### Contention 1 is Fracking

#### Shale gas production is inevitable --- it’s just a question of who regulates

Skorton, 9/24/12 (David, president of Cornell University, also holds faculty appointments at Weill Cornell Medical College and the College of Engineering. Lifetime member of the council on foreign relations& Glenn Altschuler, Cornell's [Vice President for University Relations](http://www.cornell.edu/administration/)

We have spent our adult lives in higher education and write about it.Forbes: “Fracking: A Role for Universities,” http://www.forbes.com/sites/collegeprose/2012/09/24/fracking-a-role-for-universities/)

Last month in a [Washington Post column](http://www.washingtonpost.com/opinions/fracking-is-too-important-to-foul-up/2012/08/23/d320e6ee-ea0e-11e1-a80b-9f898562d010_story.html) New York City Mayor [Michael Bloomberg](http://www.forbes.com/profile/michael-bloomberg/), founder of Bloomberg Philanthropies, and George P. Mitchell, philanthropist and hydrofracking pioneer, offered their foundations’ support to “organizations that seek to work with states and industries to develop common-sense regulations that will protect the environment—and ensure that the [fracking] industry can thrive.” We urge other foundations—and government officials—to enlist universities in the development of evidence-based public policy and safer fracking operations.¶ We cannot put this genie back in the bottle. Fracking is already being carried out across the country. And shale basins have been identified on six continents, making fracking a truly global issue. The questions before us are not only whether to frack, but how, where and with what safeguards in place.¶ With natural gas supplies plentiful for now and prices relatively low, we have time to make sound decisions about our shale gas resources. In creative partnership with government and industry, universities can help make sure we get it right.

### Plan

#### Thus the plan: The United States federal government should remove the Environmental Protection Agency’s New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants Reviews for natural gas production.

### Advantage 1 is the Economy

#### Federal Regs increase energy prices – companies pass costs on to consumers

Matt Willie, J.D. candidate, April 2012, J. Reuben Clark Law School, Brigham Young University, Brigham Young University Law Review, 2011 B.Y.U.L. Rev. 1743, Hydraulic Fracturing and "Spotty" Regulation: Why the Federal Government Should Let States Control Unconventional Onshore Drilling, Lexis, jj

C. Financial Costs of Federal Regulation Even if fracking regulators were somehow immune from the failures that have plagued other agencies, **additional federal regulation should not be adopted without a realistic assessment of its price tag**. Testifying before the House Committee on Energy and Commerce in 2005, Victor Carrillo, chairman of the Texas Railroad Commission, argued that **stricter federal fracking standards "would not result in cleaner water but only in adding significant cost**. **Such unnecessary regulation and the concomitant cost can only serve to ~~retard~~ the development of much needed natural gas in this country**." n233 This statement seems even more appropriate six years later, as **additional research has revealed just how significant those costs could be. Merely studying the issue at the federal level can be expensive**. As part of its Science to Achieve Results Program, **the EPA requested $ 4.3 million for fracking research alone in fiscal year 2011**. n234 The amount constitutes a $ 2.5 million increase from 2010. n235 **The costs of actually administering a federal fracking regulatory program, after research is completed and rules are drafted, would undoubtedly be astronomically higher. Compounding this concern is the serious potential for federal financial waste**. According to a study completed in early 2011 by the Government Accountability Office, "**overlapping and duplicative** [\*1779] [**federal] programs ... cost taxpayers billions of dollars each year**." n236 **The nonpartisan office uncovered a staggering number of federal inefficiencies, including "82 federal programs to improve teacher quality; 80 to help disadvantaged people with transportation**; 47 for job training and employment; and 56 to help people understand finances." n237 **It seems unlikely that additional federal hydraulic fracturing regulation, if enacted, would not suffer from similar financial inefficiencies.** Of course, state regulatory agencies could be just as wasteful. Nevertheless, **citizens are arguably more equipped to hold local and state government officers politically accountable for their waste**. n238 **This is so not only because citizens generally have greater access to local and state leaders, but also because they can compare government spending in their state with that of neighboring states.** n239 In contrast, **selecting appropriate foreign governments for comparisons of federal spending seems a much more daunting task. Regardless of the cost to taxpayers, additional federal regulation would put a significant financial burden on developers. A 2009 report** prepared for the American Petroleum Institute estimates that **national fracking legislation could increase the costs of shale plays by $ 47,333 per well and non-shale plays by $ 109,833 per well**. n240 Perhaps even more troubling is that **such "added costs raise the economic threshold ... at which a play can be developed," decreasing the total number of wells operators who are willing to drill**. n241 As the report explains: Experience suggests **that a 20% reduction in the number of wells completed each year due to increased regulation is a valid** [\*1780] **assumption due to the additional time needed to file permits, push-back of drilling schedules due to higher costs, increased chance of litigation, injunction or other delay tactics used by opposing groups and availability of fracturing monitoring services**. n242 **Such costs would undoubtedly be passed along to consumers, compounding government waste with higher prices at the pump.** V. Conclusion **The tremendous economic impact of hydraulic fracturing should not be understated**. **As the need to replace conventional sources of energy becomes more pressing, the United States' dependence on foreign oil and the risks of offshore drilling may combine to make the debate about fracking and other unconventional forms of drilling one of the most important energy-related issues** of the twenty-first century. **Special interest groups insist that fracking's impact** on the environment **is disastrous, but decades of study have revealed only minor concerns**. **In light of federal regulatory failures such as those that led to the BP disaster in the Gulf, leaving control of hydraulic fracturing with the states seems to be a far more prudent course**. Local and regional industry realities should guide energy regulation in the United States, and **state officials are far more equipped than federal employees to successfully account for the geological and human variables that shape onshore development**. State regulation of such development has intensified as unconventional methods of drilling have increased. In the process, courts have properly addressed the legal aspects of hydraulic fracturing while giving appropriate deference to agency regulations based on state common law theories, legislative directives, environmental needs, and local practices. **Hydraulic fracturing has played an important role in the oil and gas industry for more than sixty years. Regulatory intrusions by the federal government at this point will only create unnecessary financial burdens and hinder developers' ability to efficiently extract hydrocarbons.** [\*1781] As the Groundwater Protection Council warned more than a decade ago: "**If additional federal regulations were to be imposed they would not be based on scientific observation of associated contamination, and there would be little if any increase in protection of public health and the environment**." n243 W**ith so little to gain, the costs of additional federal controls are simply unjustifiable.**

