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# HYDRAULIC FRACTURING: STATES TAKE ACTION

FEBRUARY 21, 2014



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## **NCSL OVERVIEW**

- **Bipartisan organization**
  - Serves the 7,383 legislators and 30,000+ legislative staff of the nation's 50 states, commonwealths and territories
- **NCSL Energy Program**
  - Alternative fuels & vehicles
  - Emissions, climate change
  - Energy efficiency, conservation
  - Energy security
  - Finance, funding
  - Fossil fuels (oil, gas, coal)
  - Infrastructure
  - Nuclear generation
  - Renewable energy
  - Transmission, distribution
  - Utilities



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## OVERVIEW

- Domestic oil and natural gas outlook
- What is hydraulic fracturing?
- States take action: *why now?*
  - *Economic Impacts*
  - *Environmental concerns*
- State legislative overview

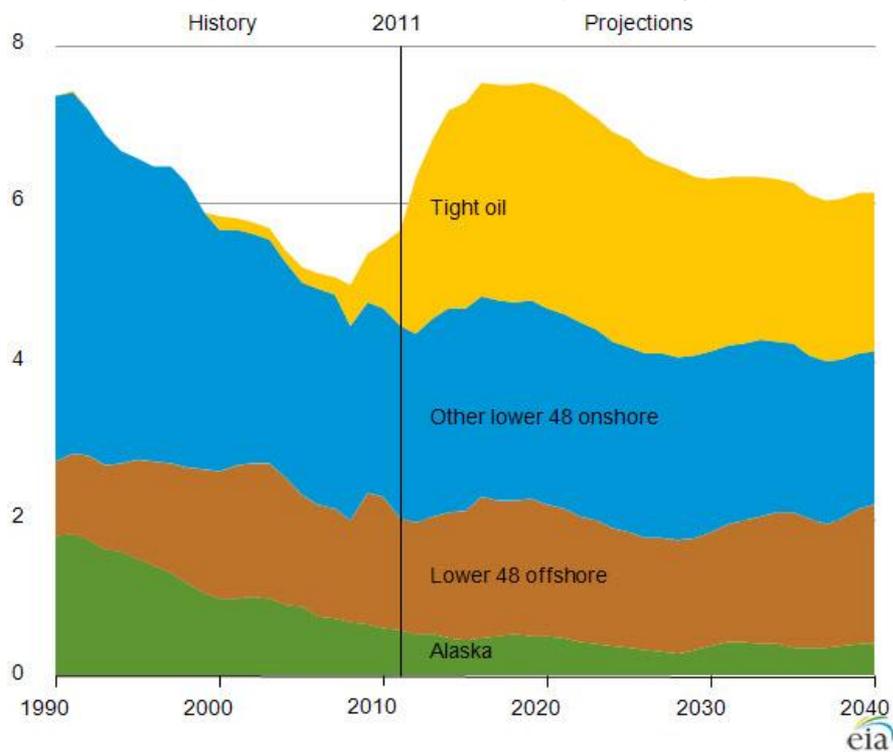


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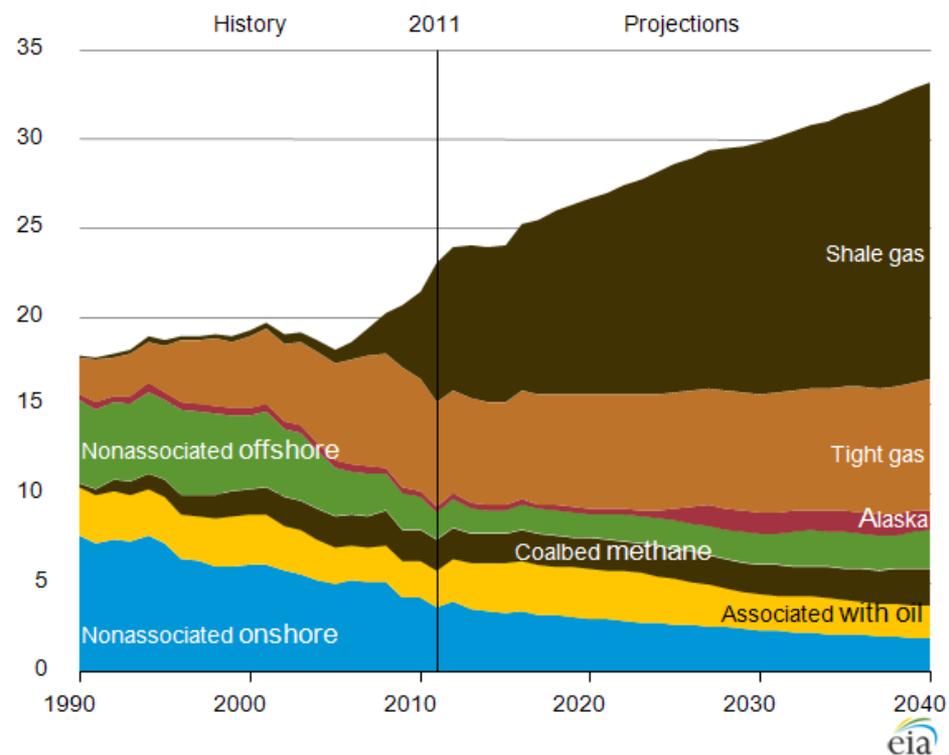
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## U.S. DOMESTIC CRUDE OIL PRODUCTION (millions of barrels per day)



