

# **EIA's Winter Fuels Outlook**

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# U.S. Average Winter Fuel Expenditures Are Expected To Be Significantly Higher

Fuel	Winter of		Winter of 05-06			% Change from last Winter		
	Average 99-04	04-05	Warmer	Base	Colder	Warmer	Base	Colder
<b>Natural Gas</b>								
Price (\$/mcf*)	8.41	11.13	15.32	15.95	16.68	37.7	43.4	49.9
Expenditures (\$)	586	742	964	1,096	1,242	29.8	47.6	67.3
<b>Heating Oil</b>								
Price (\$/gallon)	1.35	1.92	2.34	2.54	2.80	21.7	32.0	45.4
Expenditures (\$)	865	1,199	1,326	1,577	1,893	10.6	31.5	57.9
<b>Propane</b>								
Price (\$/gallon)	1.29	1.64	1.91	2.05	2.25	16.0	24.8	37.0
Expenditures (\$)	885	1,102	1,215	1,427	1,700	10.3	29.5	54.3
<b>Electricity</b>								
Price (\$/kwh**)	0.08	0.09	0.09	0.09	0.09	3.4	3.4	3.3
Expenditures (\$)	685	717	719	755	791	0.3	5.4	10.4
<b>Average Expenditures</b>	668	786	929	1,044	1,176	18.1	32.9	49.6

Expenditures are based on typical per-household consumption.

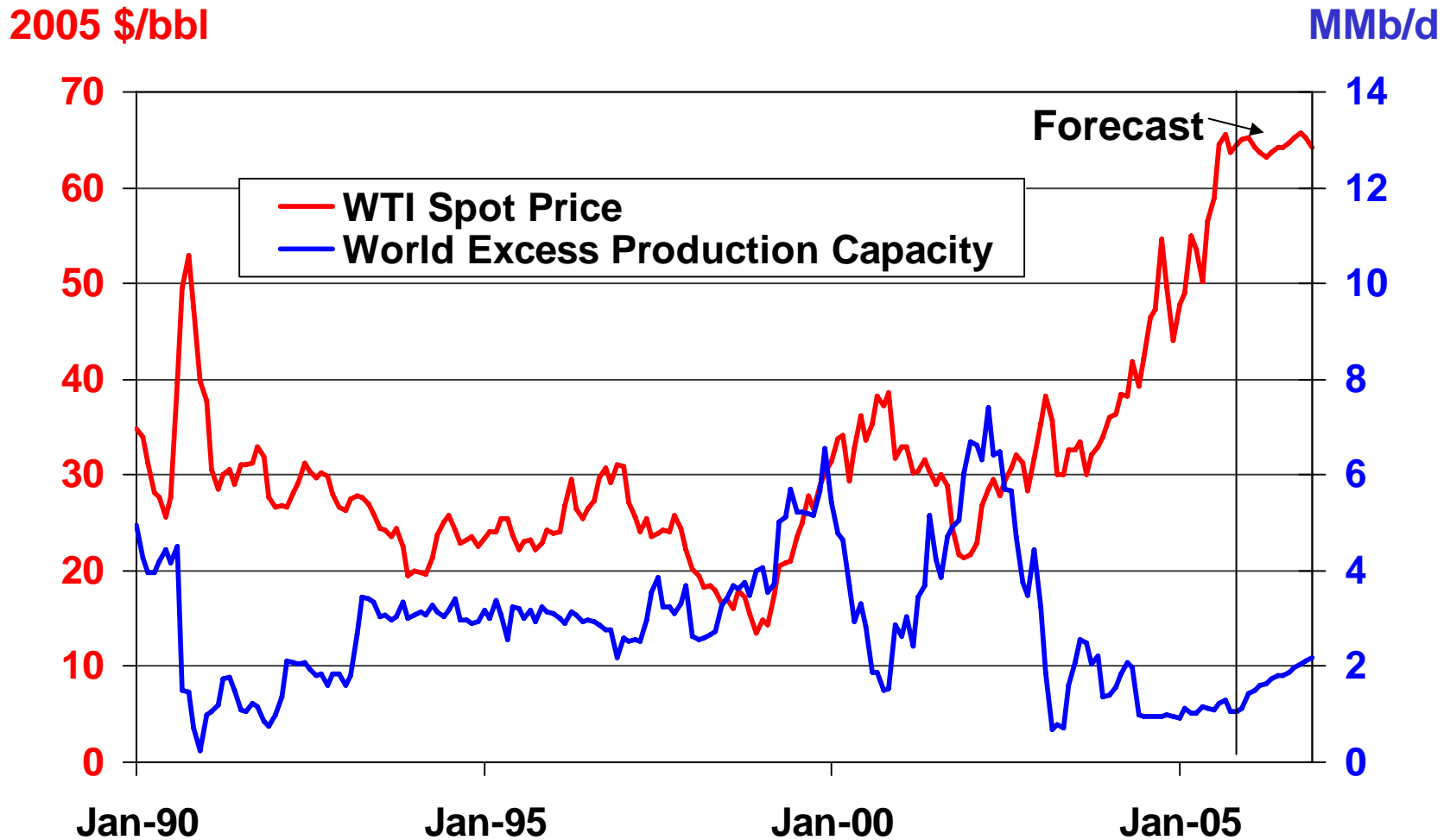
\* thousand cubic feet, \*\* kilowatthour

# Several Factors Are Driving Higher Expenditures

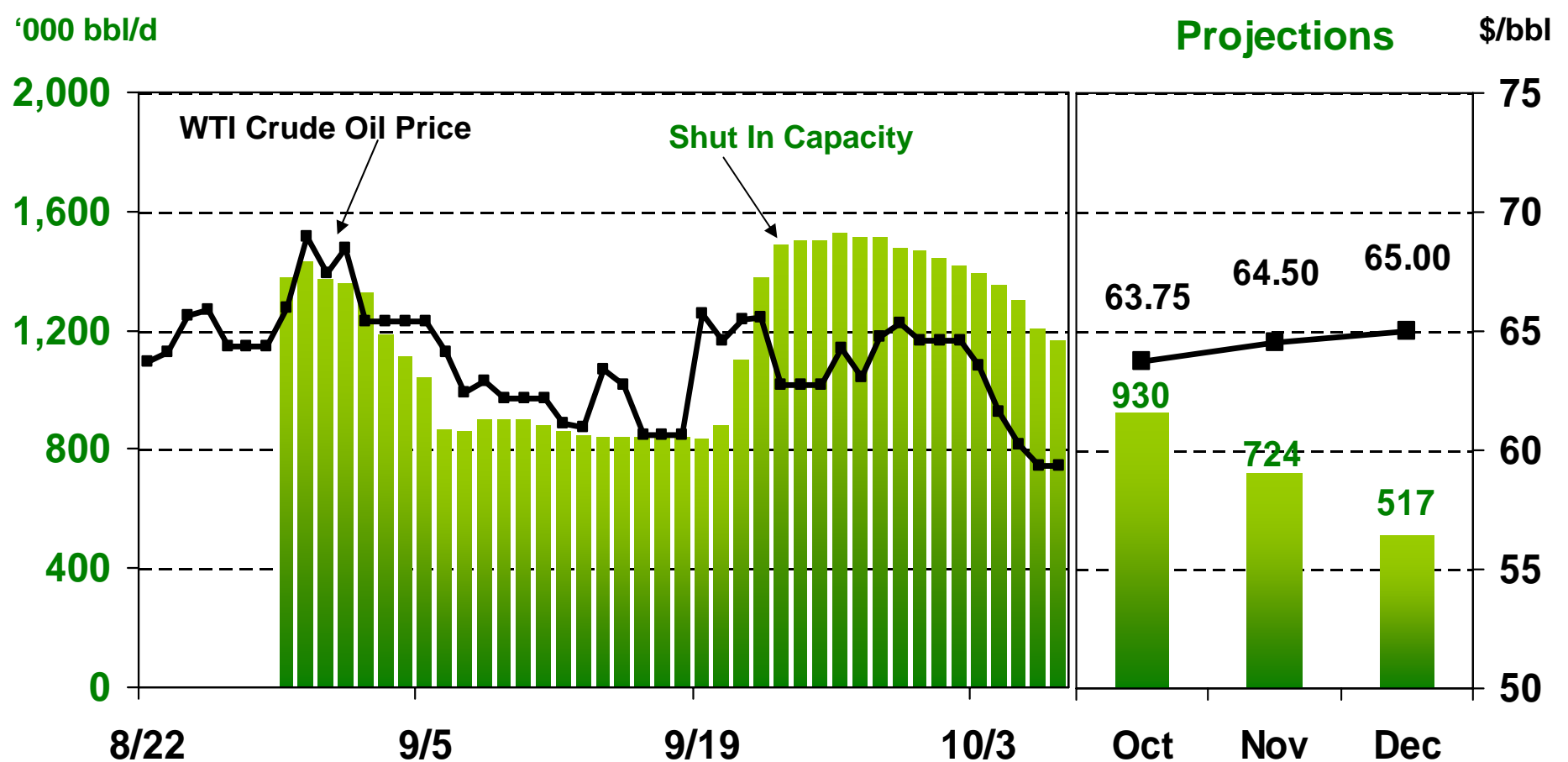
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- International factors such as low spare crude oil capacity and political tensions contribute to uncertainty and low supply growth for crude oil.
- Recent hurricanes and associated disruptions exacerbate already tight markets in oil, petroleum products, and natural gas.
- NOAA predicts colder weather nationally for the 2005/06 winter – 3.2% colder than last winter and 0.7% colder than the 30-year average.

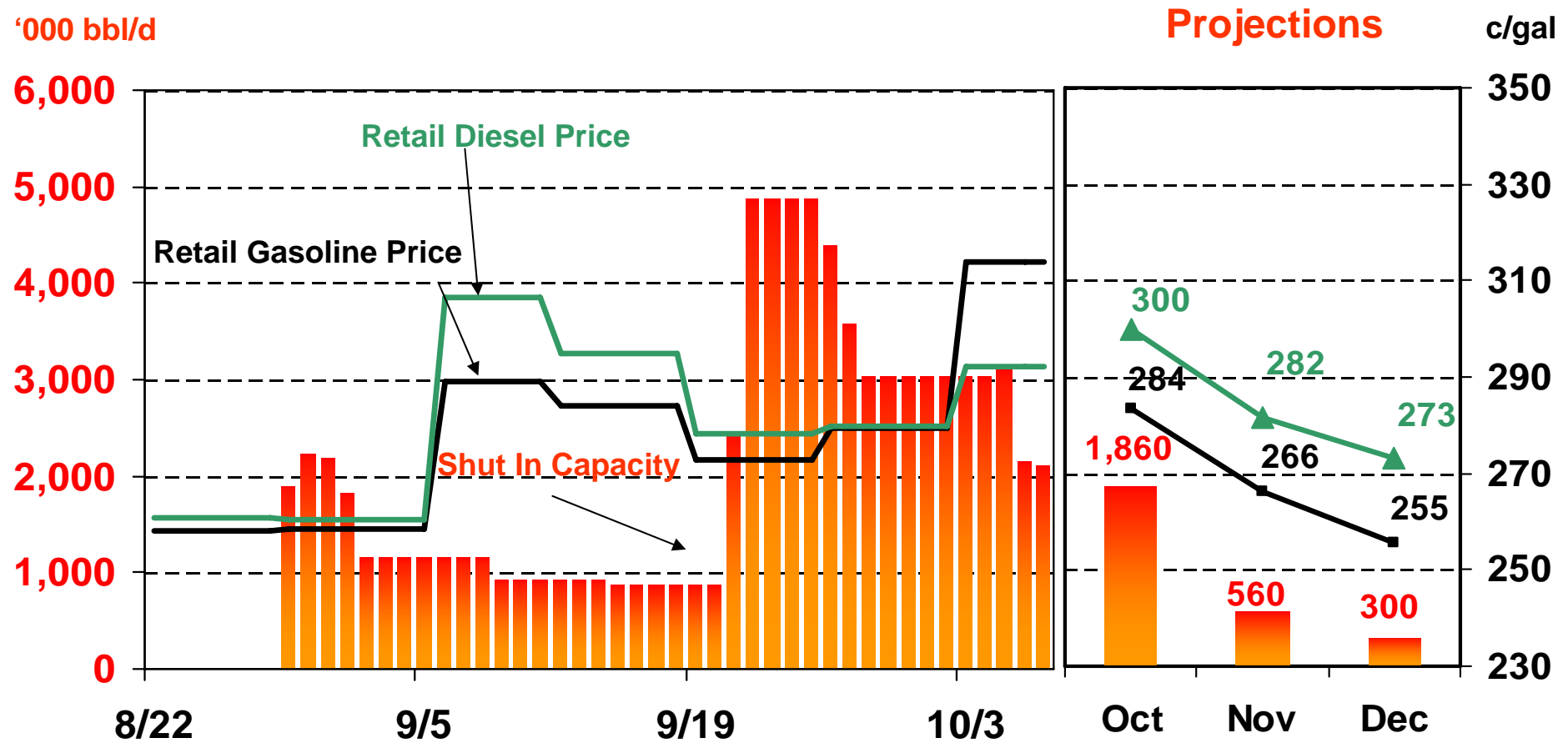
# Tight Global Markets Result in High Crude Prices and Strained Supply



