



Creating a New Jet Fuel Dynamic

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Biofuels for Aviation Summit
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Air transport has become an essential economic and social conduit throughout the world. Beyond the benefits of fast and inexpensive transcontinental travel, air transport also has become a vital form of shipping for high-valued items that need to come to market quickly, such as agricultural products subject to spoilage.

– World Bank Web site

The ATA Energy Council: Composition and Leadership

Develops and coordinates policy and industry actions regarding the economics and implementation of fuel purchasing, management and operations; recommends actions affecting fuel consortia and other relevant locations worldwide.

ABX Air
Air Canada
Air Jamaica
AirTran Airways
Alaska Airlines
American Airlines
ASTAR Air Cargo
Atlas Air
Continental Airlines
Delta Air Lines

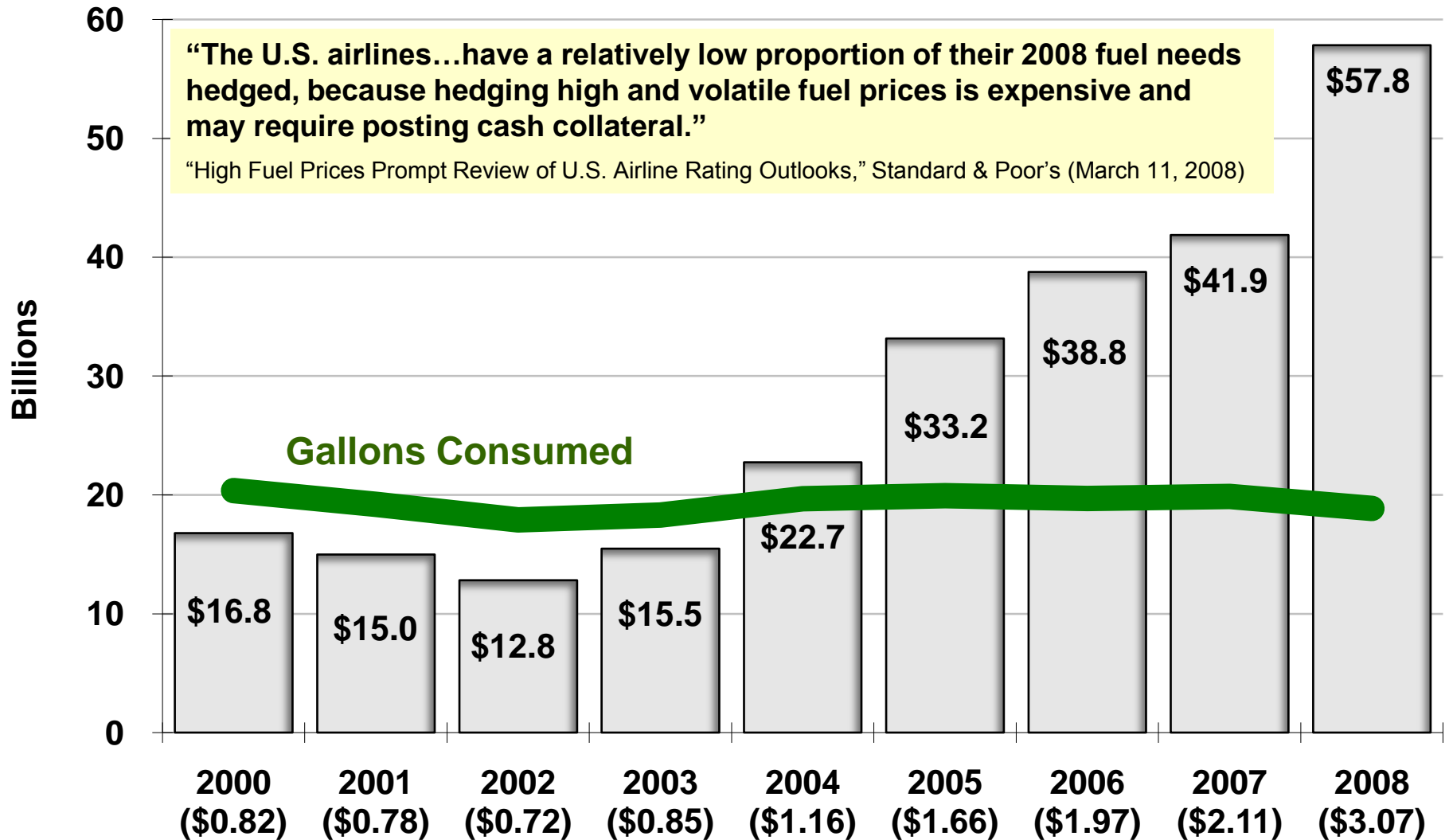
Chair: John Rau (AA)
Vice-Chair: Rick Pressly (CO)
Secretary: John Heimlich (ATA)

Alternative Fuels Liaisons

DL – Bruno Miller
FX – Joel Murdock
US – Michael Baer

Evergreen Int'l
FedEx Express
Hawaiian Airlines
JetBlue Airways
Mexicana
Midwest Airlines
Southwest Airlines
United Airlines
UPS Airlines
US Airways

