

# **Pipeline Factors Affecting Gasoline Prices**

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**Colonial Pipeline**

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# Topics Discussed

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- Introduction to Pipelines and Colonial Pipeline Company
- Economic Theory as Applied to Pipelines
- Factors Affecting Pipeline Supply of Gasoline
- Recommendations

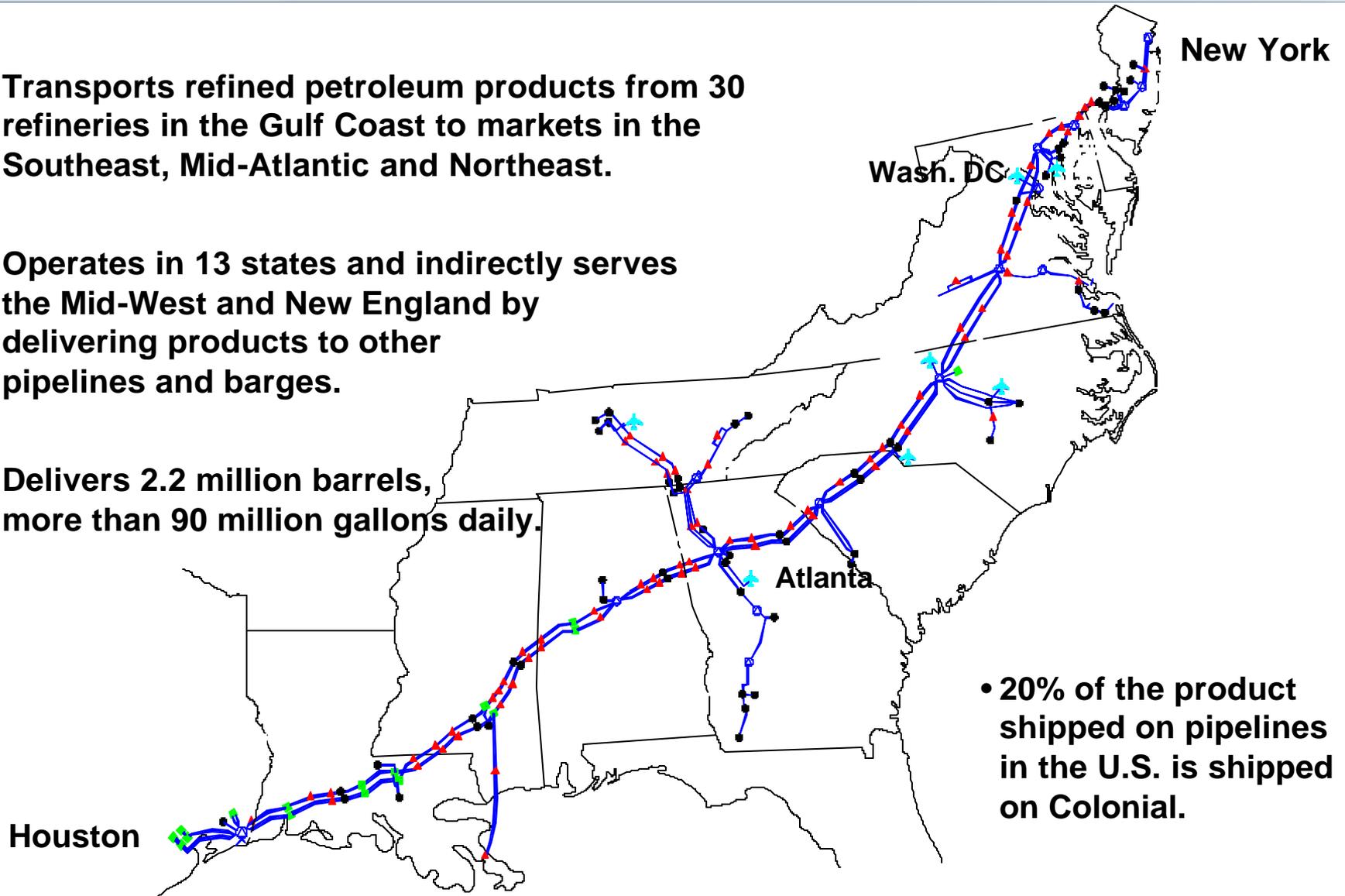
# U.S. Product Pipeline Overview

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# Colonial Pipeline Company

- Transports refined petroleum products from 30 refineries in the Gulf Coast to markets in the Southeast, Mid-Atlantic and Northeast.
- Operates in 13 states and indirectly serves the Mid-West and New England by delivering products to other pipelines and barges.
- Delivers 2.2 million barrels, more than 90 million gallons daily.