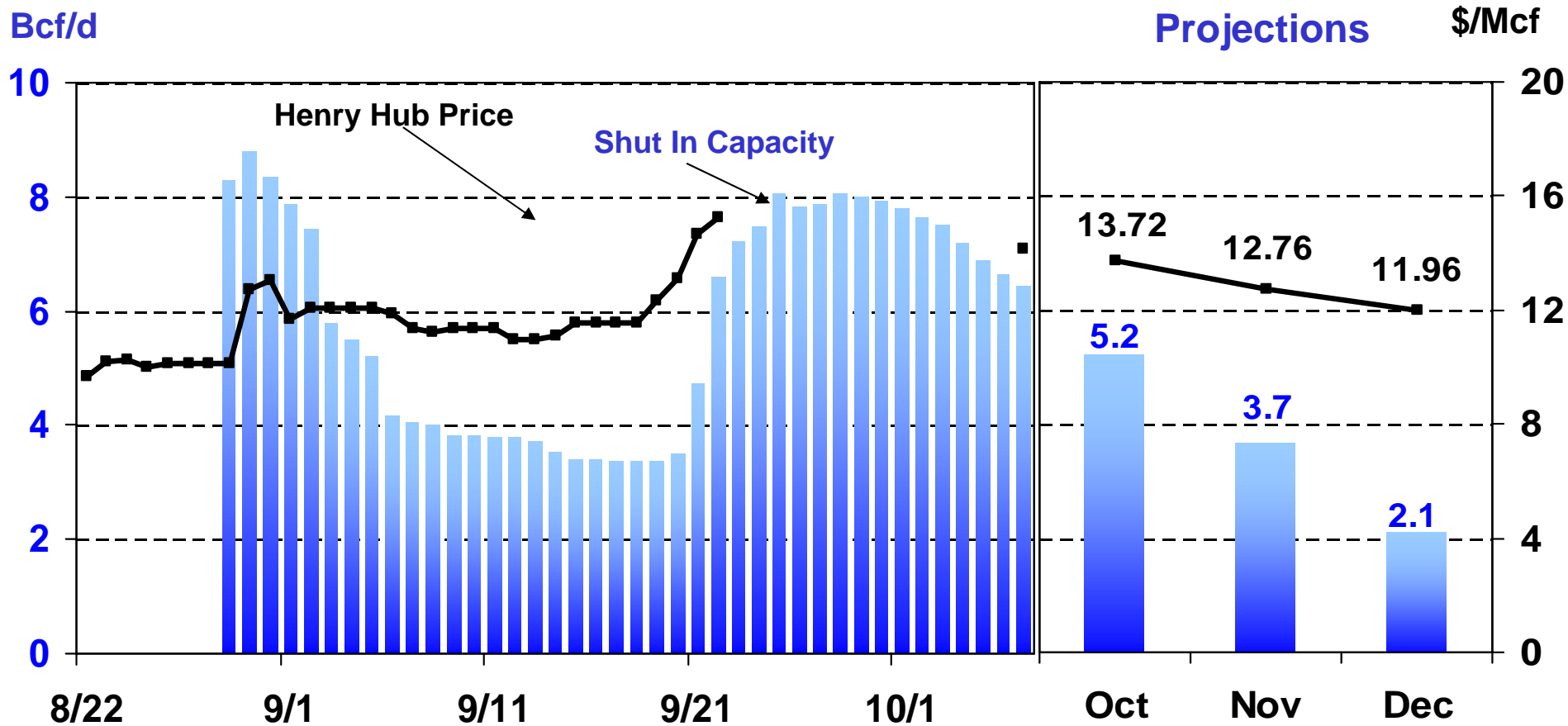
# Hurricanes Katrina and Rita Shut In Significant Gulf Crude Oil Production



# Hurricanes Katrina and Rita Initially Shut Down Most Gulf Refinery Capacity

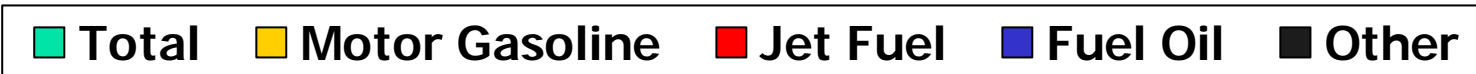
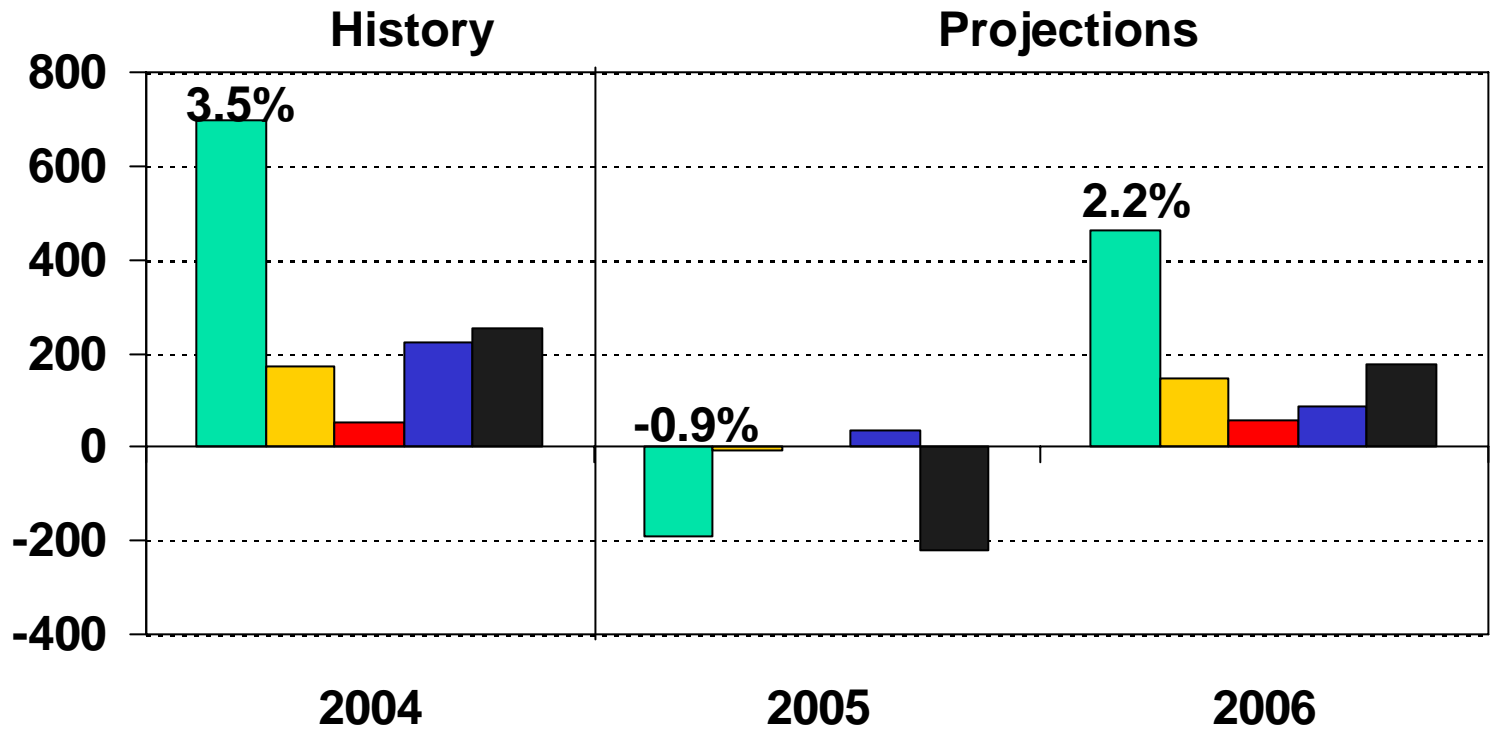