## U.S. DRY NATURAL GAS PRODUCTION (trillion cubic feet)





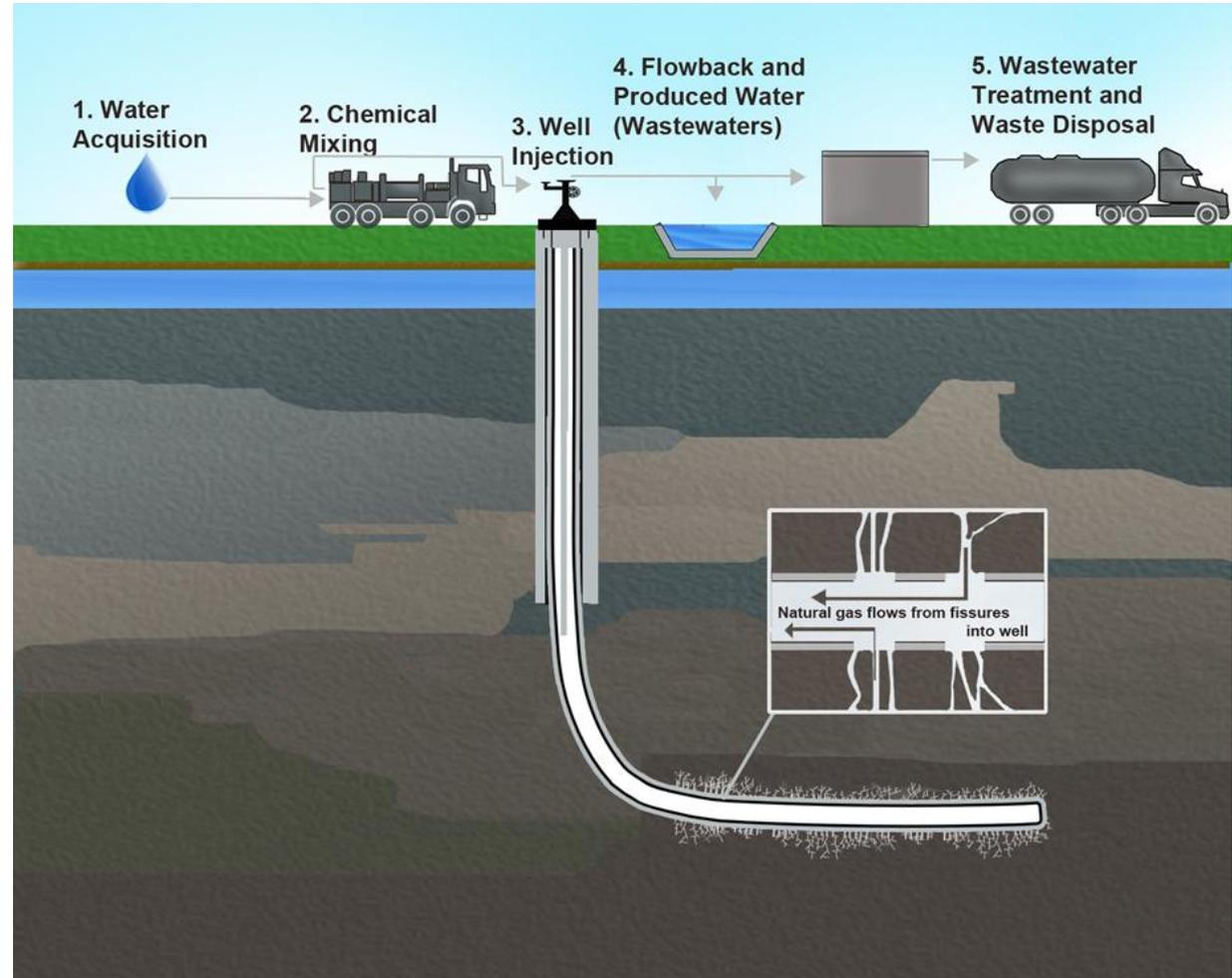
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# WHAT IS HYDRAULIC FRACTURING?