- 20% of the product shipped on pipelines in the U.S. is shipped on Colonial.

# Pipelines Are Low-Cost Distribution

## Cost of Transporting Gasoline 1,000 miles

	<u>Cents/Gallon</u>
Pipeline	1.5 – 2.5
Barge	4 – 5
Truck	30 - 40

**Pipelines are a low-cost, safe mode of long-distance transportation of gasoline and other petroleum products.**

# Supply and Demand Curves

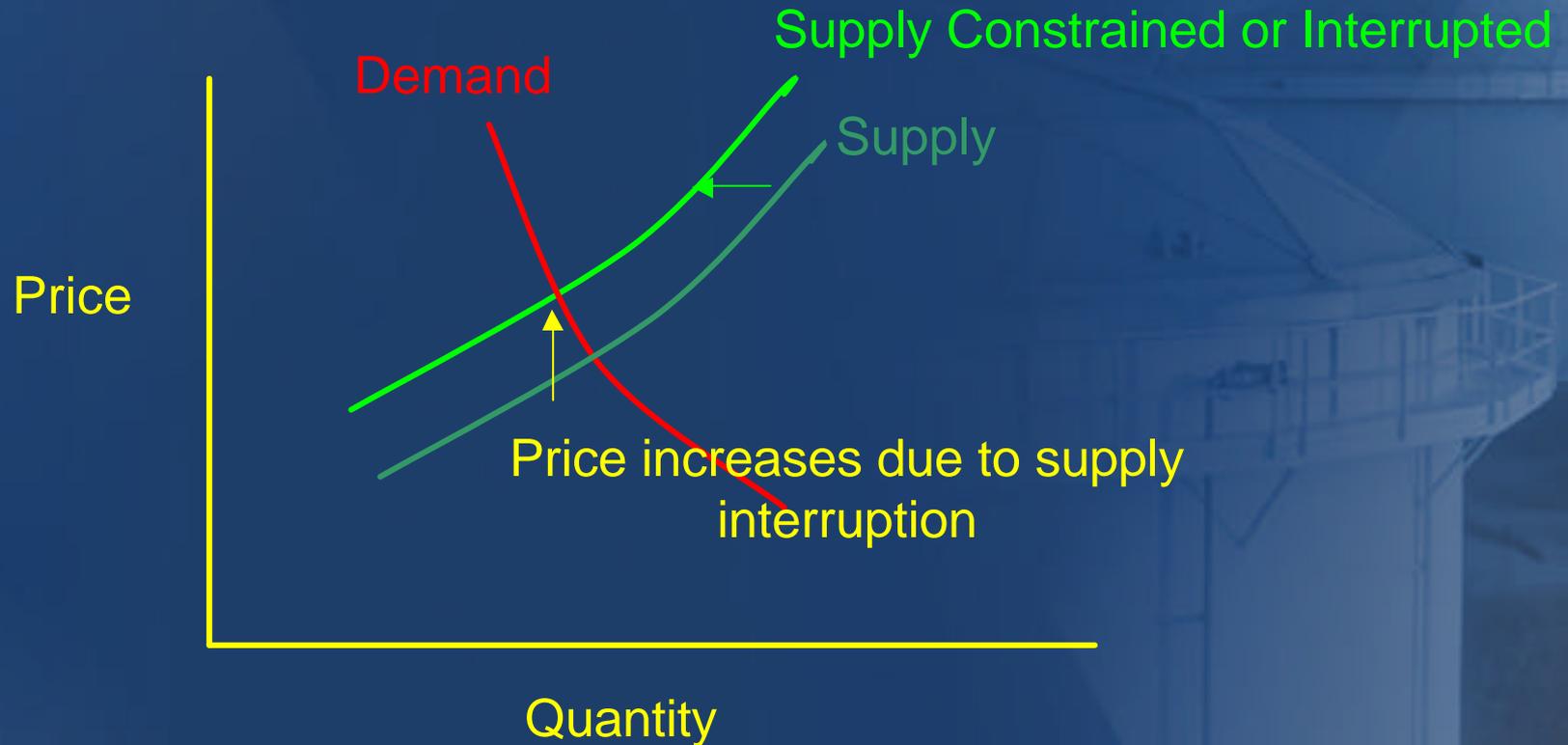
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## Factors Influencing Elasticity of Supply and Demand