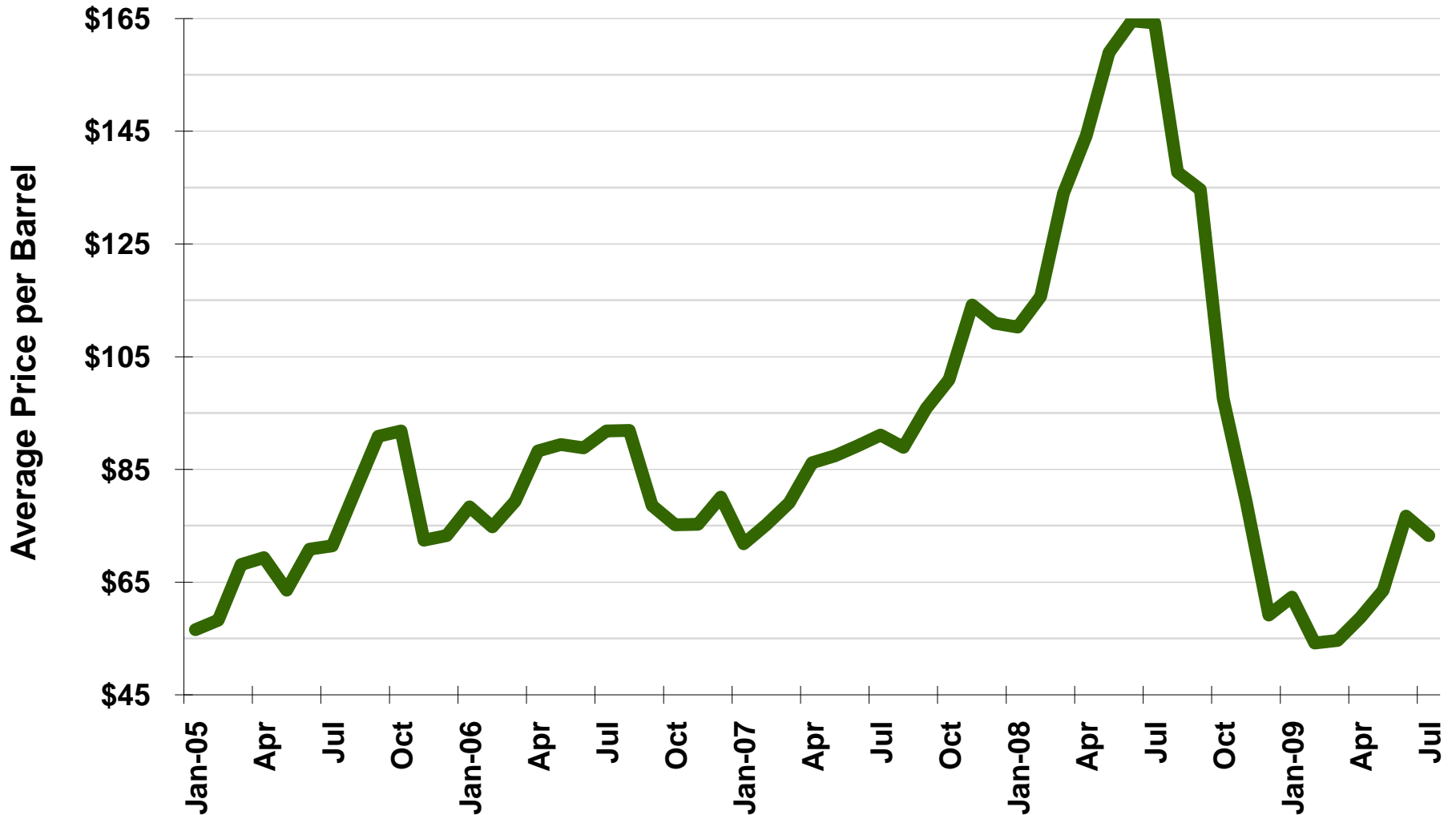
In 2008, U.S. Airlines Spent \$16B More on Fuel Despite Consuming > 5% Fewer Gallons



Note: Value in parentheses below year is average price paid per gallon excluding taxes, into-plane fees, pipeline tariffs and hedging costs
 Sources: ATA, Energy Information Administration, Department of Transportation

Price Stability Matters

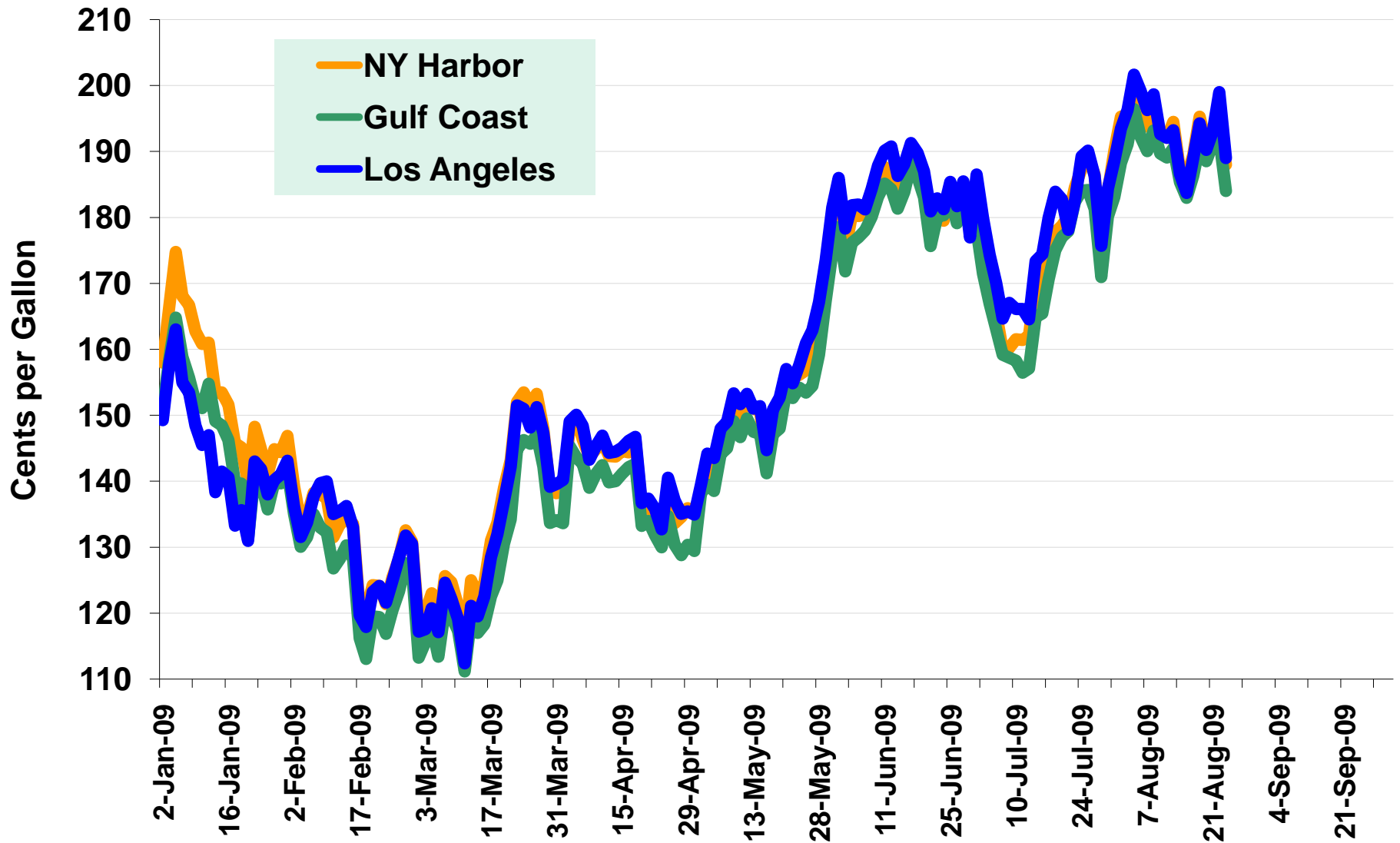
Volatility of Jet Fuel Prices Wreaks Havoc on Business Planning



