

## State of Nebraska Heating Oil and Propane Program

2010/2011 Winter Heating Season  
Annual Report  
July 2011

### Executive Summary

Nebraska's average [propane](#) prices continued to be high although stable during the 2010/2011 heating season. The prices began the heating season relatively high in comparison to previous years and slowly, but steadily, climbed during the heating season. The average home heating charge price for delivery of consumer grade propane, excluding taxes and cash discounts, in Nebraska for the 2010/2011 heating season was \$1.72 per gallon.

[Heating oil](#) prices began the 2010/2011 heating season 48 cents higher than the previous heating season. Heating oil prices were relatively stable during October but steadily increased during the rest of the 2010/2011 heating season. The average home heating charge price for delivery of No. 2 heating oil, excluding taxes and cash discounts, in Nebraska for the 2010/2011 heating season was \$2.90 per gallon.

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 2010/2011 heating season included:

Abnormally-low state heating oil inventory level at the beginning of the heating season. Just over half a percent (0.58%) of the state's households (4,137) 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);

The state had an above-normal level of propane inventory at the beginning of the heating season.

Nearly eight percent (8%) of Nebraska households (55,611) use propane to heat their homes;

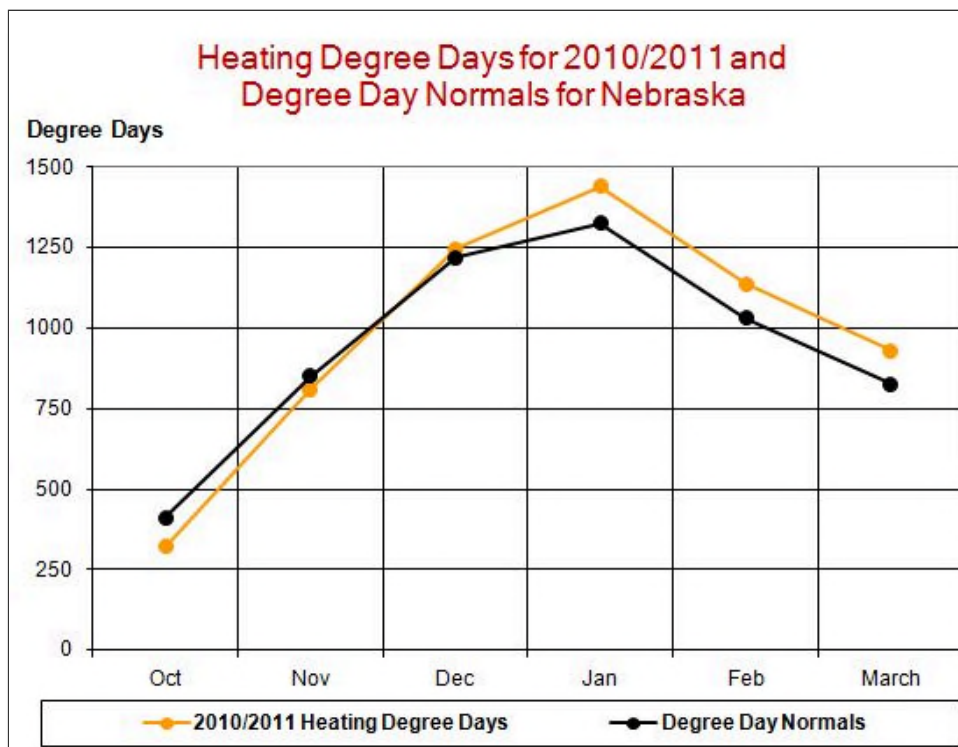
Oil refinery shutdowns due to planned maintenance and unexpected hazards;

Ongoing war with Iraq; and

Colder-than-normal heating season temperatures.

