

# Comparative Regulatory Regimes for Oil and Gas Drilling: Reflections on My Summer Internship at the Congressional Budget Office (CBO)

Jessica Y. Lau, MPP Candidate, Rutgers University

Site Supervisor: Andrew Stocking

Academic Advisor: Dr. Henry A. Coleman





# Agenda

- Relevant Coursework and Policy Interests
- About CBO
- Summer Project
- Career Goals and Anticipated Courses



# Relevant Coursework

shaping policy interests

# Development and Gov't Fiscal Policy

- Public Policy Formation
  - Budget Enforcement Act of 1990
- Budgeting and Public Policy/  
Macroeconomic Foundations of Public Policy
  - $GDP = C + I + G + (X-M)$
- Economics and Public Policy
  - how policies shape economic behavior in individual markets

# About CBO

history, mission, structure



# History and Mission of CBO

- Congressional Budget and Impoundment Act of 1974
- Alice Rivlin, first director
- Provides U.S. Congress with objective, timely, nonpartisan analyses.
  - House and Senate Budget Committees
  - Appropriations, Ways and Means, Finance Committees
- CBO does not make policy recommendations.

# Structure of CBO

- Flat management structure
  - fosters collaboration among different analysts and economists across the organization
- Budget Analysis Division
- Six program divisions
  - Fiscal Analysis
  - Health, Retirement, and Long-Term Analysis
  - Microeconomic Studies
  - Macroeconomic Analysis
  - Tax Analysis
  - National Security

# Influencing Federal Fiscal and Economic Policies

- “baseline projection”
  - assumes continuation of current spending and revenue laws.
- economic forecasts
  - use major economic variables such as gross domestic product, unemployment, inflation, and interest rates.
- cost estimates
- analytic studies





