most of the 2008/2009 heating season ending at \$1.57 per gallon which was less than half of the beginning price.

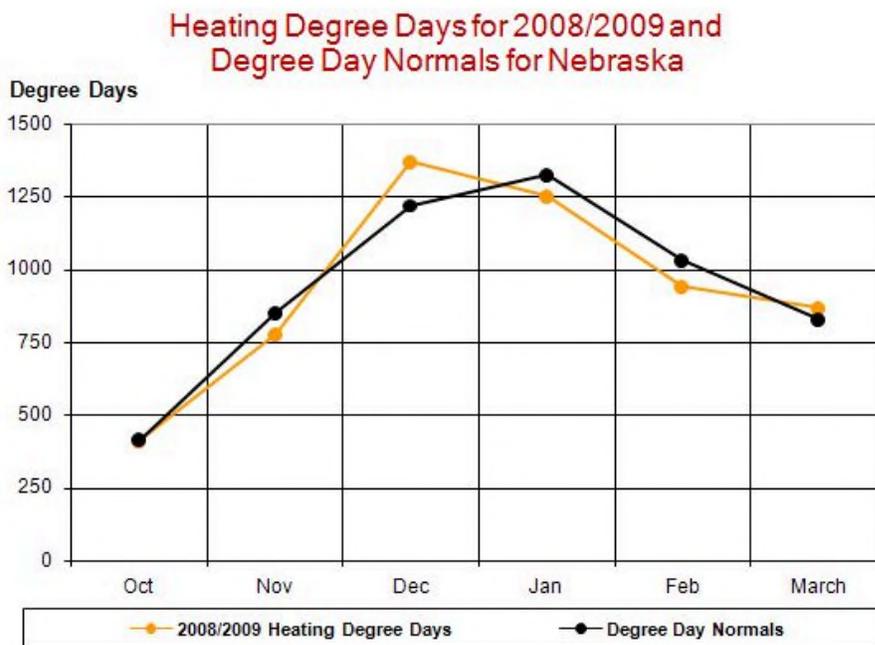
Factors that impact prices each season include: national and state inventory and import levels, refinery downtime, prices of crude oil and natural gas, the weather, the economy, and the political situation. Each of these factors can lead to increased demand or lower-than-normal supplies during the winter heating season. Factors that impacted prices during the 2008/2009 heating season included:

- Crude oil prices fell about \$50 during October to December and then rose about \$20 during January to March;
- Natural gas prices were among average levels from October to November but dropped below price levels of the past five years during December to March;
- Above-average regional distillate inventory levels during most of the heating season. Nearly one percent (0.79%) of the state's households (5,541) use heating oil to heat their homes;
- The regional propane storage goal of 25 million barrels was very close to being attained during the traditional build season (April through September). Eight and one-half percent (8.5%) of Nebraska households (59,453) use propane to heat their homes;

- A below-average national propane stockbuild from April to September;
- Oil refinery shutdowns due to planned maintenance and unexpected hazards;
- The hurricane season included six consecutive storms that made landfall. Hurricane Ike was the second deadliest in U.S. history and the costliest in Texas history;
- Ongoing war with Iraq; and
- Near-normal heating season temperatures.

Weather

Of the factors that impact prices, weather remains the key wildcard each winter. While El Nino-neutral conditions were observed in the Pacific indicating a heating season with normal winter weather, the National Oceanic Atmospheric Administration forecast favored warmer-than-normal winter weather in 2008/2009. An analysis of [heating degree days](#) indicated weather in Nebraska for the 2008/2009 heating season to be warmer than normal by less than one percent. In other words, the heating season had near-normal winter weather (shown in the graph below). The state had an estimated 5614 heating degree days from October to March compared to 5667 normal heating degree days for that period. In reviewing weather from month to month, October 2008 had normal weather for the month of October. November had weather that was nine percent warmer than normal. December had weather that was 12 percent colder than normal. The months of January and February 2009 had weather that was an estimated six percent and nine percent, respectively, warmer than normal. During March 2009, the state had weather that was an estimated five percent colder than normal for the month of March.