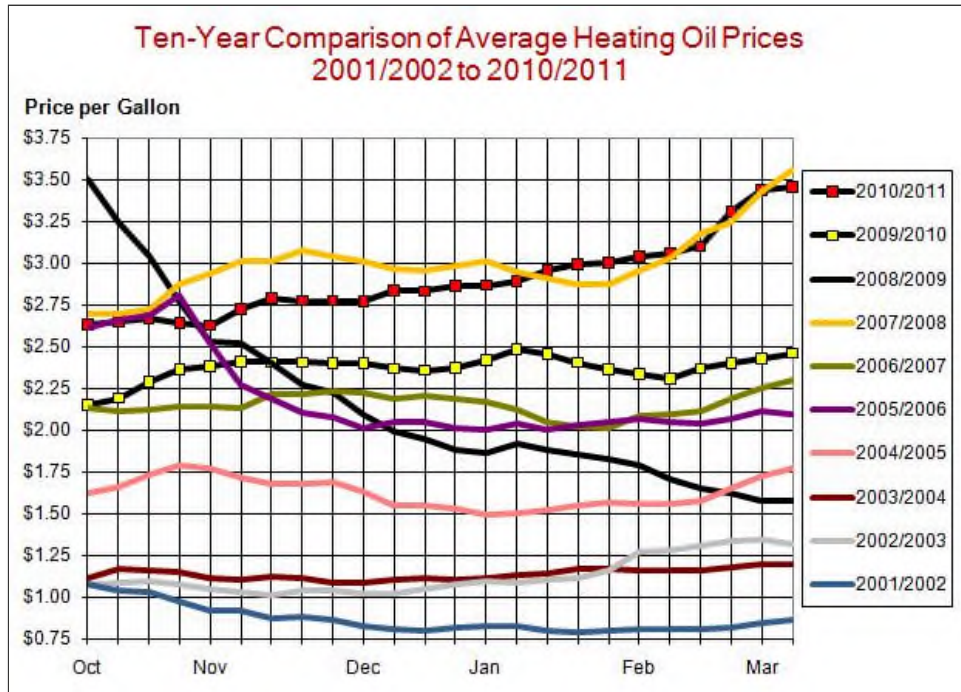
### Weather

Of the factors that impact prices, weather remains the key wildcard each winter. The National Oceanic Atmospheric Administration forecast favored colder-than-normal winter weather in 2010/2011. An analysis of [heating degree days](#) indicated weather in Nebraska for the 2010/2011 heating season to be colder than normal by 3 percent. In other words, the heating season had colder-than-normal winter weather (shown in the graph below). The state had an estimated 5824 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 2010 had 22 percent warmer-than-normal weather for the month of October. November 2010 had weather that was 5 percent warmer than normal. December 2010 had weather that was relatively normal winter weather. The months of January, February, and March 2011 had weather that was an estimated 9 percent, 10 percent, and 5 percent, respectively, colder than normal.



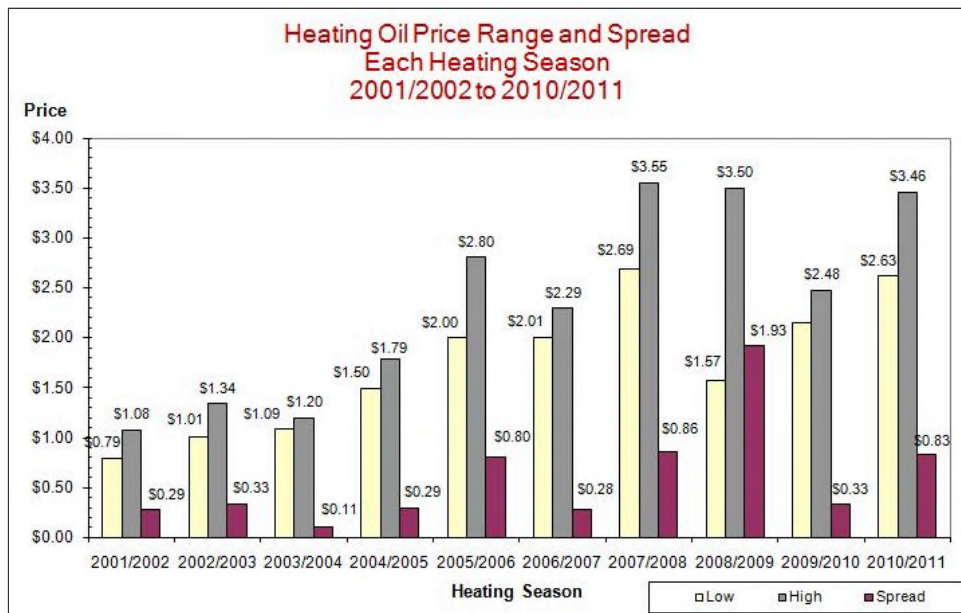
## Multi-Year Comparison of Weekly Average Heating Oil Prices

Heating oil prices began the most recent heating season 48 cents higher than the previous season and \$1.55 higher than nine years ago. During October, heating oil prices were very stable, but the rest of the 2010/2011 heating season was a steady increase for heating oil prices due to increasing crude oil prices.



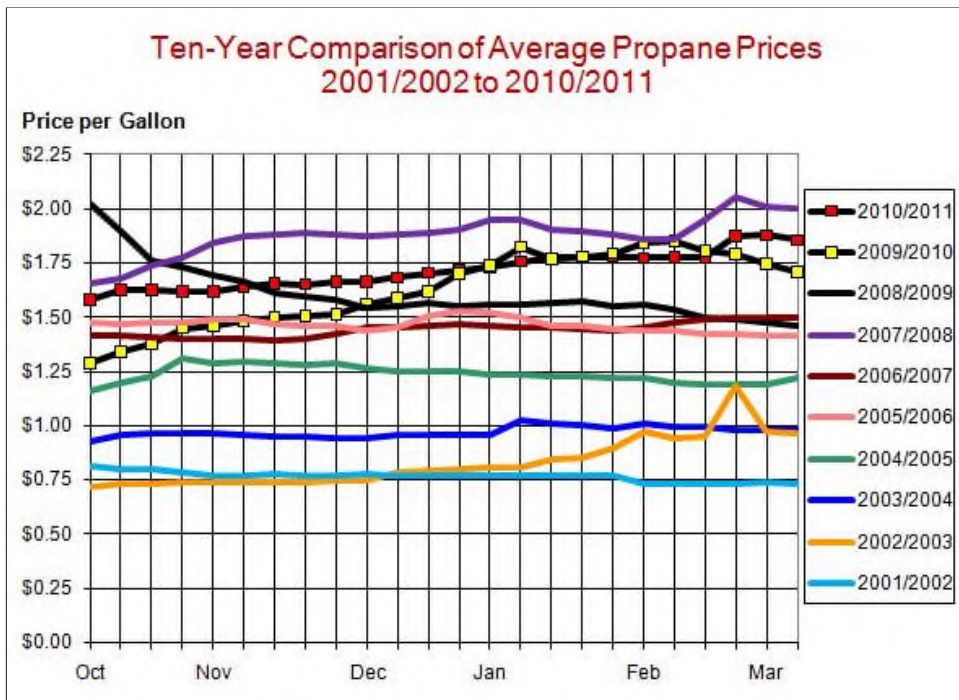
## Heating Oil Price Range and Spread

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 ten 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 2010/2011 heating season was 83 cents, which reflects the volatility of the average price, and may be attributed to the increasing crude oil price.



