



2005 GASOLINE PRICE MOVEMENTS IN CALIFORNIA

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Presentation Topics

- Overview of recent events influencing gasoline prices
- Findings
- Decreased crude oil production and refinery closures in the Gulf of Mexico
- Impacts to crude oil and gasoline prices
- Government agency responses, impacts and activities
- Options for state action

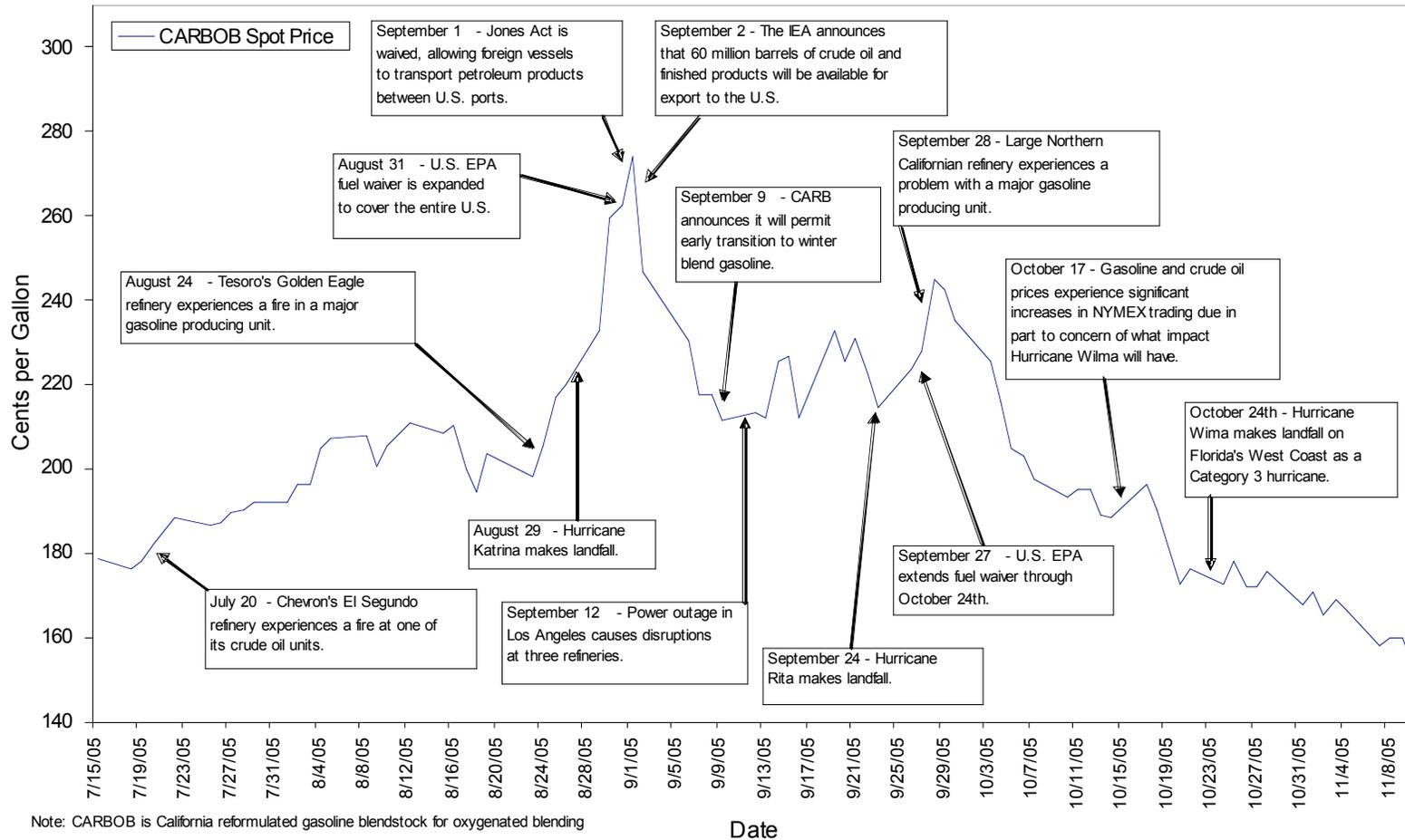


Overview

- Unprecedented retail gasoline price spikes occurred during the late summer of 2005.
- The average California retail gasoline price increased by 29 cents in a single week in late August.
- Factors relating to price spikes in California include supply shortfalls and market conditions following Hurricane Katrina and Rita, increased exports, and refinery outages.
- Government agency responses and staff findings will be presented to address price changes in California.
- This report focuses exclusively on gasoline price changes in the state.



Events Affecting California Wholesale Gasoline Prices (CARBOB Spot Prices)





Findings

- California wholesale gasoline prices rose sharply with New York Mercantile Exchange (NYMEX) market prices following Hurricanes Katrina and Rita.
- California crude oil prices did not significantly impact the retail price spike of gasoline in California during late August and early September.
- Exports to Arizona and Nevada increased by 45% in the four weeks following Hurricane Katrina.
- Temporary shortfalls of supply influenced gasoline prices following the Hurricanes.