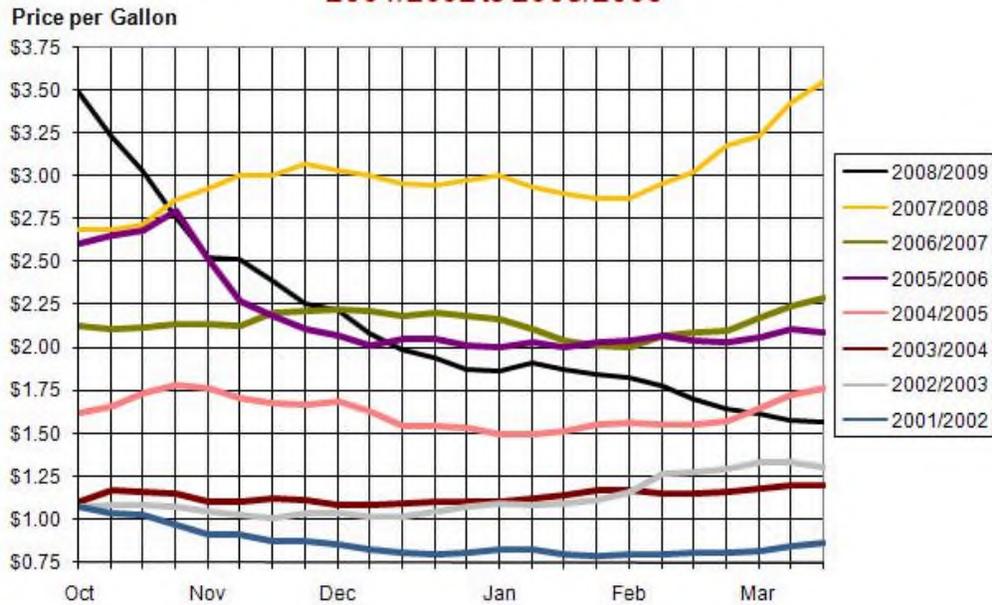


Multi-Year Comparison of Weekly Average Heating Oil Prices

Heating oil prices began the most recent heating season 80 cents higher than the previous season and \$2.42 higher than seven years ago. During October, heating oil prices dropped 20 to 26 cents each week. The

2008/2009 heating season saw a large decline in prices due to a corresponding decline in crude oil prices and above-average inventory levels. Heating season weather was considered near normal winter weather. The average price at the end of the 2008/2009 heating season was \$1.93 lower than the price at the beginning of the season which reflects the drop in crude oil prices.

**Eight-Year Comparison of Average Heating Oil Prices
2001/2002 to 2008/2009**

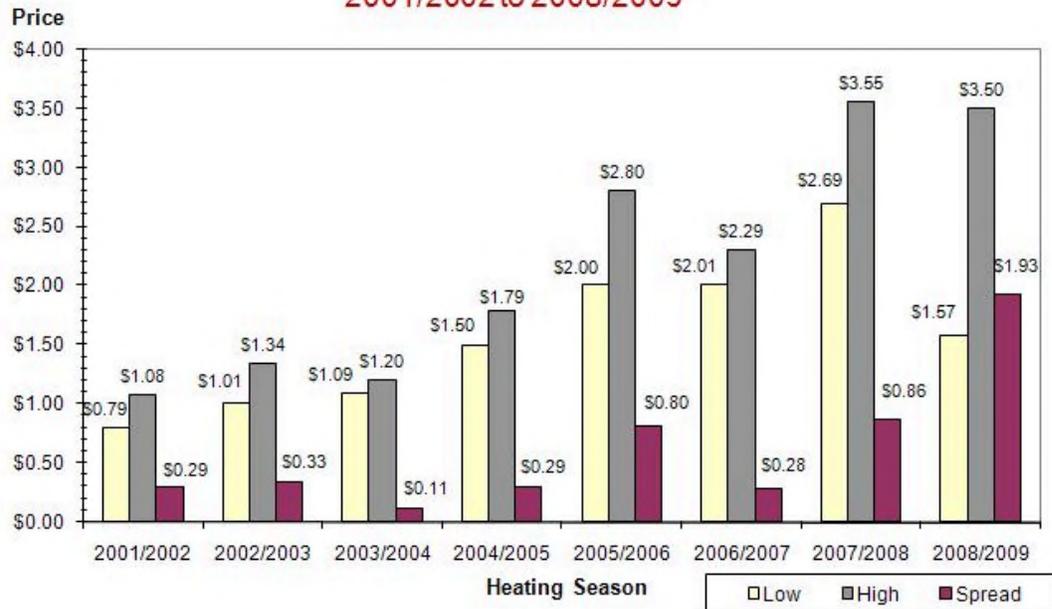


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Heating Oil Price Range and Spread

The graph below shows the price range of the highest average price and the lowest average price per gallon of heating oil from the last eight 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 2008/2009 heating season (\$1.93) more than doubled the price spread for the 2007/2008 heating season. The \$1.93 spread in the 2008/2009 heating oil price may be attributed to the rapid decline in the crude oil price.

Heating Oil Price Range and Spread Each Heating Season 2001/2002 to 2008/2009

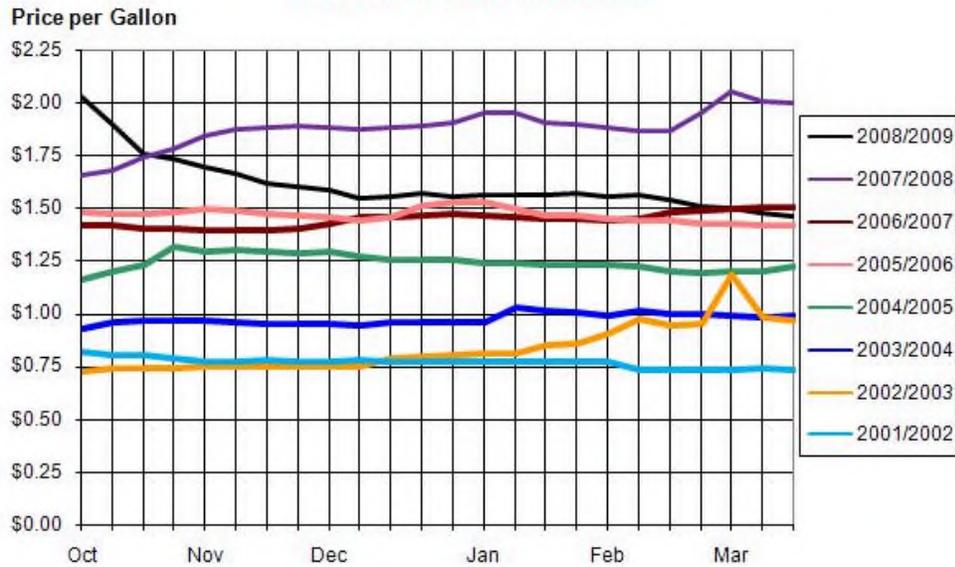


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Multi-Year Comparison of Weekly Average Propane Prices

