The Reagan Revolution & Environmental Policy
Administration Orientation

- “Prometheans”
  - Natural resources exist for human exploitation
  - Man’s destiny is to conquer nature
- Environmental Regulation
  - *Stifles* the economy
  - Violates property rights
- Environmentalism is an anti-capitalism, anti-business ideology
- Economic Growth and Development takes Precedent over Environmental preservation
Environmental Policy Impact of Political Appointees
EPA Operating Budget 1975-1998

Billions of $ (1997)

Nixon (1975)
Carter (1980)
Reagan (1985)
Bush (1990)
Clinton (1995)
Clinton (1998)

Budget Authority
EPA Personnel 1973-1998

- Nixon (1973)
- Carter (1977)
- Carter (1980)
- Reagan (1983)
- Bush (1990)
- Clinton (1998)

The bar chart shows the number of employees during different periods, with a particular focus on Superfund.
Federal Environmental Laws Passed
(including amendments)
Federal Environmental Laws Passed
(including amendments)
DOI Operating Budget 1975-1998

Billions of $ (1997)

- Nixon (1975)
- Carter (1980)
- Reagan (1985)
- Bush (1990)
- Clinton (1995)
- Clinton (1998)

Budget Authority
Amendments to Environmental Laws

- Nuclear Waste Policy Act (1982)*
- RCRA (1984)
- TSCA (1986)
- SARA (1986)
- Safe Drinking Water Act (1986)
- Clean Water Act (1987)
Nuclear Waste Policy Act – 1982

- National Plan for building nuclear waste repositories
  - To house spent nuclear fuel from commercial reactors
- 1983 DOE selects 9 potential sites
- 1987 NWPA Amendments
  - Limited to a single site: Yucca Mountain
RCRA Amendments – 1984

- Hazardous & Solid Wastes Amendments
- Due to frustration with Reagan EPA “foot-dragging” implementing RCRA
- Scientific & Implementation Reports point to problems
  - OTA & NAS (1983)
  - GAO
- Sets 29 mandated deadlines for EPA action
- Mandates Specific Actions
  - Interim construction standards for underground storage tanks in 120 days
  - End to bulk liquid storage in landfills within 6 months
  - Small Waste Generators Covered by law
    - 1000kg → 100kg per month
TSCA Amendments – 1986

- Asbestos Hazard Emergency Response Act
  - EPA to develop plan for inspecting schools for asbestos hazards and plan to control the threat where found
SARA – 1986

- Adds $8.5 billion for NPL cleanup
  - Petroleum tax = $2.75 billion
  - Chemical Feed stock tax = $1.4 billion
  - Business tax = $2.5 billion
  - General revenue = $1.25 billion
- Public near sites to be informed of all stages of work
- Emergency Planning & Community Right to Know Act
  - Industry must disclose to “local emergency planning committee” information of 400 chemicals used/stored on site
- EPA to create TRI
Safe Drinking Water Act – 1974

- EPA authority to set standards for public water supplies
  - Oversee state programs
  - Including ground water
    - 50% of US population (95% of rural population) uses groundwater for domestic needs
    - 40% of agricultural irrigation
  - National Priority Drinking Water Standards by 1977
    - Maximum Concentration Limits (MCLs)
      - Microbes
      - Turbidity
      - Chemicals (22 substances)
SDWA Amendments – 1986

- Reauthorized SDWA
- Grants to states
  - Implementation & enforcement
- Adds 61 contaminants to list of those (22) with MCL standards
Clean Water Act (1987)

- Revised EPA mandate to include non-point source pollution
  - NPSP believed to be responsible for failure of 65% of stream miles to meet state designated uses
  - States must devise plan to include “best management practices”
    - States can choose to make these voluntary or mandatory
Cost Benefit Analysis

How should government decide what to do?
Government Action

- Constrained by Limited Resources
- Setting Priorities among “problems” to address
- Tradeoffs
  - Environment vs. economy
  - Defense vs. education
- How do we maximize *net benefits* to society?
Executive Order 12291

- February 1981
- Regulatory Impact Analyses
  - Cost-Benefit Analysis required
  - Submitted by all agencies
  - Reviewed by Office of Information & Regulatory Affairs
    - OMB office in White House
Executive Order 12291

○ Potential benefits to society must outweigh potential costs
○ Regulatory objectives must maximize net benefits to society
○ Regulations must impose least net costs to society in achieving objectives
○ Regulatory priorities must maximize aggregate net benefits to society taking into account
  ● The state of the economy
  ● The state of particular industries
Net-Benefit Example

Which is Preferred?

- CO Anti Pollution Device on Tailpipes
  - Cost = $100m
  - Benefit = prolong 1000 lives 1 year

- Special Ambulances Equipped for Heart attack victims
  - Cost = $100m
  - Benefit = 10,000 lives prolonged 1 year
Elements of Cost Benefit Analysis

- Monetizing all costs & benefits for direct comparison
- Discounting for Time value of money
- Discounting for Uncertainty of Outcomes
- Risk Analysis
- Maximizing Net Benefits
Issues

○ Who are “stakeholders?”
  ● Whose costs & benefits count?
    ○ Future generations
    ○ Non-human stakeholders

○ What about non-tangible and hard to monetize costs & benefits?
  ● Existence Values
  ● Nuisance Values
  ● Moral Values

○ What about intensity of preferences?
Costs of Environmental Protection

- To the Regulated
  - Easiest to estimate & monetize
  - Systematically overestimated
Benefits of Environmental Protection

- To Public
  - Difficult to Monetize Benefits
    - Averted “costs” of not protecting the environment
    - Benefits of Grizzly Bears in Montana
      - Willingness to pay
      - Travel Cost
      - Eco-tourism

- Benefits are Systematically underestimated
Doing Cost-Benefit Analysis – USACE Style

- Net benefit example 1
- Net benefit example 2
- Discounting example
How Good are We at Predicting Regulatory Costs?
Accuracy of Regulatory Costs – I
as Predicted by EPA/OSHA

<table>
<thead>
<tr>
<th>All Regulations (N=28)</th>
<th>Accurate</th>
<th>Over</th>
<th>Under</th>
<th>?</th>
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<td>Amount of Pollution reduction</td>
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<tr>
<td>Unit cost</td>
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<tr>
<td>Total cost</td>
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<td>15</td>
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</table>

Accuracy: within range predicted, or ± 25% of point estimate

Accuracy of Regulatory Costs – III
as Predicted by EPA/OSHA

Accuracy: within range predicted, or ± 25% of point estimate