- Injection of water, sand and chemicals at high pressure.
- Fluid generates small fissures, freeing trapped oil and gas.
- Proppant (usually sand) keeps the cracks open while oil or gas is removed.
- Hydraulic fracturing has been used since the 1940s.



Source: U.S. Environmental Protection Agency, Hydraulic Fracturing Study



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# STATES TAKE ACTION: WHY NOW?

- ***Technology advances*** – the combined use of hydraulic fracturing and horizontal drilling significantly enhances oil and natural gas recovery
- Increased ***public concern*** as industry expands into (possibly densely populated) regions where the process is unfamiliar
- Industry offers tremendous ***economic benefits*** to state and local economies



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# **ECONOMIC & ENERGY SECURITY BENEFITS**

ACTIVITIES BEFORE, DURING, AND AFTER DRILLING  
GENERATE SIGNIFICANT ECONOMIC IMPACTS

- Job creation
- Tax revenues
- Indirect benefits from the purchase of goods and services
- Lower natural gas and electric power prices
- Increased domestic energy security



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# PUBLIC HEALTH AND ENVIRONMENTAL CONCERNS

## ■ **Water**

- Water contamination from spills and leaks
- Water withdrawals
- Managing wastewater

## ■ **Air quality**

- Methane emissions

## ■ **Seismic Activity**





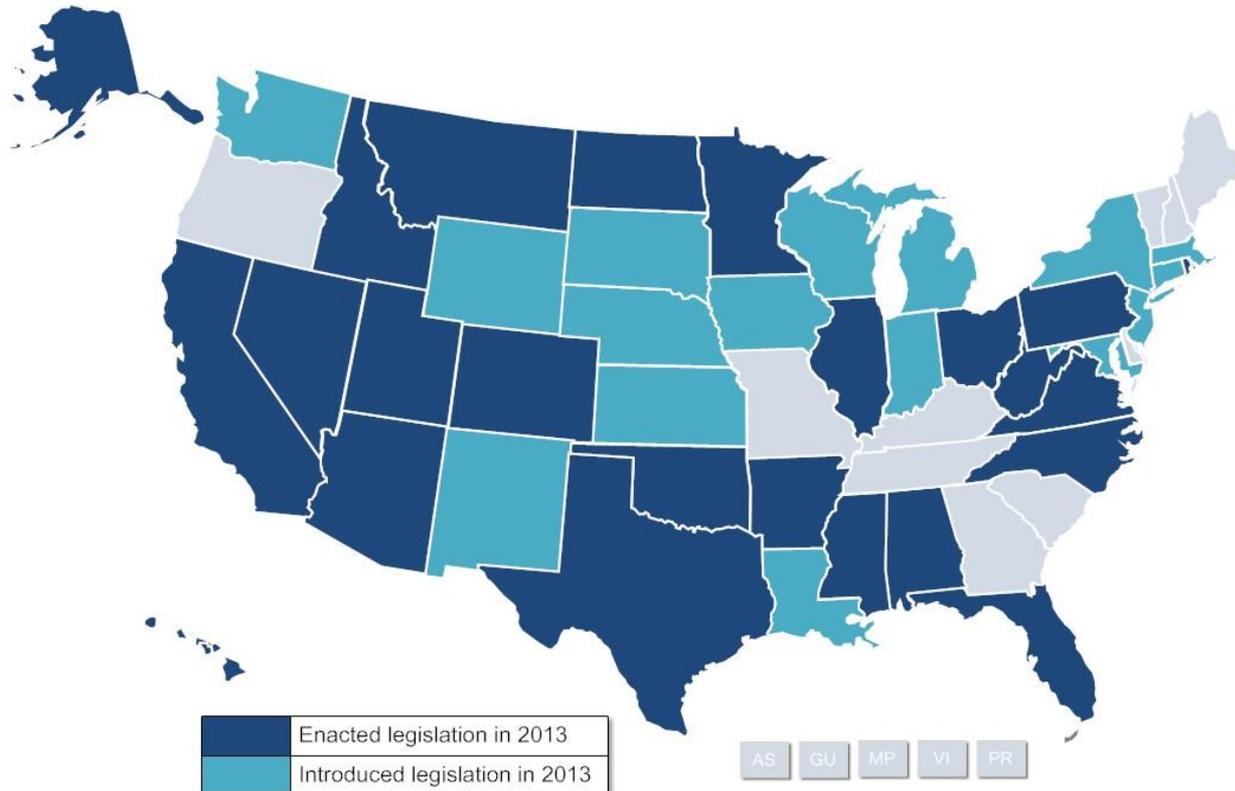
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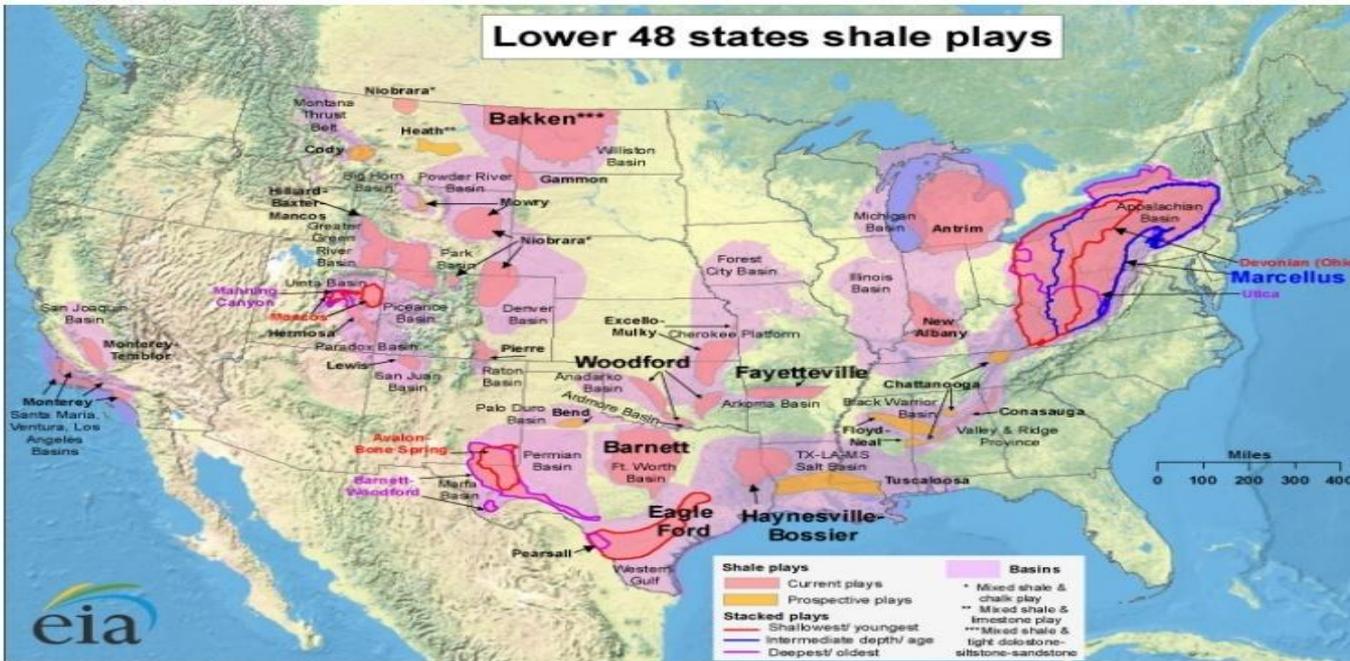
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# HYDRAULIC FRACTURING: KEY ISSUE