The 2008/2009 heating season began with a propane price that was 37 cents higher than last year and \$1.21 per gallon higher than seven years ago. The average prices produced a downhill trend and ended the heating season lower than the last two years. Crude oil prices and natural gas prices remained major factors that impacted propane prices. The 2008/2009 heating season saw a decline in propane prices due to near-normal winter weather and declining natural gas and crude oil prices. The average price of propane began the season above \$2 per gallon, but after the first week, the price immediately dropped below \$2. The average price at the end of the 2008/2009 heating season was 57 cents lower than the price at the beginning of the season

Eight-Year Comparison of Average Propane Prices 2001/2002 to 2008/2009

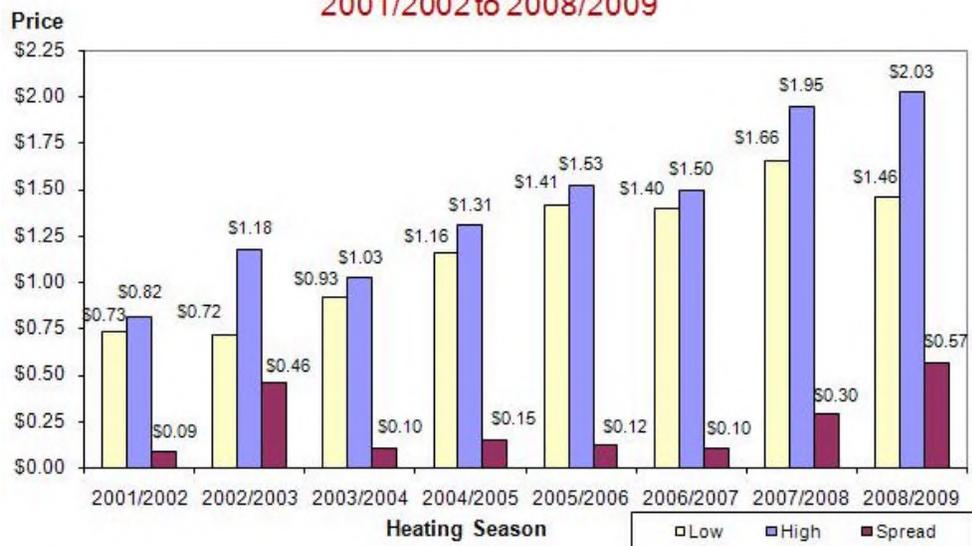


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Propane Price Range and Spread

The graph below shows the price range of the highest average price and the lowest average price per gallon of propane from the last eight 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 2008/2009 heating season had a higher spread and higher prices compared to the previous seven years.

Propane Price Range and Spread Each Heating Season 2001/2002 to 2008/2009



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Introduction

This report summarizes the results of the heating oil and propane price survey during the 2008/2009 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, eight and one-half percent, or 59,453 homes, in Nebraska use propane as the primary home heating fuel. Nearly one percent, or 5,541 homes, in Nebraska 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 eight 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 6, 2008, and was completed on March 16, 2009. 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 2008/2009 heating season was \$2.15 per gallon. The season average fell 85 cents from last season's average of \$3.00, but remained above the eight-year average of \$1.78.

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

Heating Season	Average Price	Percent Increase/(Decrease) From Prior Year
2008/2009	\$2.15	(28%)
2007/2008	\$3.00	40%
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	
Average Eight-Year Price	\$1.78	