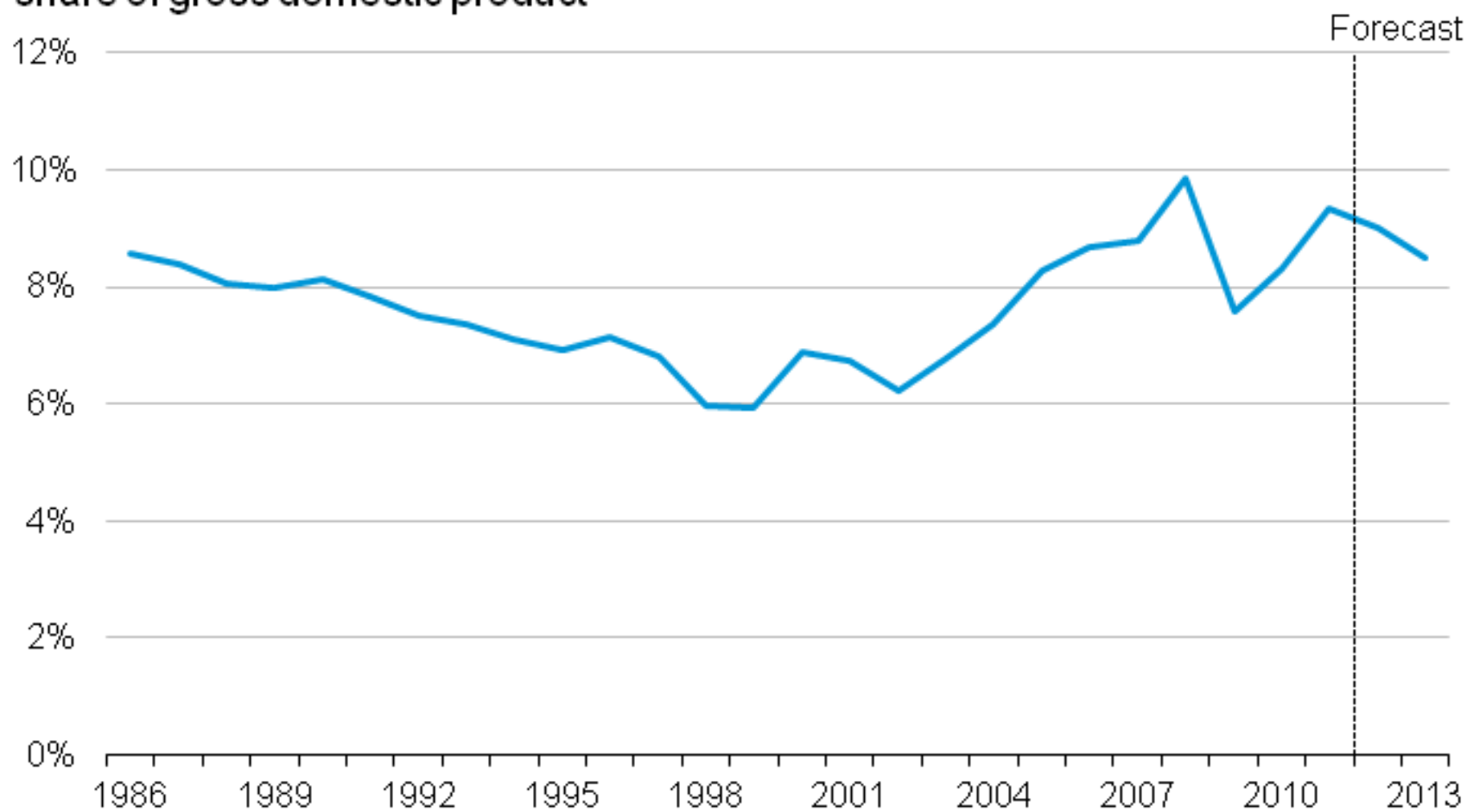
# Summer Project

understanding regulatory differences for oil and gas drilling on federal, state and private lands

# Policy Problem: Energy Security in the United States

- Energy consumption represented 8.4 percent of U.S. GDP in 2010
- Negative effects from disruptions in energy supply:
  - raise energy prices
  - reduce the nation's economic output

