

# Energy Independence – The Facts

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**[www.api.org](http://www.api.org)**

**[ndoil.org](http://ndoil.org)**



# Factors affecting gasoline prices

## High crude oil prices

### Strong global demand

China

U.S.

Little spare capacity  
and restricted  
world supplies

OPEC

Political instability  
In oil-rich nations

Where does your gasoline \$ go?



## Gasoline market situation

### Gasoline supplies are adequate

Record production  
Above average inventories  
High refinery utilization rates  
Imports up

### Gasoline market challenges

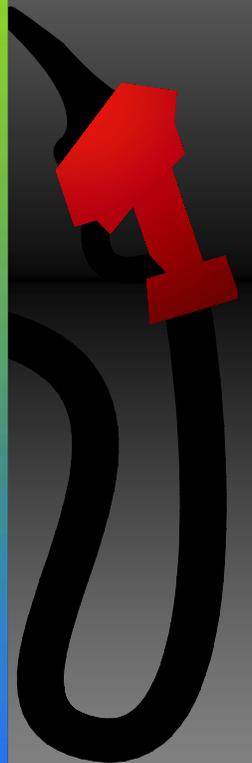
Environmental  
Numerous and changing  
fuel specifications

Political  
'Not in my backyard'

Economic  
Low rates of return for refiners

Demand growth  
Strong economic growth in U.S.

Summer fuels  
Requires more costly ingredients



# Factors affecting gasoline prices

## High crude oil prices

Prices have gone from \$42 to over \$57 a barrel (36 cents per gallon) since the beginning of the year.

Strong global demand—EIA forecasts this year's demand to grow by 2.1 million barrels per day to 84.7 million barrels per day.

**China** is forecast to account for 40% of the world's increase in demand for oil in 2005—up 0.7 million barrels per day to 7.4 million barrels per day.

**U.S.** is forecast to account for 14% of the world's growth in demand, up 0.3 million barrels per day to 20.8 million barrels per day.

Little spare capacity, and restricted supply - Currently, the world's spare capacity to pump more petroleum is limited to about 1% of world demand.

**OPEC** has increased its production quota by 0.5 million barrels per day, but it is already producing 2 million barrels per day above its quota.

Political instability in a number of oil-producing nations has added uncertainty in the marketplace.

## Gasoline market situation

### Gasoline supplies are adequate

U.S. refiners have continued to produce record amounts of gasoline, and inventories of gasoline are above average for this time of year. To do this, they have been running at very high utilization rates, much higher than the average for most industries.

With the difficulties of expanding domestic refining capacity, imports of gasoline have risen steadily in recent years, and reached another record high in 2004.

### Gasoline market challenges

**Environmental:** Numerous and changing fuel specifications require massive environmental investments - \$47 billion in the last 10 years. Also reduces the flexibility of imports to help meet surges in demand.

**Political:** Because of the not-in-my-backyard syndrome, refiners are finding it increasingly difficult to build new refineries, pipelines, or other facilities to increase production or bring supplies to consumers.

**Economic:** Refineries have seen 10-year average rates of return of 7.7 percent, compared to the S&P broad industrial average of 12.5 percent.

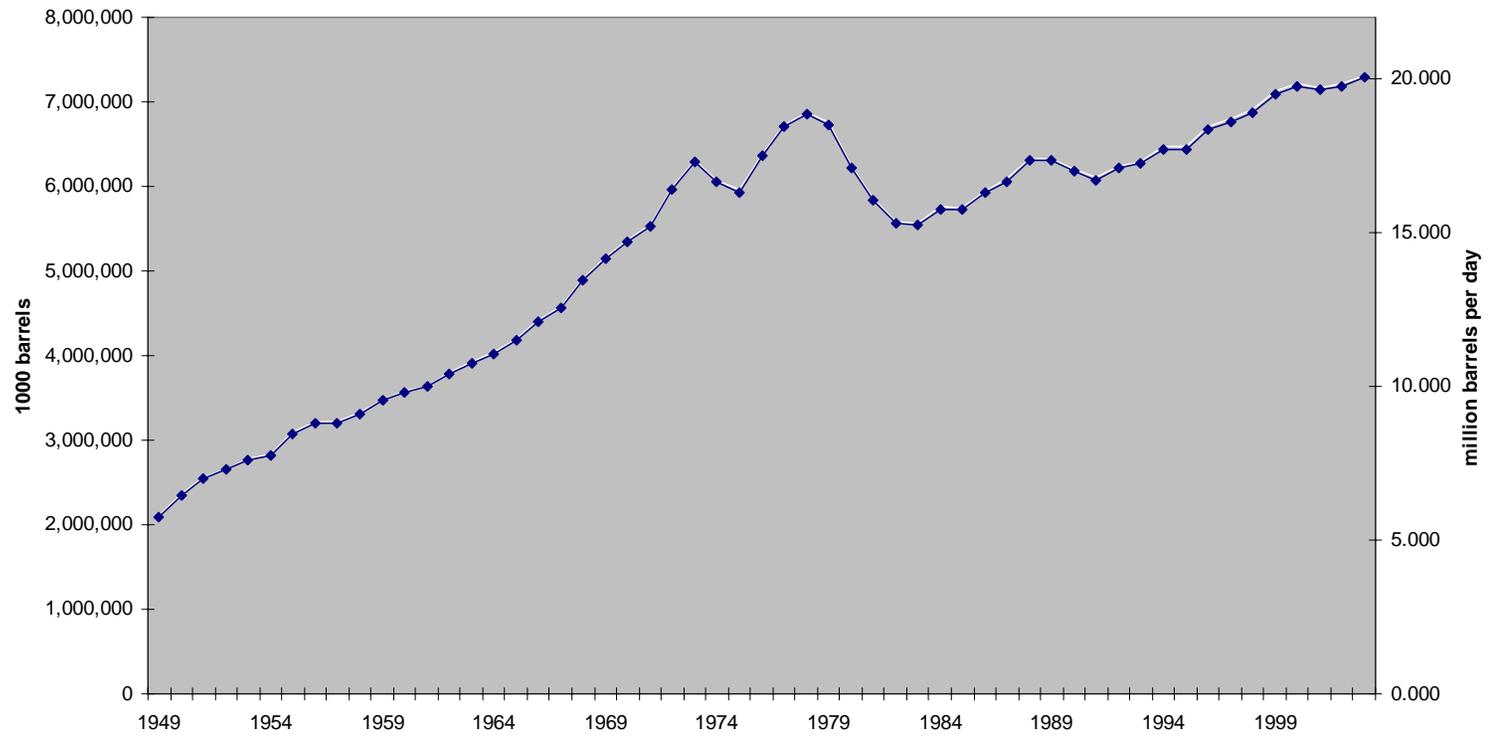
**Demand growth:** Strong economic growth in the U.S. has contributed to continued growth in gasoline demand. In 2004, the economy grew more than 4 percent, while gasoline demand grew 1.4 percent.

**Summer fuels:** in many parts of the country, maintaining performance and environmental benefits in warmer weather requires changing the recipe for gasoline - and that requires somewhat more costly ingredients.