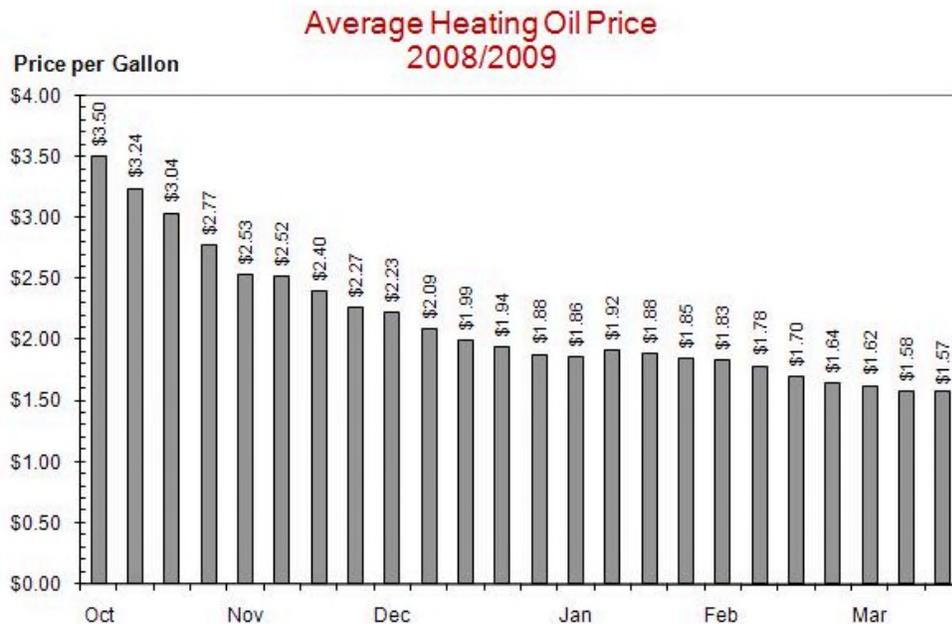
October's Average Price

The average price of heating oil in October reflects weather conditions and the winter supply outlook. While El Nino-neutral conditions were observed in the Pacific indicating a heating season with normal winter weather, the National Oceanic Atmospheric Administration forecast favored warmer-than-normal winter weather in 2008/2009. At the end of September, the Midwest Region had 2.5 million barrels of heating oil in stock, a level of inventory which was normal. The average price for October was \$3.14, which was \$1.19 higher than the eight-year average and 39 cents more than the previous October. The October averages for the past eight years are listed in the following table:

Heating Season	Average October Price	Percent Increase/(Decrease) From Prior Year
2008/2009	\$3.14	14%
2007/2008	\$2.75	29%
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	
Average Eight-Year October Price	\$1.95	

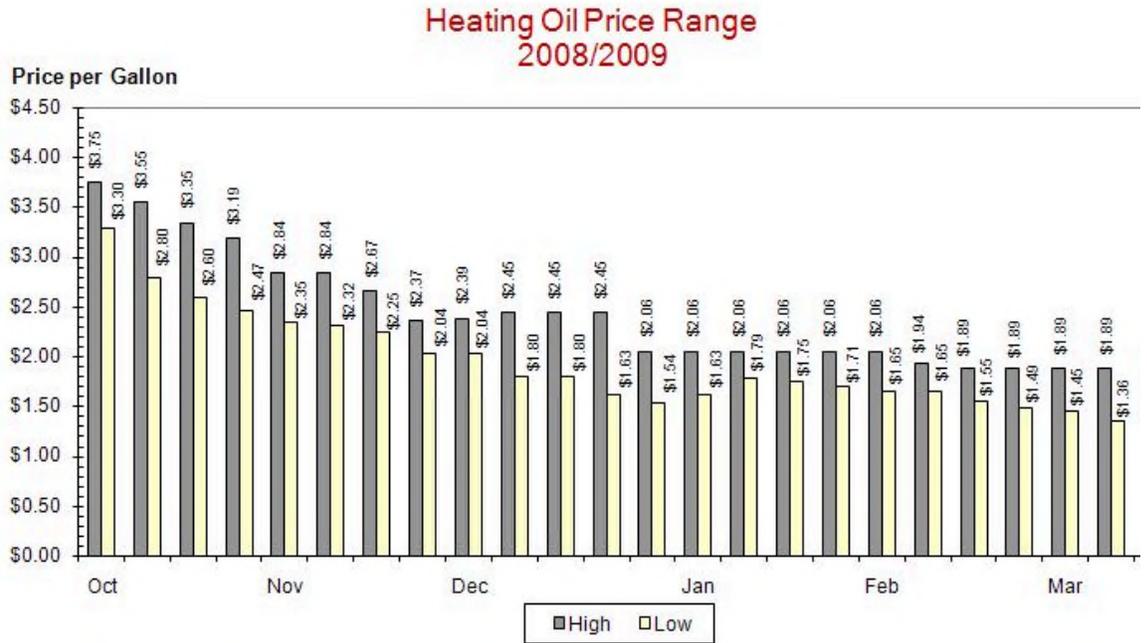
Weekly Average Price

The average price of heating oil was considered volatile during the 2008/2009 season since the price was in a downward trend. While there was a week here and there during the season that prices fell only a cent or two, all but one week showed a decrease in the average price. Prices reached \$1.57 per gallon by the end of the heating season, which was \$1.93 lower than the price at the beginning of the season