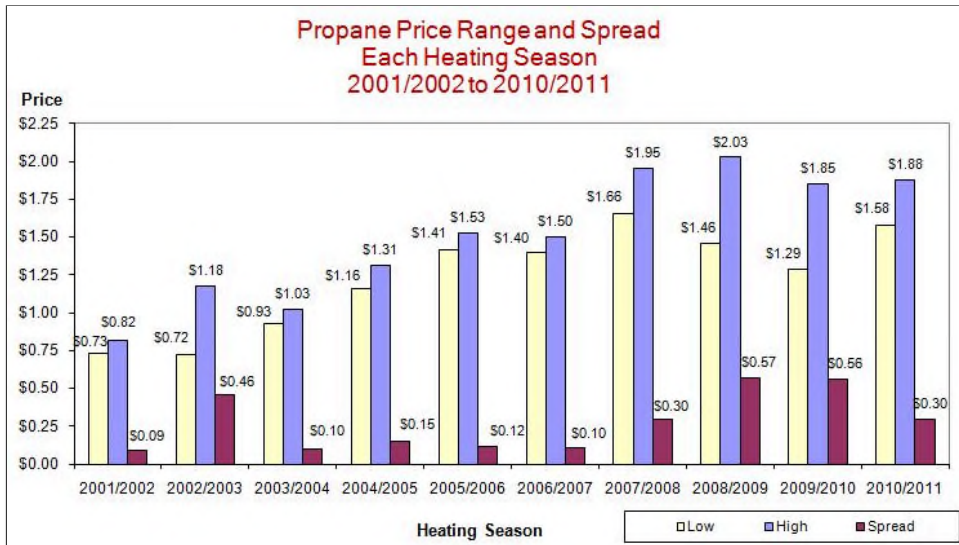
## Multi-Year Comparison of Weekly Average Propane Prices

The 2010/2011 heating season began with a propane price that was 29 cents higher than last year and 76 cents per gallon higher than nine years ago. The average prices had a slight upward trend and ended the heating season only 28 cents higher than the beginning of the heating season. Crude oil prices and natural gas prices remained major factors that impacted propane prices.



## 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 ten 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 2010/2011 heating season was 30 cents.



## Introduction

This report summarizes the results of the heating oil and propane price survey during the 2010/2011 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](#).

## Program Objectives

According to the latest [American Community Survey](#) conducted by the U.S. Census Bureau, nearly eight percent, or 55,611 homes, in Nebraska use propane as the primary home heating fuel. Just over half a percent, or 4,137 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.

## Program Performance

The responsibilities of the Nebraska Energy Office included:

- . Collection of each Monday's retail heating oil and propane prices from suppliers during the winter heating fuel season,
- . Maintenance of a price database,
- . 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
- . Preparation and submission of a midseason report and an annual report.

The responsibilities of the Energy Information Administration included:

- . Preparation of a list of companies to be surveyed and the development of an estimation formula,
- . Technical assistance,
- . Publication of state, regional, and national data online,
- . Review of the midseason report and the annual report for accuracy and consistency, and
- . Preparation and distribution of a report to Congress, the states, and the public.

## Methodology

The Nebraska Energy Office has participated in the State Heating Oil and Propane Program (SHOPP) for ten 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 4, 2010, and was completed on March 14, 2011. 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](#).

## 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.

### 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 2010/2011 heating season was \$2.90 per gallon. The season average jumped 53 cents from last season's average of \$2.37, and 95 cents above the ten-year average of \$1.95.

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

Heating Season	Average Price	Percent Increase/(Decrease) From Prior Year
2010/2011	\$2.90	22%
2009/2010	\$2.37	10%
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 Ten-Year Price	\$1.95	

### October's Average Price

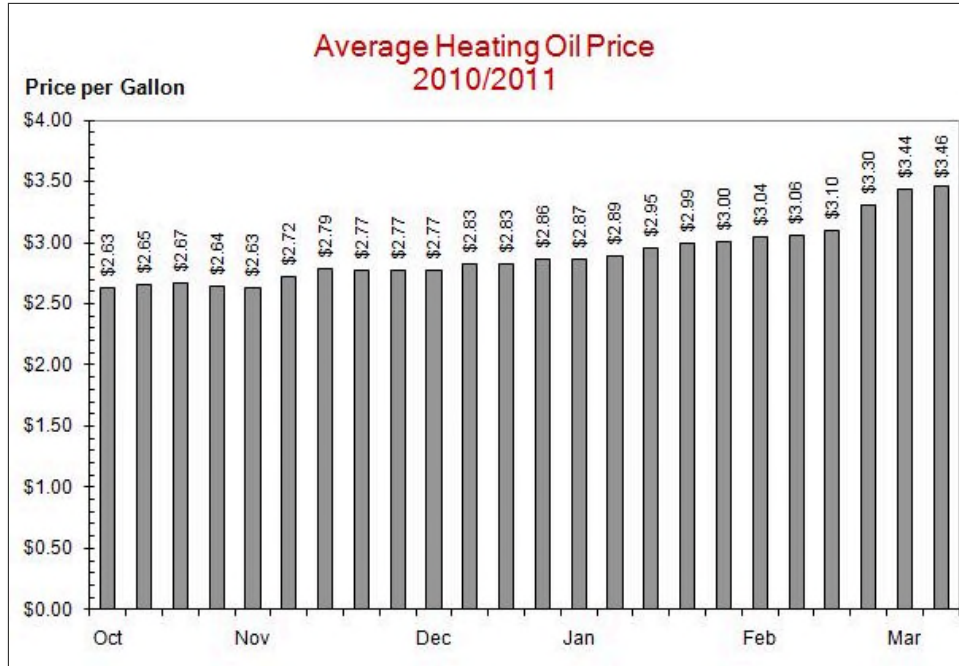
The average price of heating oil in October reflects weather conditions and the winter supply outlook. The National Oceanic Atmospheric Administration forecast favored colder-than-normal winter weather in 2010/2011. At the beginning of October, Nebraska had 6 thousand barrels of heating oil in stock, a level of inventory which was abnormally low. The average price for October was \$2.65, which was 60 cents higher than the ten-year average and 40 cents more than the previous October. The October averages for the past ten years are listed in the following table.