# Hurricanes Katrina and Rita Shut In Significant Gulf Natural Gas Production

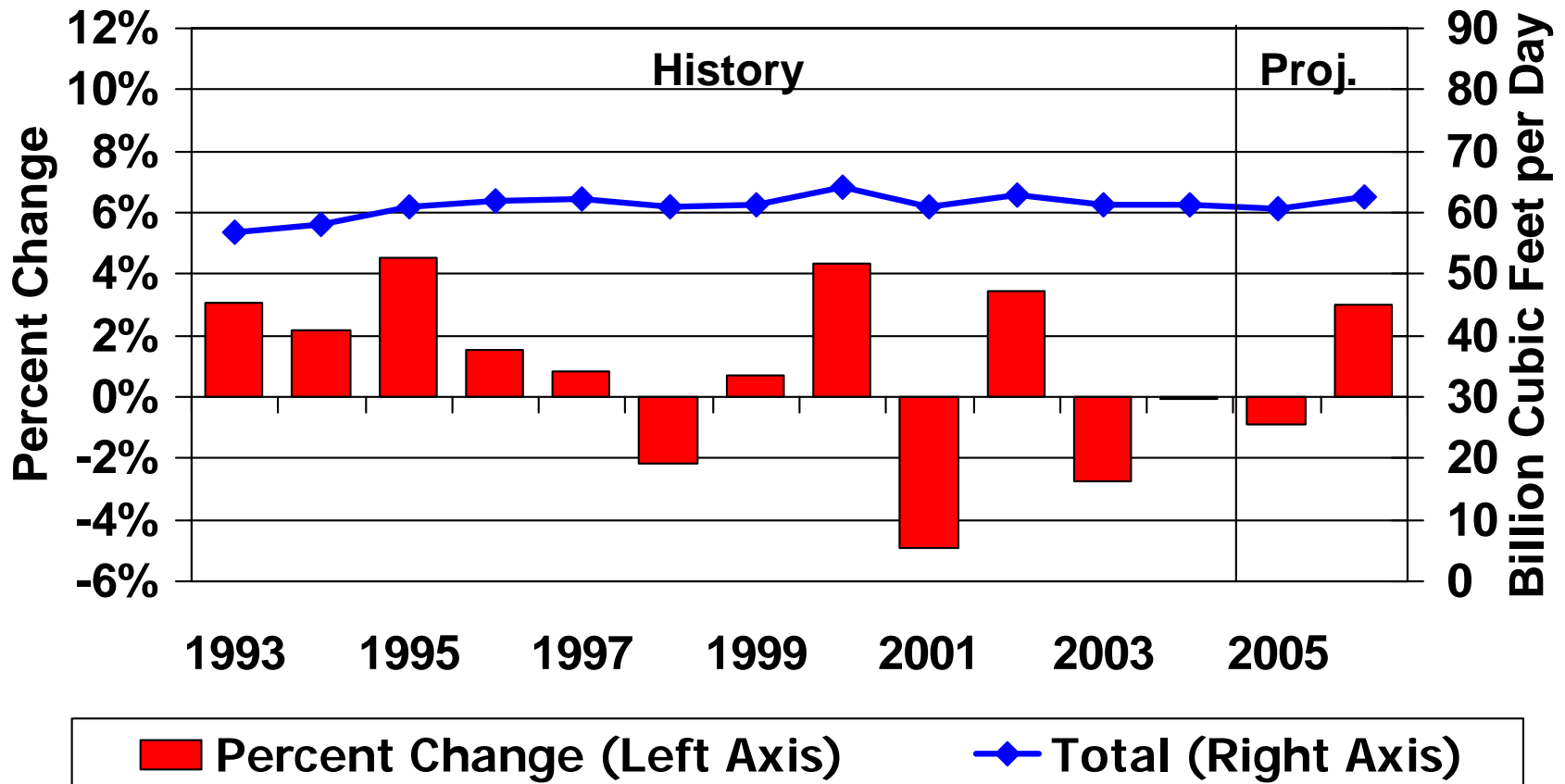


# U.S. Petroleum Products Demand Growth (Change from Previous Year)

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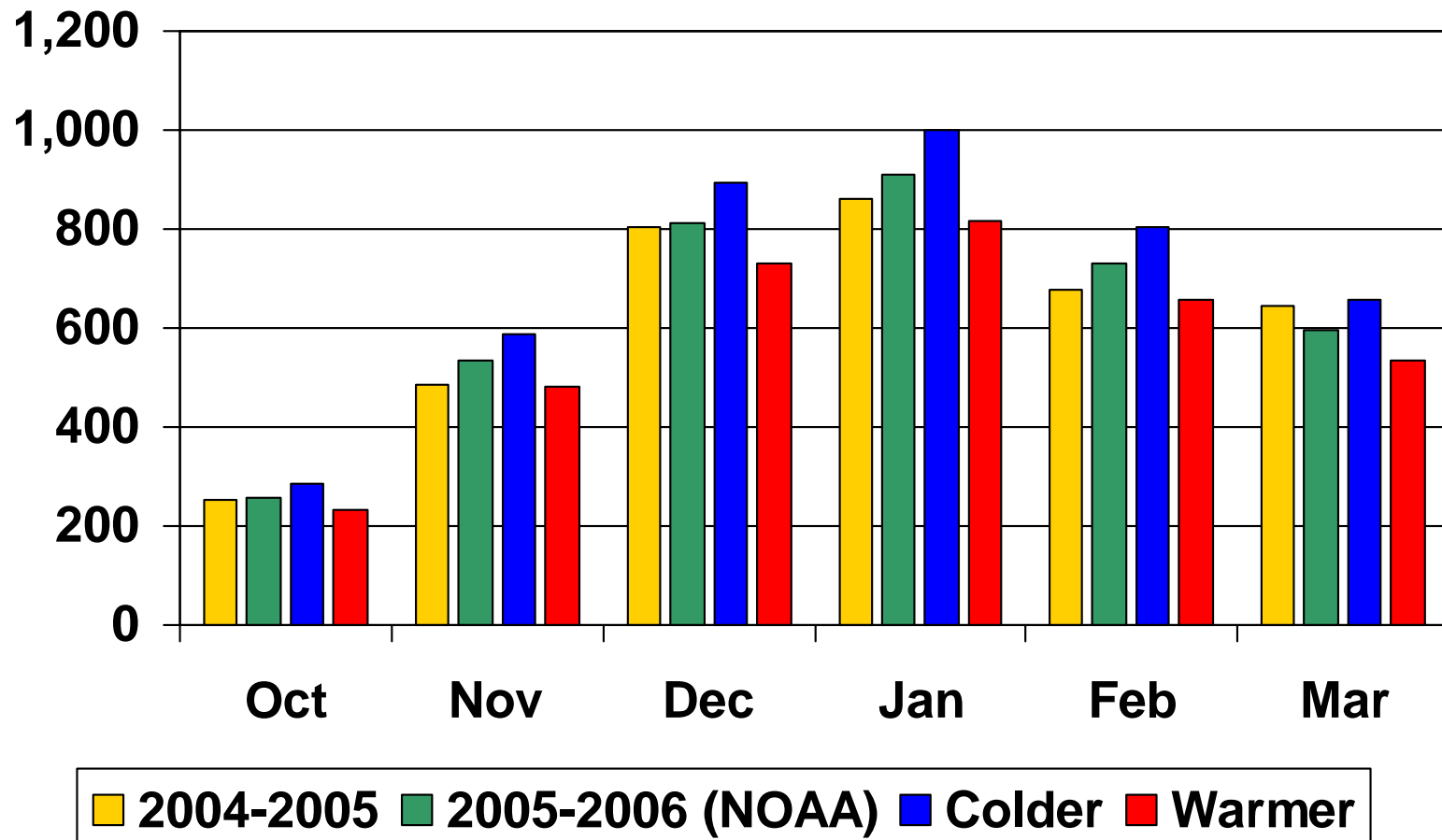


# Total U.S. Natural Gas Demand Growth



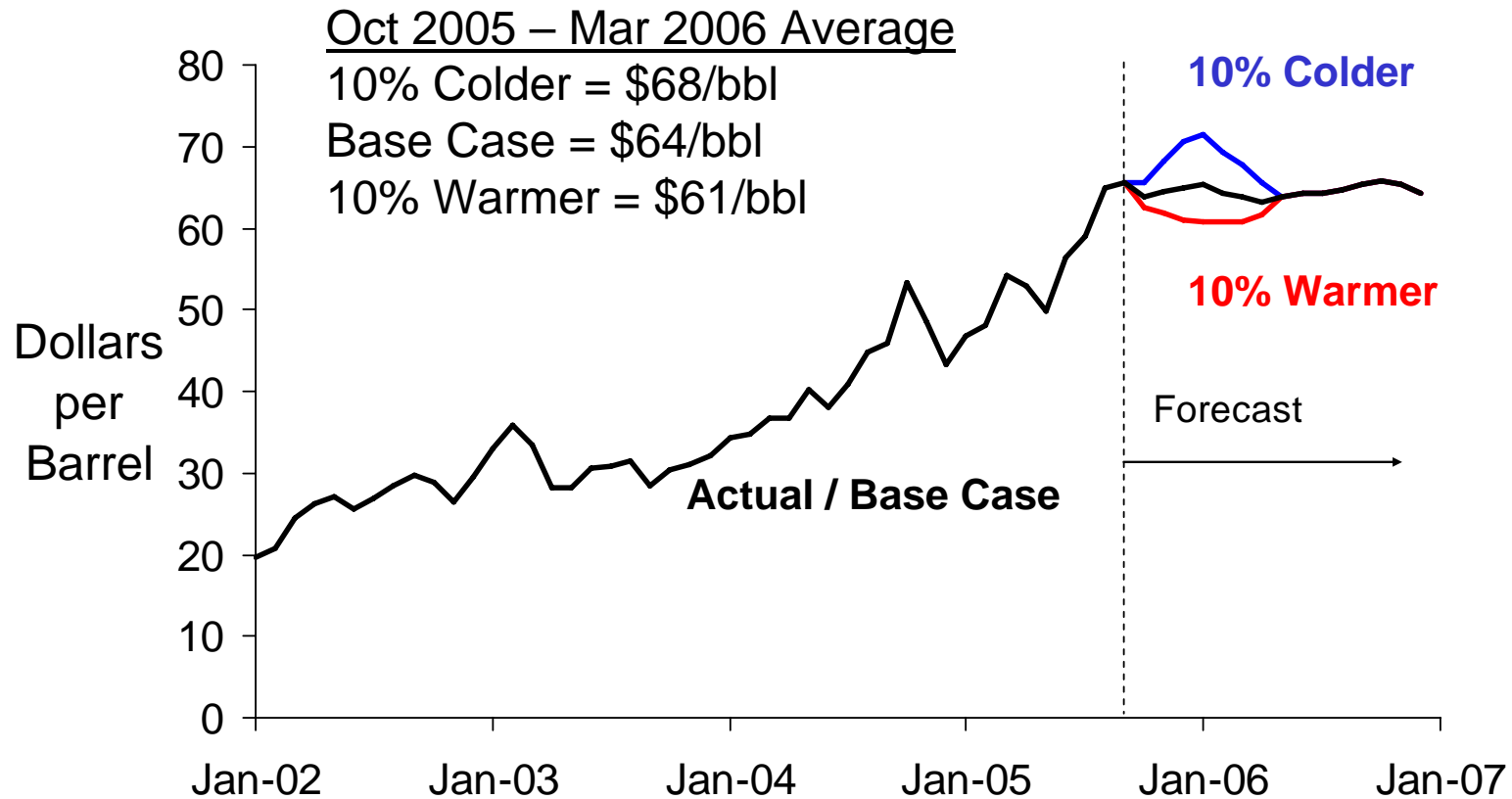
# A Slightly Colder Winter is Projected for the Lower-48 States

U.S. Heating Degree-Days Population-Weighted



# WTI\* Crude Oil Price

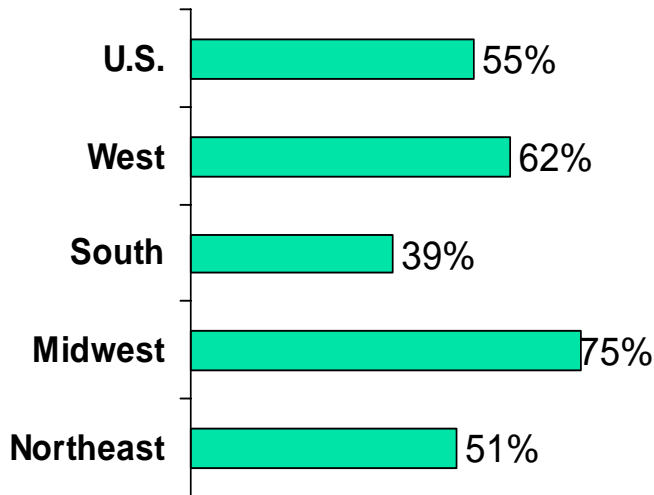
## Baseline, Colder, Warmer Cases



\* West Texas Intermediate

# Natural Gas Heating Bills Are Projected to Rise by Between 32% and 61%

Households using natural gas as primary heating fuel



% Change from Last Winter (Projected)

	Consumption	Average Price	Total Expenditures
West	+ 4 %	+ 29 %	+ 34 %
South	+ 5 %	+ 48 %	+ 56 %
Midwest	+ 4 %	+ 55 %	+ 61 %
Northeast	- 1 %	+ 33 %	+ 32 %

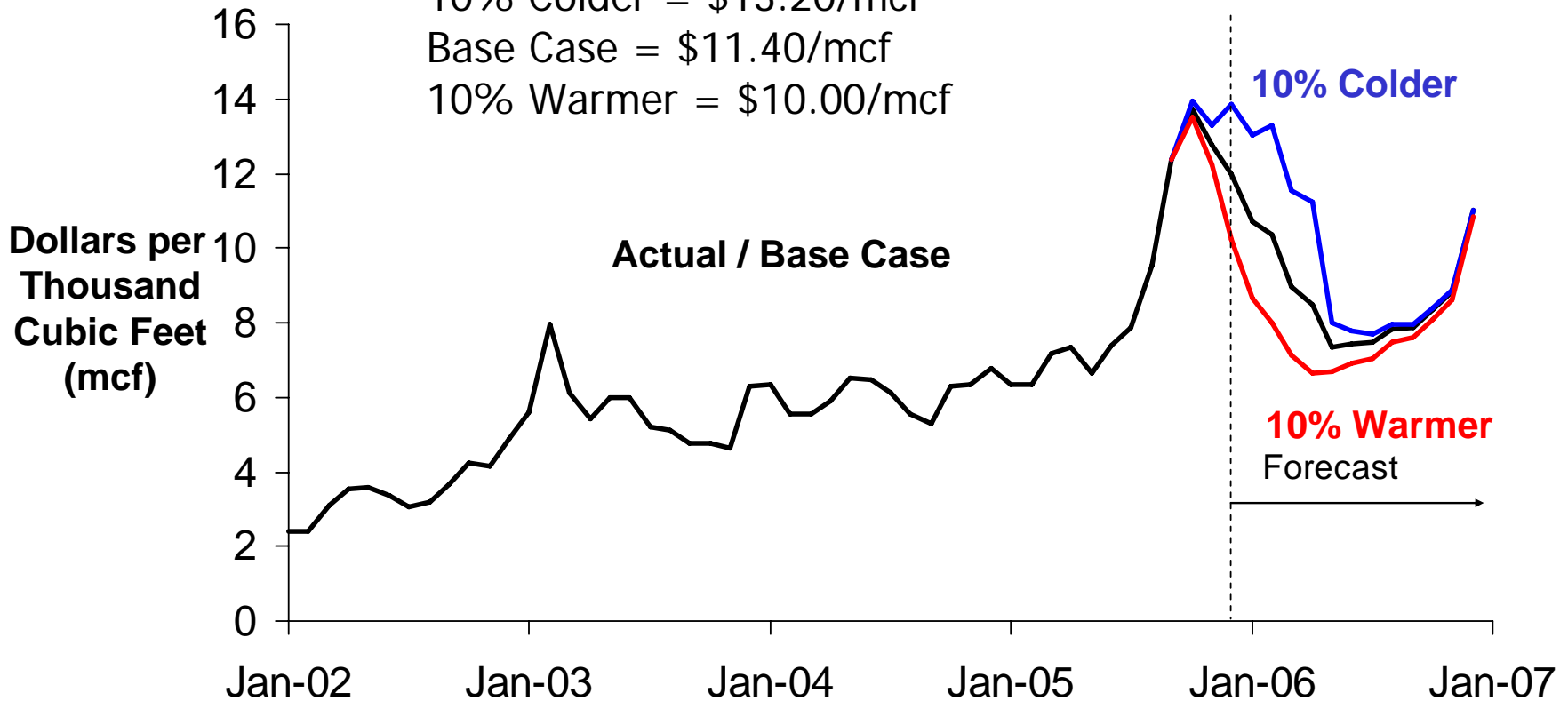
# Natural Gas Prices: Baseline, Warmer, Colder Cases