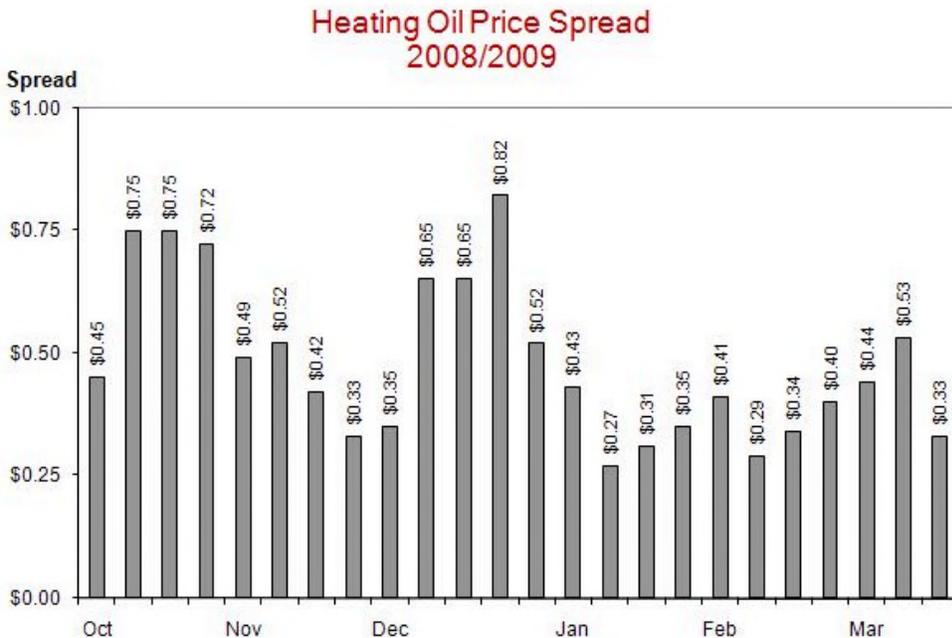
Price Range

The high to low price range of heating oil from each Monday's survey is shown in the graph below. During the 2008/2009 heating season, the highest price ranged from \$1.69 to \$3.75, and the lowest price ranged from \$1.36 to \$3.30.



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 2008/2009 heating season, the price spread ranged from 27 cents to 82 cents.



Multi-Year Wholesale Price Comparison

Wholesale heating oil prices began the 2008/2009 heating season 78 cents (31 percent) higher than the previous season, but by the third week in October, the average price had fallen to previous levels. The last reported average price for the 2008/2009 season was \$1.69 (or nearly 50 percent) lower than the price at the beginning of the season. Beginning with the first week in February, the average price of wholesale heating oil in the state was no longer reported.

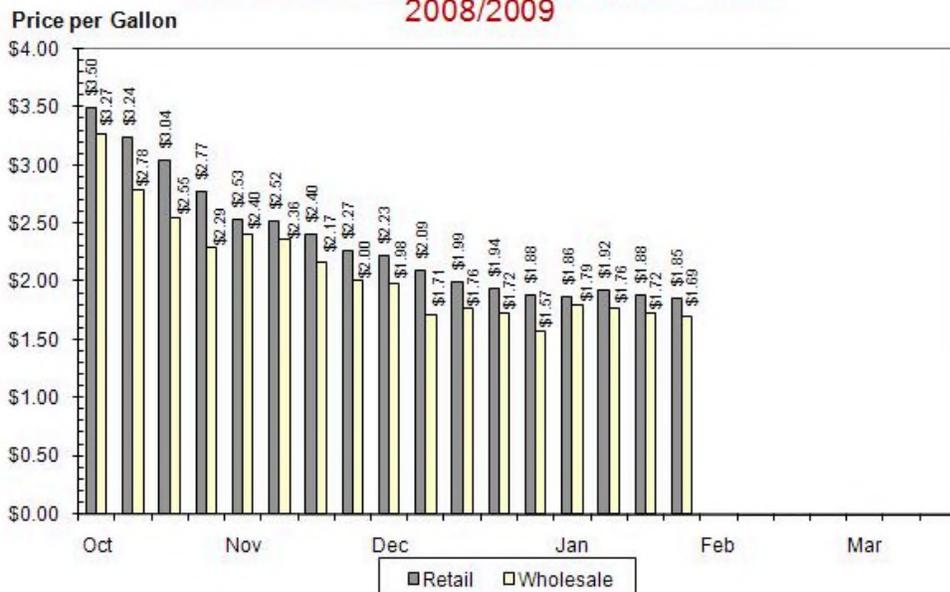
**Five-Year Comparison of
Average Wholesale Heating Oil Prices
2004/2005 to 2008/2009**



Average Retail Prices Versus Average Wholesale Prices

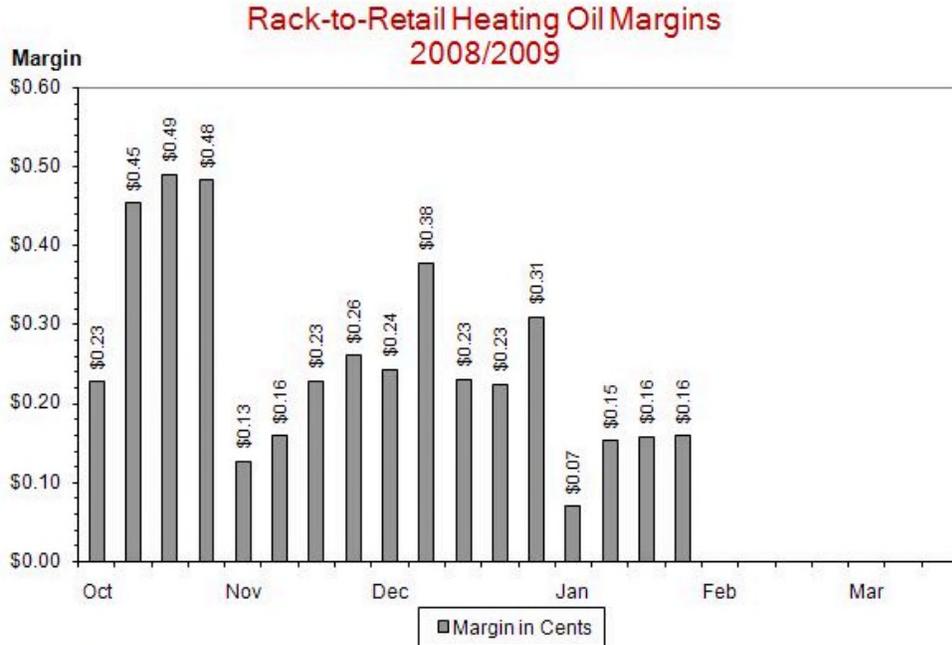
A comparison shows that retail prices during October to January of the 2008/2009 heating season ranged from \$1.85 to \$3.50, while wholesale prices ranged from \$1.57 to \$3.27