## U.S. Annual Energy Expenditures share of gross domestic product

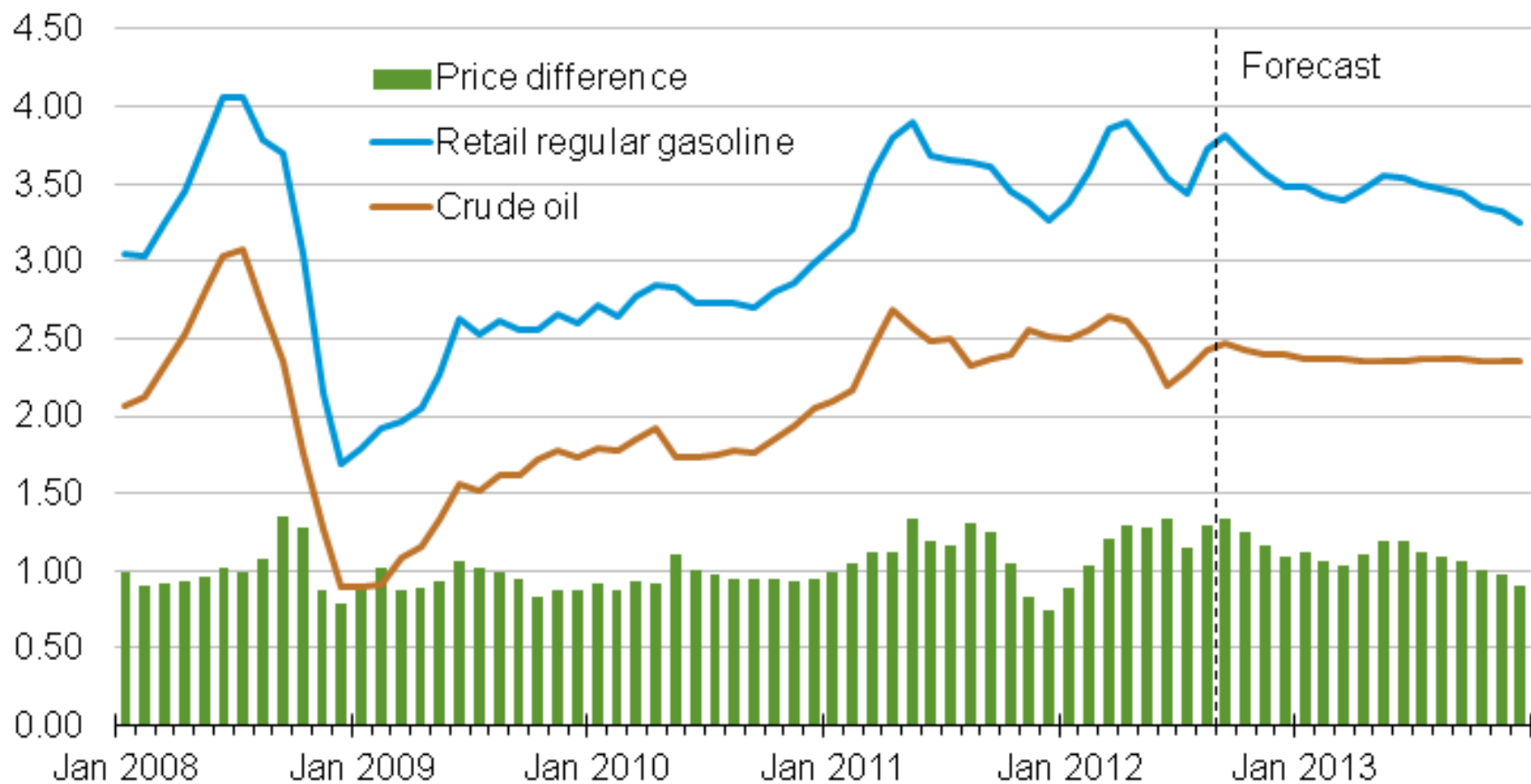


Source: Short-Term Energy Outlook, September 2012



## U.S. Gasoline and Crude Oil Prices

dollars per gallon



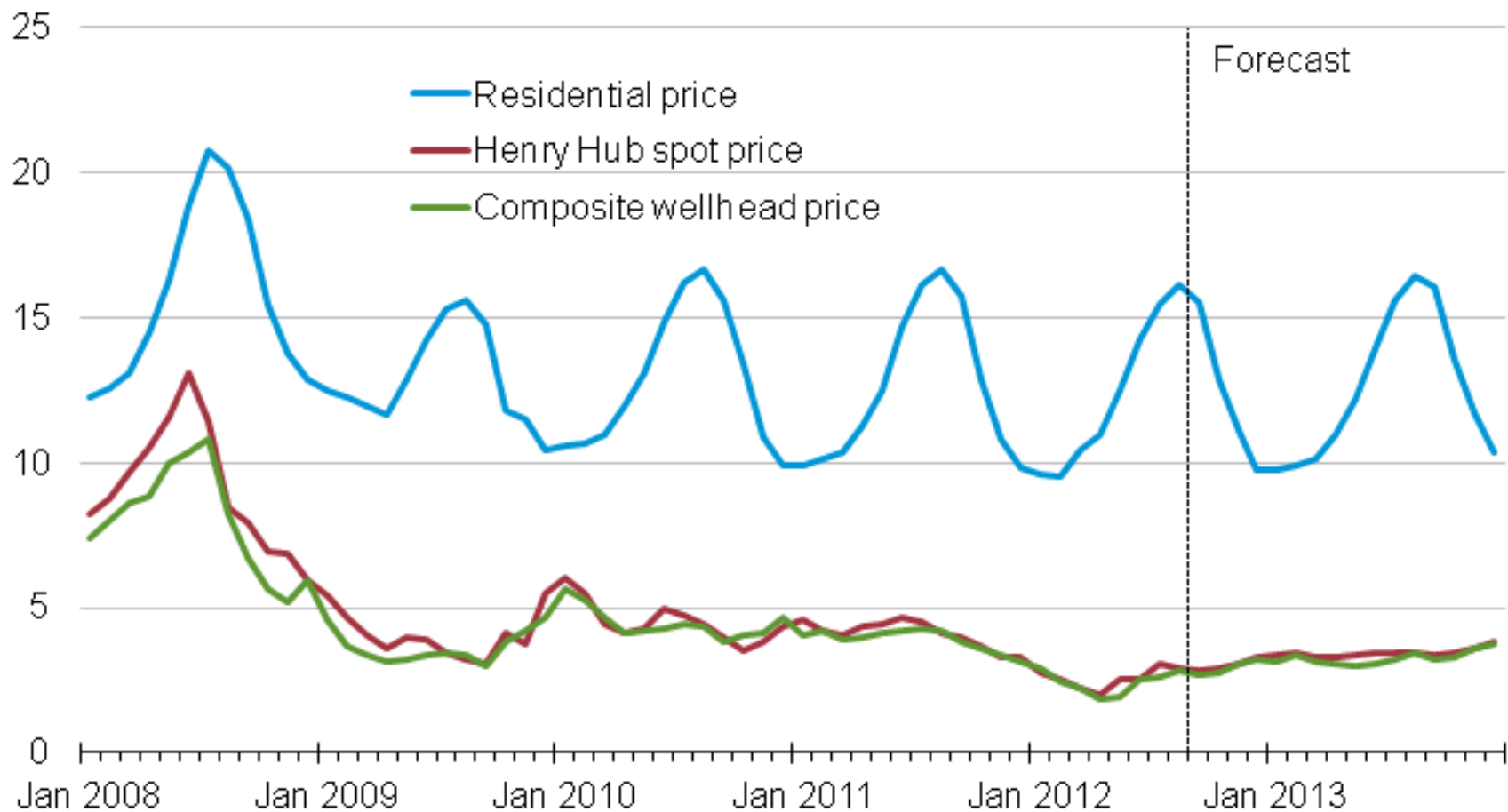
Crude oil price is average refiner acquisition cost. Retail prices include state and federal taxes.