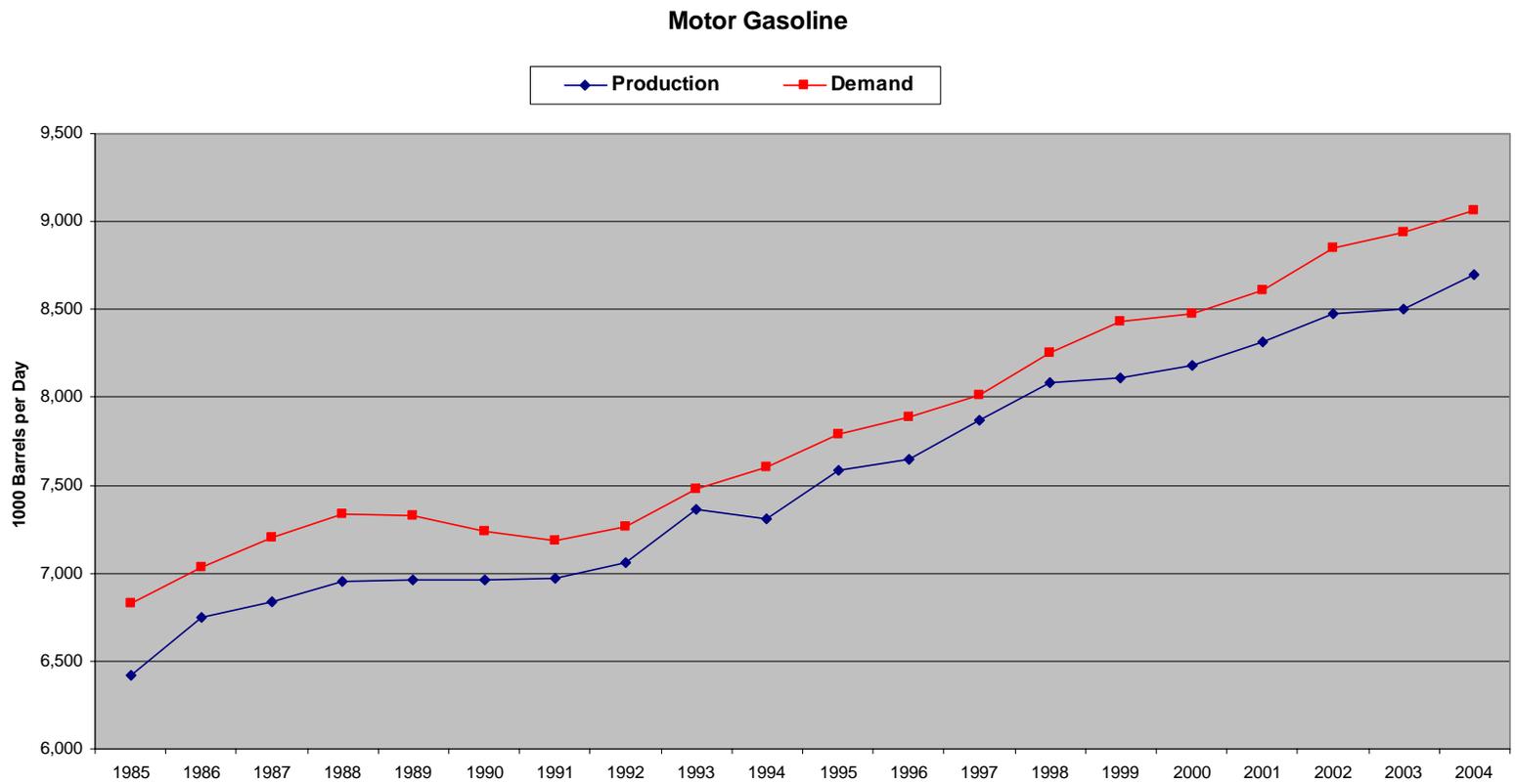
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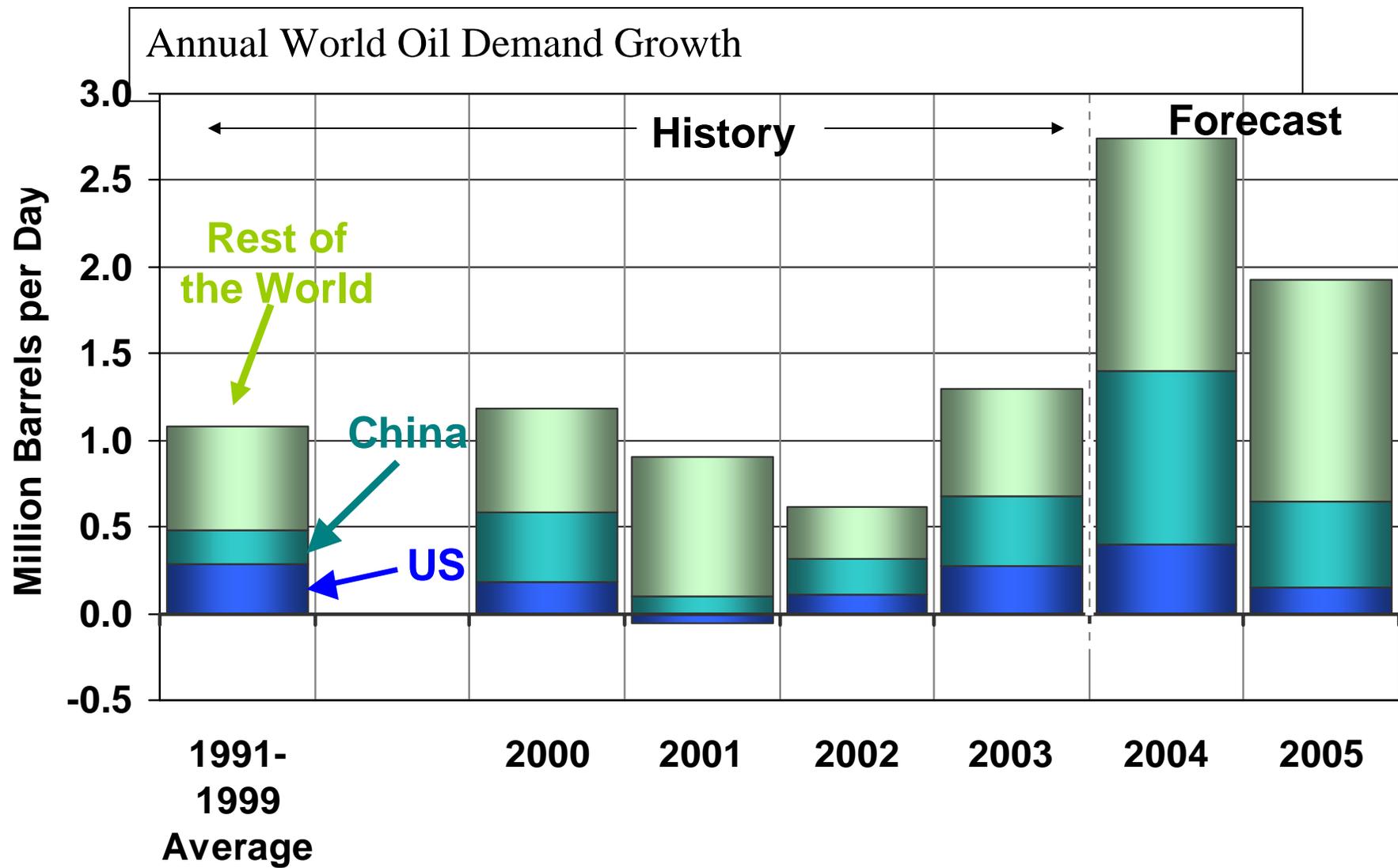
# Petroleum Demand - EIA