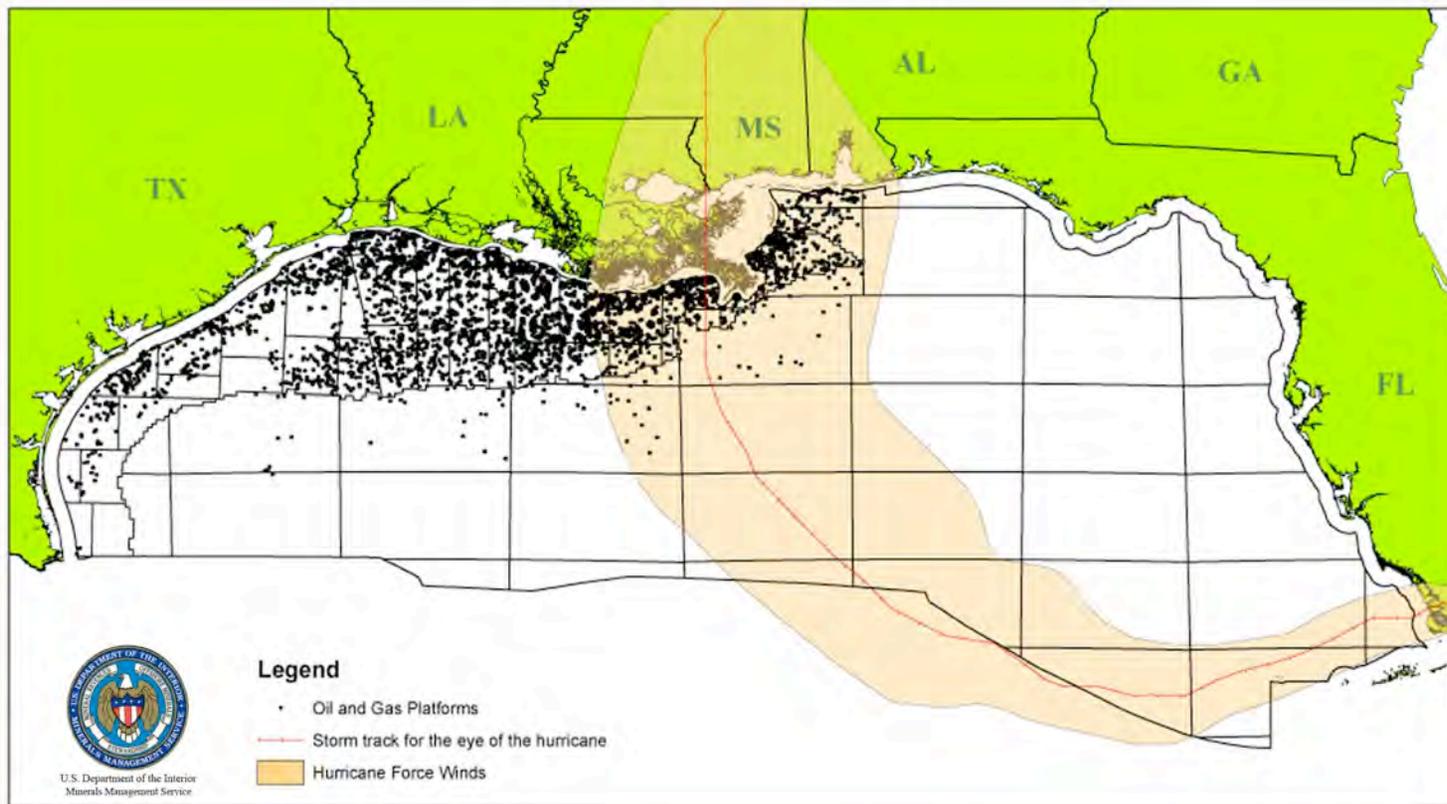
Findings

- Unplanned refinery outages affected markets in late July, late August and mid September of 2005.
- Retail gasoline prices followed changes in wholesale prices in the late summer of 2005.
- Swift governmental actions mitigated a prolonged elevation of prices following the Hurricanes of 2005.