**Retail Versus Wholesale Heating Oil Prices
2008/2009**



Margins

The graph below shows the [rack](#)-to-retail margins per gallon of heating oil for each Monday's survey. During the 2008/2009 heating season, the margin ranged from 7 to 49 cents.



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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 2008/2009 heating season was \$1.61 per gallon. The season average decreased 27 cents from last season's average of \$1.88 but was 33 cents higher than the eight-year average of \$1.28 per gallon.

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

Heating Season	Average Price	Percent Increase/(Decrease) From Prior Year
2008/2009	\$1.61	(14%)
2007/2008	\$1.88	30%
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%

Heating Season	Average Price	Percent Increase/(Decrease) From Prior Year
2001/2002	\$0.77	
Average Eight-Year Price	\$1.28	

October's Average Price

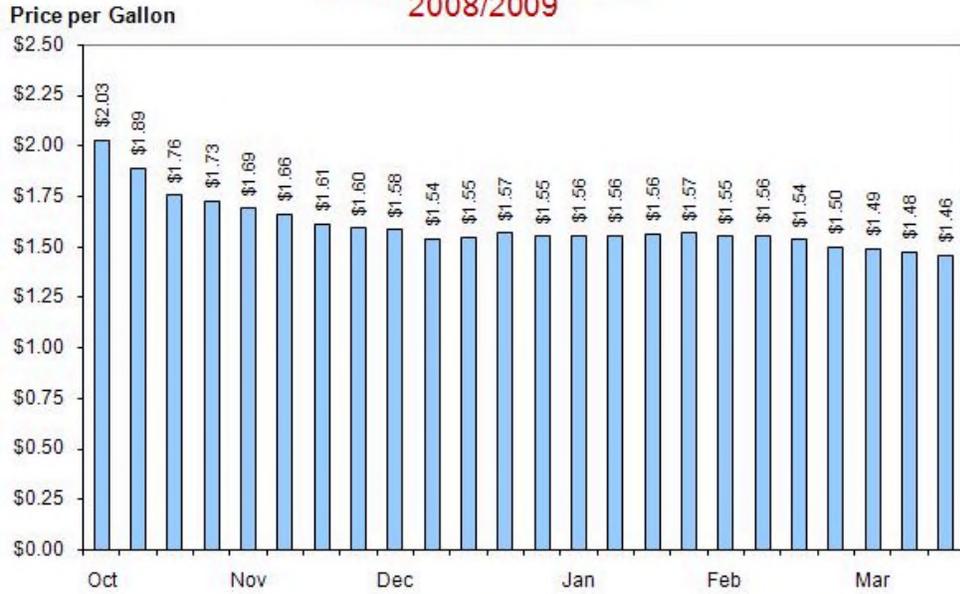
The average price of propane in October reflects weather conditions and the winter supply outlook. While El Nino-neutral conditions were observed in the Pacific indicating a heating season with normal winter weather, the National Oceanic Atmospheric Administration forecast favored warmer-than-normal winter weather in 2008/2009. At the end of September, the Midwest Region had 24.2 million barrels of propane in stock, a level of inventory which was in the normal range. The Energy Information Administration estimates 25 million barrels in storage by the end of September to be a benchmark for the Midwest Region. In other words, 25 million barrels is considered adequate for winter's demand under most conditions. The average price for October was \$1.85, which was 58 cents higher than the eight-year average and 14 cents more than the previous October. The October averages for the past eight years are listed in the following table:

Heating Season	Average October Price	Percent Increase/(Decrease) From Prior Year
2008/2009	\$1.85	8%
2007/2008	\$1.71	21%
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	
Average Eight-Year October Price	\$1.27	

Weekly Average Price

The average price of propane continued to be high during the 2008/2009 heating season although the price steadily decreased as the heating season progressed. Prices reached \$1.46 per gallon by the end of the heating season, which was 57 cents lower than the price at the beginning of the season