***Natural gas is a key economic game-changer – It revitalizes every industry***

Steve **Stackhouse**, writer for Area Development, MA in Journalism, “New Natural Gas Technologies Firing Up Manufacturing”, Fall 20**12**, http://www.areadevelopment.com/EnergyEnvironment/Fall2012/natural-gas-technologies--fuel-economic-boom-2223461.shtml

**The economic boom fueled by new natural gas drilling technologies has been stunning** — **some parts of the country barely noticed the Great Recession** as they scrambled to find enough well-paid workers to extract shale gas from the ground. **But what if that boom was just the tip of the economic-development iceberg**? **What if the gas boom turned out to be a catalyst helping to spark a much-needed rejuvenation in North American manufacturing**? That’s a question many business leaders and academics have been asking lately, and **the answer is encouraging.** **One study has projected the addition of a million new jobs in the next dozen years thanks to the availability of more affordable energy**, the need for products involved in extracting gas, as well as new manufacturing operations involving various products and byproducts that come from the ground. **Other studies look forward to an even bigger impact on jobs, and suggest that manufacturing operations that previously fled to overseas locations may turn around and come home.** New Technologies **The boom stems from the increased use of hydraulic fracturing**, or “fracking,” **and horizontal drilling techniques to unlock formerly inaccessible underground oil and gas treasures**. The concept started to catch on in the late 1990s in the Barnett Shale area of Texas and quickly spread to reserves such as Eagle Ford, Marcellus, Utica, and Bakken. **These and other shale reserves are rich enough to make the United States one of the world’s top producers of shale gas and all of its various downstream products**. A variety of industries will feel the impact, says Kevin Smith, chief economist for the American Chemistry Council. **The chemical industry** he represents **is already seeing growth, and** he says to also **watch for an impact in such sectors as steel and other metals, plastics and rubber products, glass, paper, and cement — what** he says **could be “a whole manufacturing renaissance in this country.” Take, as just one example,** **the plans from Shell Chemical to build** an ethane “cracker” in the northeast United States. A “cracker” is what the industry calls **a plant that breaks down oil and gas into smaller molecules**, and an ethane cracker creates ethylene, which goes into plastic. **Shell favors a site in Pennsylvania, one of the hot spots for shale gas development**, **and Smith’s organization has projected that the project could create more than 17,000 permanent jobs**, including direct and indirect jobs as well as ripple-effect employment. **Multiply that by the many other kinds of operations fueled by the shale gas boom and you get** what a PricewaterhouseCoopers study also terms “**a renaissance in U.S. manufacturing**.” One of that study’s lead contributors was Bob McCutcheon, PwC’s U.S. industrial products leader and the managing partner in Pittsburgh — a place where both shale gas and the state of manufacturing are on a lot of people’s minds. “We’re in the Marcellus Shale country, and a lot of conversation a year ago was centered on the energy sector — jobs, drilling activity, farmers cashing checks,” he says. “We were talking to a lot of clients in the industrial products sector and started to have a lot of conversations about what this might mean longer-term for manufacturing. So we tried to take a data-driven approach to the question.” **What are the results of this data-driven research? “We believe that the affordable, abundant shale gas that’s available with technology in horizontal drilling and fracking is a game-changer for U.S. manufacturing,”** says McCutcheon. **A report from the American Chemistry Council has similar superlatives: “Natural gas from shale is possibly the most important energy development in 50 years. It has huge potential for the United States.”