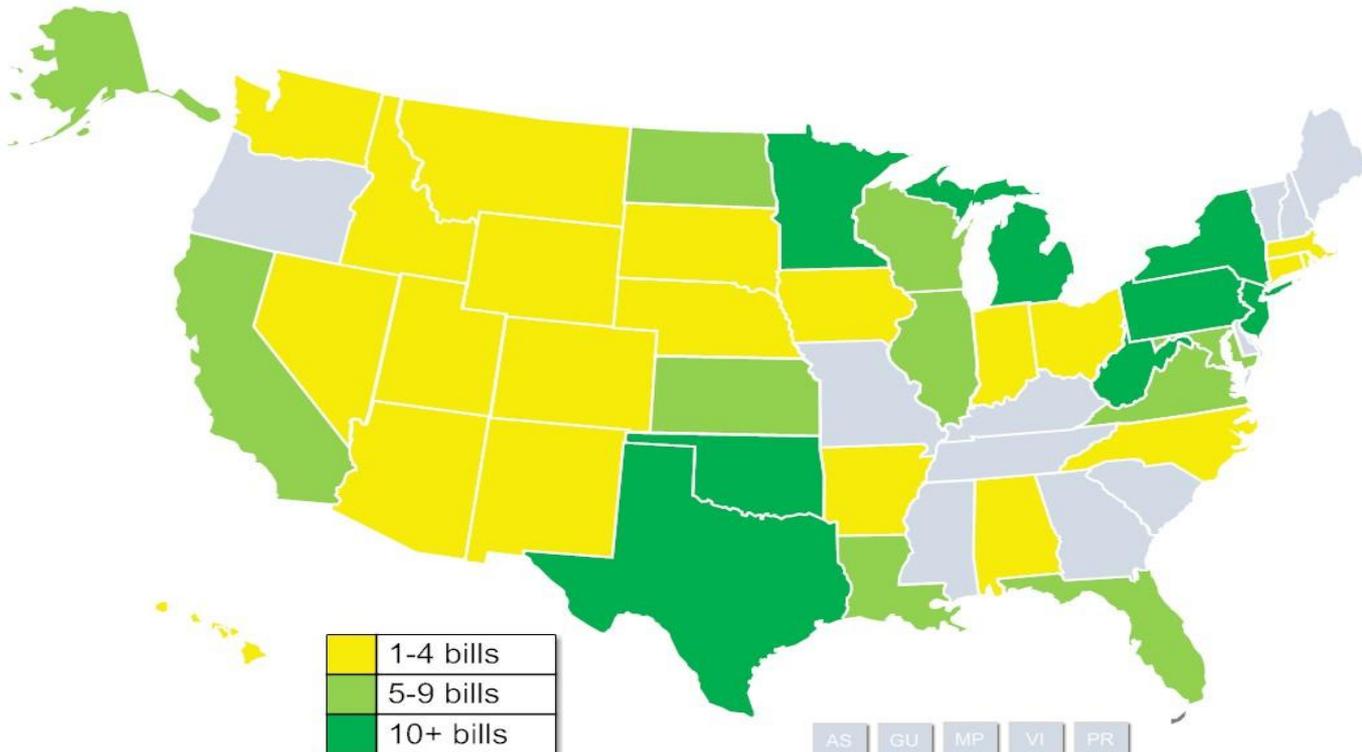
At least **225 bills in 40 states** were introduced in 2013 that address hydraulic fracturing.



# Lower 48 states shale plays



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# LEGISLATIVE TRENDS (2013 - 2014)

*States are working to alleviate public health and environmental concerns, while also taking advantage of the economic potential.*

- Severance Taxes/Impact Fees
- Water Quality
- Water Withdrawals
- Well Spacing
- Setback Locations
- Mechanical Integrity
- Chemical Disclosure
- Land Use
- Surface Rights versus Mineral Rights
- Moratoria/Studies
- Wastewater Treatment/Storage/Disposal