Crude Oil Production in the Gulf Coast

Hurricane Katrina, August 2005





Crude Oil Production in the Gulf Coast

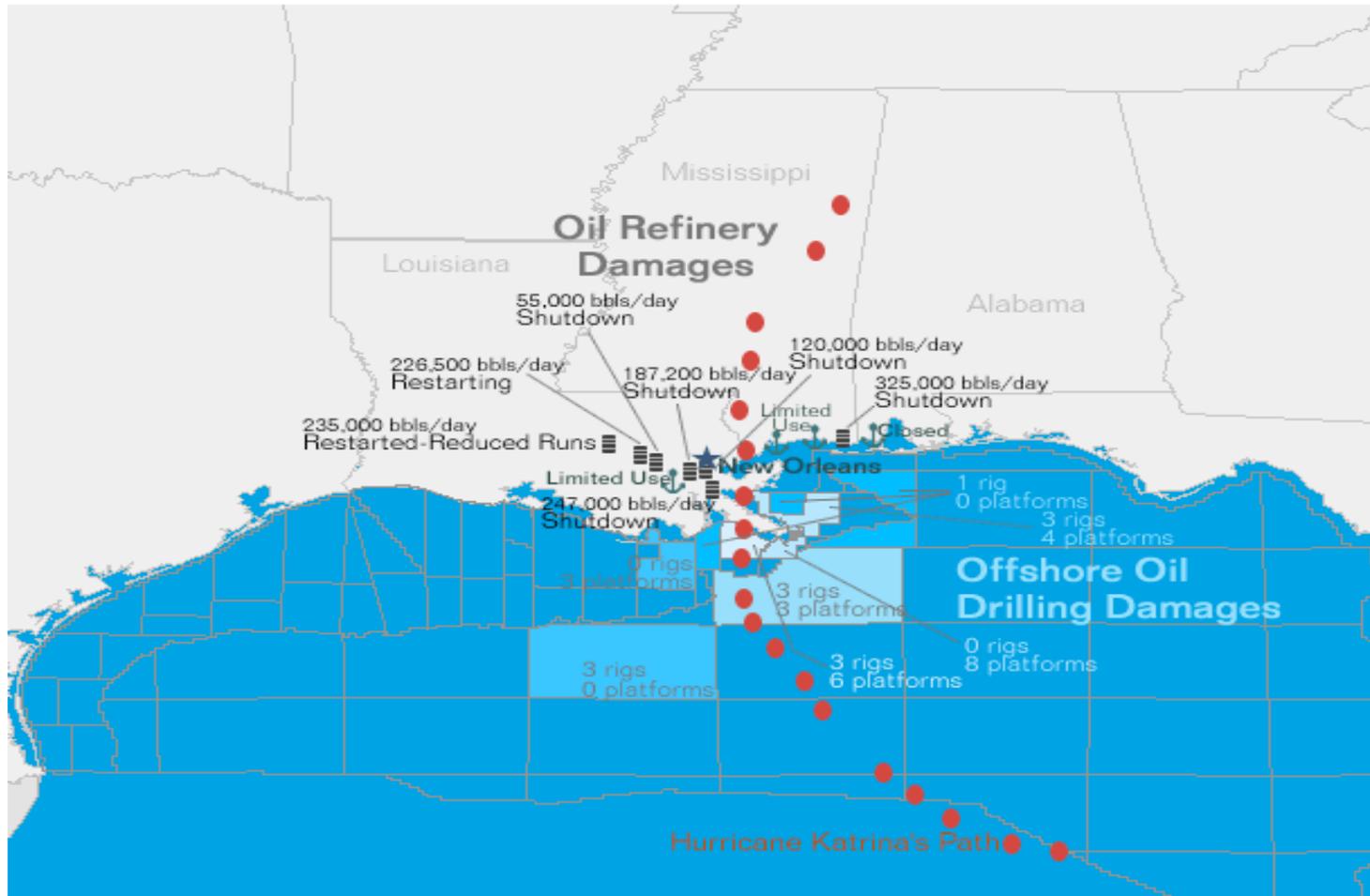
- 26% of the total U.S. crude oil production was initially curtailed due to Hurricane Katrina
- Loss of production did not directly translate to the California market.
- Alaska North Slope crude oil prices (the benchmark for California) remained relatively flat in relation to the retail cost of gasoline in California.



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Temporary Closure of Gulf Coast Refineries