** Who’s Feeling the Benefits? **Among other things, the PwC study scoured the filings of public companies for evidence of growth or planned expansions resulting from the gas boom**. **Even relatively early in the game, these documents already include numerous mentions**. Some of them point to the cost savings brought about by the drop in natural gas prices. Indeed, **the downward effect on natural gas prices is a goldmine for manufacturing,** according to the PwC analysis. **By 2025, U.S. manufacturers could be saving more than $11 billion a year on natural gas expenses. But probably twice as many of the public company filings on the topic involve firms that expect to make more use of the various byproducts of shale gas production, or whose products are essential to the extraction of shale gas**. According to Smith, **there has been a significant increase in capital investments made by chemical-makers and other manufacturing industries** — **investments that could eventually add up to $75 billion**. Gulf Coast locations and Appalachian areas are already seeing the impact, he notes. **One American Chemistry Council study focused on the projected supply response among eight natural gas-intensive manufacturing industries, and forecast an increased output of about $120 billion, which in turn would support the creation of 1.2 million** direct, indirect, and induced **jobs** — **not to mention the 1.1 million jobs that would be created by construction**. **Even that could be just the beginning of the employment impact, though**. Smith points to a Boston Consulting Group study suggesting that **America could be in for a wave of “re-shoring,” essentially the opposite of offshoring**. **As the cost picture improves, returning manufacturers could generate two to three million jobs. Truth is, many industries benefit from both the lower energy and supply costs as well as the opportunity to expand production.** **Take the metals business. There are plenty of metal tubes and pipes and other components involved in gas drilling itself**, McCutcheon notes. Beyond that, “**steel work is one of the largest consumers of natural gas, so the cost savings could be a significant competitive advantage for manufacturers here**,” he observes**. In addition, newer steel production technologies could carry the benefits a step further, including processes that substitute natural gas for coke in the steelmaking recipe.** Developments Linked to the Boom The American Chemistry Council has compiled lists of developments linked to the natural gas boom. Smith says the original intent was to create a “one-pager” summary, but the list quickly grew into multiple pages (in fact, there’s a page with fairly small type devoted just to chemical manufacturing developments and another full page of plastics-related projects). Here are just a few more examples of developments that observers have linked to the natural gas boom: **Dow Chemical plans to use shale resources along the Gulf Coast to ramp up ethylene production. Earlier this year, the company announced development of a new ethylene production plant in Freeport, Texas, and it plans to restart a Louisiana ethylene cracker and seek additional feedstocks from the Eagle Ford and Marcellus reserves**. In announcing the Texas development, the company’s Chairman and CEO Andrew Liveris noted, “For the first time in over a decade, U.S. natural gas prices are affordable and relatively stable, attracting new industry investments and growth, and putting us on the threshold of an American manufacturing resurgence.” **Research by the American Chemistry Council includes a long list of iron and steel expansions** that can be tied to the natural gas boom in such places as Pennsylvania, Ohio, North Carolina, Minnesota, Texas, Alabama, and Arkansas. **Nucor Steel has plans for a $750 million direct-reduced iron facility in Louisiana**. Like most metals-related plants, it’ll need a strong supply of natural gas, and nearby shale resources are considered likely sources. **Last year, U.S. Steel opened an Ohio mill to make steel pipe for the drilling industry, and a French company named Vallourec & Mannesmann is doing the same. The Eagle Ford Shale in Texas is the catalyst behind a $1.7 billion Formosa Plastics chemical complex expansion nearby.