Source: Energy Information Administration

Jet Fuel Price Pushing \$2.00, Volatility Persisting in 2009

Volatile Nature of Industry's Largest Cost Wreaks Havoc on Business Planning

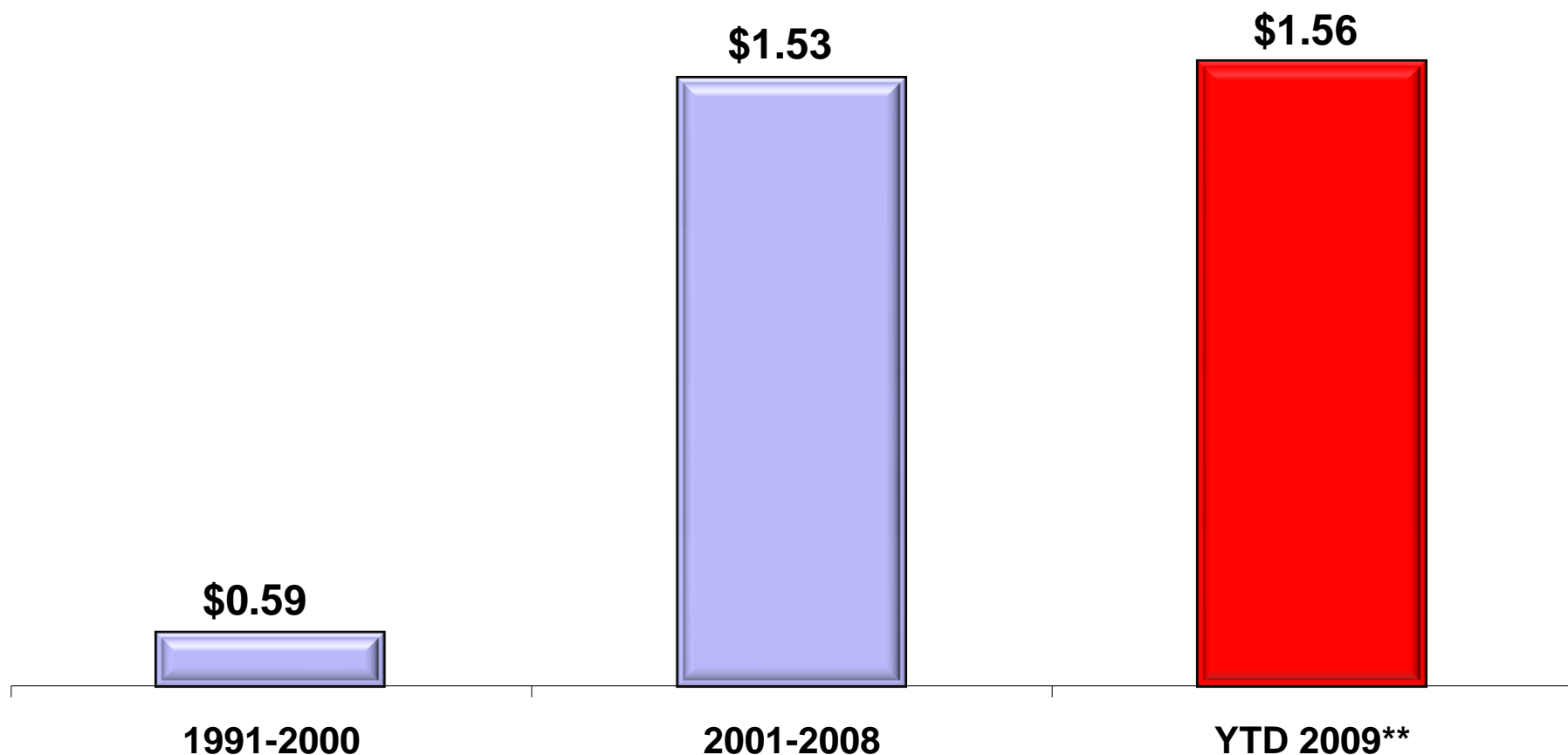


Sources: Energy Information Administration and ATA

Jet Fuel Prices in 2009 Exceeding 2001-2008 Average

Staffing, Scheduling, Aircraft Purchasing Decision Made in Broader Cycles

Average* Jet Fuel Price per Gallon

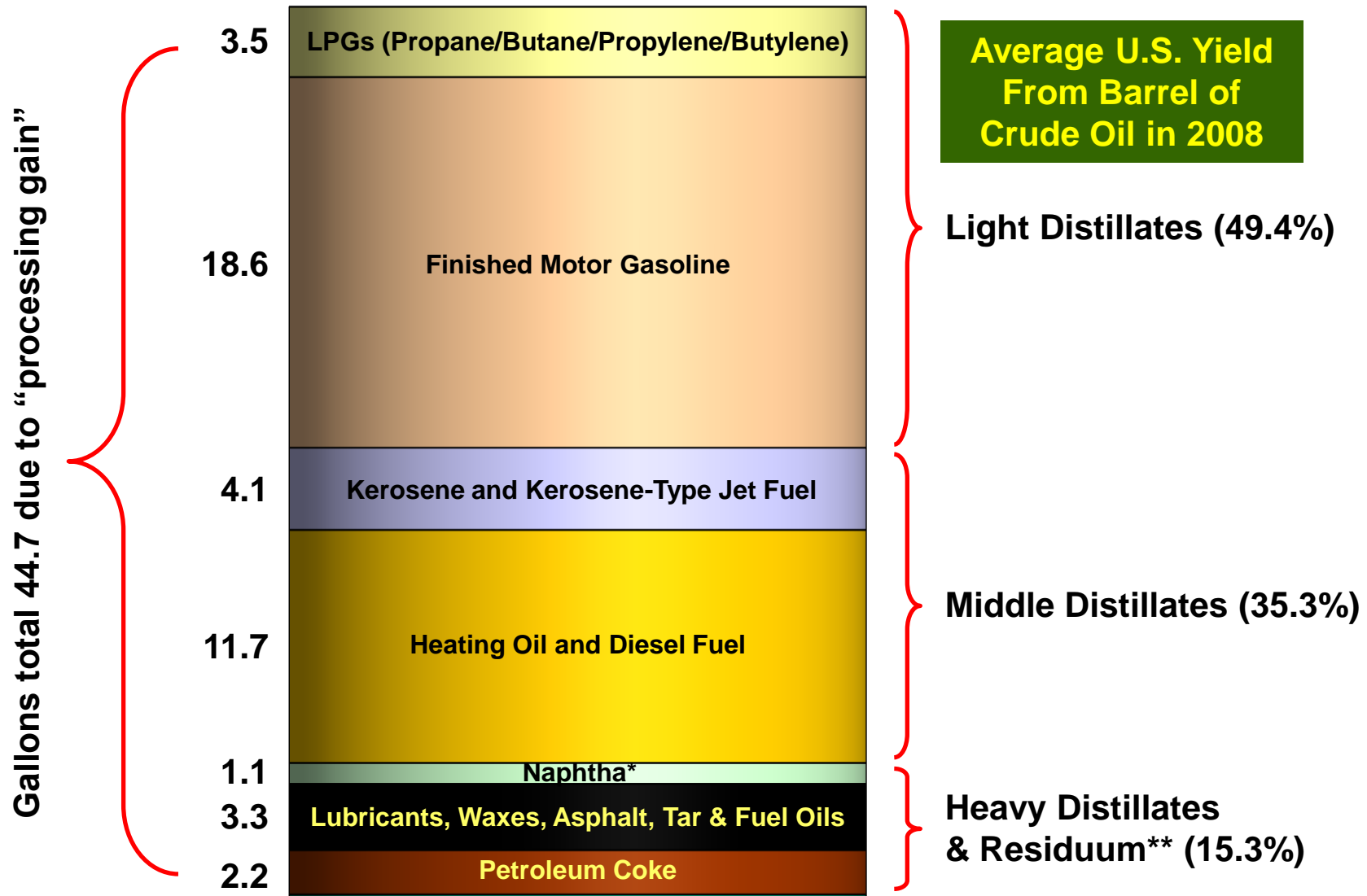


* Simple average of spot prices in New York Harbor, U.S. Gulf Coast and Los Angeles

** Through August 25

Source: U.S. Energy Information Administration

Jet Fuel Is a Drop in the Bucket, Subject to the Refinery Economics for All Petroleum Segments (incl. Gasoline)