Oct 2005 – Mar 2006 Average

10% Colder = \$13.20/mcf

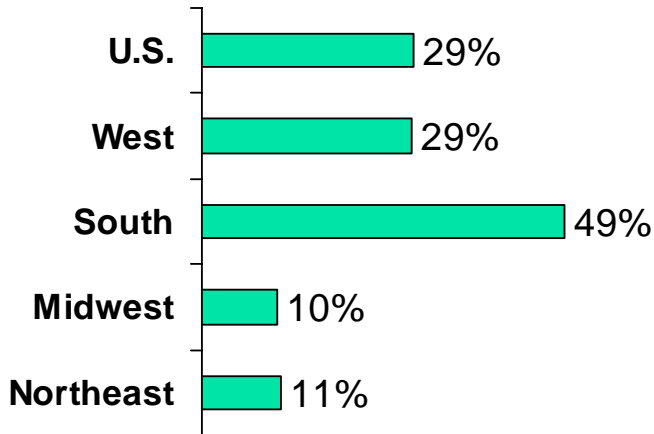
Base Case = \$11.40/mcf

10% Warmer = \$10.00/mcf



# Winter Electricity Expenditures Are Projected Up By Less Than 4%, Except in the South

**Households using electricity as primary heating fuel**

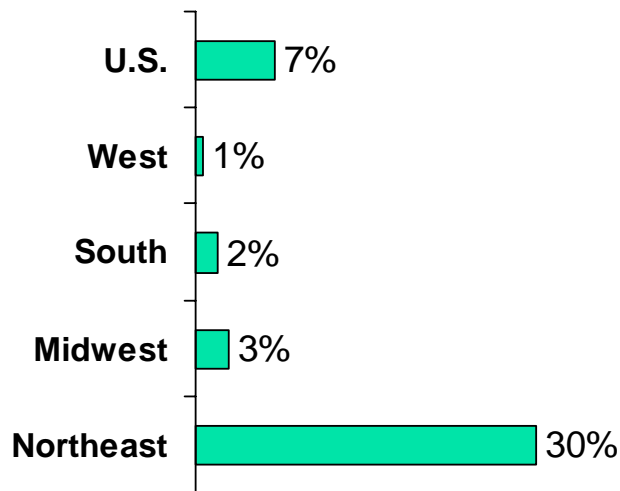


**% Change from Last Winter (Projected)**

	Consumption	Average Price	Total Expenditures
West	+ 2 %	+ 2 %	+ 4 %
South	+ 3 %	+ 7 %	+ 9 %
Midwest	+ 3 %	+ 0 %	+ 3 %
Northeast	- 1 %	+ 3 %	+ 2 %

# Winter Heating Oil Expenditures Are Projected to Increase by Over 30%

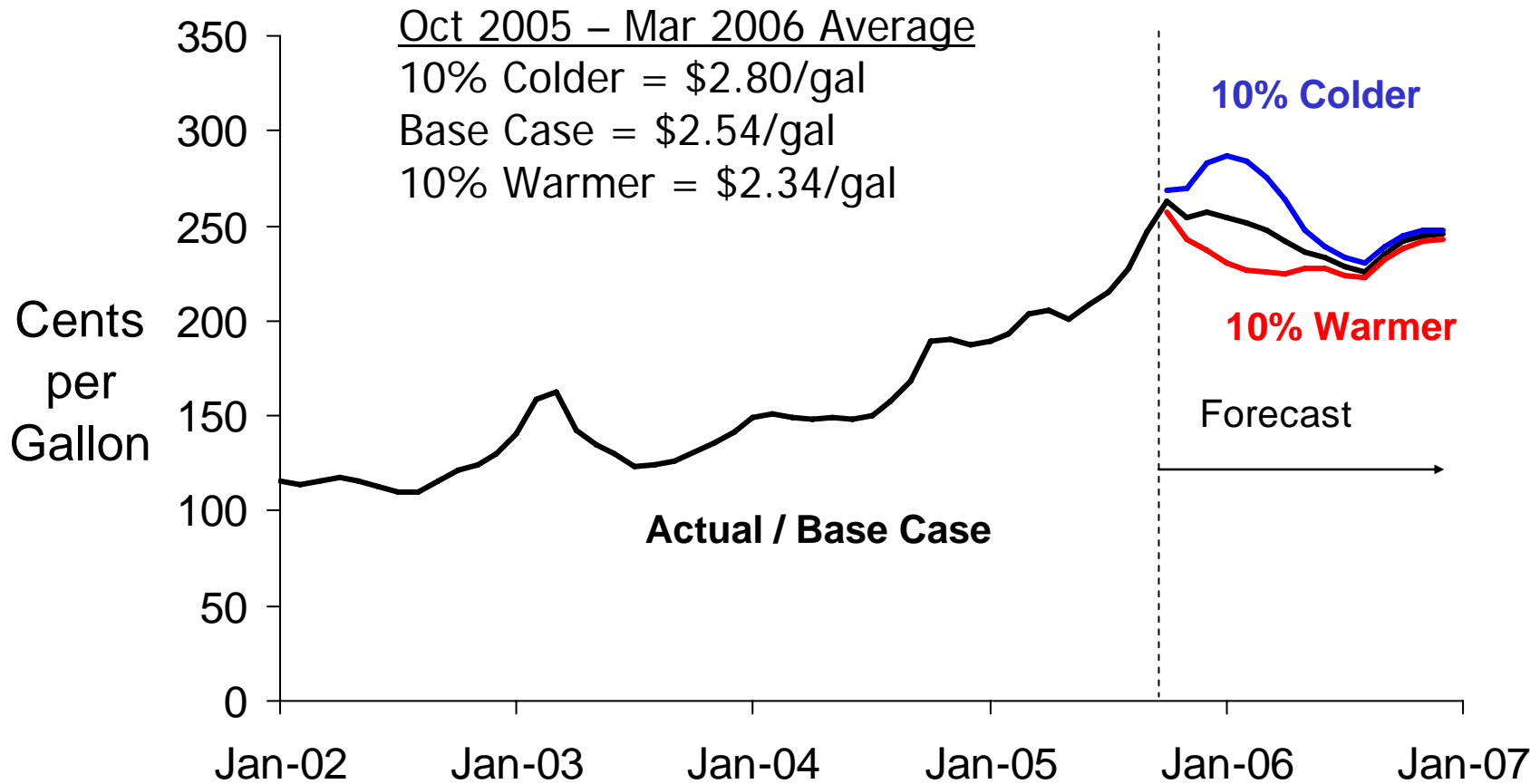
## Households using heating oil as primary heating fuel



## % Change from Last Winter (Projected)

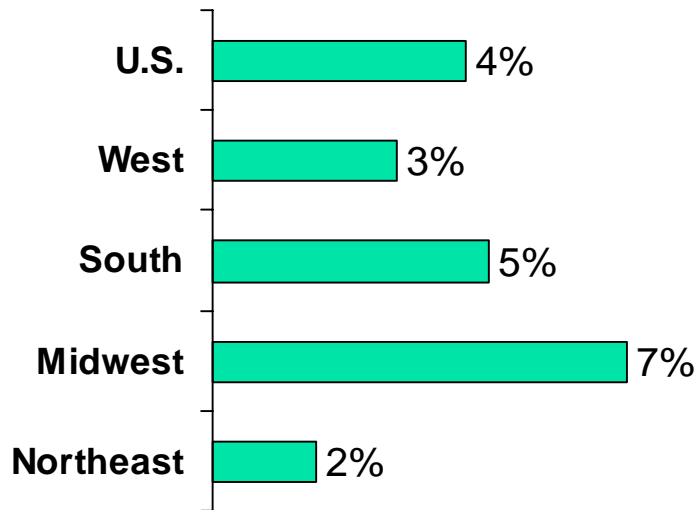
	Consumption	Average Price	Total Expenditures
West	+ 3 %	+ 33 %	+ 37 %
South	+ 2 %	+ 31 %	+ 33 %
Midwest	+ 5 %	+ 34 %	+ 41 %
Northeast	- 2 %	+ 32 %	+ 30 %

# Retail Heating Oil Prices: Baseline, Colder, Warmer Cases



# Propane Expenditures Are Projected Up by 20% to 36% This Winter

## Households using propane as primary heating fuel



## % Change from Last Winter (Projected)

	Consumption	Average Price	Total Expenditures
West	+ 4 %	+ 22 %	+ 27 %
South	+ 5 %	+ 23 %	+ 29 %
Midwest	+ 5 %	+ 30 %	+ 36 %
Northeast	- 1 %	+ 21 %	+ 20 %

# Conclusions

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- These projections are subject to considerable uncertainty, depending in part on the rate of recovery in the Gulf of Mexico.
- The average U.S. household will pay about \$260 more for heating this winter, mostly due to already tight supplies and the effects of the Gulf coast hurricanes.
- Under the baseline forecast, natural gas expenditures could be about \$350 (48%) higher for the average U.S. household this winter but 61% higher in the Midwest. Heating oil expenditures are projected be about \$380 (32%) higher for the average U.S. household this winter.
- A winter that is colder than expected could substantially raise estimated expenditure increases. A 10% colder winter would raise the projected expenditure increases to 67% for natural gas and 58% for heating oil.