Average Propane Price 2008/2009

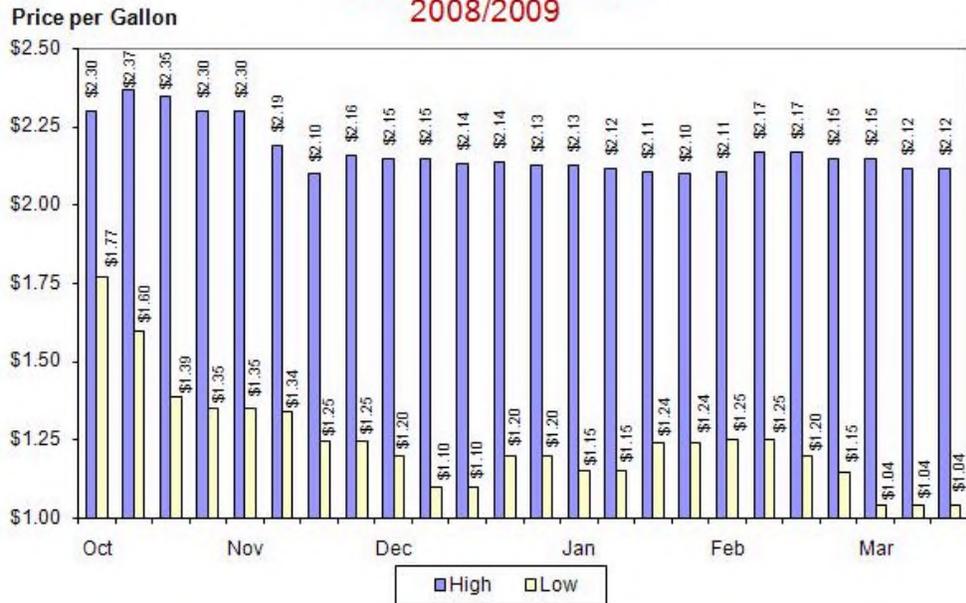


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Price Range

The high to low price range of propane from each Monday's survey is shown in the graph below. During the 2008/2009 heating season, the highest price ranged from \$2.10 to \$2.37, and the lowest price ranged from \$1.04 to \$1.77.

Propane Price Range 2008/2009

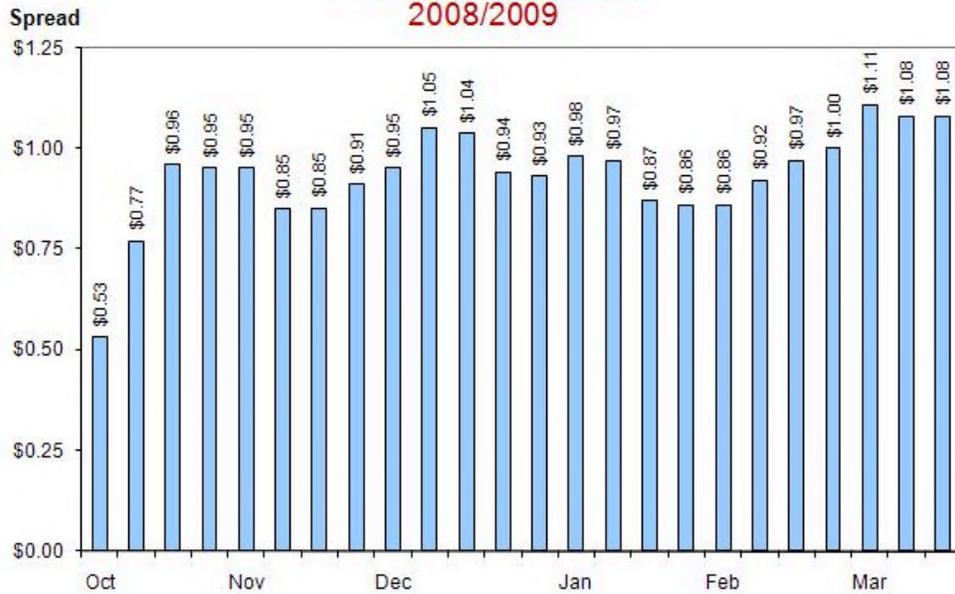


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Price Spread

The price spread between the high price and low price of each Monday's survey is shown in the graph below. During the 2008/2009 heating season, the price spread ranged from 53 cents to \$1.11.

Propane Price Spread 2008/2009

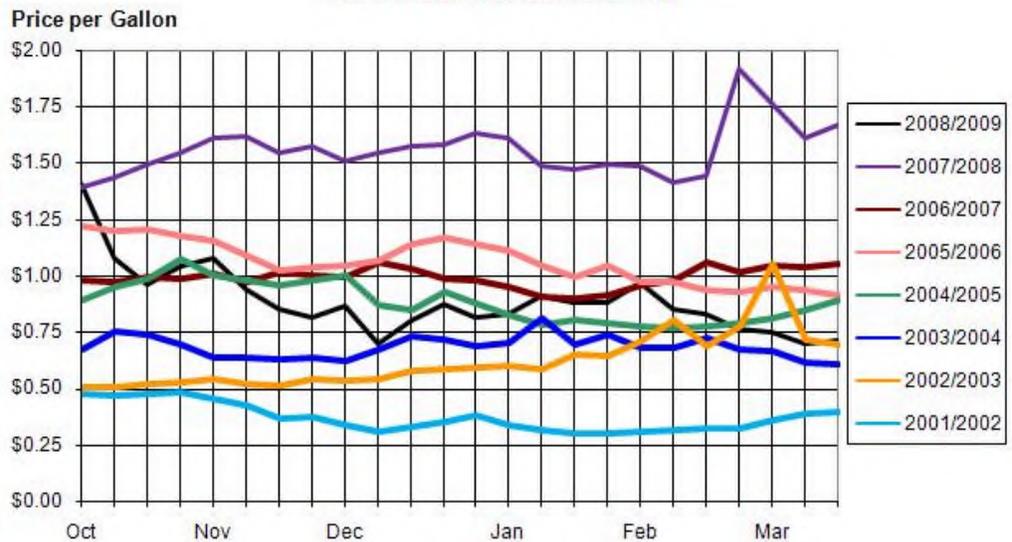


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Multi-Year Wholesale Price Comparison

The 2008/2009 heating season began with a wholesale propane price that was one cent higher than last year but quickly dropped below last year's prices and remained volatile throughout the heating season.