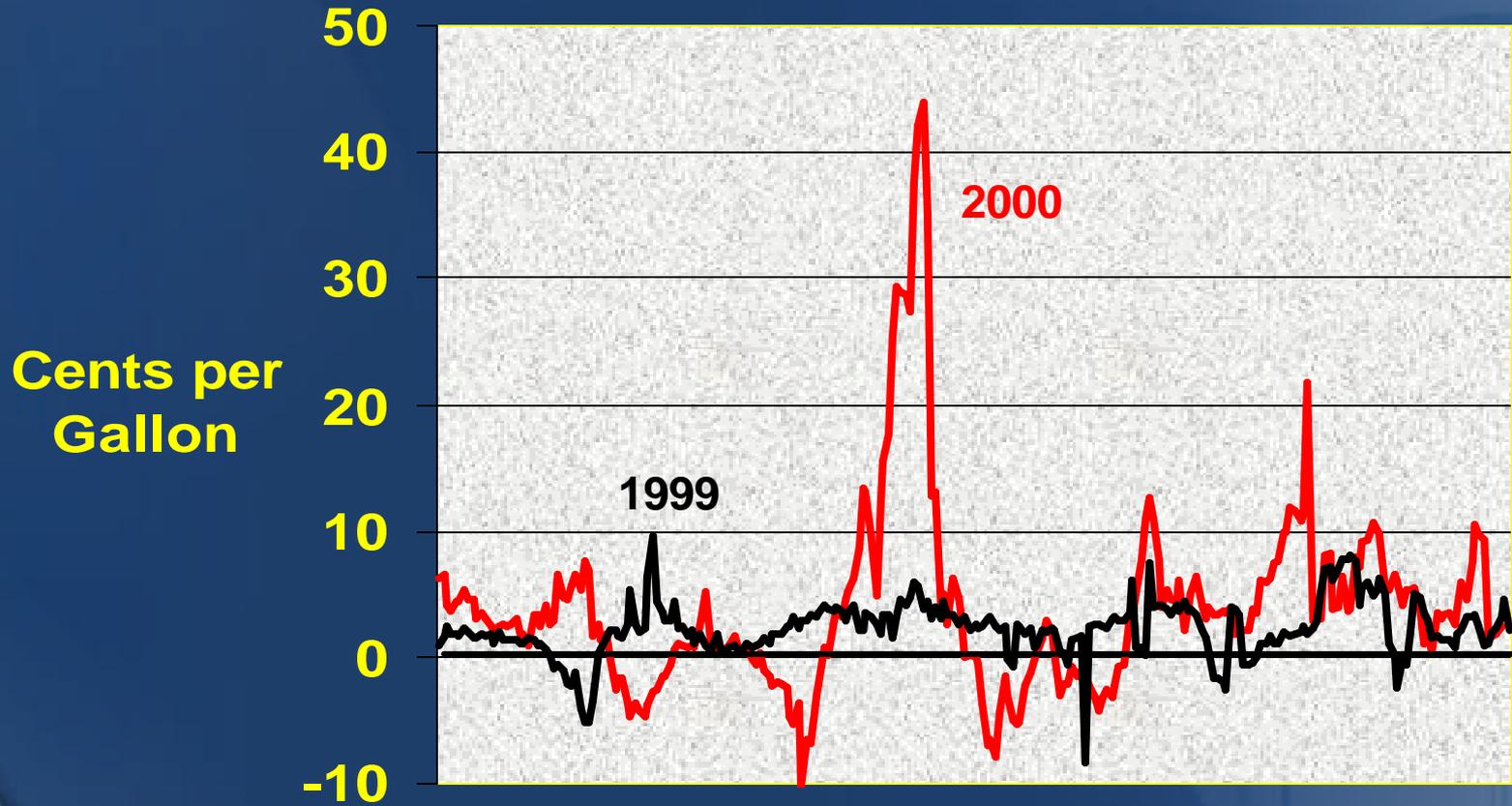
1. Availability of substitutes
2. Time required for substitutes
3. Importance of product in budget

# Supply and Demand Curves



**An interruption of supply leads to a price increase as people pay more to avoid running out of gasoline.**

# “Prices Spike in Chicago”



**This is what supply disruptions look like to the consumer.**

# Factors Affecting Pipeline Supply

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- Pipeline operation interrupted or slowed down
- Number of types of product and boutique fuels
- Lower inventory at pipeline and terminal tank farms
- Transition of different seasonal grades of gasoline
- Many pipelines and/or segments are nearing capacity