Petroleum Demand

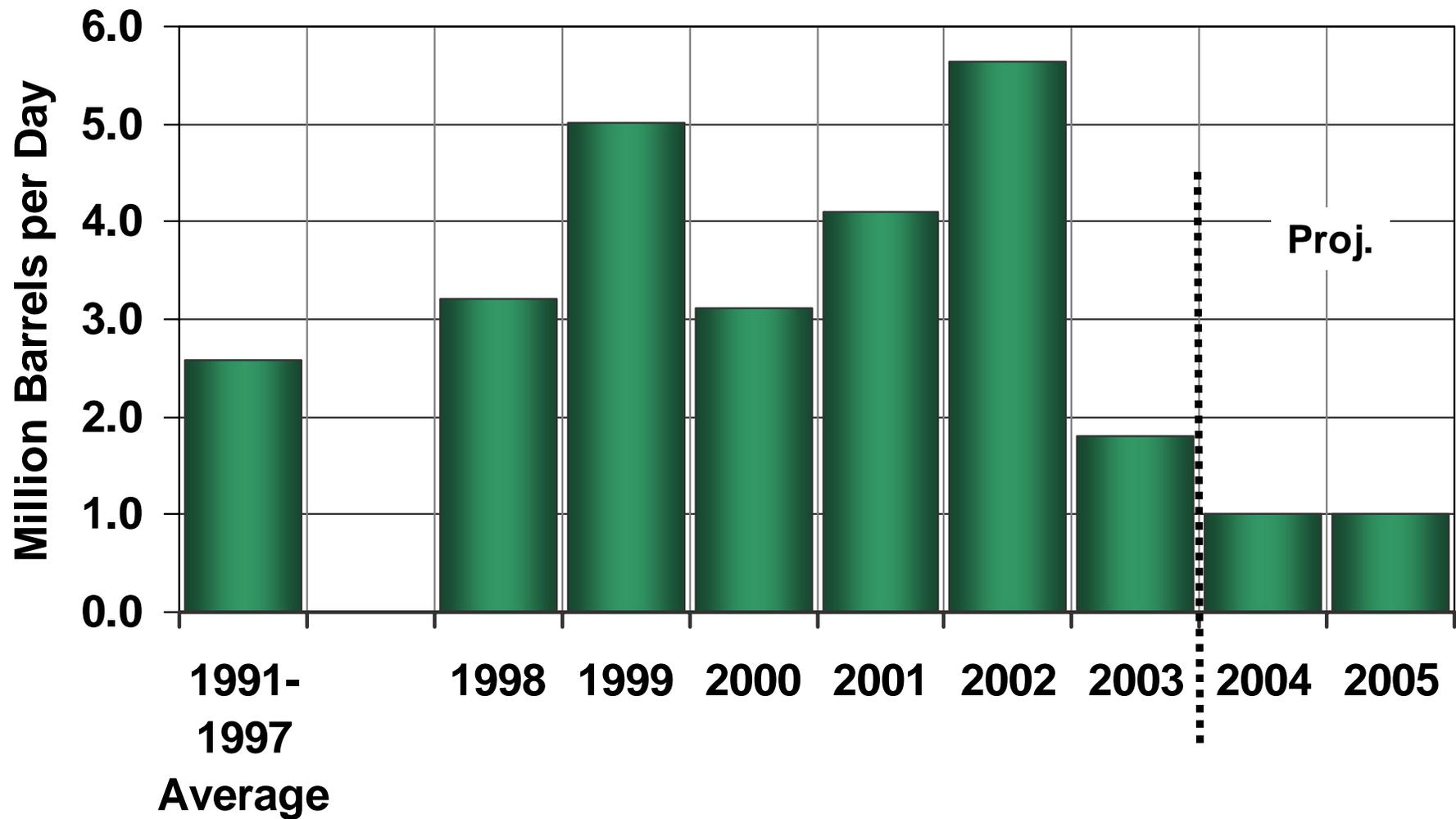


# Gasoline Production and Demand - EIA



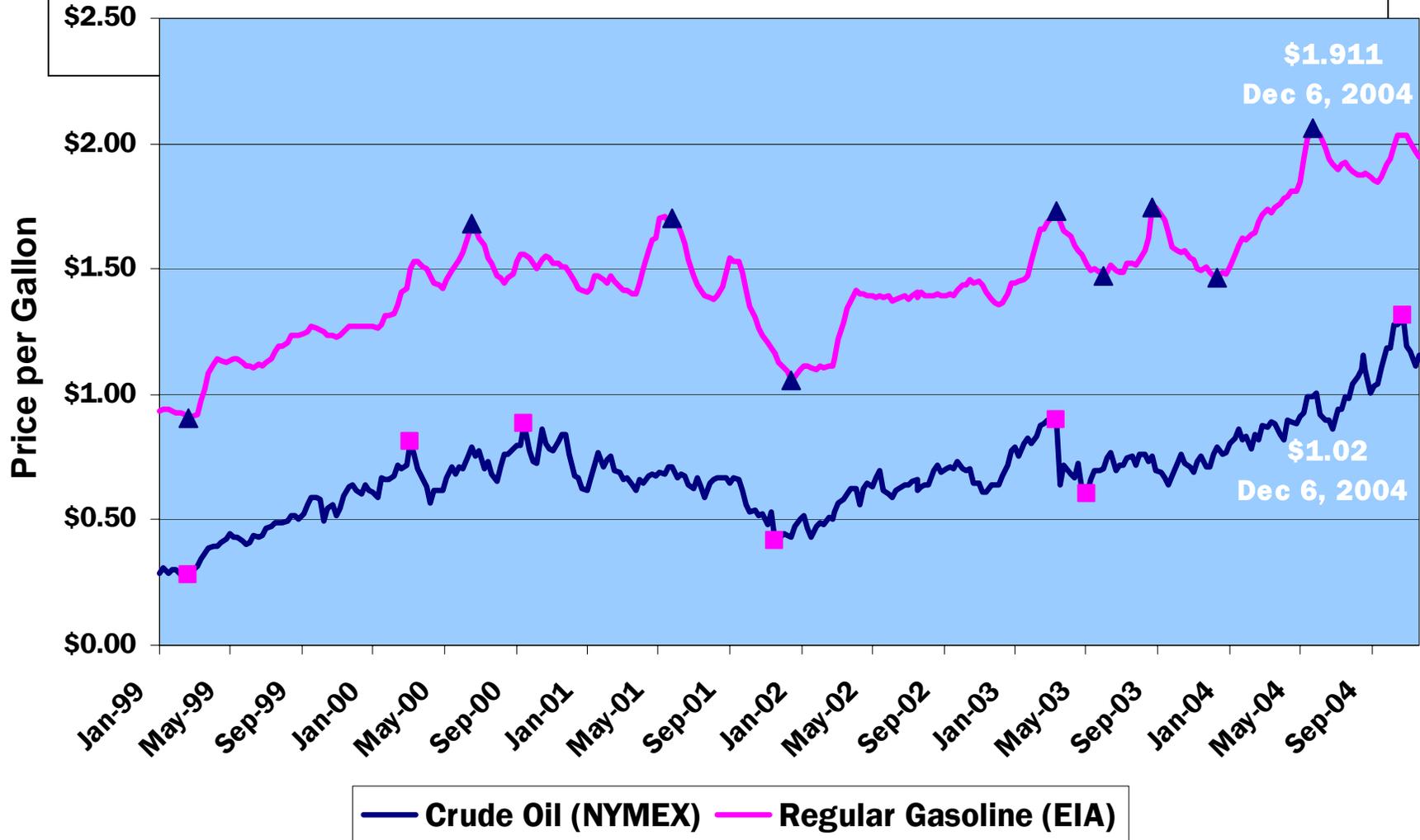


Source: EIA, Short-Term Energy Outlook, November 2004.