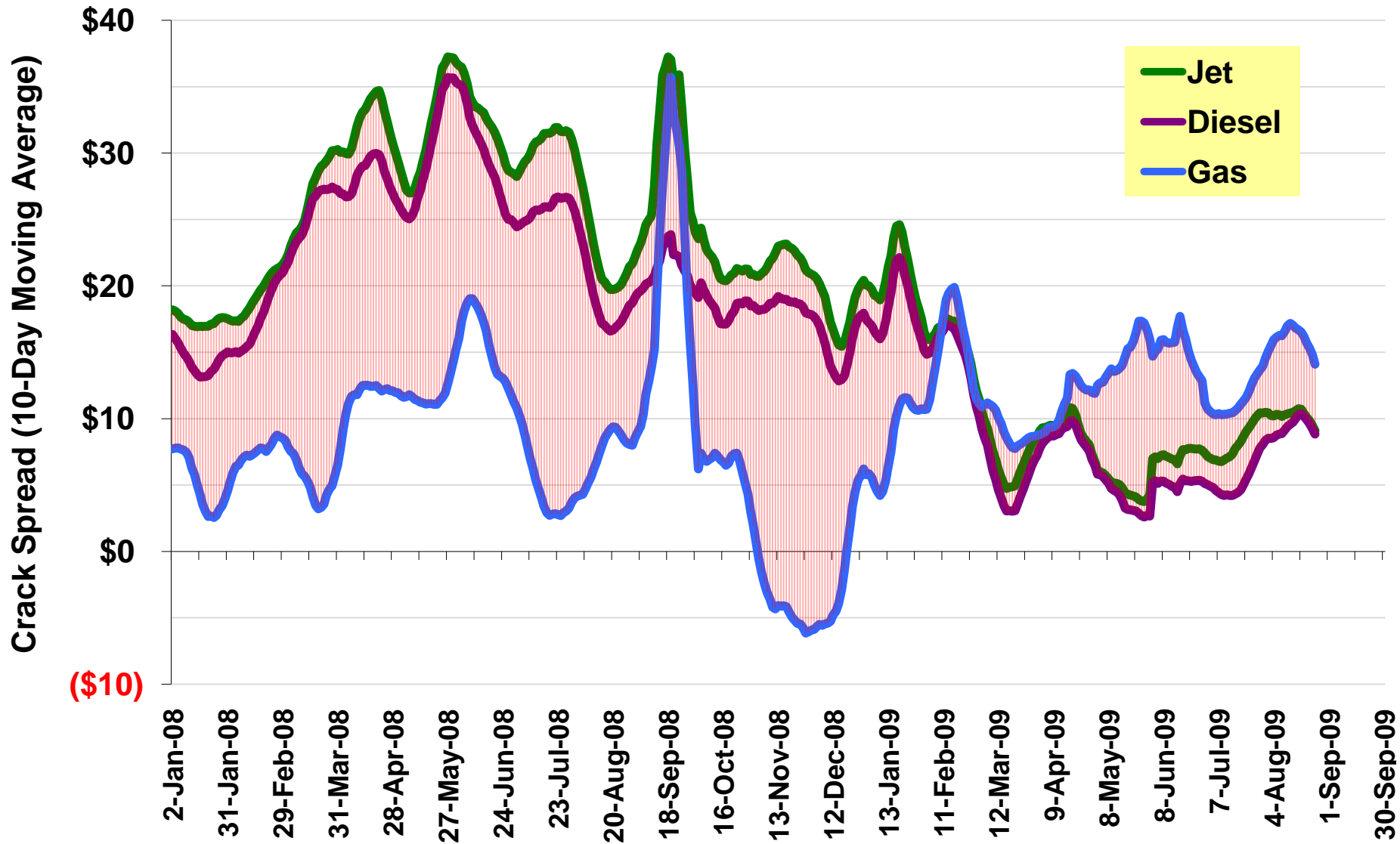


* Feedstock for high-octane gasoline, petrochemicals and solvents

Sources: [Energy Information Administration](#) and [American Petroleum Institute](#)

** Includes heavy oils used in industry, marine transportation and electric-power generation

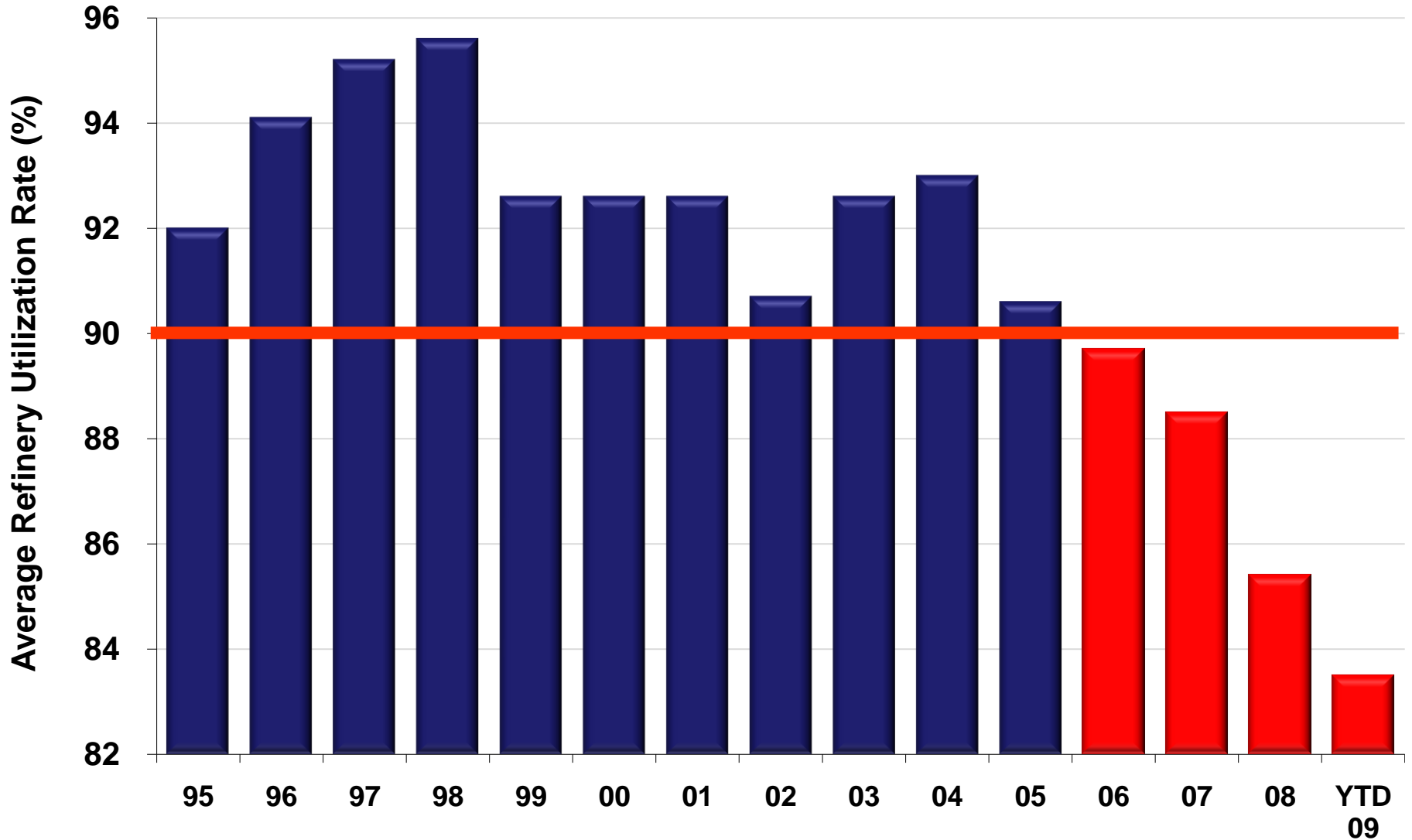
Product Margins Matter



Source: Energy Information Administration [Weekly Petroleum Status Report](#)