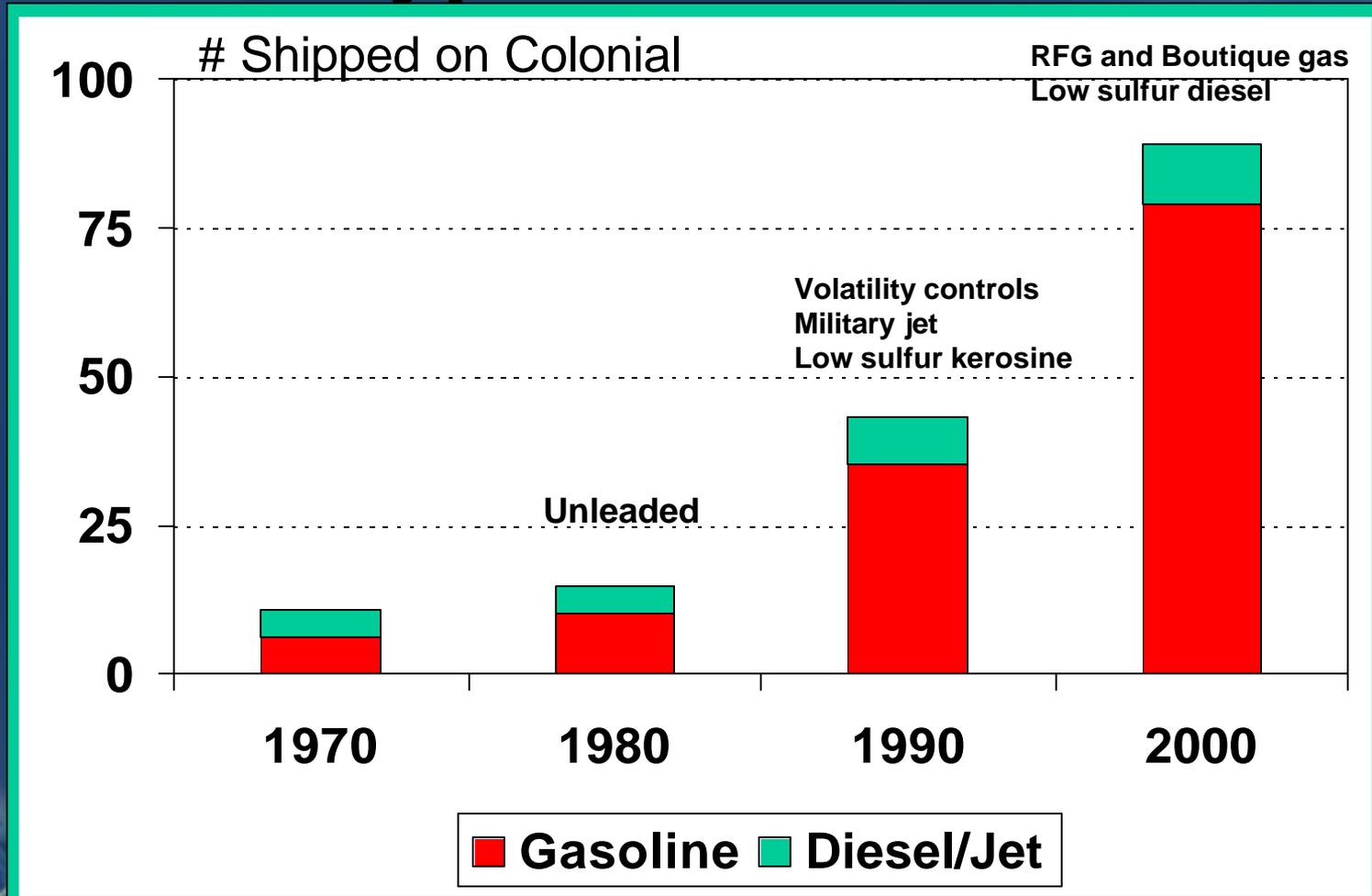
**Leak-free and error-free is the objective of every pipeline operator.**