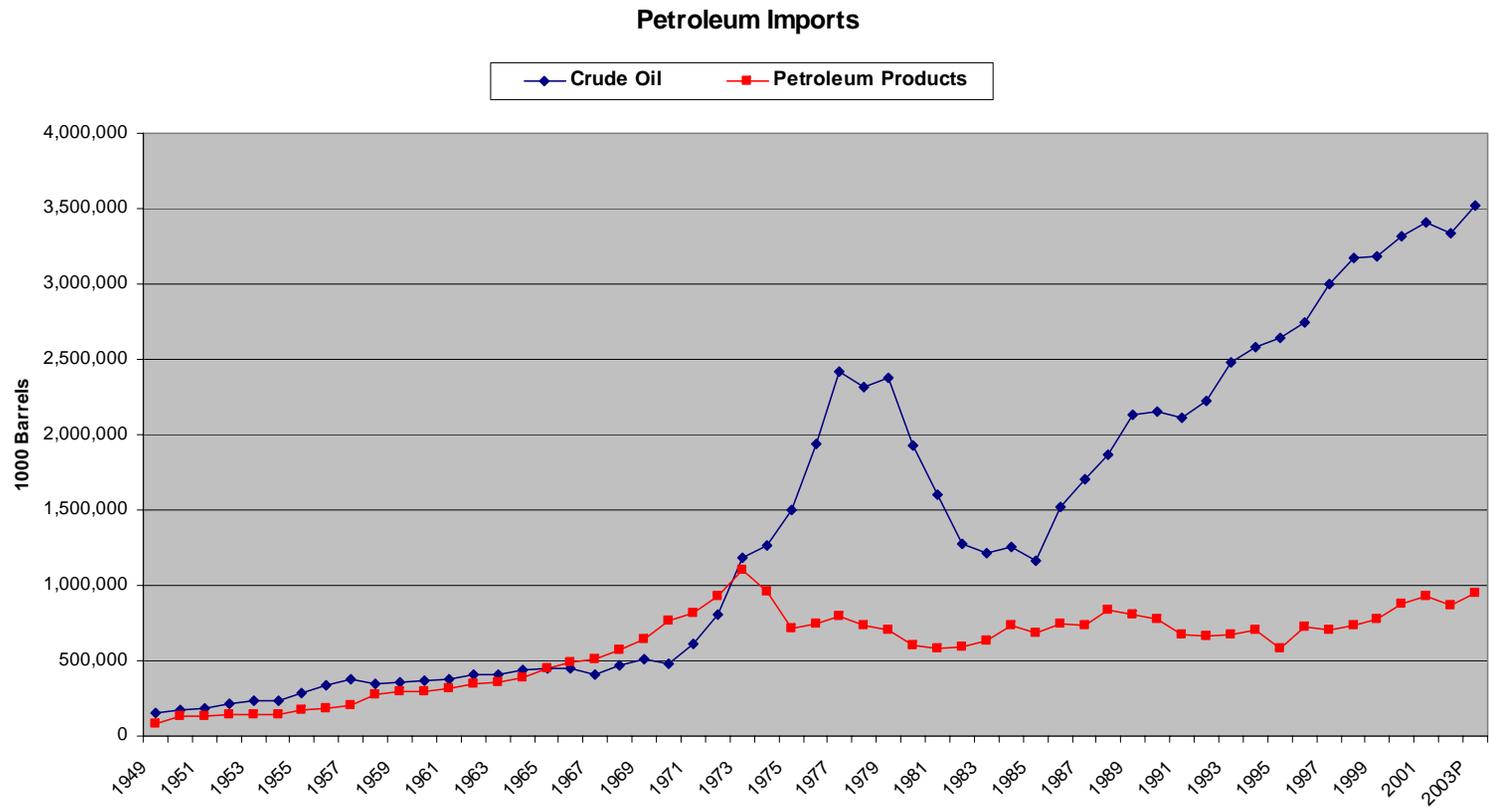


***Spare global capacity at lowest level in 30 years***

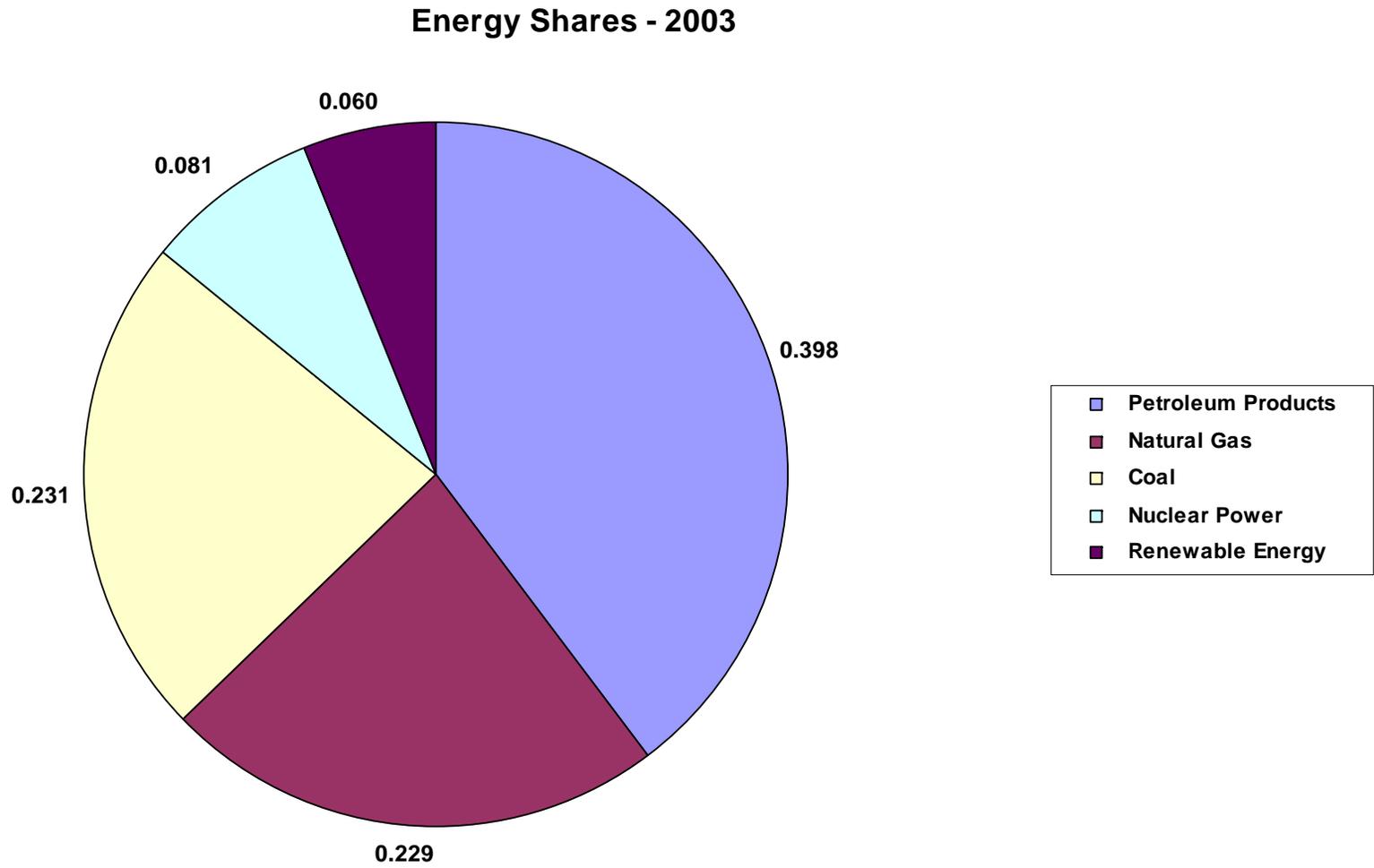
# Gasoline prices mirror crude oil prices



