

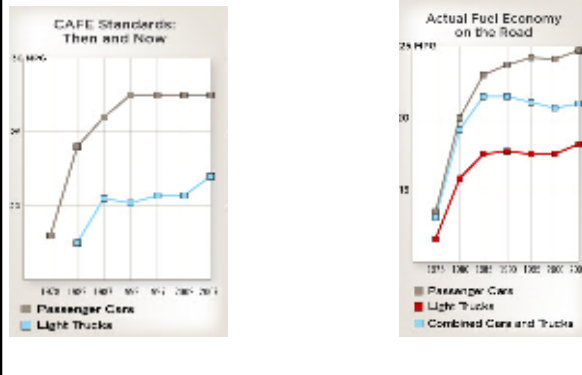
## Announcements

1. Papers Due Next Week
2. Presentations in two weeks; Come in early to load PowerPoints prior to class. No Make-ups.
3. Final in three weeks on 12/7 at 6:15 pm

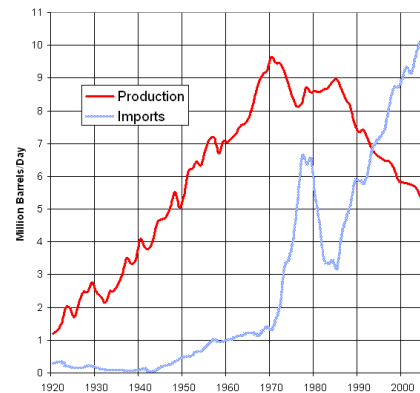
## Energy Policy History

1. Oil Embargo of 1973-1974
2. President Nixon established the Federal Energy Office (later the Federal Energy Administration, later the Department of Energy)
3. Congress instituted the Energy Policy and Conservation Act of 1975 during the Ford Administration
  - ✓ Required passenger car and light trucks to meet CAFE Standards

## CAFE Standards



US Oil Production and Imports



## Energy Policy History (cont.)

1. President Carter: Energy policy was number one priority
  - ✓ Carter created the DOE and provided for federal research in developing clean energy technology
2. President Reagan rewrote most energy policy
  - ✓ Energy conservation and renewable energy



## Energy Policy History (cont.)

1. President Bush Sr. signed an E.O. on Federal Energy Management
  - ✓ Government buildings, fleets, fuels
2. He also signed the Energy Policy Act (EPAct) in 1992
  - ✓ This was a comprehensive Act that made an attempt to strike a balance between energy development and energy efficiency, renewable energy, and alternative fuel vehicle programs

## Energy Policy History (cont.)

1. President Clinton
  - ✓ Issued EO in 1999 to promote energy efficiency in federal buildings
  - ✓ Raised the speed limit back to 65 MPH in 1995
  - ✓ Promoted voluntary programs such as Energy-Star and Green Lights



## The Energy Policy Act of 2005

1. Signed into law in August 2005; favored increasing supply over efficiency and conservation
2. Heavily favors traditional sources of energy including coal, petroleum, natural gas, and nuclear
3. Provides minimal tax incentives for conservation and energy efficiency
4. Extends the Price-Anderson Act through 2005 (more later)

"Conservation may be a sign of personal virtue but it is not a sufficient basis for a sound, comprehensive energy policy."

Dick Cheney, April 2001

## The Energy Independence and Security Act of 2007

1. Originally would have cut subsidies to petroleum industry; these provisions dropped after Senate opposition.
2. Final bill focused on CAFE standards, development of biofuels, energy efficiency in public buildings and lighting.
3. Increased CAFE standards to 35 mpg by 2020.
4. Effectively phases out the sale of most incandescent light bulbs by 2014.

## Coal Mining

1. Constitutes 90% of the U.S. hydrocarbon reserve
2. Provides the U.S. with 25% of our energy needs
3. Provides 50% of our electricity needs
4. Problems include:
  - ✓ Acid rain
  - ✓ Mercury, NOx, and CO2 emissions
  - ✓ [Mountain top mining practices](#)

## Surface Mining Control and Reclamation Act of 1977

1. Required mining industry to restore the land to its prior contours and return land to level of productivity at least equal to pre-mining condition
2. Office of Surface Mining Reclamation and Enforcement established to police regulations
3. Regulation, funding, and staffing were gutted during the Reagan administration (James Watt)
4. Agencies and courts have not provided any significant enforcement mechanisms

## Petroleum and Natural Gas

1. Provides over 2/3 of our energy needs
2. Development of existing reserves is problematic since these are typically in environmentally sensitive areas
3. Another problem is oil spills



## Nuclear Energy

1. Provides 9% of our energy needs and about 2% of our electricity needs
2. Problems include safety, mismanagement, waste, decommissioning of nuclear plants, and economics
3. We subsidize every aspect of nuclear power

## Price-Anderson Act (1957)

- Sets a limit on the monetary liability of nuclear power companies in the event of an accident
- When first enacted, it was designed to be a temporary measure since insurance companies refused to insure for severe nuclear accidents
- The result is that either the government or private individuals will be forced to pay the costs for a catastrophic accident

## Price-Anderson Act

- Provides a major subsidy to the nuclear power industry
- Distorts electricity markets
- Gives nuclear power an unfair competitive advantage over safer renewable energy alternatives
- Shifts the burden of nuclear safety from the plant operators to the government or to victims of a nuclear accident

## Renewables

1. These include hydropower, solar energy, wind, and biomass
2. In 2004, these provided 6% of our energy needs



## Renewable Energy Consumption in the Nation's Energy Supply, 2009

Total = 94,820 Quadrillion Btu

Total = 7,745 Quadrillion Btu