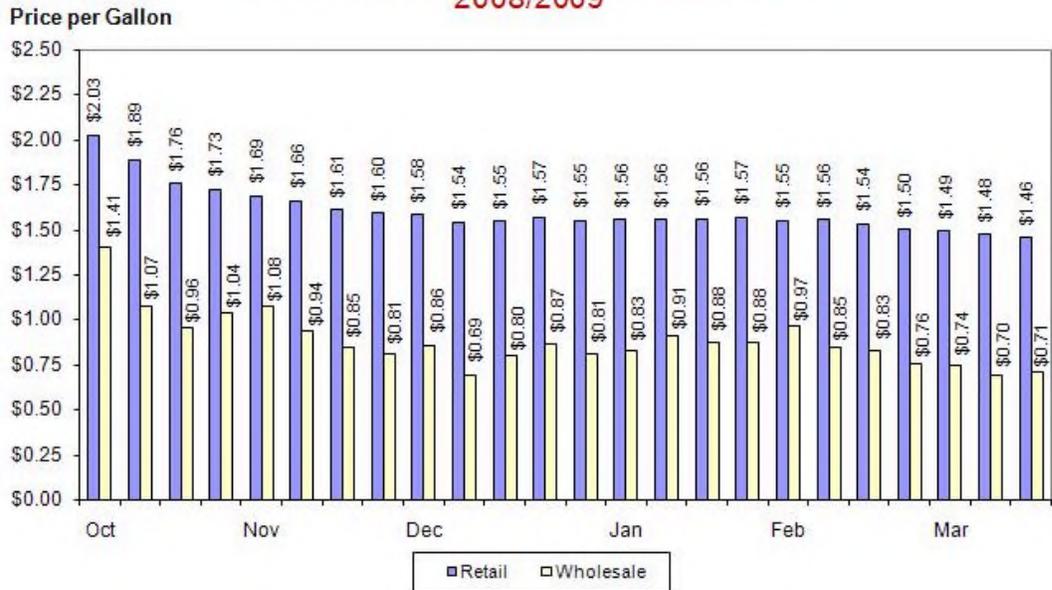
Eight-Year Comparison of Average Wholesale Propane Prices 2001/2002 to 2008/2009



Average Retail Prices Versus Average Wholesale Prices

During the 2008/2009 heating season, the retail propane price ranged from \$1.46 to \$2.03, while the wholesale price ranged from \$0.69 to \$1.41.

Retail Versus Wholesale Propane Prices 2008/2009

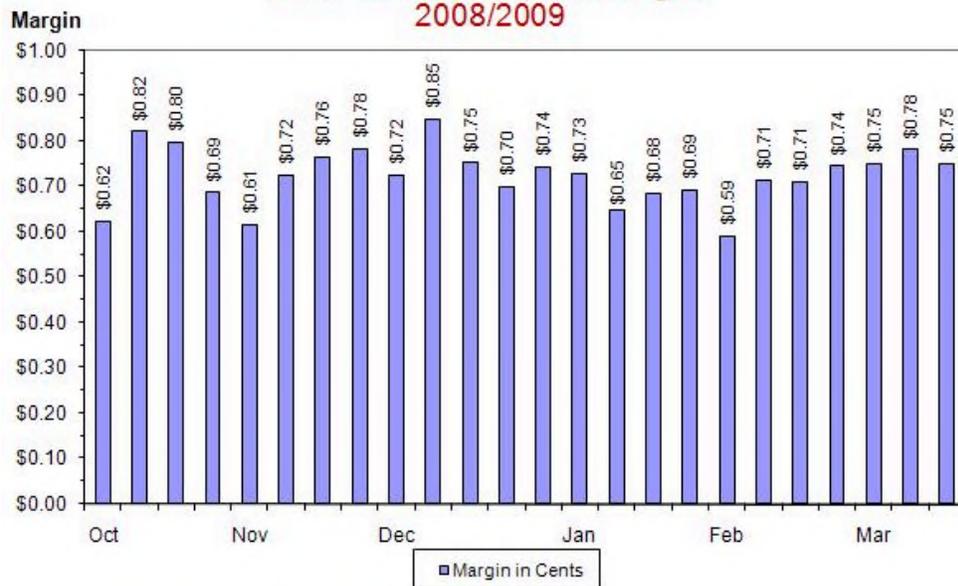


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Margins

The graph below shows the [rack-to-retail](#) margin per gallon of propane for each Monday's survey. During the 2008/2009 heating season, the margin ranged from 59 to 85 cents per gallon.

Rack-to-Retail Propane Margins 2008/2009



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 May, 2009.