Refinery Utilization Matters

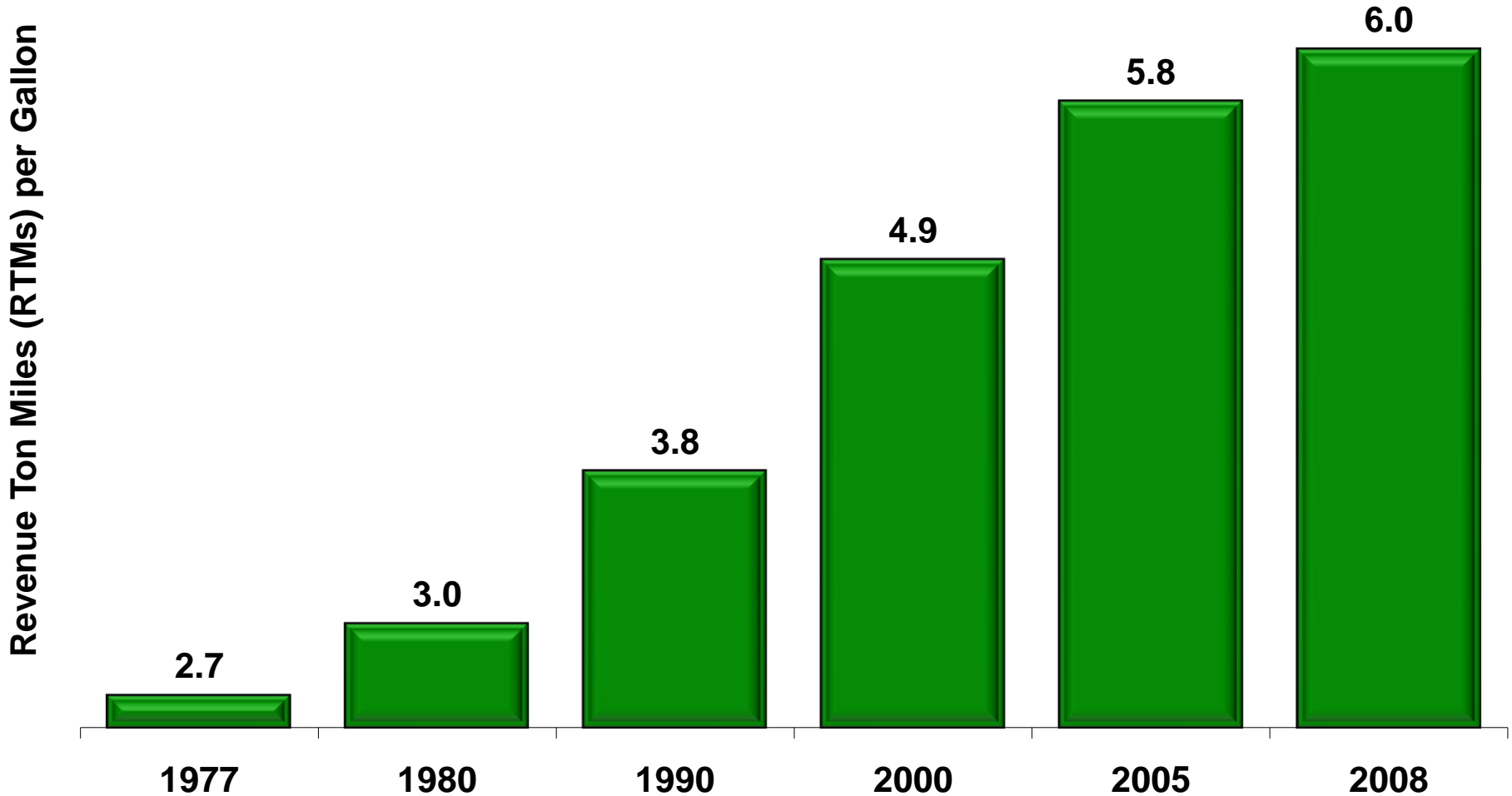
U.S. Refineries Responding to Weak Gasoline Margins, Meaning Less Jet Output



Source: [Energy Information Administration](#)

Fuel Efficiency Matters

But Efficiency Alone Won't Suffice



* U.S. passenger and cargo airlines operating worldwide – passenger and cargo revenue ton miles (RTMs) in all services
Source: ATA analysis of DOT Form 41 traffic data (T2-Z240) and gallons (T2-Z921)

The ATA Alternative Fuels Commitment is Predicated on Performance; We Are Feedstock-Neutral

The members of the Air Transport Association of America (ATA) are dedicated to the development and deployment of safe, environmentally friendly, reliable and economically feasible alternatives to conventional petroleum-based jet fuel. We recognize that this effort presents significant technical and financing challenges. Further, we believe that we must proactively evaluate the commercial challenges associated with developing promising technologies that can meet our needs. We commit to work with future suppliers who potentially can integrate alternative fuels into our operations that are consistent with the principles on which we elaborate below. To foster the development and deployment of alternative jet fuels that meet our objectives, ATA is a founding and principal member of the **Commercial Aviation Alternative Fuels Initiative (CAAFI)**, a consortium of government agencies, airlines, manufacturers, airports and current and prospective fuel suppliers that are coordinating work on the research and development of alternative jet fuels, including technical specifications, environmental aspects, production and distribution.



- ✓ **Fuel Quality**
- ✓ **Environmental Benefit**
- ✓ **Supply Reliability**
- ✓ **Economic Feasibility**