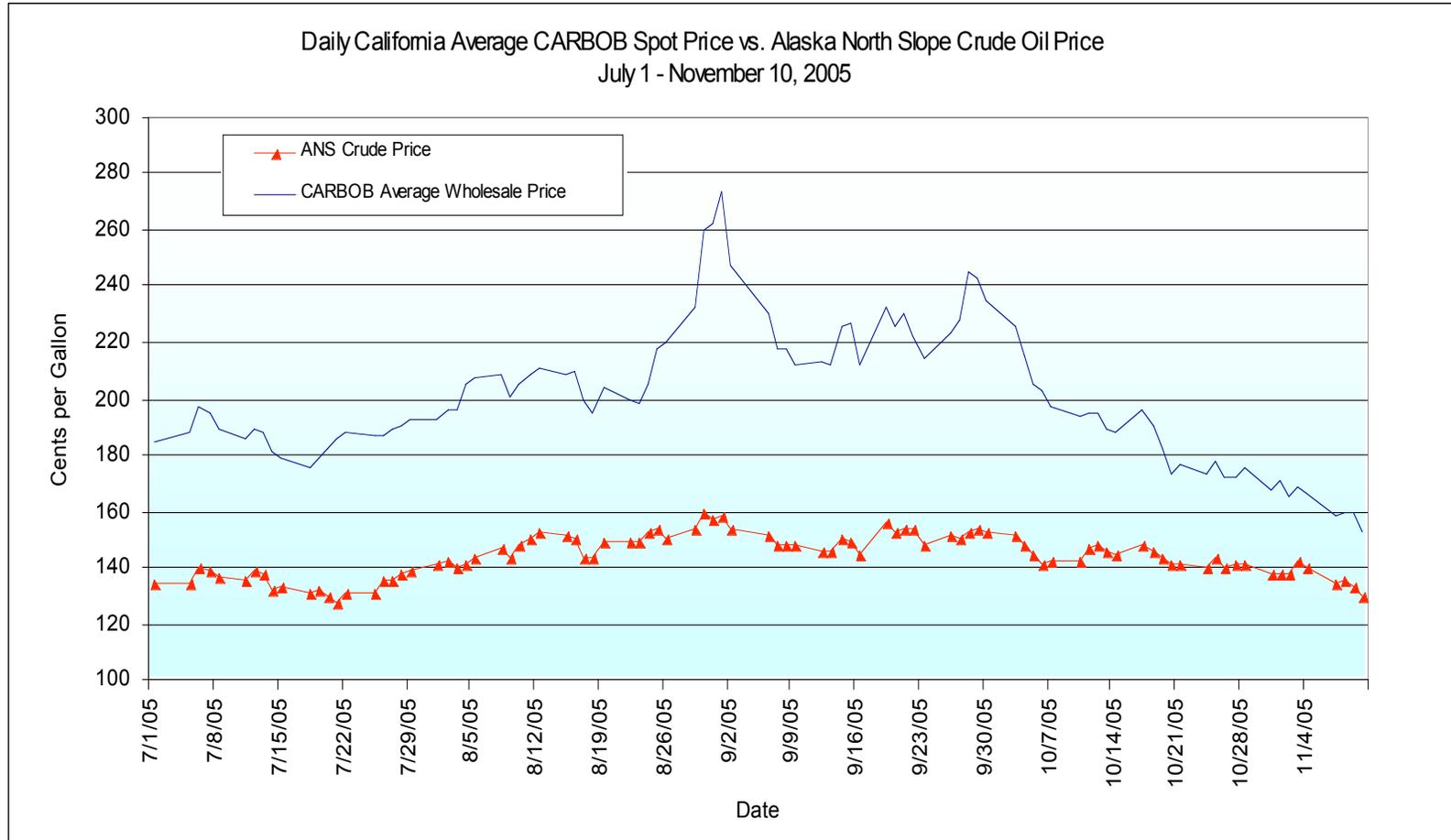


Temporary Closure of Gulf Coast Refineries

- About 28% of total U.S. refining capacity was either off-line or operating at reduced rates following Hurricane Katrina.
- Destruction from Hurricane Rita initially resulted in the temporary closure of about 30% of U.S. refining capacity.
- As of November 9, about 5% of U.S. refining capacity remains off-line.
- Midwest pipeline closures resulted in Midwest supply shortfalls.