Heating Season	Average October Price	Percent Increase/(Decrease) From Prior Year
2010/2011	\$2.65	18%
2009/2010	\$2.25	(28%)
2008/2009	\$3.14	14%
2007/2008	\$2.75	29%
2006/2007	\$2.13	(20%)
2005/2006	\$2.66	56%

Heating Season	Average October Price	Percent Increase/(Decrease) From Prior Year
2004/2005	\$1.70	48%
2003/2004	\$1.15	6%
2002/2003	\$1.08	7%
2001/2002	\$1.01	
Average Ten-Year October Price	\$2.05	

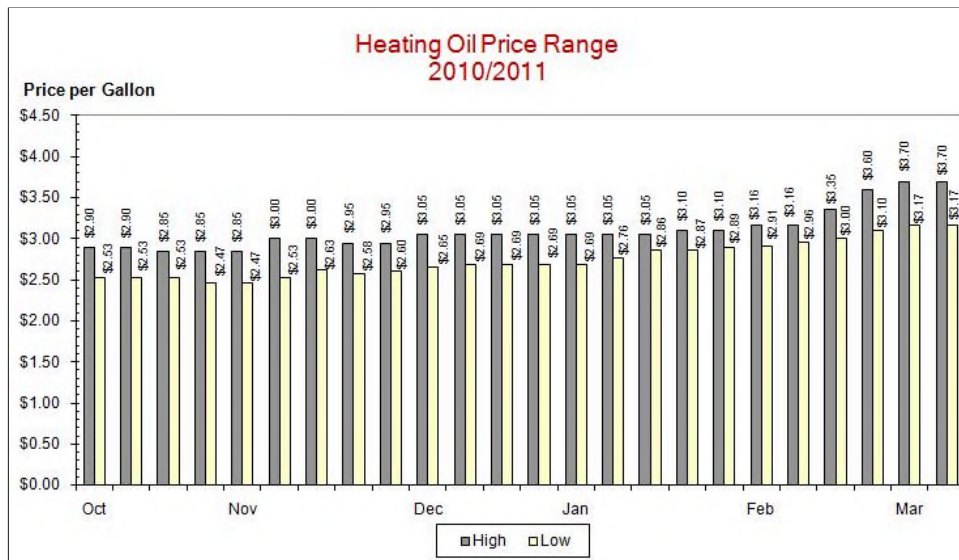
## Weekly Average Price

The average price of heating oil started at the average price of \$2.63 and steadily increased during the 2010/2011 season. Prices reached \$3.44 per gallon just before the end of the heating season. The last week had an average of \$3.40, which was 77 cents higher than the price at the beginning of the season.



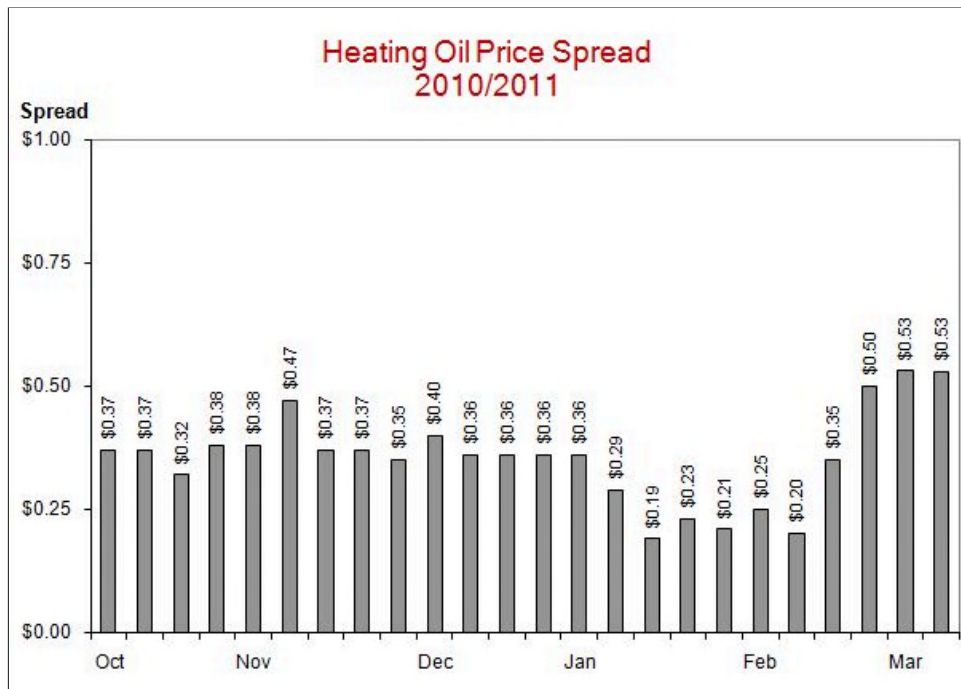
## Price Range

The high to low price range of heating oil from each Monday's survey is shown in the graph below. During the 2010/2011 heating season, the highest price ranged from \$2.85 to \$3.70, and the lowest price ranged from \$2.47 to \$3.17.