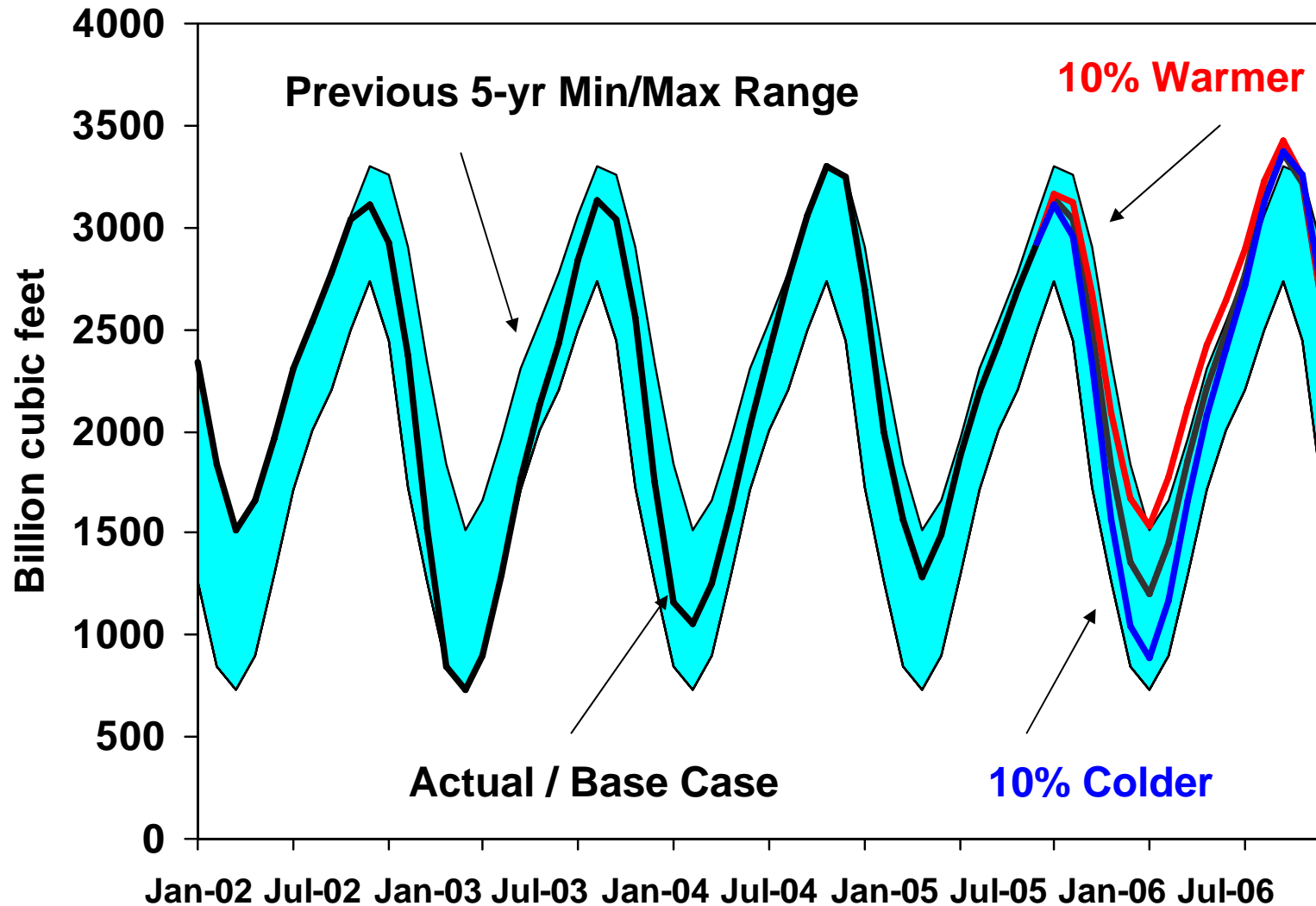
# Additional Charts for Reference

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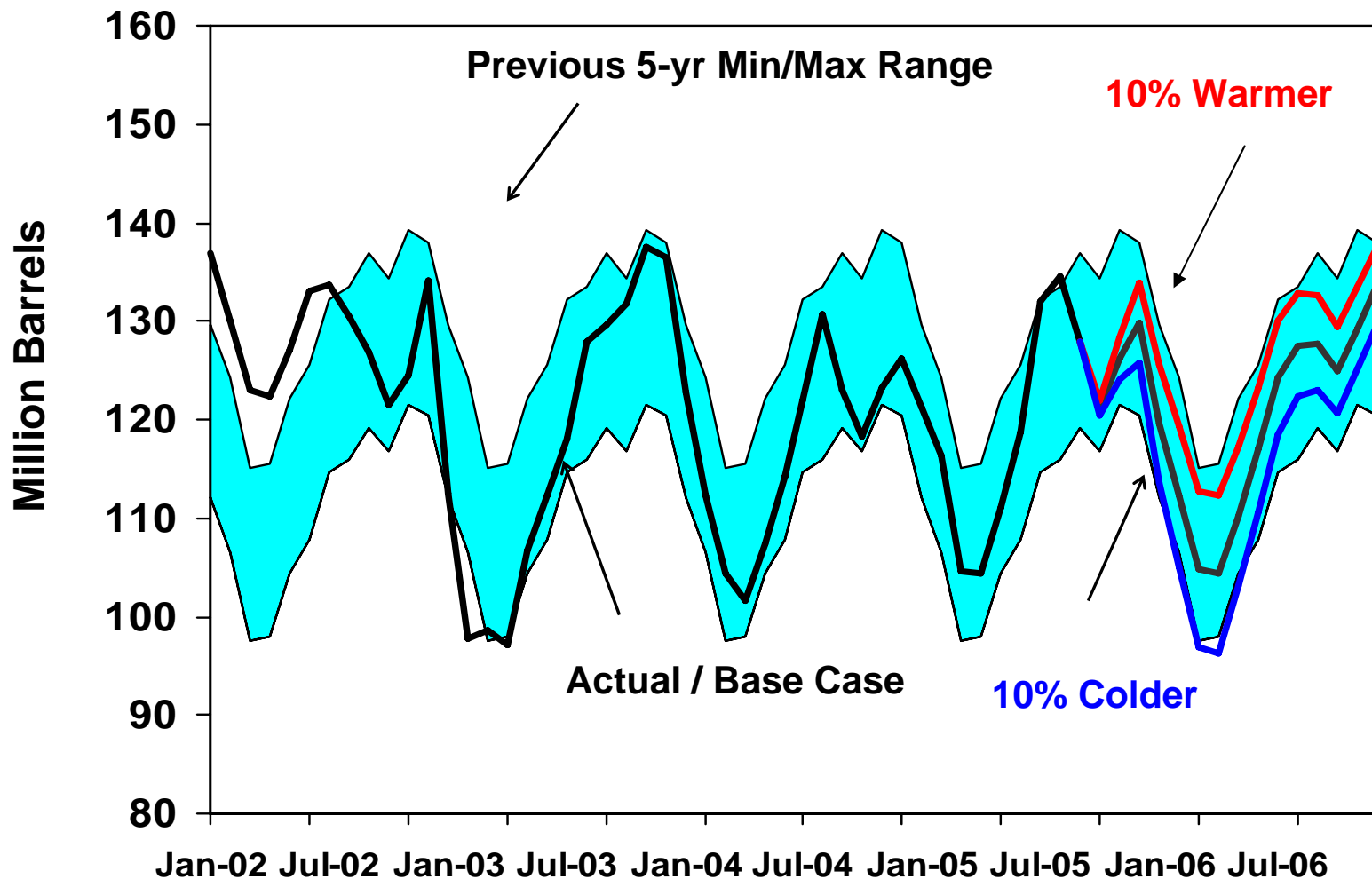
- **Natural Gas Storage**
- **U.S. Distillate Stocks**
- **Retail Diesel Prices**
- **Propane Stocks**
- **Propane Residential Prices**
- **Gasoline Prices (Real/Nominal)**
- **Retail Gasoline Prices**
- **Retail Gasoline Prices by PADD**
- **Gasoline Stocks**
- **Jet Fuel Prices**
- **Jet Fuel Stocks**
- **U.S Annual Energy Expenditures**
- **Per Household Heating Expenditures**
- **World Oil Demand Growth**

# U.S. Natural Gas in Storage:

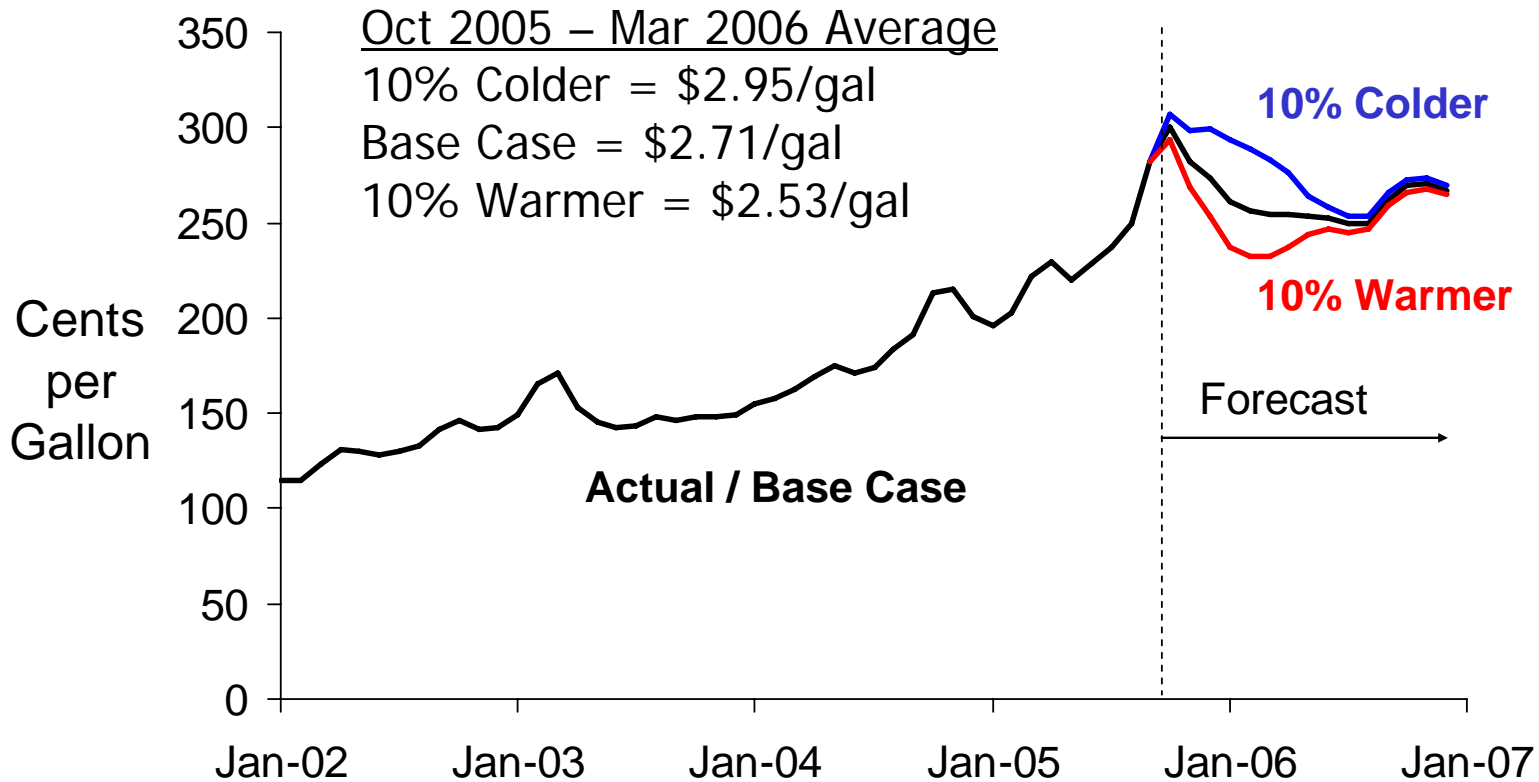
## Baseline, Warmer, Colder Cases



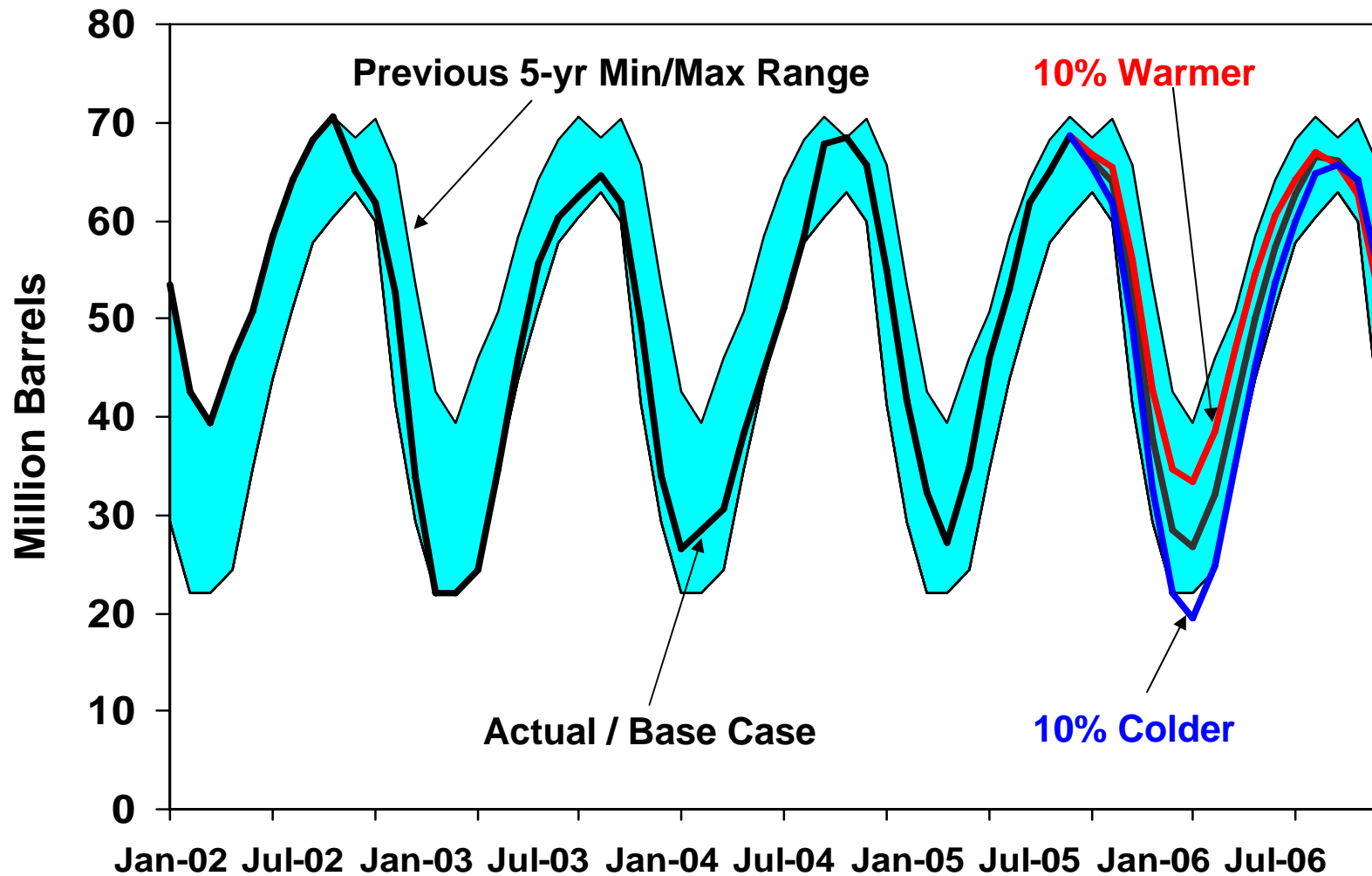
# Distillate Inventories: Baseline, Warmer, Colder Cases