# Factors Affecting Pipeline Supply

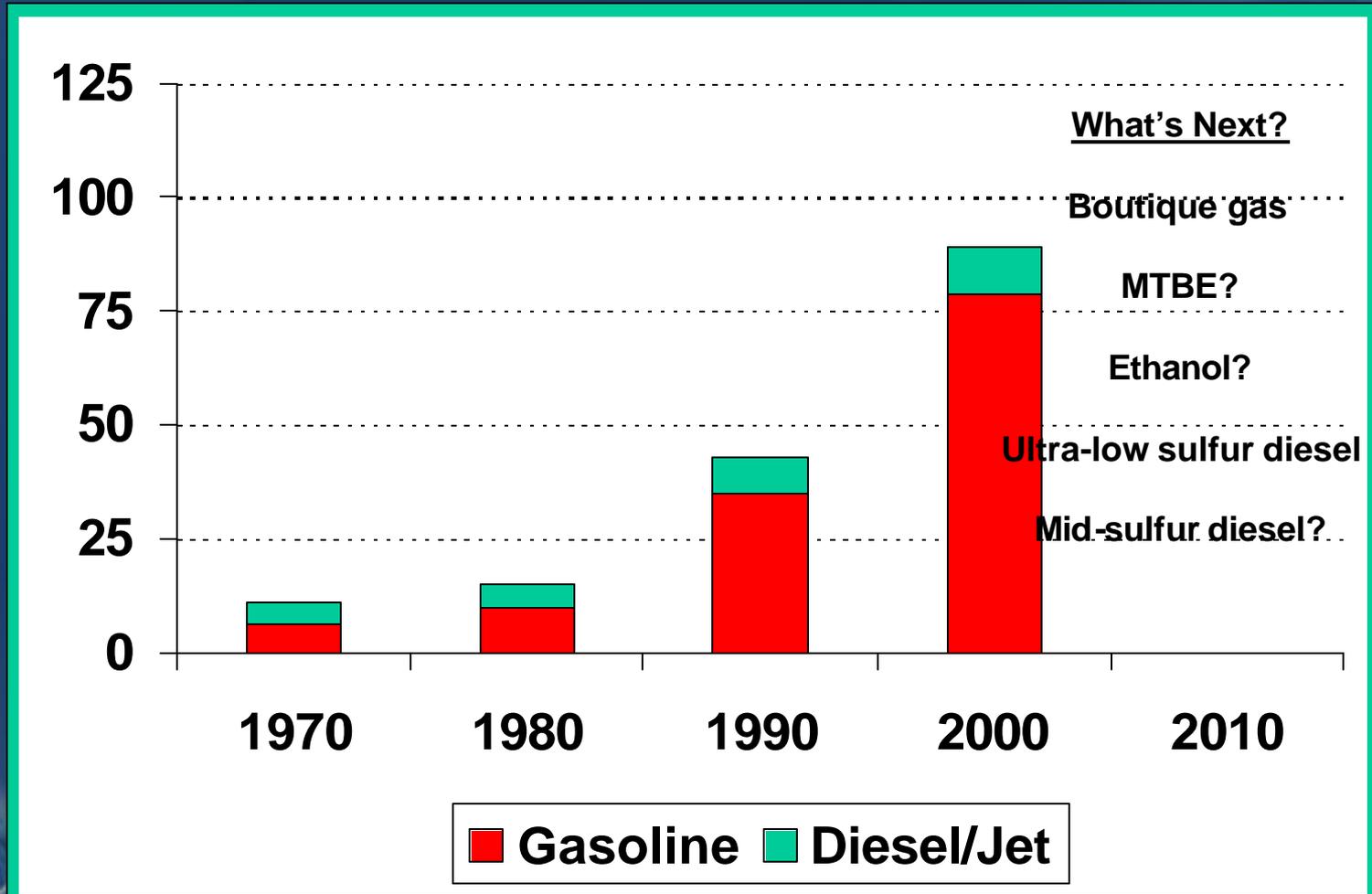
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- Pipeline operation interrupted or slowed down
- Number of types of product and boutique fuels
  - Limits substitution of products between markets
  - Limits effective pipeline capacity
- Lower inventory at pipeline and terminal tank farms
- Transition of different seasonal grades of gasoline
- Many pipelines and/or segments are nearing capacity

# Explosive Growth in Number of Product Types



# The Future Looks Even Worse



# Factors Affecting Pipeline Supply

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- Pipeline operation interrupted or slowed down
- Number of types of product and boutique fuels
- **Lower inventory at pipeline and terminal tank farms**
- Transition of different seasonal grades of gasoline
- Many pipelines and/or segments are nearing capacity