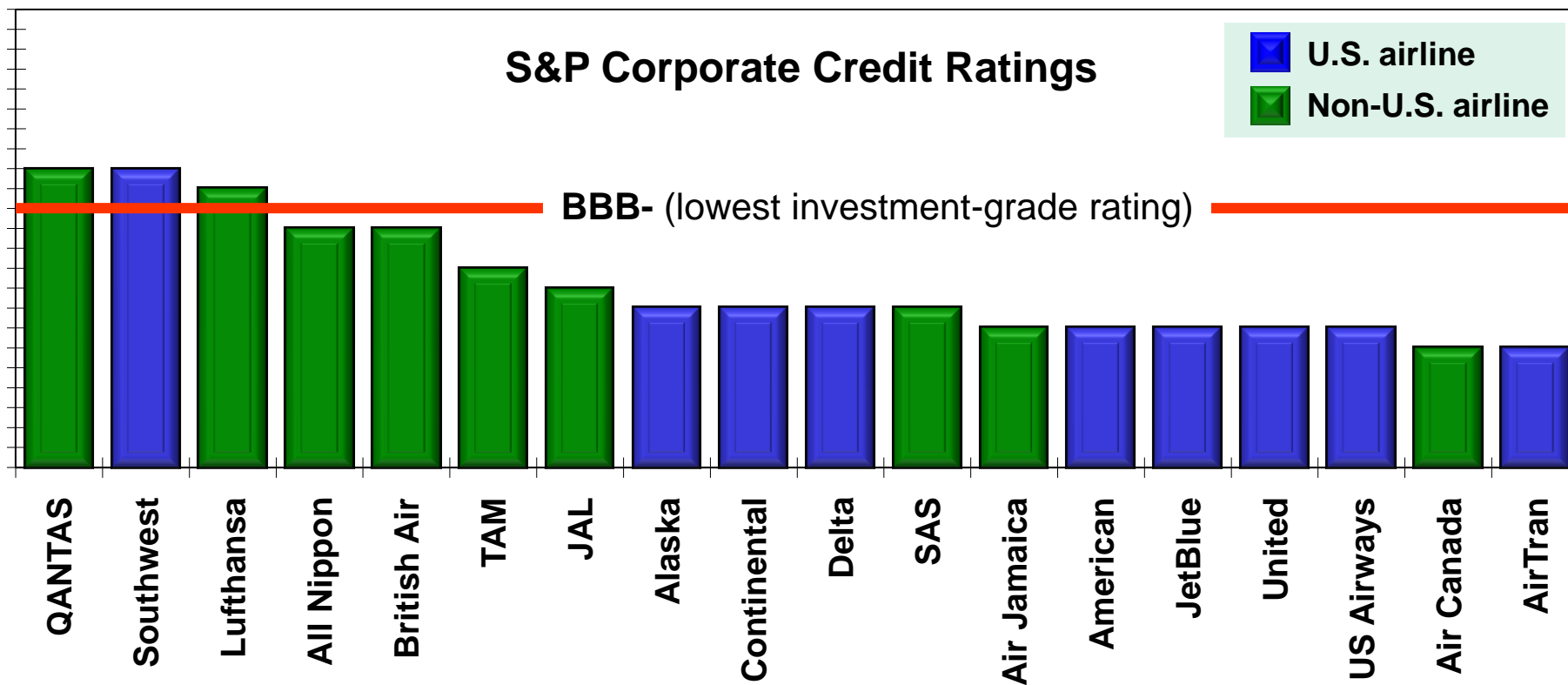
Source: <http://www.airlines.org/economics/energy/altfuelsprinciples.htm> (April 22, 2008)

Creditworthiness Matters

No Passenger Airline in the World Enjoys an A-Minus or Better Rating

“Amid a financing crisis for the global airline industry, U.S. carriers have fewer options...to help them buy new aircraft. ‘I’ve been through four airline industry downturns. This one is different, because airlines are coping with falling passenger traffic, and a lack of available credit,’ not only to buy aircraft but [also] to refinance debt.’”

Thomas Hollahan (Citi), in “US Airlines Hardest Hit In Global Financing Crunch,” Ann Keeton, DJ Newswires (April 20, 2009)



Sources: [Standard and Poor's](#) as of June 3, 2009 and <http://online.wsj.com/article/BT-CO-20090420-711716.html>