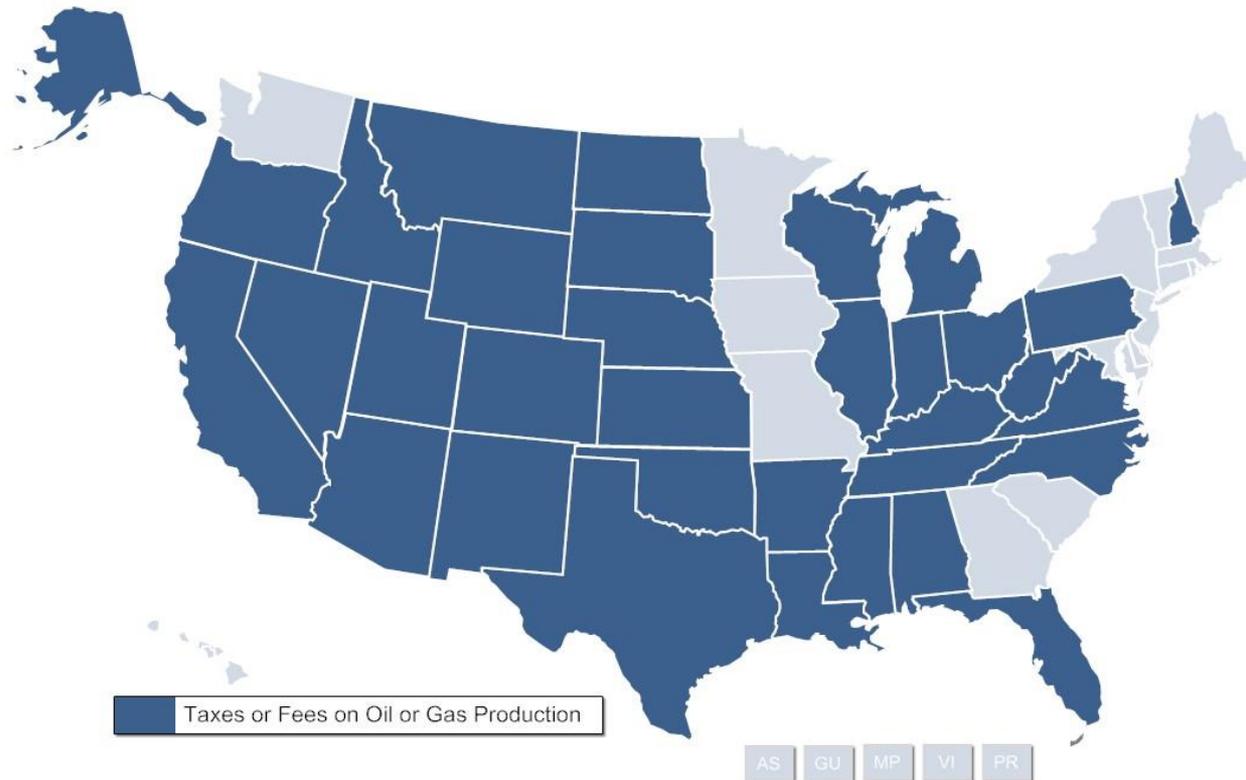
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## STATES GENERATE REVENUE

- **34 states** have enacted a fee or tax on the severance, production, and sale of oil and/or natural gas.
- At least **24 states** considered legislation to impose new or amend existing oil and gas severance taxes.
- In 2012, more than **\$18.7 billion** was generated in the U.S. from severance taxes.
- Severance taxes accounted for 9.6 percent to 82.1 percent of total state tax revenue in **7 states - Oklahoma, Louisiana, West Virginia, Montana, New Mexico, North Dakota, and Alaska.**