# Petroleum Imports 1949 – 2003 - EIA

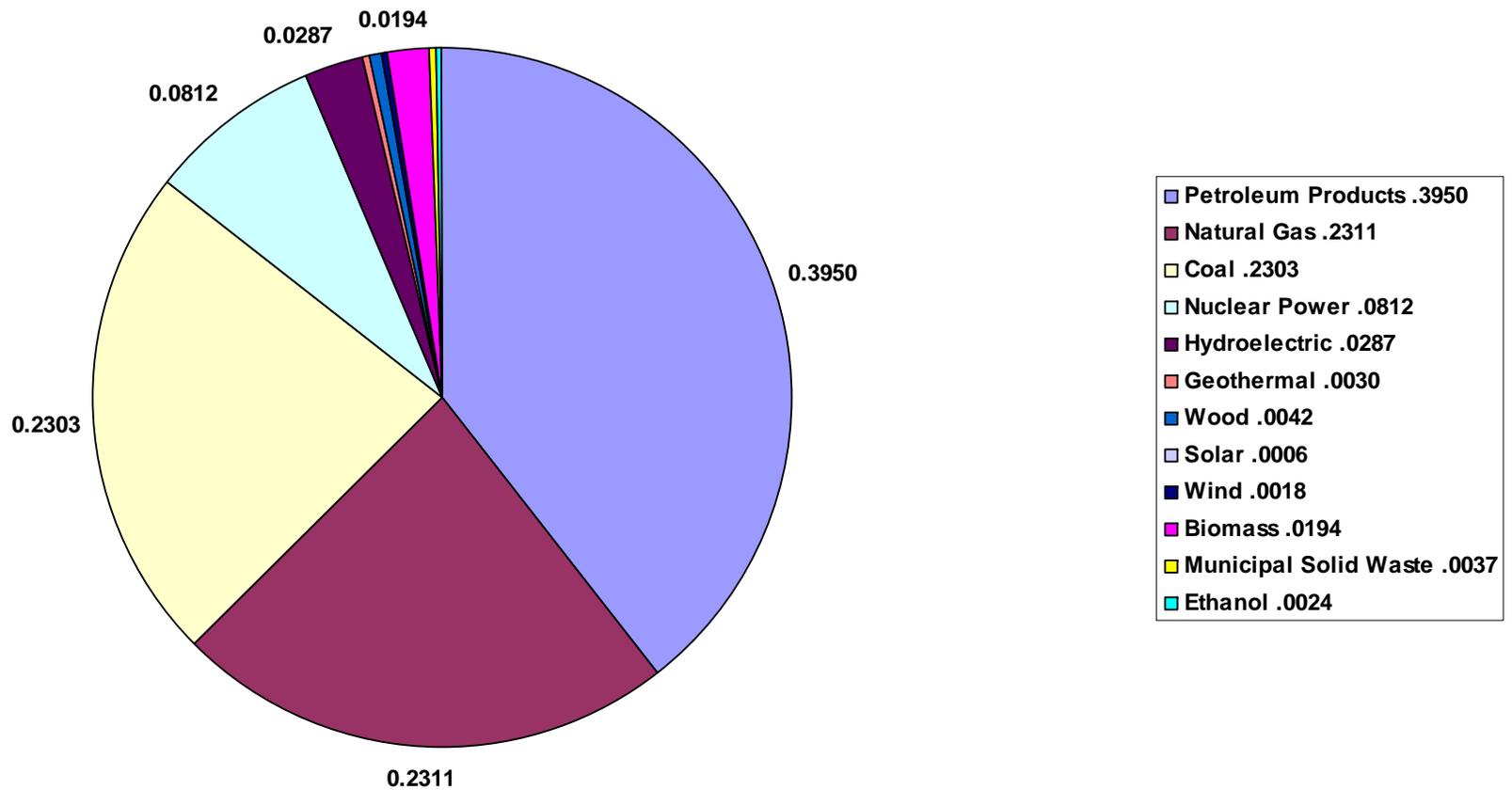


# U.S. Energy Consumption Shares – 2003 – EIA AEO2005



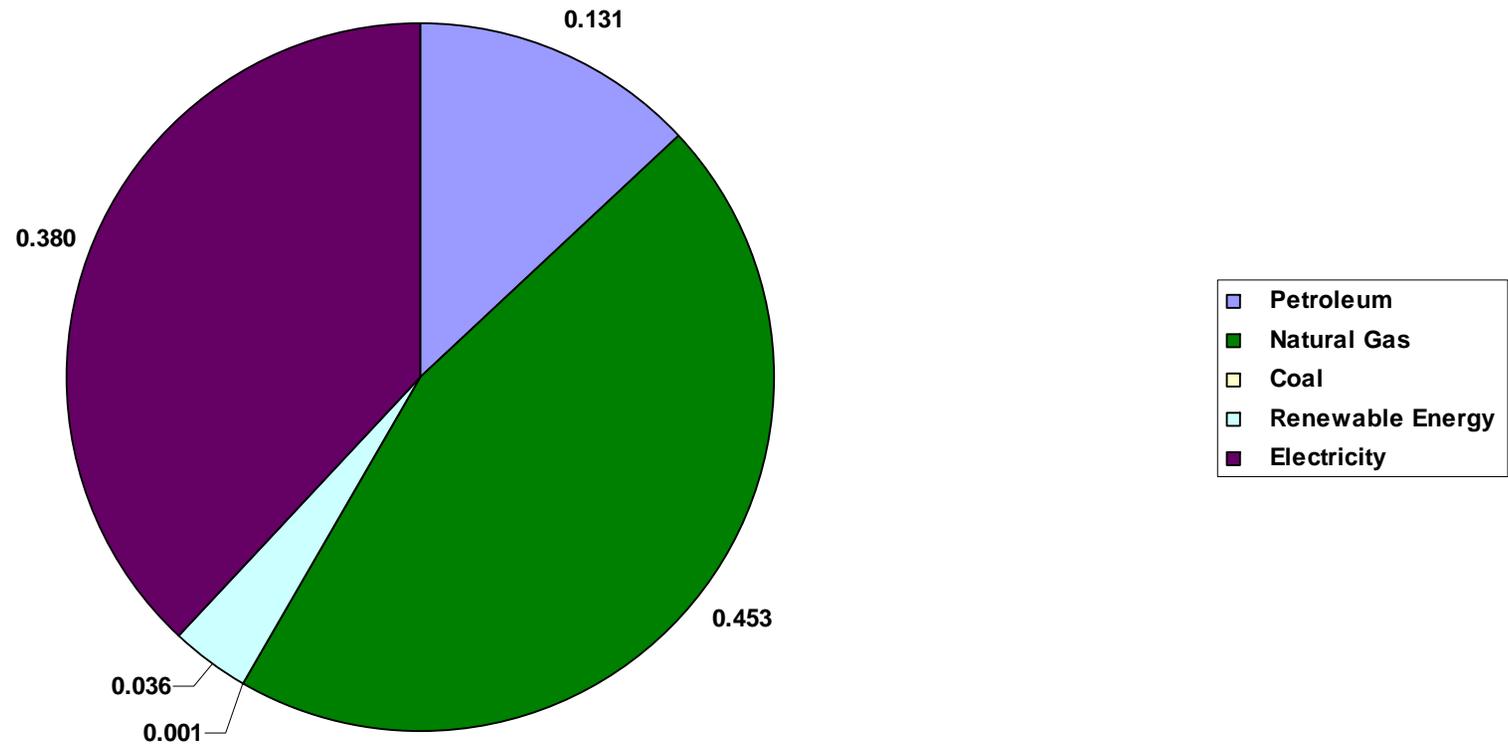
# U.S. Energy Consumption Shares – 2003 - EIA

Energy Shares - 2003



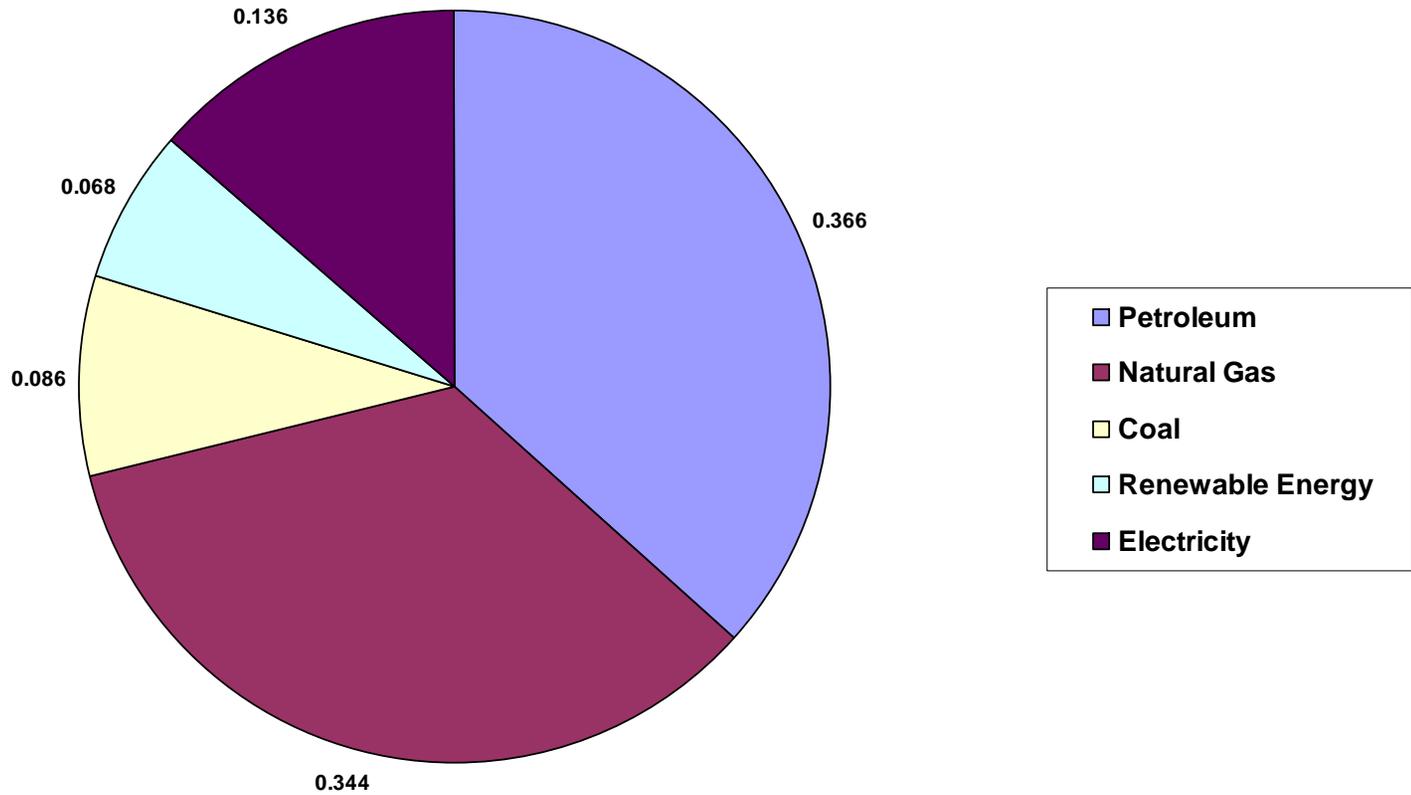
# U.S. Residential Energy Consumption Shares – 2003 - EIA