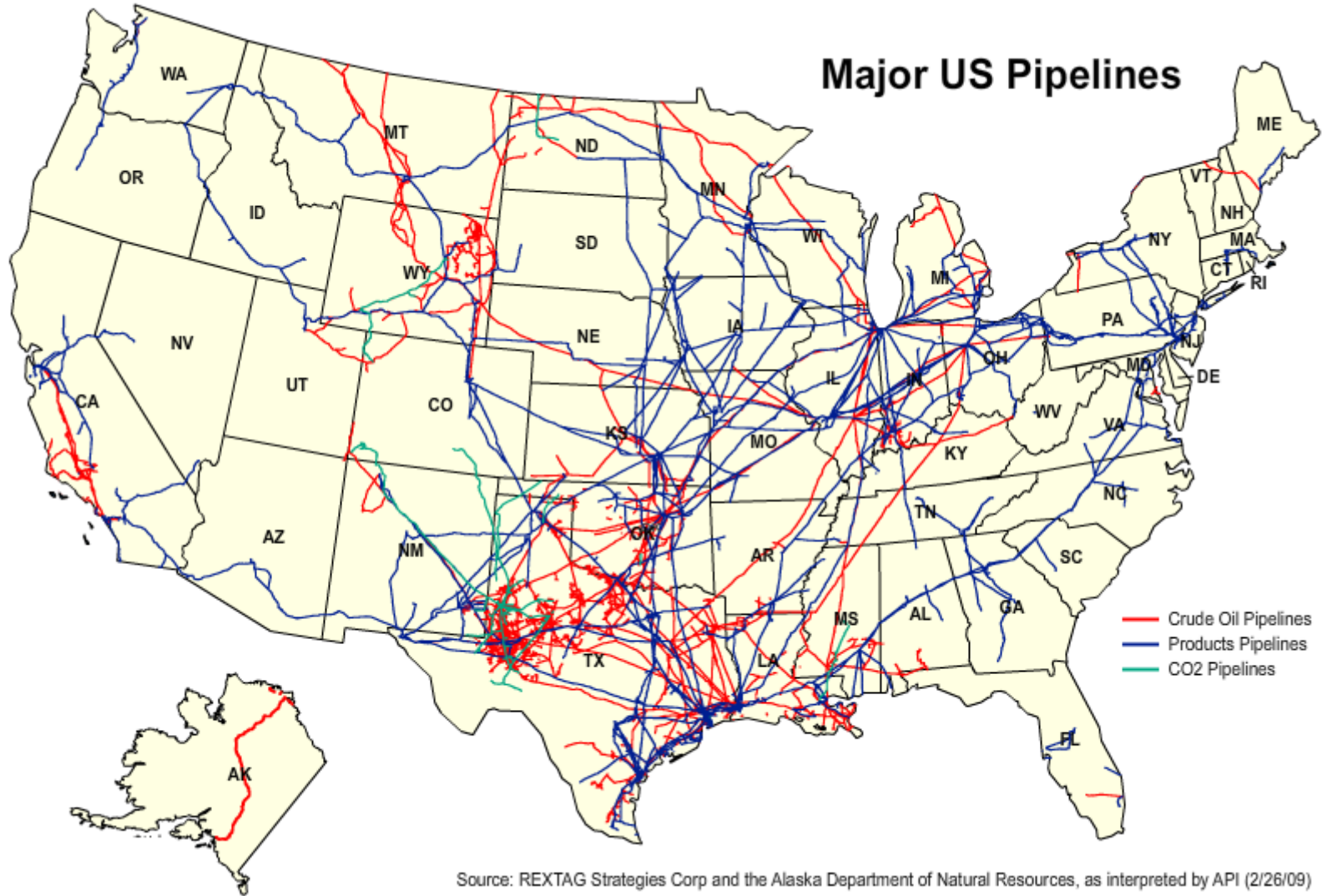
Logistics Matter

- Some sizable airports face shortages and/or logistics constraints that drive up local prices – as much as 10-to-30 cents per gallon > U.S. Gulf Coast
 - Boise / Salt Lake City / Denver / Albuquerque
 - Buffalo / Rochester / Toronto
 - Edmonton / Calgary
 - Coastal Southeast: Jacksonville to Wilmington

- Producers should consider more than feedstock costs when deciding where to locate new facilities

Distribution Matters

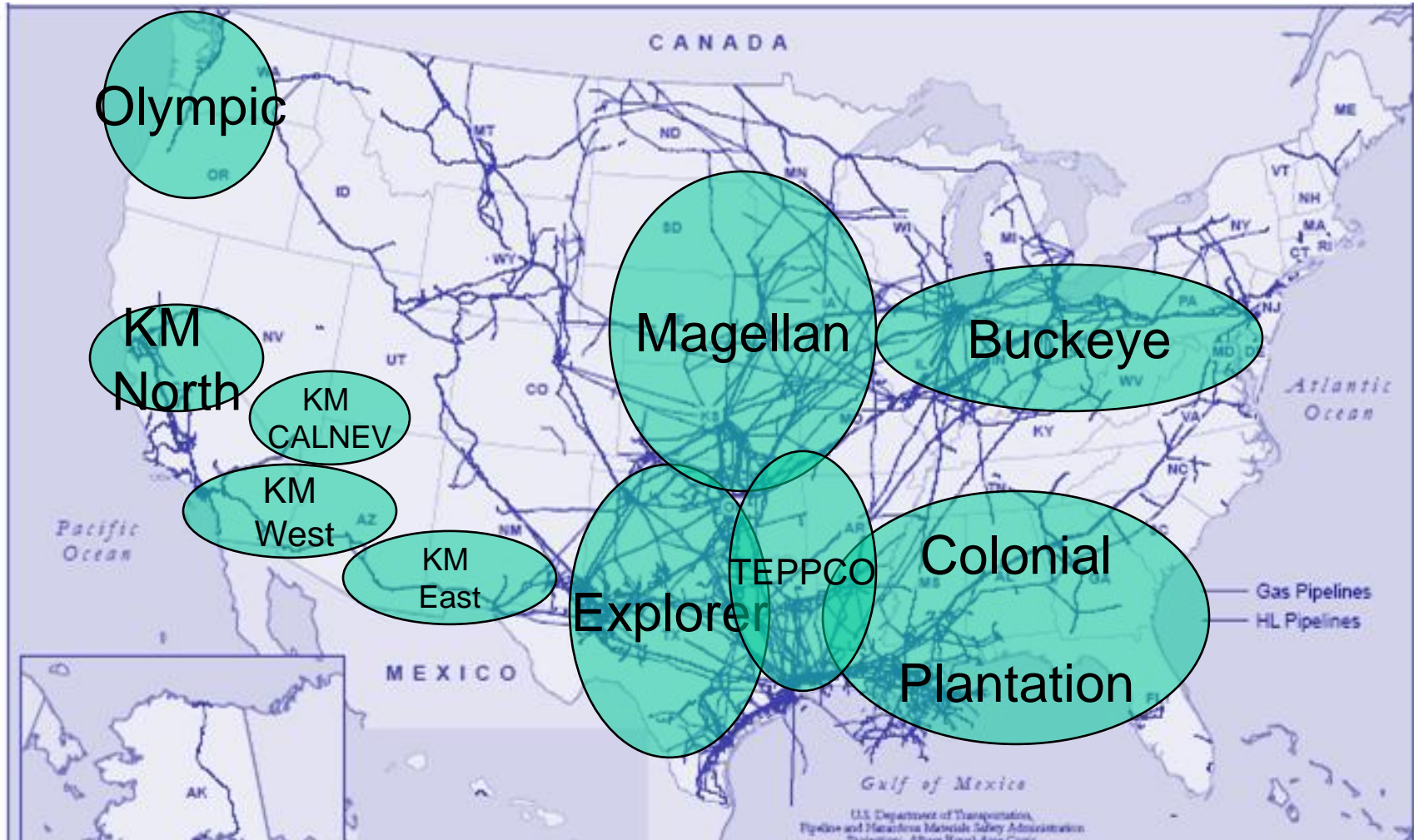
Can You Get the Fuel to the Airport?



Source: REXTAG Strategies Corp and the Alaska Department of Natural Resources, as interpreted by API (2/26/09)

Distribution Matters

Is Your Facility in Harm's Way?



Fuel Farm Visual – Houston Intercontinental (IAH)



Fuel Farm Visual – Indianapolis (IND)



Airline Wish List

- Safe and certified
- Affordable
- Secure supply
- No adverse operational impact
- Environmentally superior
- Flexible contracts
- No investment (unless return on risk)
- Pre-empt adverse regulation

Why Do Business With Airlines?

- **With proper pricing incentives, carriers can enter into long-term contracts**
- **Jointly, we can enhance our creditworthiness**
- **Jointly, we can pay premiums for quality with no capital invested to segregate fuels**
- **Producers will make more money selling jet fuel**
- **We like farmers, universities, and the Air Force**



fuel@airlines.org