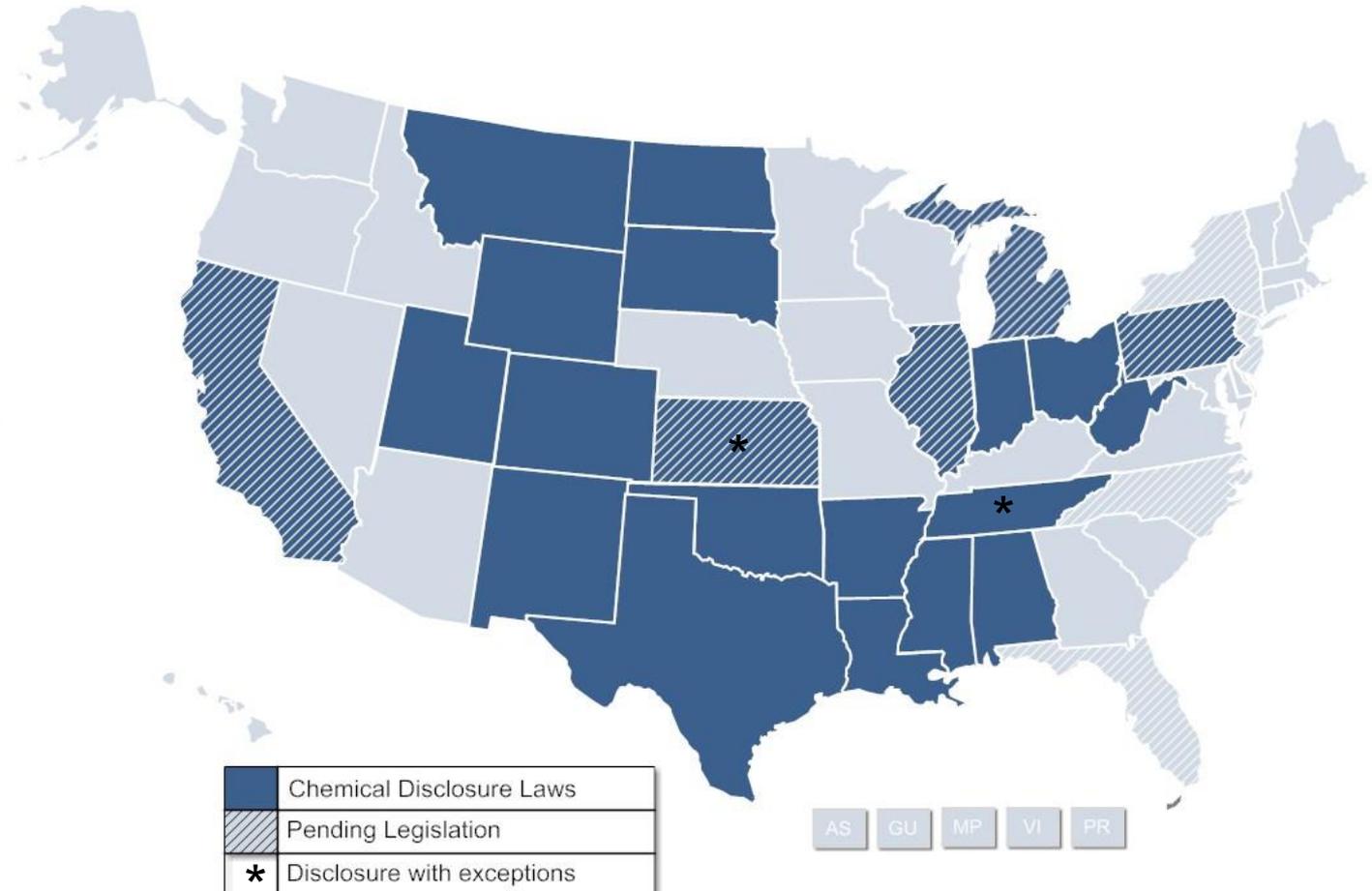
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# CHEMICAL DISCLOSURE

- **22 states** (including California and Illinois) have disclosure requirements.
- At least **9 states** have pending legislation.
- Disclosure rules vary widely from state to state.





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## **MECHANICAL INTEGRITY TESTS/ CASING REQUIREMENTS**

- More stringent regulation of drill casings or other mechanical integrity measures may prevent water contamination
- **Iowa's H.B. 128** (pending) and **Wyoming's S.B. 157** (failed) would require integrity tests of casings or other mechanical testing prior to fracking.

## **WELL LOCATION RESTRICTIONS**

- Well setbacks or location restrictions can help create buffers between drilling and public drinking water resources
- **New York's A.B. 5378** would prohibit drilling within 10 miles of the NYC water supply infrastructure
- **Pennsylvania's H.B. 800** would prohibit drilling within the surface or subsurface area of, or using hydraulic fracturing or horizontal drilling within, 2,500 feet of any primary source of community water