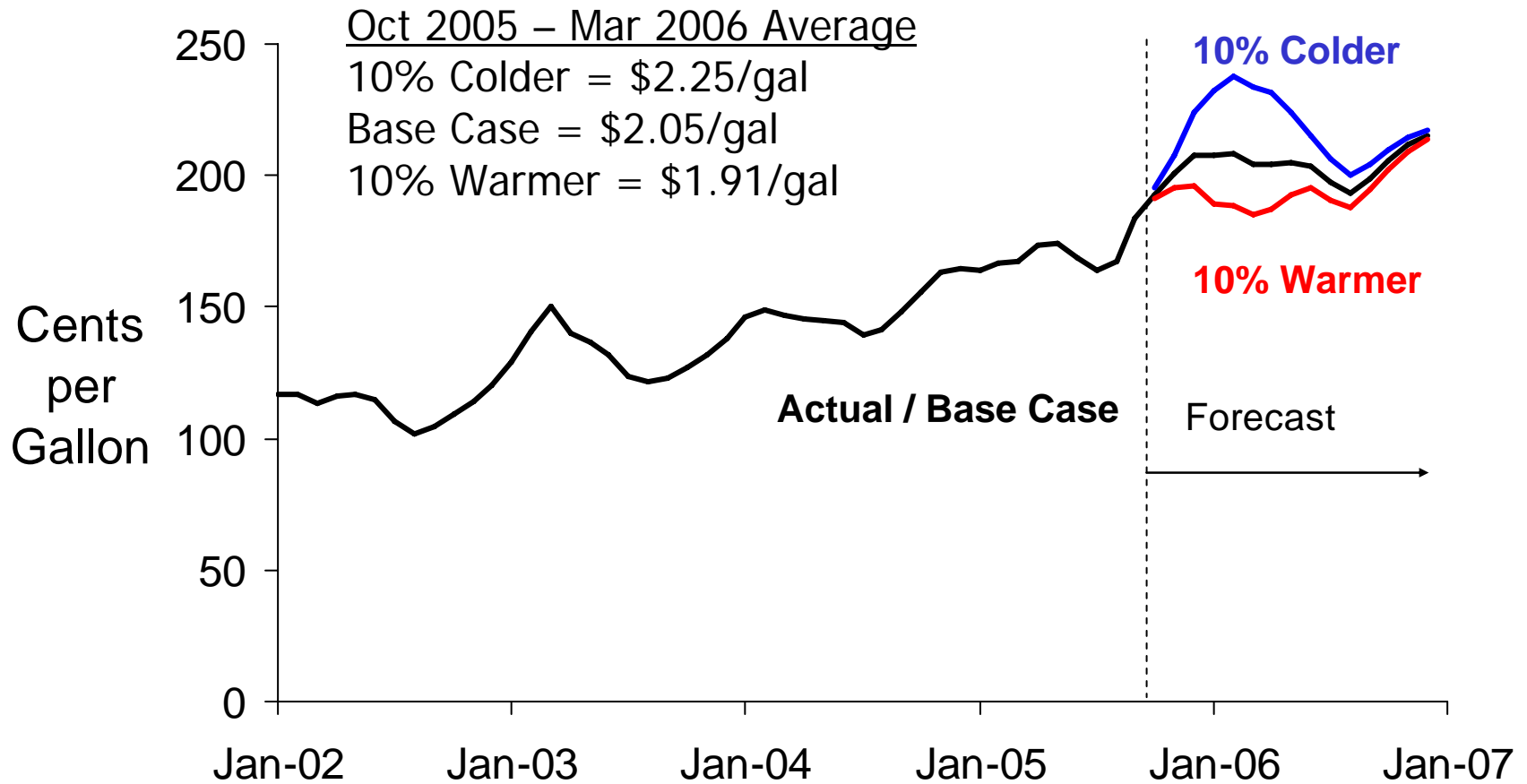
# Retail Diesel Fuel Prices: Baseline, Warmer, Colder Cases



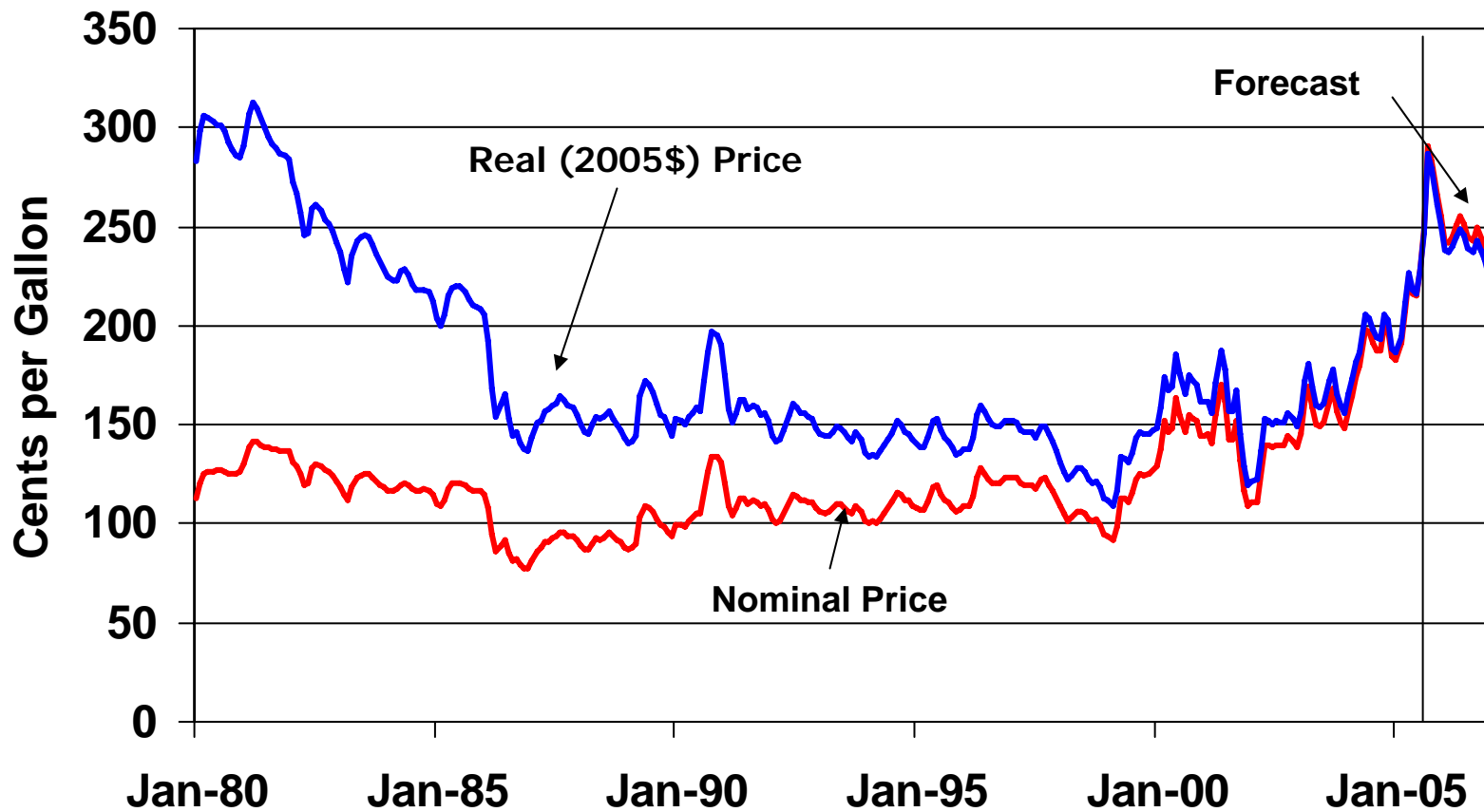
# Propane Inventories: Baseline, Warmer, Colder Cases



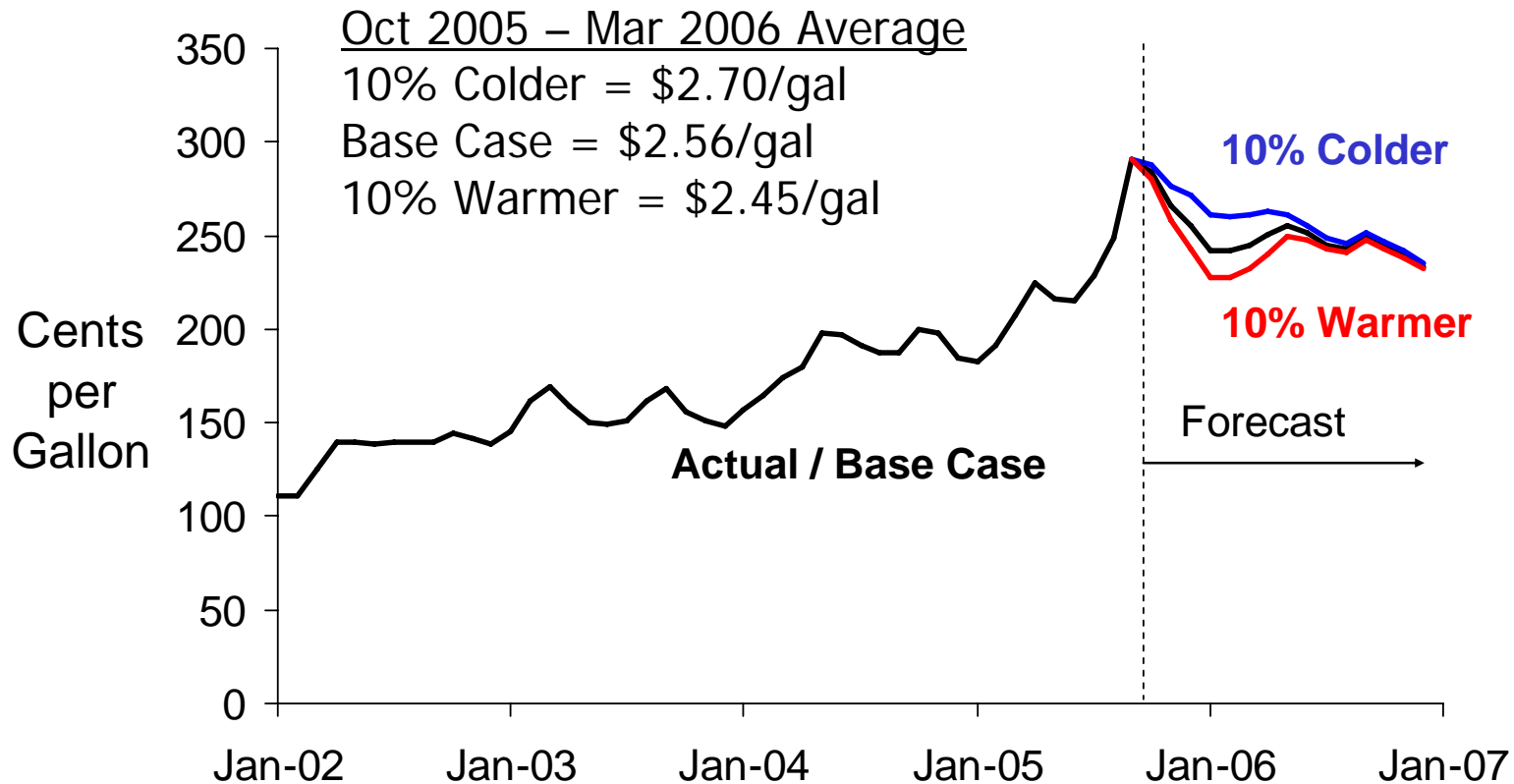
# Propane Residential Prices: Baseline, Warmer, Colder Cases