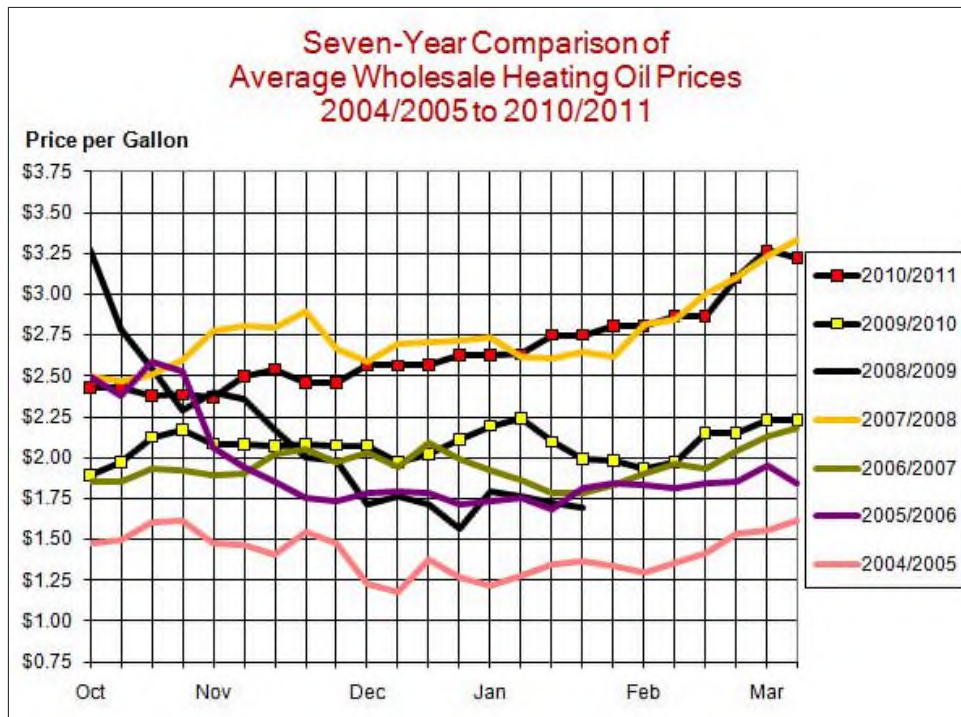
## Price Spread

The price spread between the high price and the low price from each Monday's survey is shown in the graph below. During the 2010/2011 heating season, the price spread ranged from 19 cents to 53 cents.



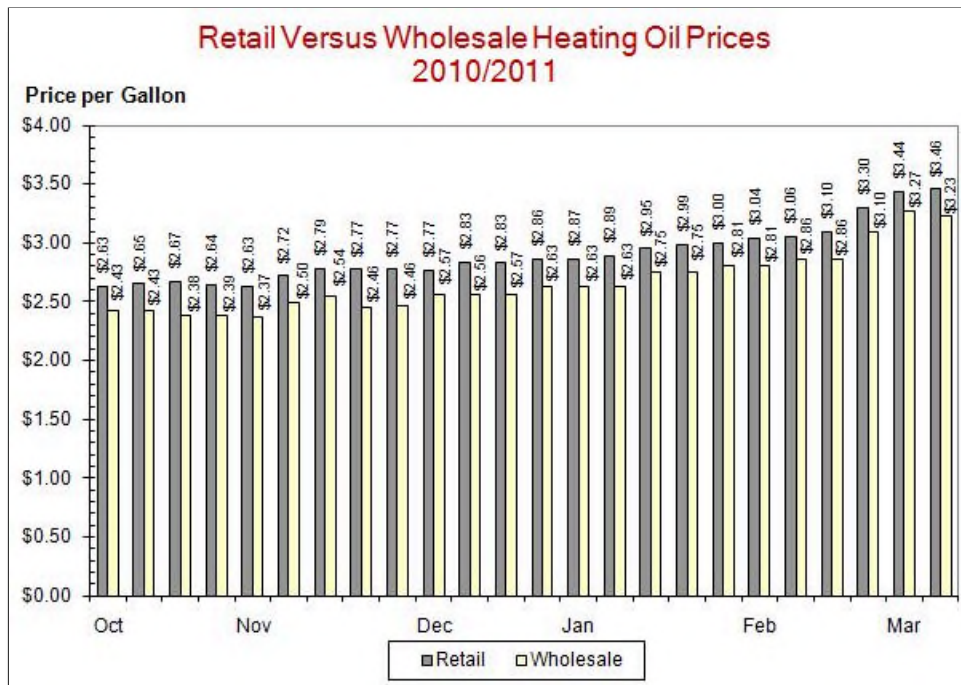
### Multi-Year Wholesale Price Comparison

Wholesale heating oil prices began the 2010/2011 heating season 54 cents higher than the previous season. The wholesale average price ended the 2010/2011 season at \$3.23, which was 80 cents higher than the price at the beginning of the season.