**Number of days of inventory is reducing as:**

- 1. Companies try to improve return on capital.**
- 2. Demand increases without building additional tanks.**

# Factors Affecting Pipeline Supply

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- **Transition of different seasonal grades of gasoline**
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**Gasoline sold at a terminal is different on May 1  
than it was April 30.**

# Factors Affecting Pipeline Supply

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- Pipeline operation interrupted or slowed down
- Number of types of product and boutique fuels
- Lower inventory at pipeline and terminal tank farms
- Transition of different seasonal grades of gasoline
- **Many pipelines and/or segments are nearing capacity**
  - **Market supply becomes tight as demand increases above capacity**
  - **Less spare capacity available to make-up for interruptions**

# Issues For Adding Capacity

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- Will it be allowed to be built?
- Additional investment is required, but the returns may not be commensurate with the increasing business risk.
- Costs are increasing and FERC index tariffs do not provide incentive for significant incremental investment.

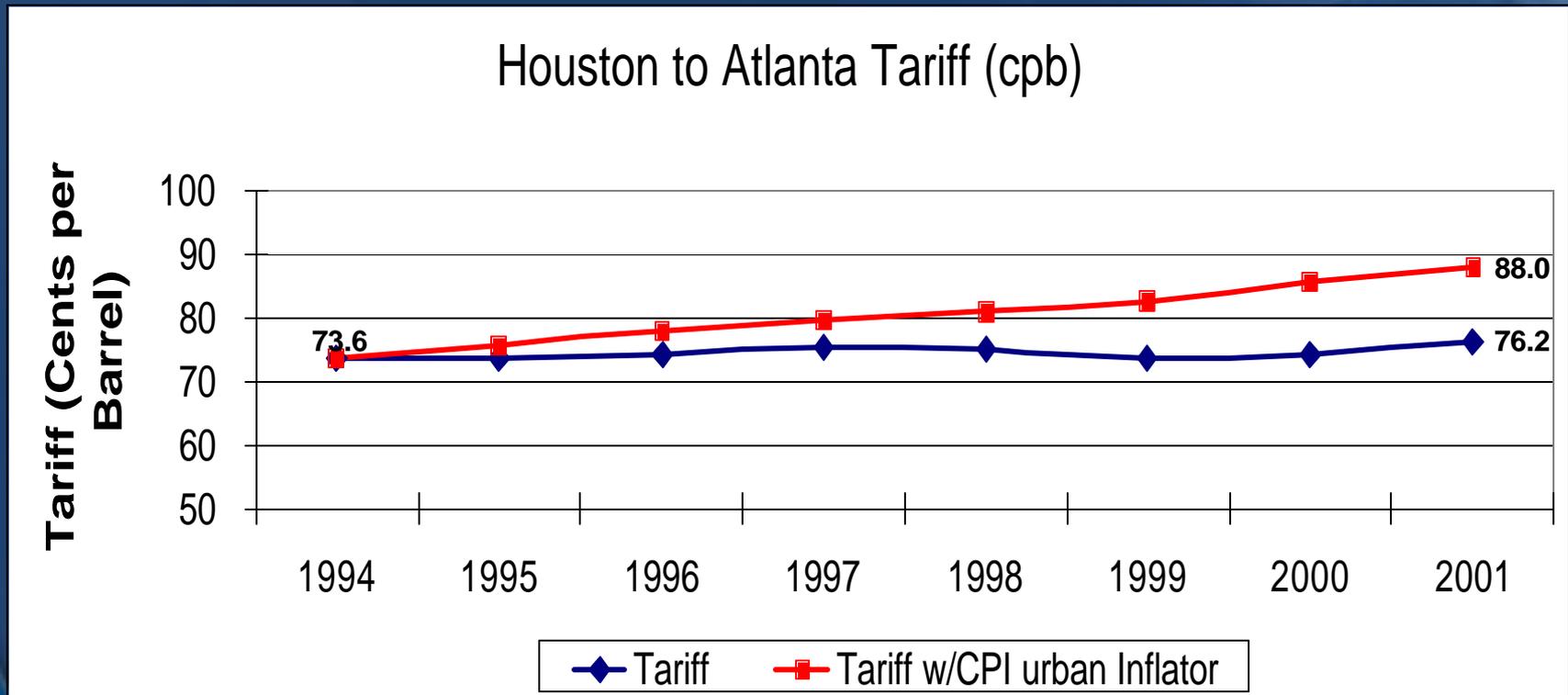
**Is it incremental business worth the incremental investment?**