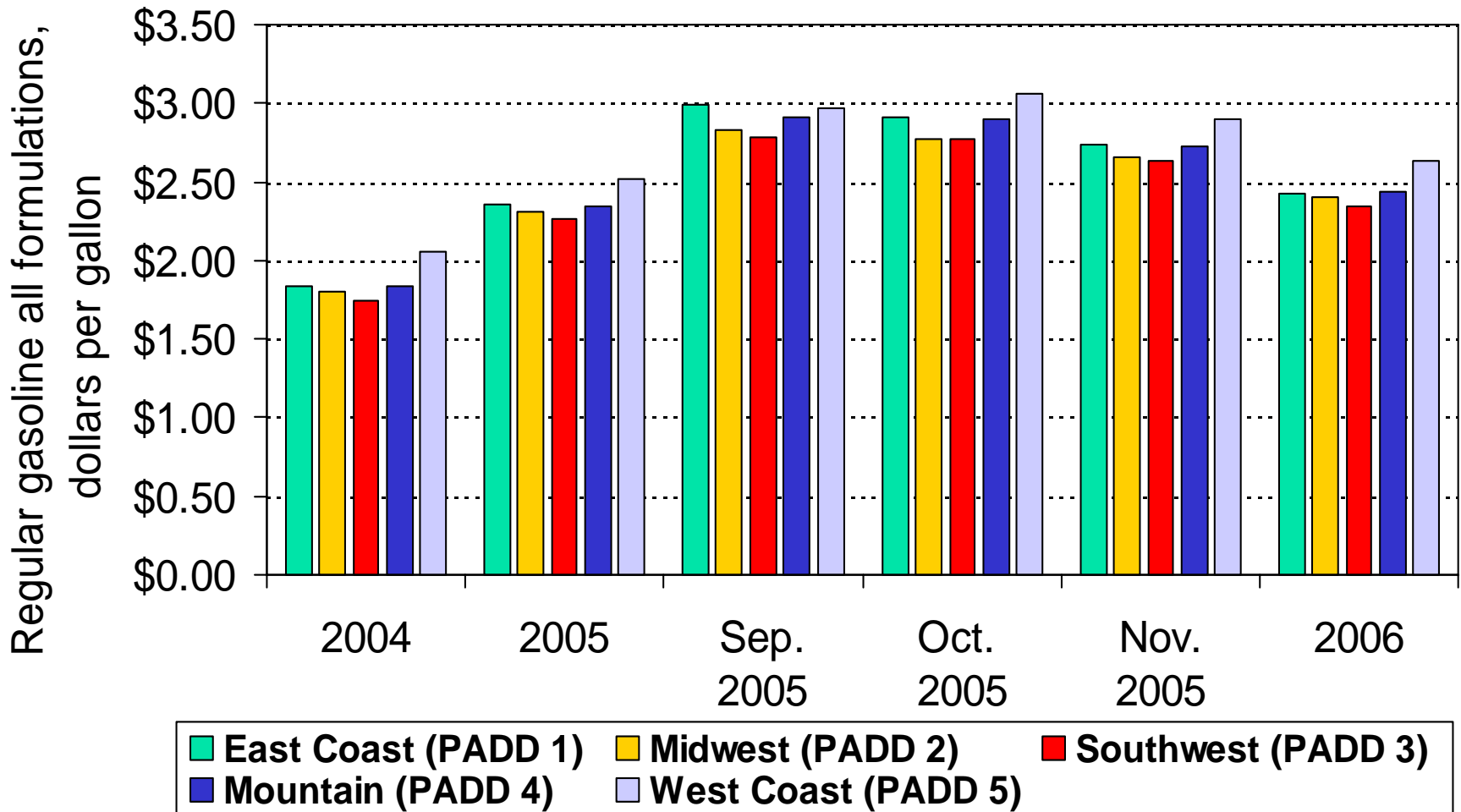
# U.S. Gasoline Prices are Increasing in Real and Nominal Terms



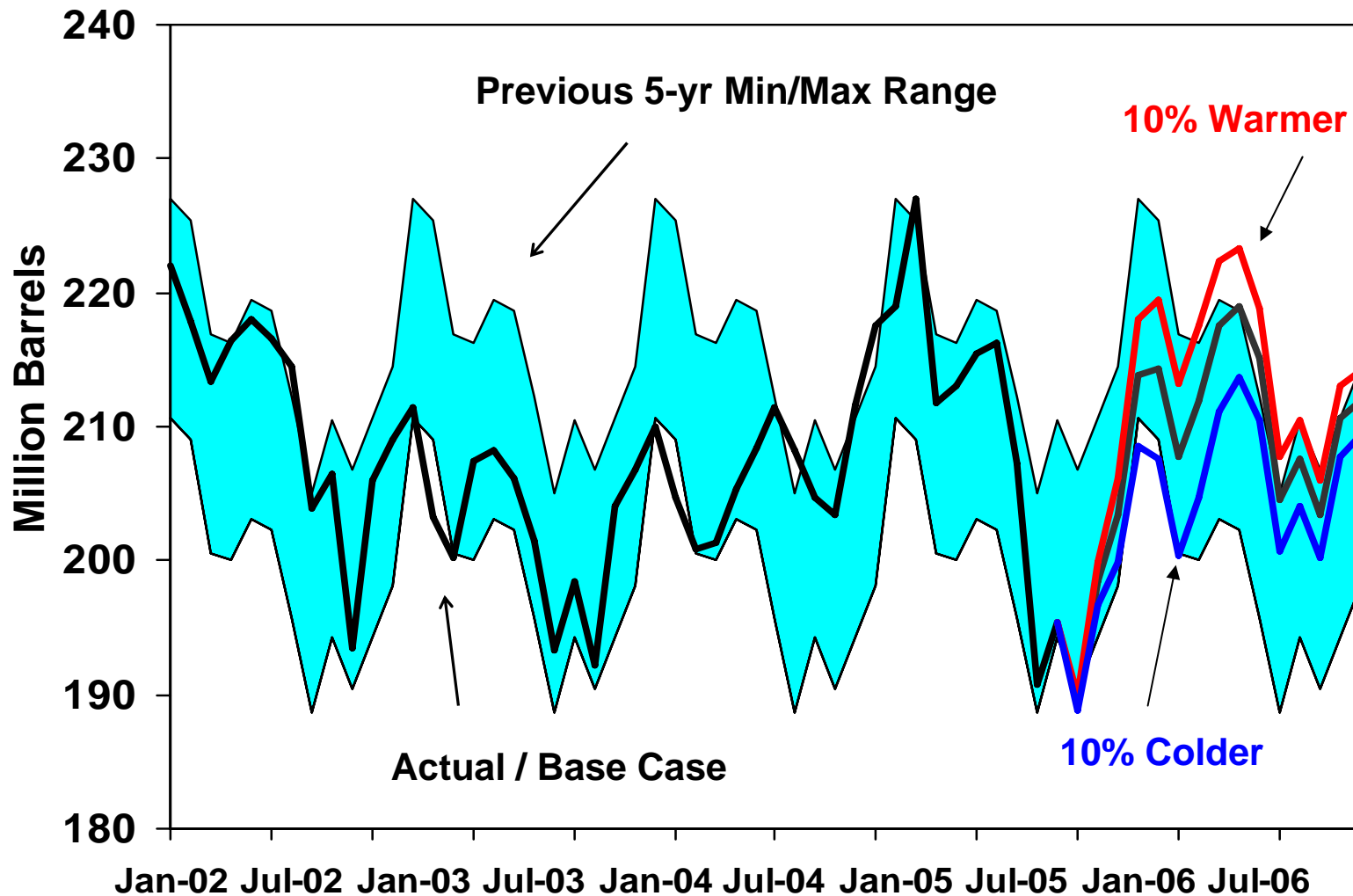
# Retail Gasoline Prices: Baseline, Warmer, Colder Cases



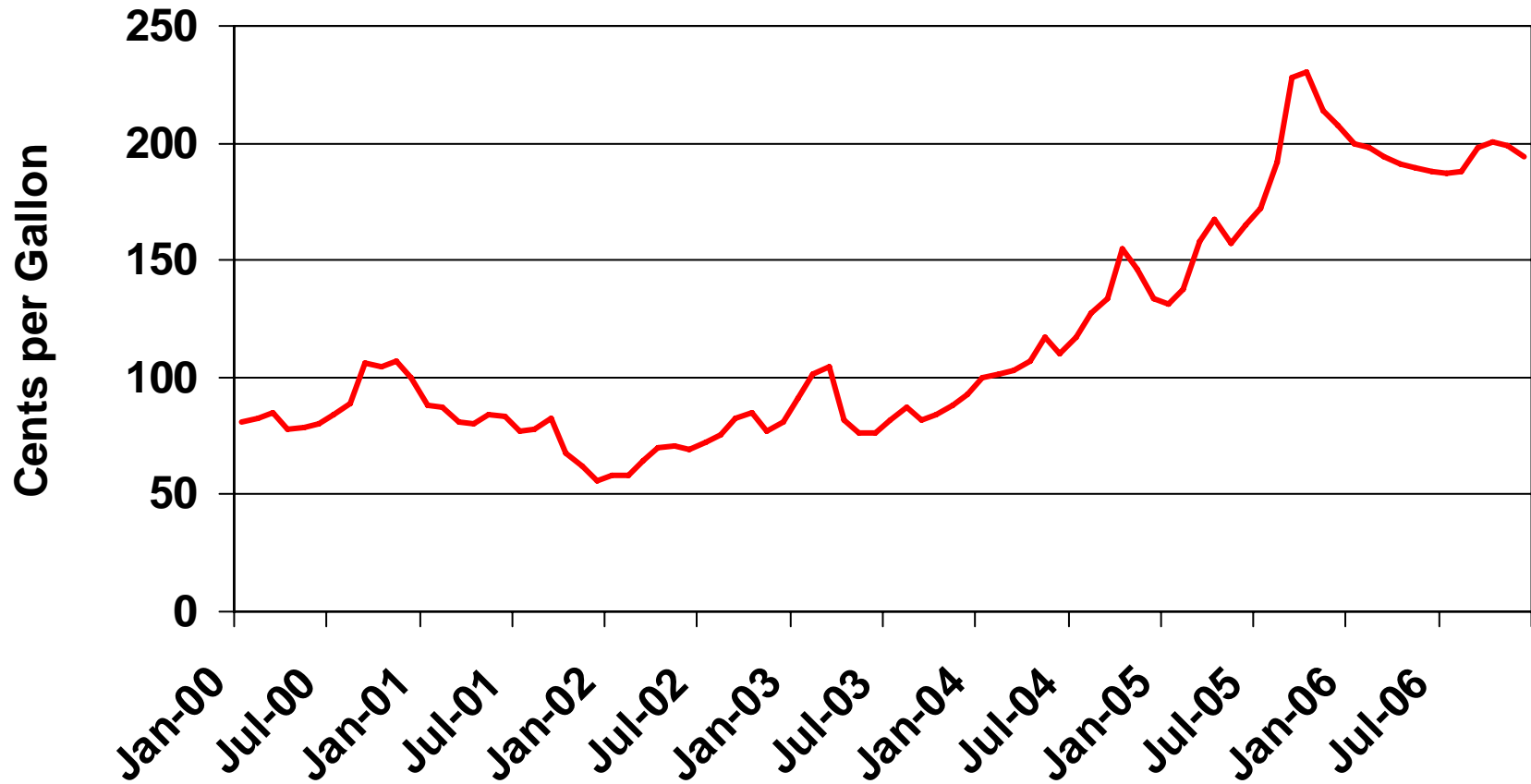
# Gasoline Prices Vary Across Regions and Remain Higher than 2004