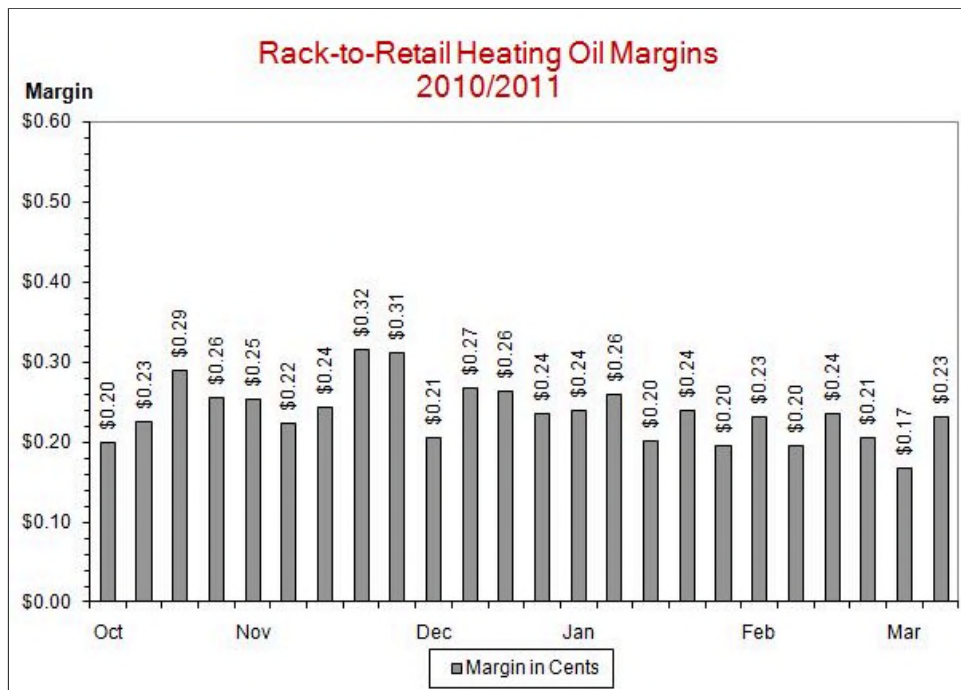
### Average Retail Prices Versus Average Wholesale Prices

A comparison shows that retail prices during the 2010/2011 heating season ranged from \$2.63 to \$3.46, while wholesale prices ranged from \$2.37 to \$3.27.



## Margins

The graph below shows the [rack-to-retail](#) margins per gallon of heating oil for each Monday's survey. During the 2010/2011 heating season, the margin ranged from 17 to 32 cents.



## 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.

### 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 2010/2011 heating season was \$1.72 per gallon. The season average increased 9 cents from last season's average of \$1.63 and was 36 cents higher than the ten-year average of \$1.36 per gallon.

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

Heating Season	Average Price	Percent Increase/(Decrease) From Prior Year
2010/2011	\$1.72	6%
2009/2010	\$1.63	1%
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%
2001/2002	\$0.77	
<b>Average Ten-Year Price</b>	<b>\$1.36</b>	

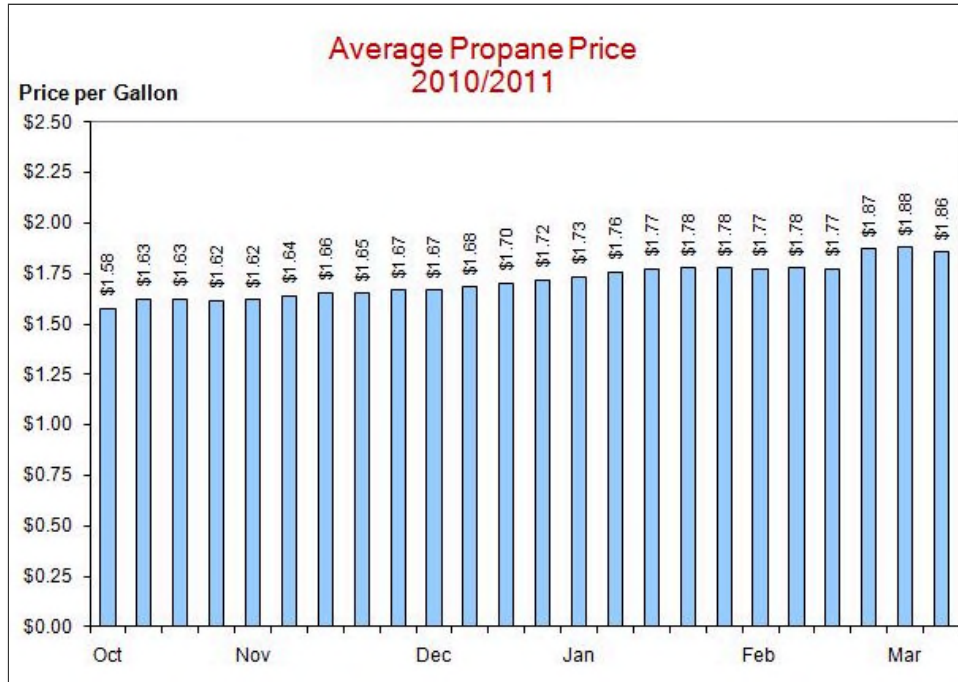
## October's Average Price

The average price of propane in October reflects weather conditions and the winter supply outlook. The National Oceanic Atmospheric Administration forecast favored colder-than-normal winter weather in 2010/2011. At the beginning of October, Nebraska had 369 thousand barrels of propane in stock, a level of inventory which was above normal. The Midwest Region had 28.4 million barrels of propane in stock, a level of inventory which was above normal. 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 \$1.61, which was 30 cents higher than the ten-year average and 25 cents higher than the previous October. The October averages for the past nine years are listed in the following table.

Heating Season	Average October Price	Percent Increase/(Decrease) From Prior Year
2010/2011	\$1.61	18%
2009/2010	\$1.36	(26%)
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	
<b>Average Ten-Year October Price</b>	<b>\$1.31</b>	