# Agencies Involved in Permitting A New Pipeline in AL and TN

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Alabama Department of Environmental Management	Tennessee Valley Authority
Bureau of Land Management - Lead agency in EIS	US Fish & Wildlife Service
US Army Corps of Engineers	Alabama State Historic Preservation Office
Department of Army - Permit to Cross Redstone Arsenal	Tennessee State Historic Preservation Office
Department of Transportation - Office of Pipeline Safety	Tennessee Department of Environmental Conservation
Federal Energy Regulatory Commission	Tennessee Water Resource Administration
Environmental Protection Agency	Many City and County Agencies

# Tariffs With Index Adjustments Do Not Encourage Incremental Investment



**Tariffs have moved up only 0.5% per year since 1994 while CPI has increased 2.6% per year.**

# Summary...

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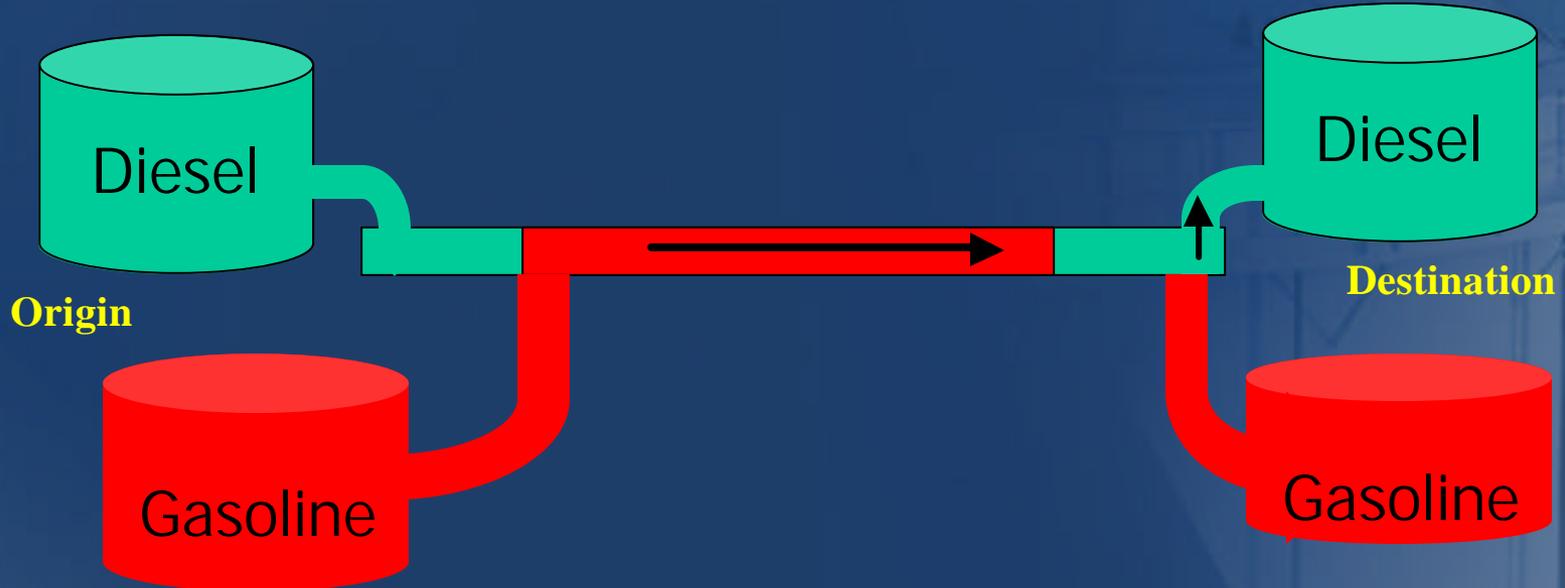
## **Actions to improve pipeline supply of products**

- 1. More use of tariffs that are based on the market.**
- 2. Multi-use ROW corridors for utilities and pipelines.**
- 3. Streamlined permitting process that is coordinated at the Federal and State levels.**
- 4. Standardization of fuels specs at Federal or regional levels to reduce the number of product types.**
- 5. Pipeline industry exceeds requirements of the public for safe operation.**



# Product Batching

- Allows multiple product to ship on the same pipeline



# Product Integrity

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- Different product batches are “pushed” through the system abutting each other.