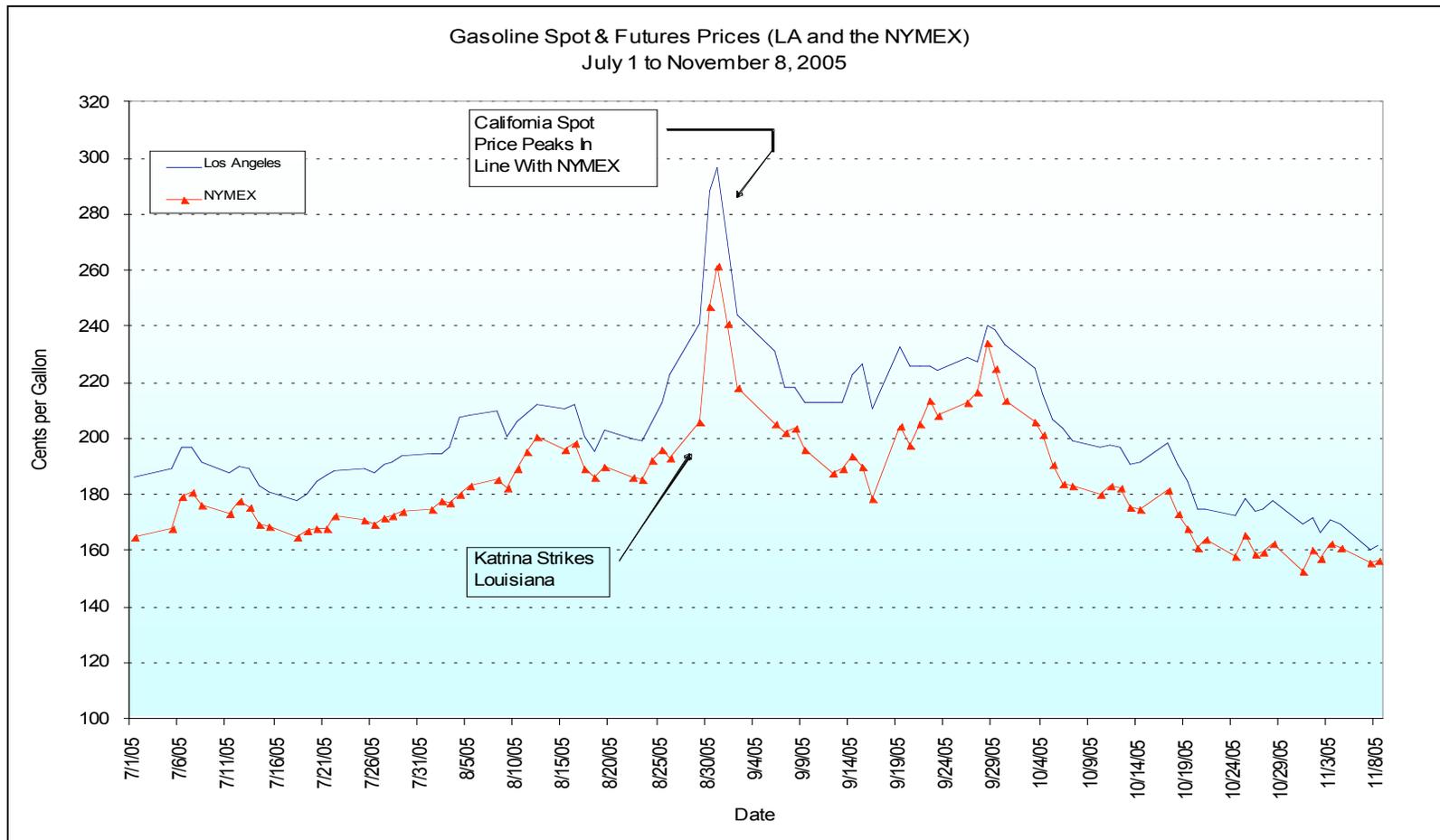


Crude Oil and Wholesale Gasoline Prices



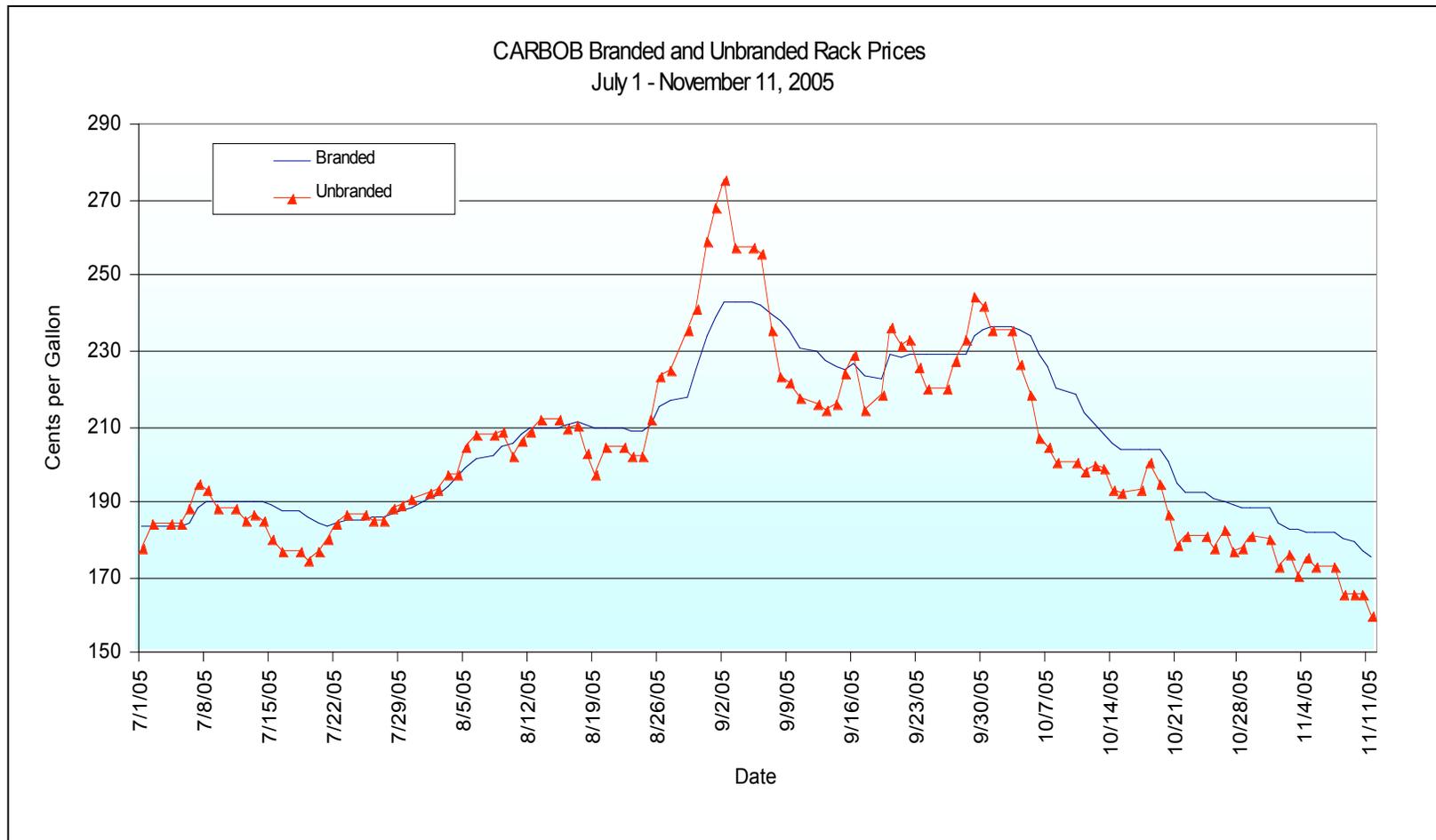


NYMEX Futures Prices and the Link to the California Market



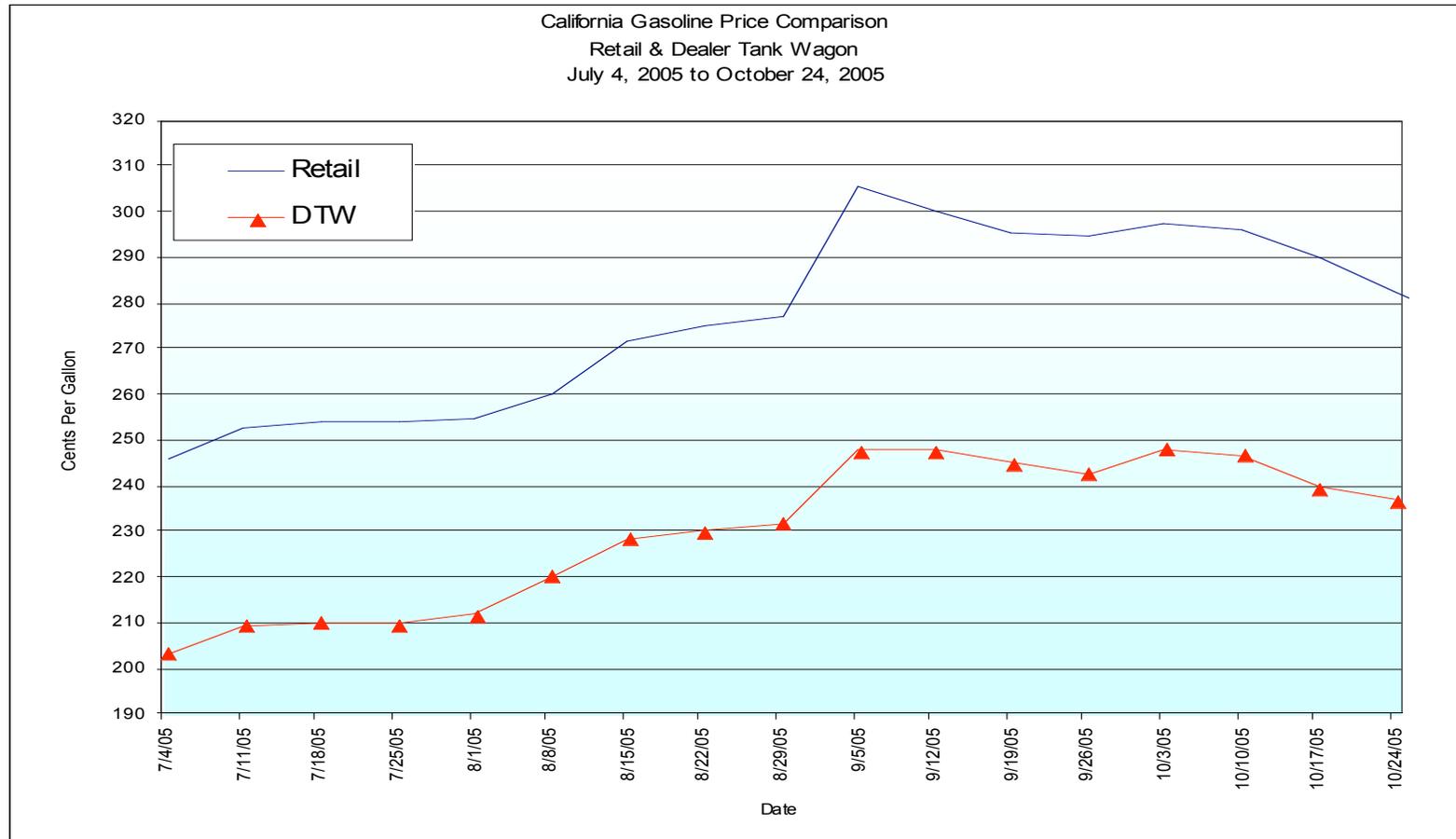


Branded and Unbranded Wholesale Gasoline Prices





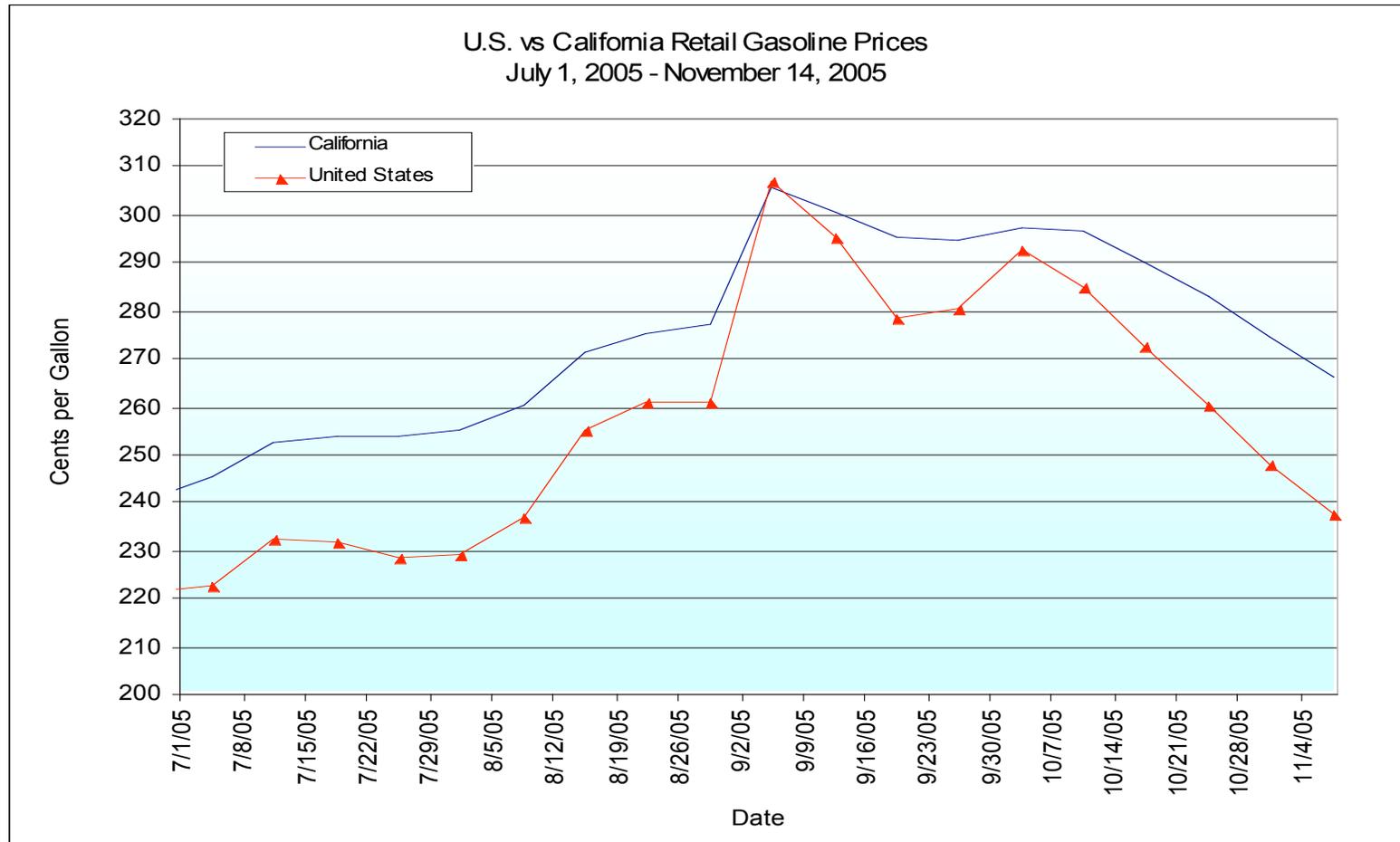
Retail and Dealer Tank Wagon Prices



Note: November DTW data not yet available



Retail Gasoline Prices





Gasoline Price Components

- California uses Alaska North Slope spot prices as a benchmark for crude oil price.
- Apparent refiner cost and profit margins include but are not limited to:
 - refiner profit and
 - costs of :
 - refining and terminal operation
 - crude oil processing
 - oxygenate additives
 - product shipment and storage
 - oil spill fees
 - depreciation
 - purchases of gasoline to cover refinery shortages
 - brand advertising
- Energy Commission calculates aggregated apparent refiner margins