## Weekly Average Price

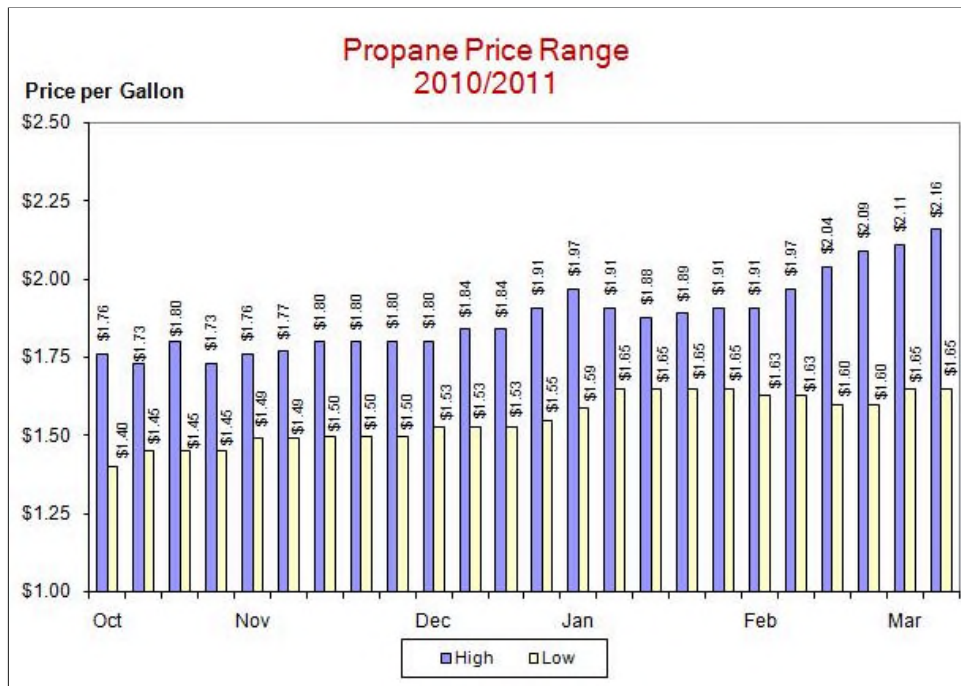
The average price of propane continued to be high during the 2010/2011 heating season and the price steadily increased as the heating season progressed. Prices reached \$1.86 per gallon by the end of the heating season, which was 28 cents higher than the price at the beginning of the season.



## Price Range

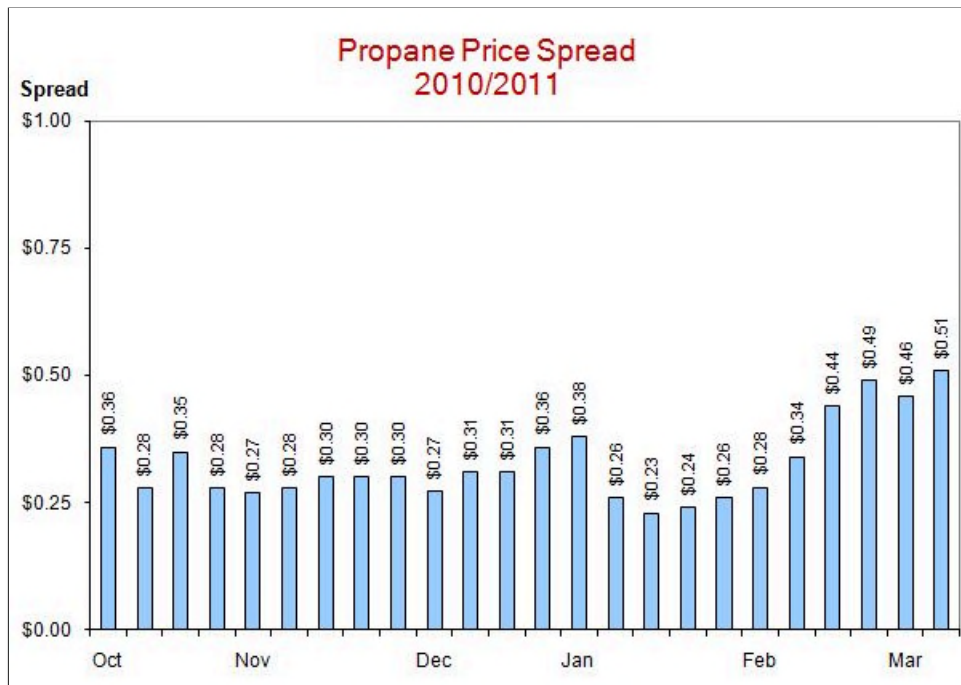


The high to low price range of propane from each Monday's survey is shown in the graph below. During the 2010/2011 heating season, the highest price ranged from \$1.73 to \$2.16, and the lowest price ranged from \$1.40 to \$1.65.



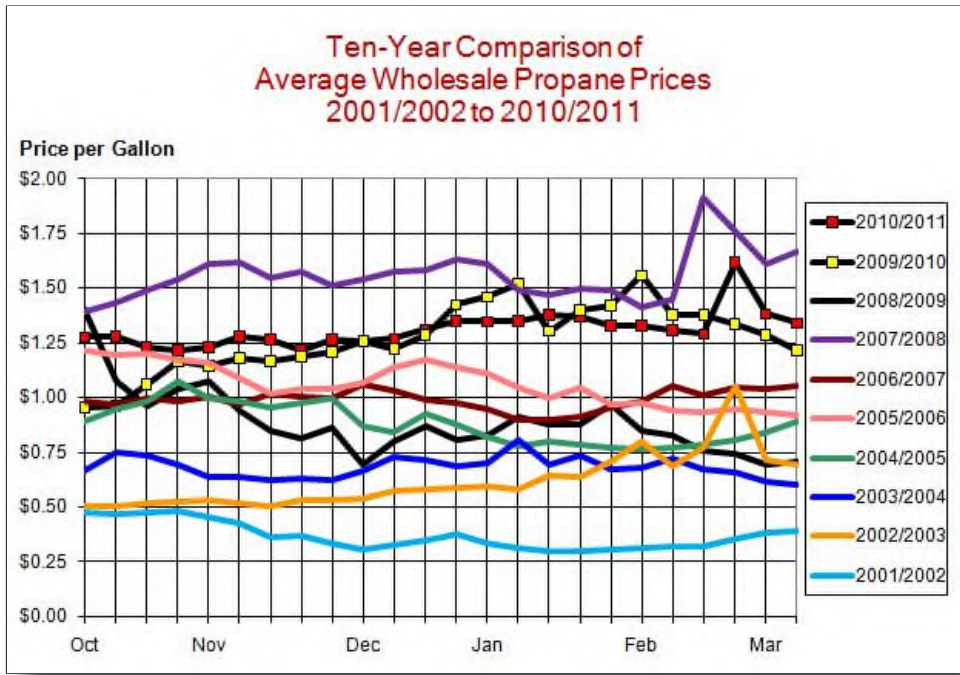
### Price Spread

The price spread between the high price and low price of each Monday's survey is shown in the graph below. During the 2010/2011 heating season, the price spread ranged from 23 to 51 cents.