Residential Energy Consumption - 2003  
Shares



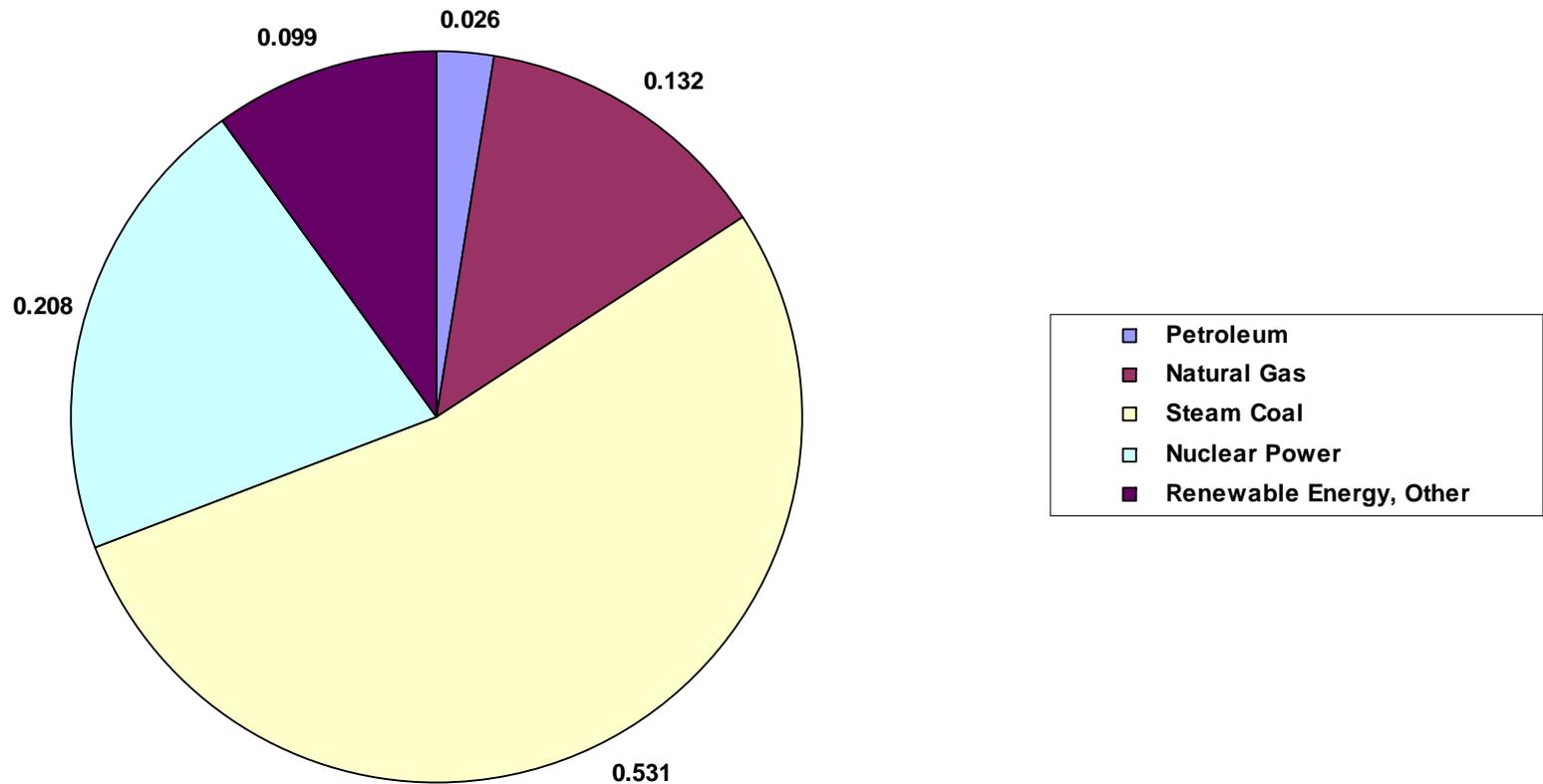
# U.S. Industrial Energy Consumption Shares – 2003 - EIA

Industrial Energy Consumption



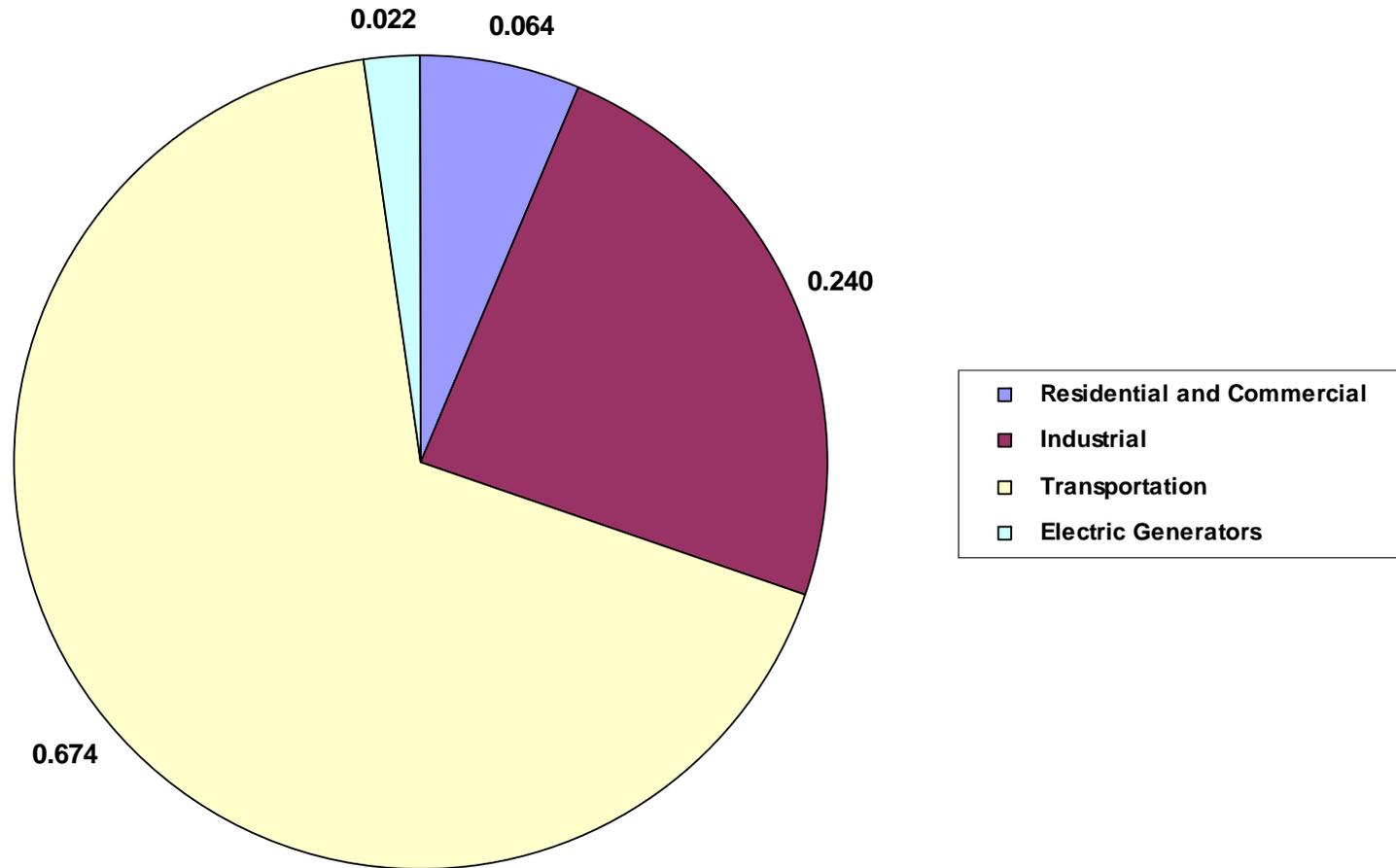
# U.S. Electricity Energy Consumption Shares – 2003 - EIA