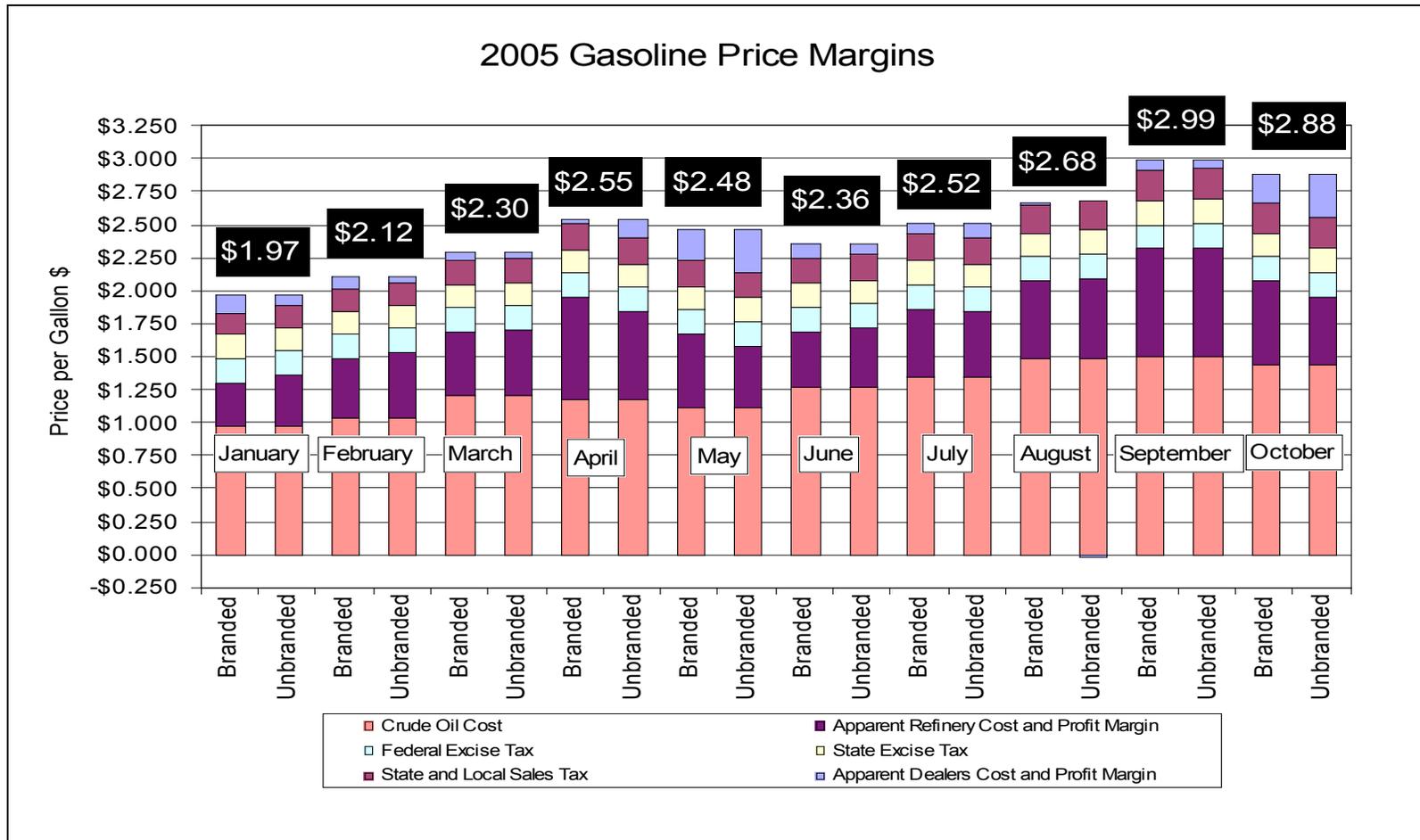


Gasoline Price Components

- Taxes
 - Excise tax: Federal 18.4%, California 18%
 - Sales tax: 7.25% state tax, 0 to 1.5% local tax
- Apparent dealers cost and profit margins include but are not limited to:
 - dealer profit and
 - costs of:
 - utilities, supplies, equipment maintenance, rents, wages
 - environmental fees, licenses, permitting fees, credit card fees, insurance, franchise fees
 - depreciation
 - advertising
- Data sources: Wall Street Journal for ANS, Oil Price Information Service for wholesale gasoline prices and the Energy Information Service for retail gasoline prices.
- Energy Commission calculates aggregated apparent dealer margins.
- Details can be found at <http://www.energy.ca.gov/gasoline/margins/index.html>



Gasoline Price Components





US and International Agency Responses

- International Energy Agency released nearly 60 million barrels of petroleum from their 26 member countries.
 - 39 million barrels of crude oil
 - 11 million barrels of gasoline
 - 10 million barrels of distillates
- The Bush Administration released crude oil from the Strategic Petroleum Reserve and waived the Jones Act rules which limit marine traffic between U.S. ports to U.S. flagged ships.
- U.S. EPA waived certain fuel specifications to quickly expand the availability of gasoline and diesel fuel.



California Government Responses

- Air Resources Board secured regulatory approval for early transition to winter gasoline blending.
- Energy Commission provided accurate real-time information and analysis to the Governor's Office, Legislature and consumers.
- Energy Commission created a new web page to provide accurate timely information and energy saving tips to the public.
www.energy.ca.gov/consumerfuels/index.html
- Energy Commission worked with the Attorney General's Office to develop an online complaint form for consumers concerned with gasoline price gouging.
- Energy Commission added fuel savings tips for consumers on the state Web site: "Flex your power at the pump."
- This report was initiated in a press conference on September 2, 2005.



Options for State Action

- Short-term actions:
 - Streamline permitting for petroleum infrastructure projects.
 - Revise law for the Energy Commission to collect detailed data on product movements, sales volumes and prices, and retail data collection.
 - Establish a public goods charge on refinery products for research and activities to reduce dependence on petroleum fuels.
 - Coordinate with West Coast states' energy representatives on emergency planning and responses.
 - Increase use of contract fuel purchases for public agencies, private fleets, and consumers to reduce the impact of fuel price spikes.
 - Expand outreach and public information programs.
 - Develop a dynamic system model to rapidly evaluate socio-economic impacts of changes in the transportation fuel sector.



Options for State Action

- Long-term actions:
 - The Energy Commission should secure funding to support transportation-related work at the Energy Commission.
 - The Energy Commission should secure funding for research into alternative fuels, alternative fuel vehicles, increasing fuel economy, and implementing of petroleum reduction strategies.
 - The Energy Commission should perform a comprehensive economic analysis on the relationship between California wholesale prices and the NYMEX.
 - The Energy Commission should conduct a more comprehensive study of retail pricing.
 - The state should implement the recommendations in the 2003 and the upcoming 2005 Energy Report recommending a “best practices” siting process for refinery and infrastructure expansions.



Options for State Action

- Long-term actions:
 - The Energy Commission should support opportunities to expand pipeline infrastructure to increase the capacity to transport petroleum product within the state.
 - The Energy Commission should investigate increasing the use of contract fuel purchases for public agencies, private fleets, and consumers to reduce the impact of fuel price spikes.
 - The Energy Commission should develop a dynamic system model to better quantify how multiple events, such as those described in this report affect the consumers, business, and the California economy.



Notes - Crude Oil and Wholesale Prices

- Crude oil price remained relatively flat during the price spike following Hurricane Katrina.
- Wholesale prices, however, rose by 64 cents during the last week of August.
- Refiner margins peaked to all time high of following Hurricane Katrina due to elevated wholesale prices and relatively flat crude oil spot prices.
- Refiner production and inventory levels do not indicate a significant cause of elevated wholesale prices.



Notes - NYMEX Futures Prices and the Link to the California Market

- Wholesale gasoline purchases are typically contracted for delivery at a future date based on a futures exchange price from the NYMEX.
- Large increases in NYMEX futures prices are often due to a real or perceived scarcity of product.
- NYMEX futures prices spiked following Hurricanes Katrina and Rita.
- The price of wholesale (25,000-barrel minimum) transportation fuels purchases (spot pipeline prices) spiked with NYMEX futures prices following the hurricanes.



Notes - Branded and Unbranded Wholesale Gasoline Prices

- California has a large number of “vertically integrated firms” that control oil production, refining, and distribution of transportation fuels. These companies supply the majority of gasoline to branded stations.
- High volume independent retailers rely on unbranded wholesale purchases to provide discounted gasoline.
- Following Hurricane Katrina, unbranded wholesale gasoline prices rose significantly above the branded wholesale prices.
- Wholesale prices of gasoline delivered to retail stations (dealer tank wagon prices) show a strong correlation with retail prices following Hurricane Katrina.



Notes - Retail Gasoline Prices

- California retail prices peaked with U.S. retail prices following Hurricane Katrina.
- U.S. prices had more volatility than California prices due to the greater impact of the hurricanes in other regions.
- California retail prices have not declined as rapidly as those of the U.S.
- U.S. and California differentials have stabilized back to pre-Katrina levels.