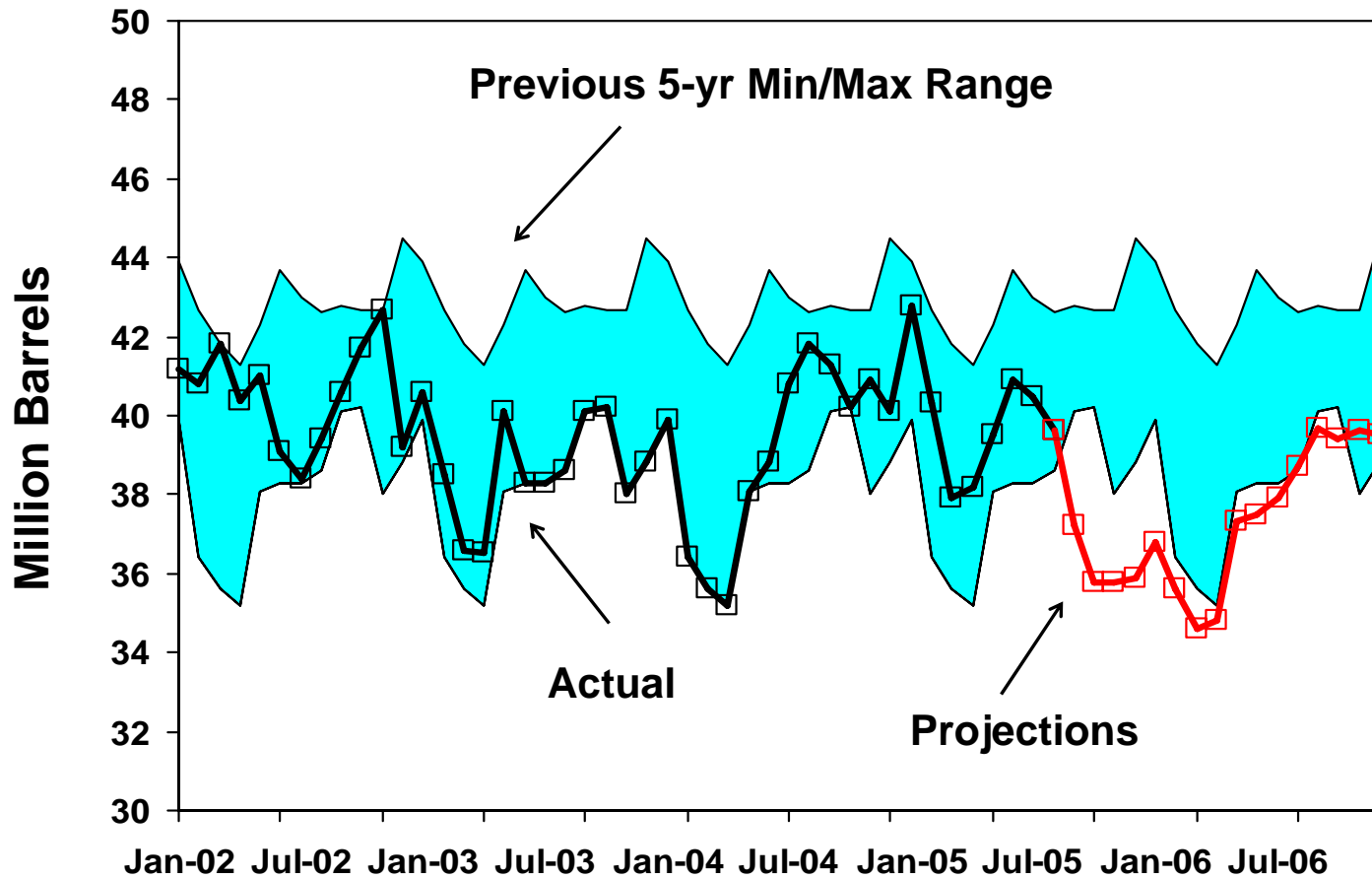
# U.S. Total Gasoline Inventories



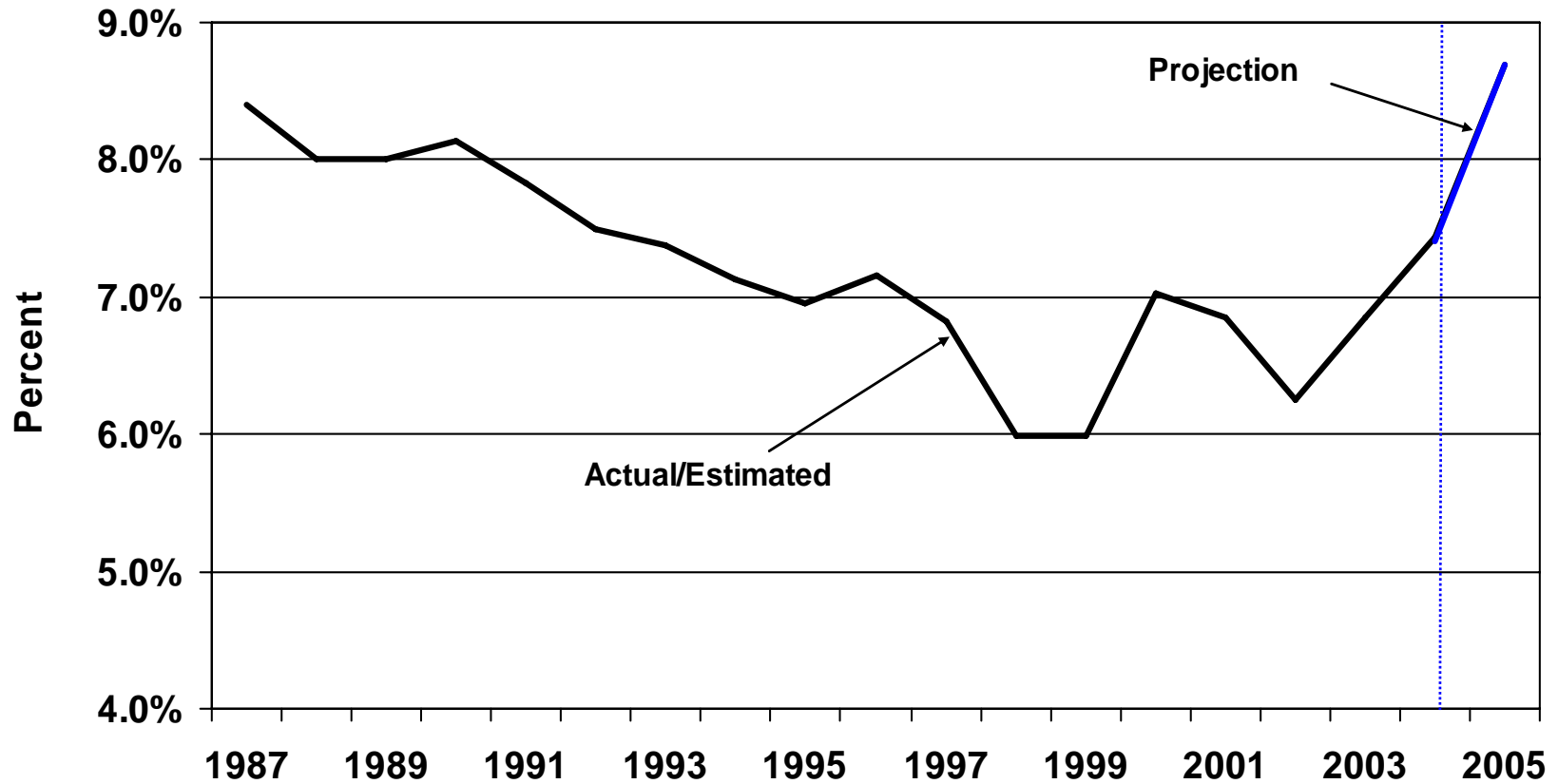
# Jet Fuel Prices



# Jet Fuel Stocks

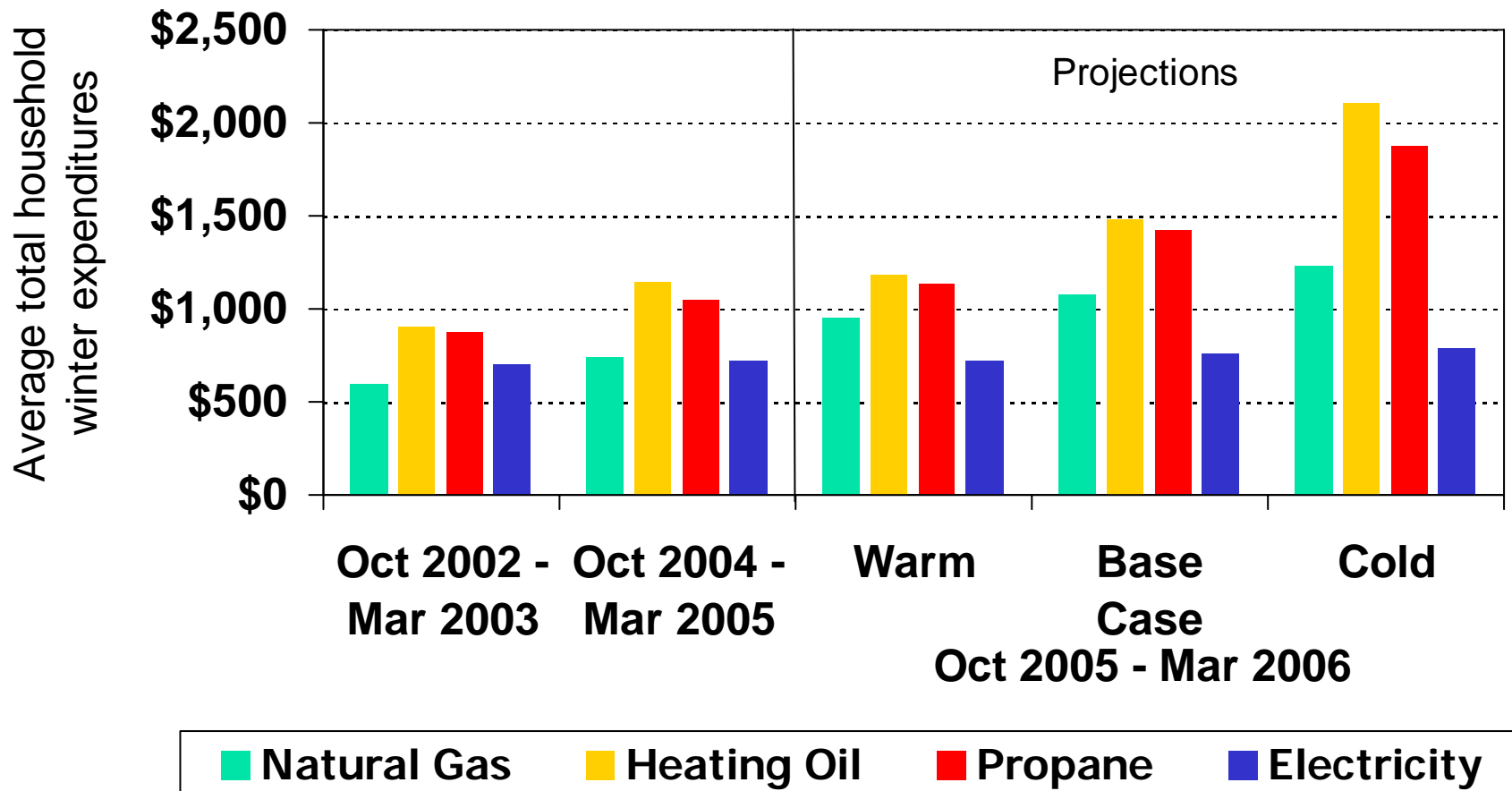


# U.S Annual Energy Expenditures Now Account for About \$1 Trillion and 8.7% of GDP\*

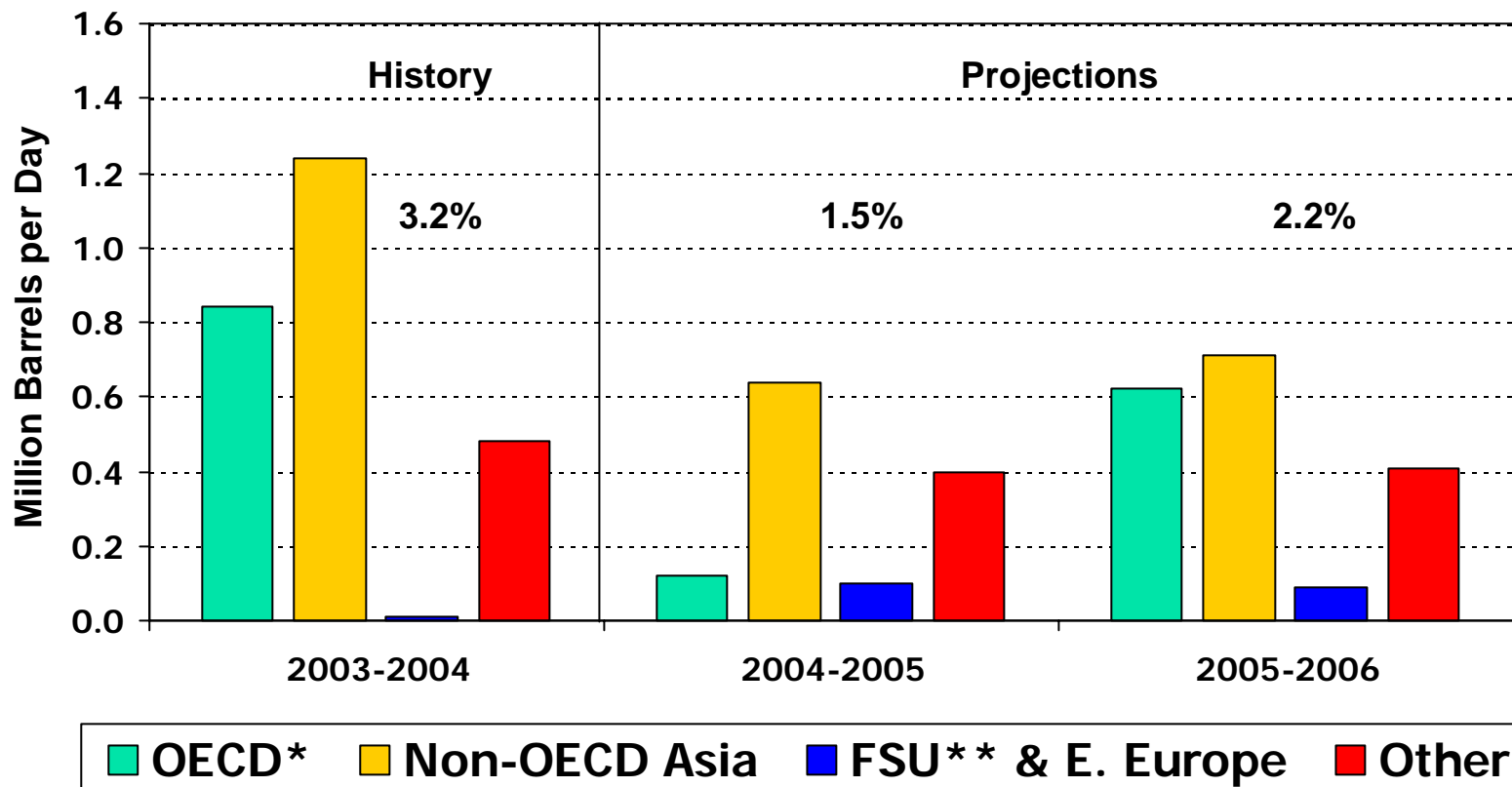


\* Gross Domestic Product

# Total U.S. Per Household Heating Fuels Expenditures are Expected to Rise



# World Oil Demand Growth (Change from Previous Year)



\* Countries belonging to Organization of Economic Cooperation and Development

\*\* Former Soviet Union