Electricity Generation - 2003  
Shares



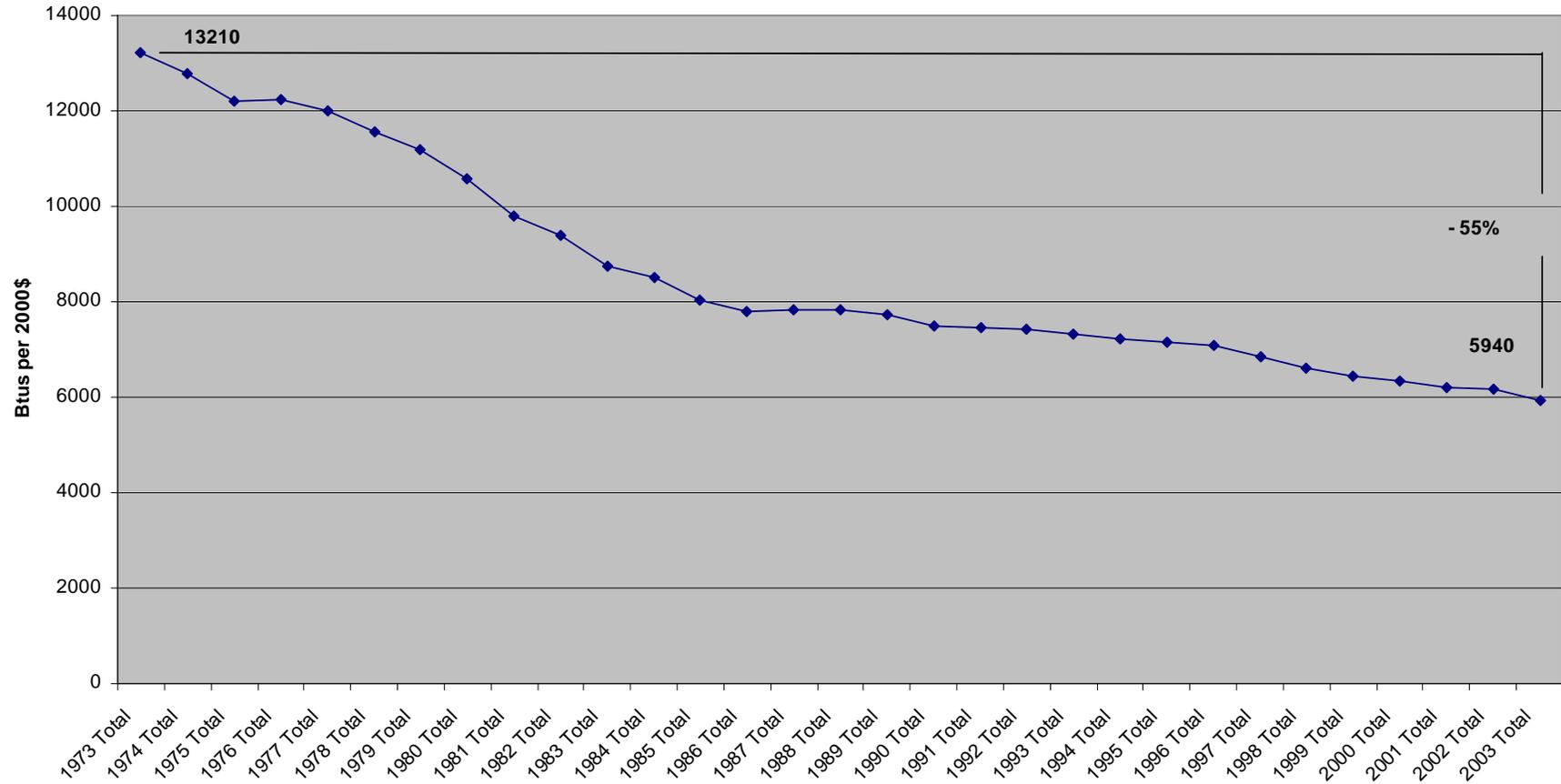
# Petroleum Product Use Shares – 2003 - EIA

Petroleum Product Use Shares 2003



# Oil and Natural Gas Efficiency Improvement

Oil and Natural Gas per Dollar of GDP



## **EIA Forecast to 2003 to 2025, AEO2005**

- **Real Gross Domestic Product is projected to increase by 95 percent**
- **Population is projected to increase by 20 percent**
- **Total energy consumption is projected to increase by 36 percent**
- **Petroleum demand is projected to increase by 39 percent**
- **Natural gas demand is projected to increase by 40 percent**
- **Coal demand is projected to increase by 34 percent**
- **Electricity consumption projected to increase by 50 percent**
- **Renewable energy supply is projected to increase by 37 percent**
- **Nuclear energy is projected to increase by 9 percent**
- **Energy efficiency (output per unit of energy) is projected to improve by 31 percent**

## **EIA Forecast to 2003 to 2025, AEO 2005**

- **Net petroleum imports are projected to increase, providing 68 percent of U.S. demand in 2025.**
- **Growth in petroleum demand is led by transportation, where efficiency improvements are more than offset by growing travel demand and petroleum's market share increases slightly.**
- **Crude oil production falls by 17 percent.**
- **Imports of crude oil grow by 67 percent.**
- **Net petroleum product imports increase by 90 percent.**
- **Refinery capacity expands from 16.8 to 22.3 million barrels per day**
- **Refinery utilization is projected to increase from 93 to 95 percent**