Source: Short-Term Energy Outlook, September 2012



## U.S. Natural Gas Prices

dollars per thousand cubic feet



Source: Short-Term Energy Outlook, September 2012



# Policy Problem: Federal Budget

- Address the Fiscal Deficit
  - \$1.3T (8.1 percent of GDP) in fiscal 2012
  - \$977B (6.1 percent of GDP) in fiscal 2013
- Pay Down Publicly-Held Federal Debt
  - \$10.1T (68 percent of GDP) at the end of 2011
  - \$15.2T (77 percent of GDP) at the end of 2017
  - \$18.8T (76 percent of GDP) at the end of 2022

Source: CBO, An Analysis of the President's 2013 Budget, March 2012

# Potential Policy Solution

Legislative proposal to open most federal lands to oil and gas leasing.

- Increase domestic production of commodities used to generate energy.
  
- Increase federal revenues from onshore oil and gas leasing fees and royalties.
  - estimated at \$150B over the next decade under current laws and policies.
  - estimated 175B barrels of oil equivalent in undiscovered oil and gas reserves (mainly in western states and excluding Alaska).



# Main Research Question

How do differences in royalty rates, regulations, and permitting requirements affect leasing, exploration and production decisions?

## Summer Research Project

After acquiring a lease, what are the regulatory hurdles firms have to overcome before drilling on federal, state and private lands?