Reformulated  
regular  
gasoline

Low  
sulfur  
diesel fuel

Kerosene/  
Jet Fuel

High  
Sulfur  
Diesel

Conventional  
regular  
gasoline

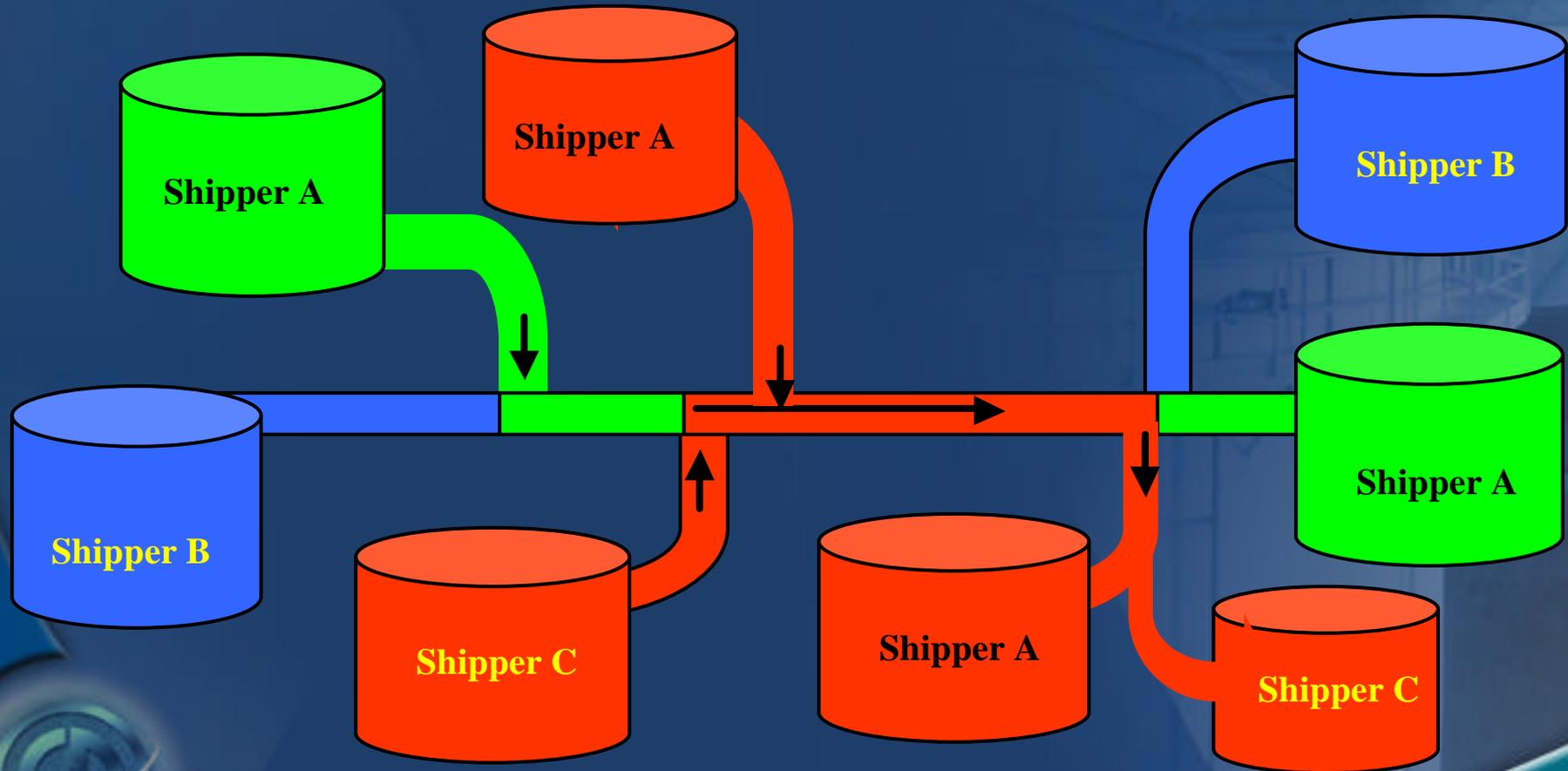
Premium  
gasoline

Reformulated  
premium  
gasoline

**Increasing the number of distinct product types complicates the product distribution systems.**

# Product Batching

## Multiple Origins and Destinations



Colonial delivers 90 different products for 85 customers to 270 terminals and more than 1,000 storage tanks.