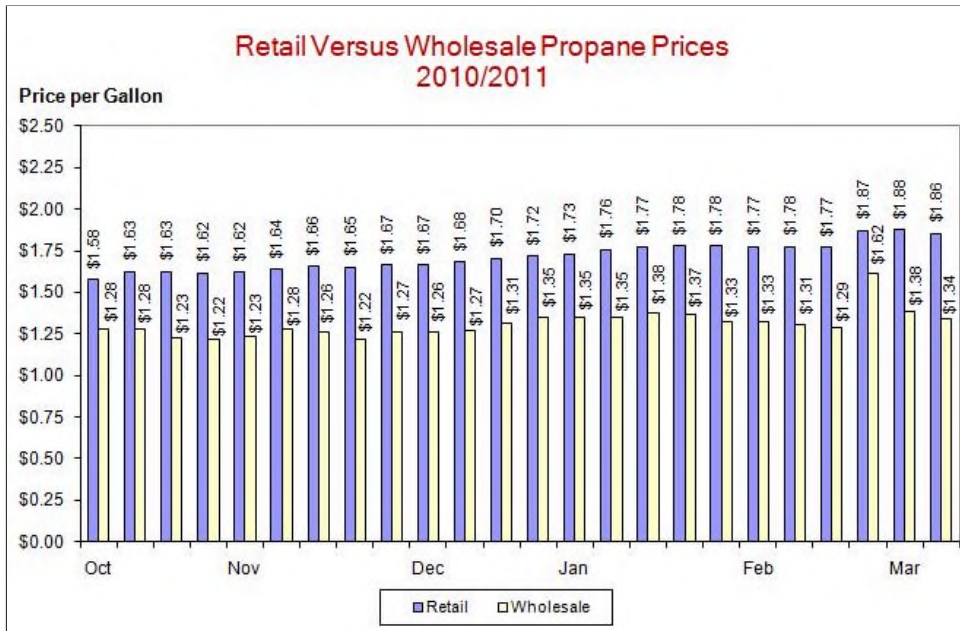
### Multi-Year Wholesale Price Comparison

The 2010/2011 heating season began with a wholesale propane price that was 32 cents higher than last year. Prices of 2010/2011 steadily increased and then spiked in mid-February.



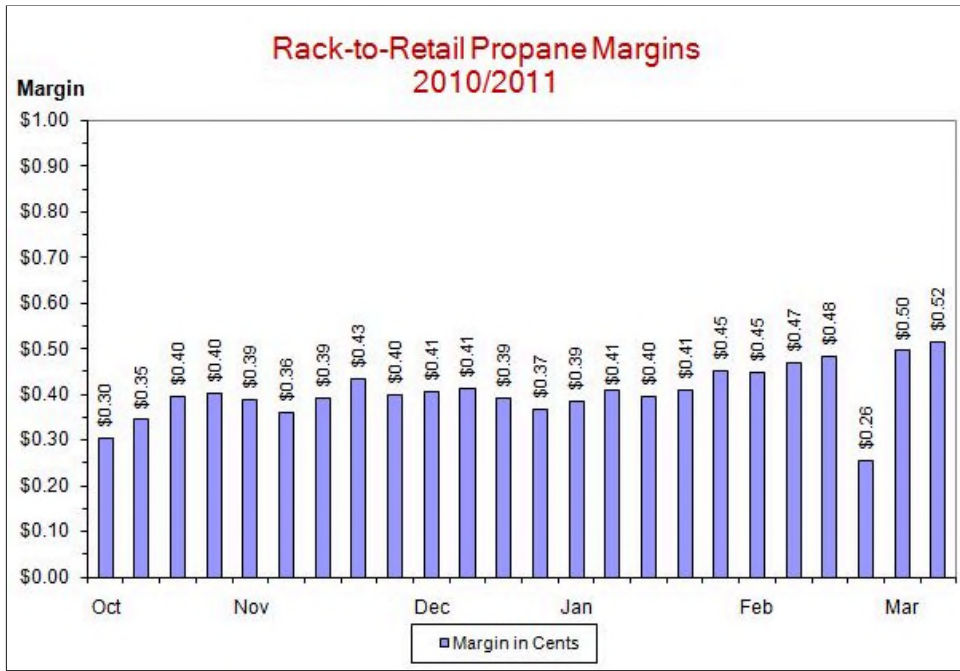
### Average Retail Prices Versus Average Wholesale Prices

During the 2010/2011 heating season, the retail propane price ranged from \$1.58 to \$1.88, while the wholesale price ranged from \$1.22 to \$1.62.



### Margins

The graph below shows the [rack](#)-to-retail margin per gallon of propane for each Monday's survey. During the 2010/2011 heating season, the margin ranged from 26 to 52 cents per gallon. The 26-cent margin occurred in the fourth week of February when the wholesale price spiked; otherwise, the low end would have been 30 cents.



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 July, 2011.*