## Capacity and Refineries

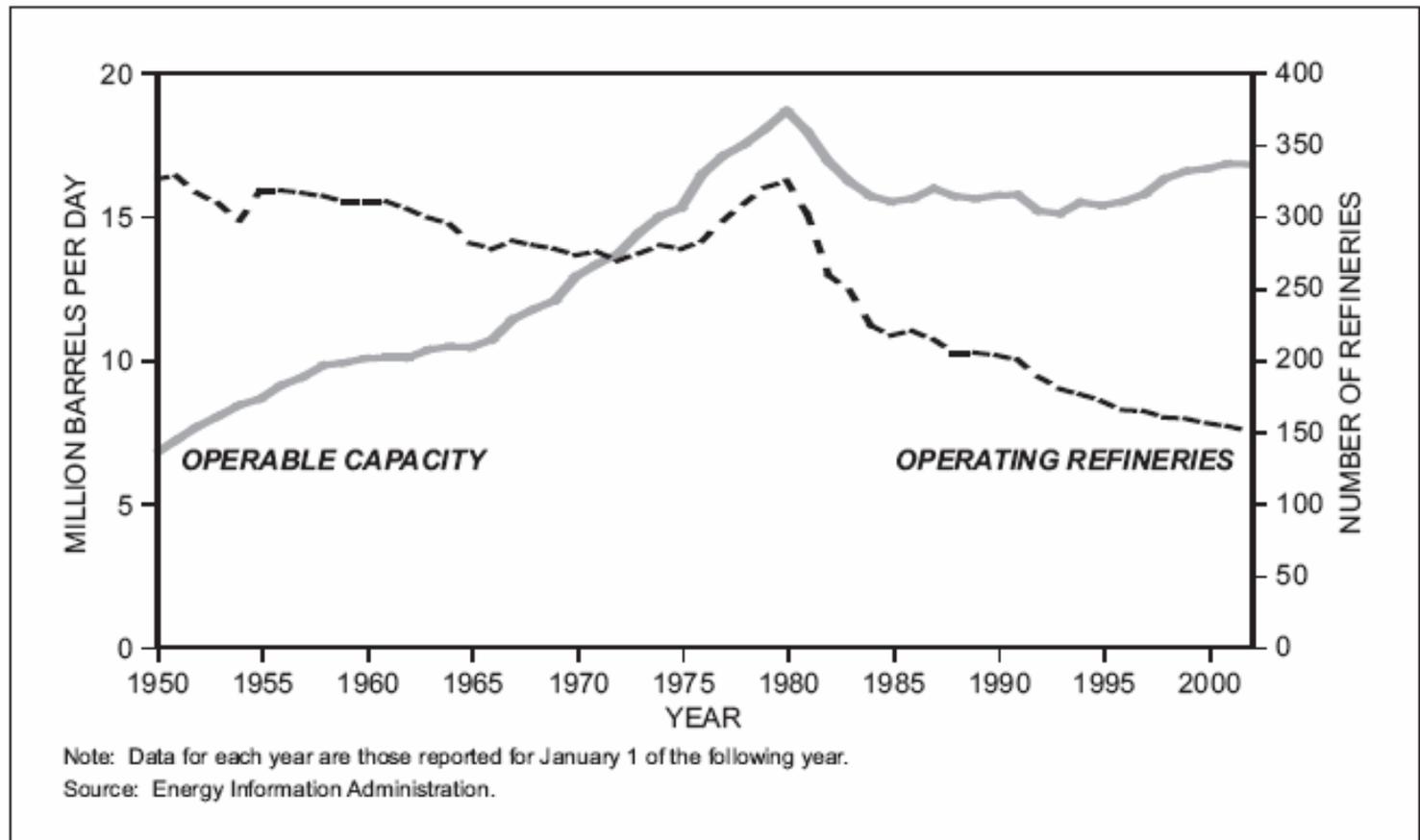


Figure I-23. U.S. Refining Capacity and Number of Refineries

**Estimated Crude and Products Imports  
to the U.S. from Leading Supplier Countries**

**January-December 2004**

1 Canada	2,118	16.4%	10.3%
2 Mexico	1,642	12.7%	8.0%
3 Venezuela	1,556	12.1%	7.6%
4 Saudi Arabia	1,521	11.8%	7.4%
5 Nigeria	1,119	8.7%	5.5%
6 Iraq	652	5.1%	3.2%
7 Algeria	439	3.4%	2.1%
8 United Kingdom	369	2.9%	1.8%
9 Virgin Islands*	324	2.5%	1.6%
10 Angola	316	2.4%	1.5%
Other	2,843	22.0%	13.9%
<b>Total</b>	<b>12,899</b>	<b>100.0%</b>	<b>62.9%</b>
OPEC Countries	5,626	43.6%	27.4%
Persian Gulf Countries	2,485	19.3%	12.1%

\*Supplier of products made from crude oil

Source: DOE, Petroleum Supply Monthly, February 2005





## 100-Plus Job Openings North Dakota's Oil Industry

Up to \$17.25/hr  
starting wage!

**Good Jobs. Great Pay.  
Great Benefits.**

Open positions include drilling, well servicing, roustabout, mechanic, welding, trucking, shop and office positions.

Most positions require a valid drivers license with a clean driving record. Some require a CDL or the ability to acquire a CDL.

Drug testing is required in the hiring process and randomly in a work situation for most positions.

Most positions are labor intensive and involve outdoor work in all weather conditions.

Different age restrictions may apply — usually at least 18 years old or at least 21 years old.

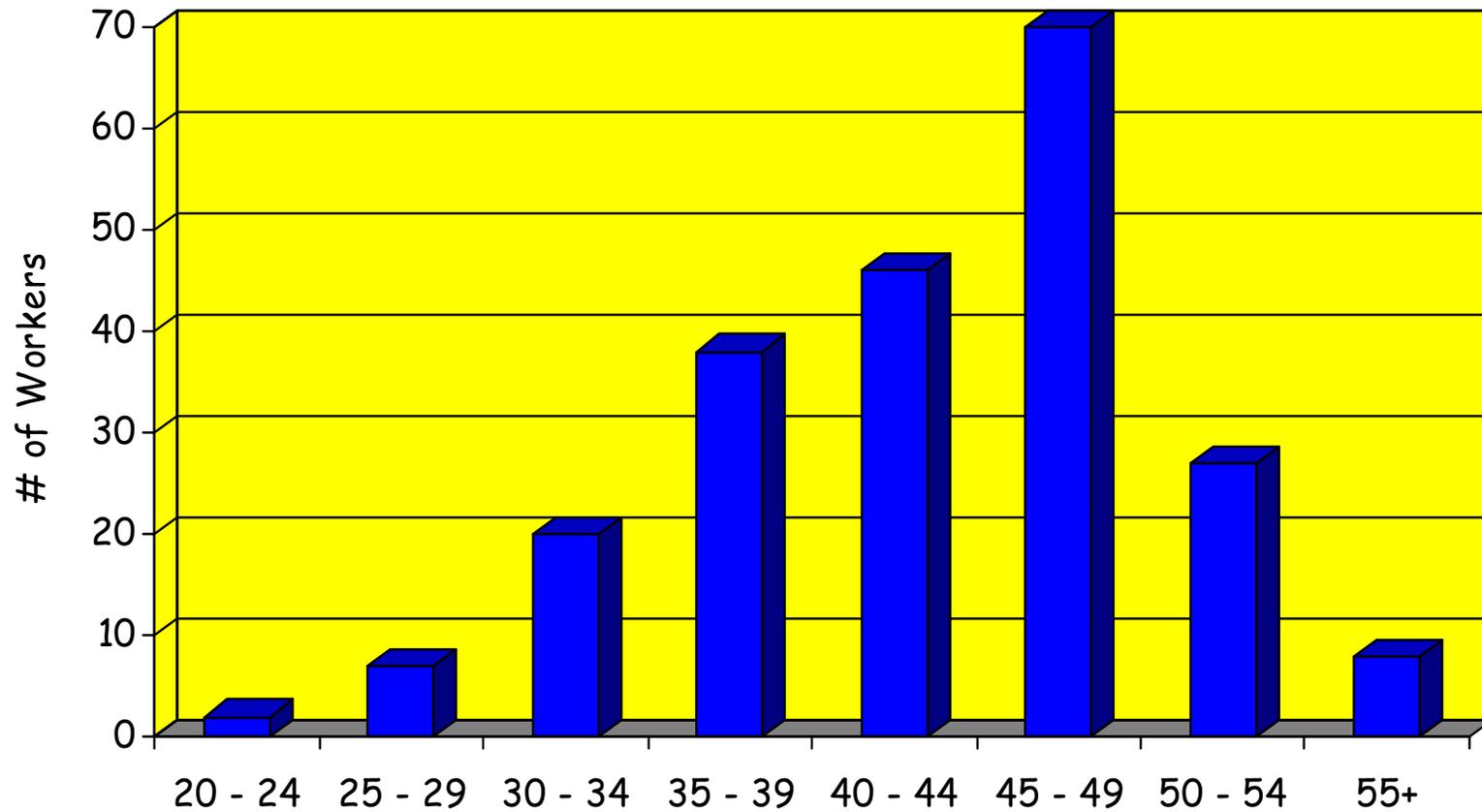
Drilling schedules may include the option to work four days on, four days off, with significant overtime hours available. Housing and meals may also be provided.

Get position details and application instructions at [jobsnd.com](http://jobsnd.com) or call Job Service North Dakota at 701-774-7900 or 1-800-247-0989.



# Age Profile of Workforce

Tesoro's Mandan Refinery on October 2, 2002



## **North Dakota Oil Production in 2004**

Nearly 32 million barrels of oil

94,000 barrels per day

3,400 active oil wells

\$200 million in state tax revenue from oil and gas production taxes in  
2003 – 2005 biennium

Mineral leasing is strong

South Dakota 1.3 million barrels of oil in 2004

# **What is the Solution to our Energy Issues?**

There are no easy solutions

Comprehensive Energy Bill

Conservation

Increased Production of all Domestic Energy Sources

Access to Public Lands

ANWR



# WHICH ONE IS THE REAL ANWR?



*AOGA*



*Danny Lehman*