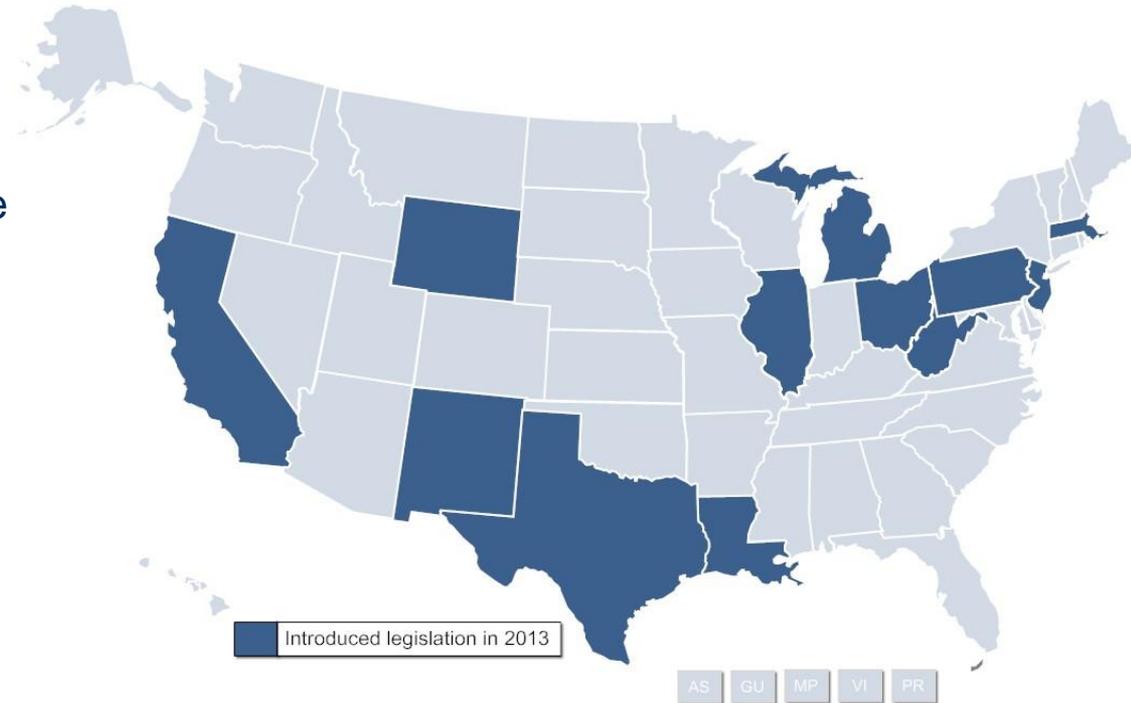
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# WATER WITHDRAWAL & QUALITY MONITORING

- **Wyoming's S.B. 157** (failed) would have mandated baseline groundwater testing prior to all oil and gas development.
- **Illinois' S.B. 1715** requires baseline and post-hydraulic fracturing testing of surface water and groundwater sources.
- **Illinois' S.B. 1715 and Michigan's H.B. 4902** (pending) creates a presumption of liability for water pollution.
- **Louisiana's S.B. 203** (failed) would have established withdrawal limits on the use of ground water.





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## TREATING, DISPOSING, AND TRANSPORTING HYDRAULIC FRACTURING WASTE

- At least **12 states** introduced legislation in 2013 related to the treatment and disposal of waste water resulting for hydraulic fracturing.
- Bills introduced in 2014:
  - **Maryland's H.B. 865** would prohibit the treatment, discharge, disposal or storage of hydraulic fracturing waste in the state.
  - **New York's A.B. 4559** prohibits the use of wastewater from hydraulic fracturing for road spreading for dust control or de-icing.
  - **Pennsylvania's H.B. 799** would require vehicles to display a placard on the outside of the vehicle indicating it is carrying hydraulic fracturing wastewater



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## **DRILLING MORATORIA OR STUDIES**

- **At least 5** bills were introduced in 2013 in **New Jersey** that would prohibit hydraulic fracturing in the state.
- **New York's S.B. 4276 and A.B. 5974** would establish a 5 year moratorium on high-volume hydraulic fracturing.
- **New Hampshire H.B. 1608** prohibits hydraulic fracturing for natural gas and oil production.
- **West Virginia H.B. 2062** requires a study of the human and environmental impacts of shale gas development



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## CONCLUSION

Oil and natural gas development ***offers tremendous economic benefits***, and ***states are working to ensure that the resource is developed safely***

- Hydraulic fracturing is a key issue in state legislatures, especially in densely populated regions where the practice is unfamiliar
- States are working to increase transparency through fracking fluid chemical disclosure requirements
- States are also considering mechanical integrity requirements to prevent spills and leaks
- Severance taxes and impact fees generate revenue, and states are addressing severance tax rate structures in various ways



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# CONTACT DETAILS AND RESOURCES

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## **NCSL Publications**

- *Reviewing Hydraulic Fracturing: State Action in 2013 (coming soon)*
- [\*State Revenues and the Natural Gas Boom\*](#) (June 2013)
- [\*States Take the Lead on Regulating Hydraulic Fracturing: Overview of 2012 State Legislation\*](#) (March 2013)
- [\*Natural Gas and Hydraulic Fracturing: A Policymaker's Guide\*](#) (April 2012)

## **Additional Resources**

- [\*\*NCSL Energy and Environment Database\*\*](#)
- [\*\*NCSL Energy Program\*\*](#)