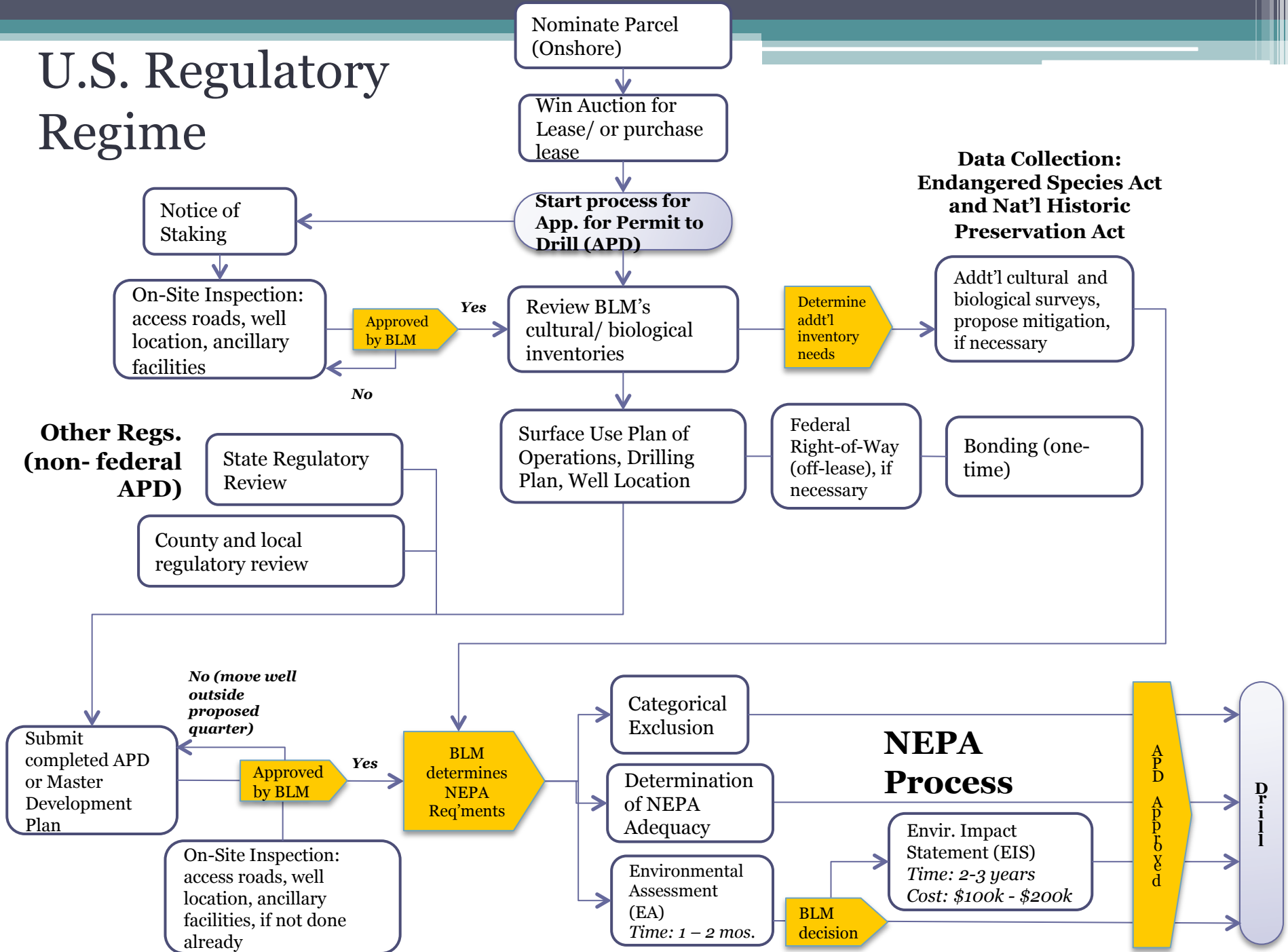
# U.S. Regulatory Regime

**Managing Agency:** Bureau of Land Management (BLM), Department of Interior

## **Four Main Components:**

- Application for Permit to Drill (APD)
- Filing fee for each well
- Bonding for well plugging and abandonment and surface restoration
- Addt'l requirements related to the National Environmental Policy Act (NEPA process)

# U.S. Regulatory Regime



# State Regulatory Regimes

Six oil producing states with a mix of federal, state, and private ownership of mineral leases

- Colorado
- Montana
- North Dakota
- Texas
- Utah
- Wyoming

# Regime Comparison

Federal & State	APD Req'd	APD Filing Fee	Bonding Req'mnt	Environ. Regulations
Federal Onshore	Yes	\$6,500	\$10,000 for each lease; \$25,000 statewide; \$150,000 nationwide	National Environmental Policy Act
Colorado	Yes	\$0	\$10,000 to \$20,000 per well; \$60,000 to \$100,000 blanket bond	<i>requires further research</i>
Montana	Yes	\$25 to \$150	\$1,500 to \$10,000 per well; \$50,000 blanket bond	Montana Environmental Policy Act
North Dakota	Yes	\$100	\$50,000 per well; \$100,000 blanket bond	<i>requires further research</i>
Texas	Yes	\$200 to \$300	\$25,000 to \$250,000 blanket bond	<i>requires further research</i>
Utah	Yes	\$0	\$1,500 to \$60,000 per well; \$15,000 to \$120,000 blanket bond	<i>requires further research</i>
Wyoming	Yes	\$50	\$10,000 to \$20,000 per well; \$75,000 blanket bond	<i>requires further research</i>



# Career Goals

anticipated courses



# Development and Gov't Fiscal Policy

- **Cost-Benefit Analysis**
  - gain a better understanding of the costs and benefits of regulations
- **State and Local Public Finance**
  - gain a better understanding of government fiscal policies on the sub-national level



Thank You!

Questions? Comments.