** Cracking units would produce ethylene and propylene gases for use as raw materials at on-site plastics plants. **Old Ocean, Texas, is where Chevron Phillips plans two propylene facilities, part of the company’s U.S. Gulf Coast Petrochemicals Project**. Last year the company announced plans for Gulf Coast ethane cracker and ethylene derivatives facilities. **Aither Chemicals is exploring development of an ethane cracker in West Virginia. The company is exploring the market interest for chemical feedstocks** that its cracking process would produce by tapping into the Marcellus Shale. **Bridgestone, Michelin, and Continental have South Carolina tire manufacturing developments linked to the gas boom, according to the American Chemistry Council**. Where Are the Benefits Most Powerful? The natural gas boom is certainly reflected in Area Development’s 2012 Leading Locations analysis. Many of the U.S. locations revealed by data sources to be the most prosperous are feeling the impact of fracking — from North Dakota to Texas to parts of Louisiana. Indeed, the impact has been so powerful that many of these areas barely experienced the recession and, if anything, had a surplus of job openings. As David Jenkins, vice president at engineering consultant TRC Companies, points out, there’s so much demand for workers that some sites have had to build worker “camps.” **The question is how far does the halo expand beyond those areas where the gas is being extracted from the ground?** “It depends on the nature of the industry and how important it is to have close proximity to gas,” McCutcheon says. “One of the challenges is infrastructure and the ability to transport and store the gas.” Crackers, for example, tend to be in close proximity to the source. And as David Moss of Texas-based Armada Oil observes, end-users may tap right into their producers to trim overhead costs. “Locating manufacturing facilities near the producers is smart if you negotiate direct delivery from them and have or build a pipeline for delivery,” he says. On the other hand, **the boom has pushed natural gas prices down across North America, so** as McCutcheon points out, “**the broader effect is not necessarily going to be as geographically specific**.” It’s no surprise, then, that **chemical and plastics developments on the American Chemistry Council’s project list can be found all over the North American map, not just in the neighborhood of the shale reserves.** But **here’s where the story gets particularly positive for the U.S. economy compared with global competitors. “The market is still very inefficient**,” McCutcheon says, “**and that inefficiency in the market creates a competitive advantage in the United States**.” Three cheers for inefficiency? In this case, yes. A more efficient natural gas market would allow more global pricing, as is the case with oil. But, “**natural gas is still essentially regionally priced, so an abundance of natural gas in North America will benefit prices in North America,”** says McCutcheon. **The price advantage is significant. Natural gas may cost five times as much in some other parts of the world, even six or seven times higher in other places. That erases or at least mitigates a lot of the competitive advantages that have driven manufacturing overseas in recent years. The swing of the pendulum is quite noticeable** when one looks into the nation’s liquefied natural gas (LNG) terminals. As the PwC report points out, companies in the past have built LNG import facilities in America, under the assumption that domestic natural gas supplies would be limited. Now that they seem practically unlimited “that trend has reversed, and there is more interest in conversion to LNG export terminals,” the report states. How long will the U.S. advantage last? And aren’t there opportunities to frack in other countries? **“There are certainly significant shale gas reserves outside the United States, but currently the U.S. has the strategic advantage in technology and the ability to extract the gas,”** McCutcheon says, adding that he expects the American advantage to last for some time. **And that’s why the natural gas boom is potentially amazing news in a lot more sectors than just oil and gas development.** “This is a big part of a bigger story,” McCutcheon says. “**It is a major contributing factor to a competitive environment that could lead to a resurgence of manufacturing.”**

***However, prices must stay low for these benefits to materialize***

**Baily & Verleger ‘12**

Martin Neil Baily, Senior Fellow, Economic Studies , Philip K. Verleger Jr., Peterson Institute for International Economics, Brookings, June 27, 2012, Could Cheap Gas Save the Economy? <http://www.brookings.edu/research/opinions/2012/06/27-cheap-gas-baily>, jj

**Something is badly needed to get the economy moving again and avoid another slowdown.** The good news is that **cheaper gas could be the answer. America has hit the energy jackpot with new techniques to extract** oil and **gas from shale. The recent widespread use of** a technique called hydraulic fracturing, or "**fracking," and improved drilling technologies such as horizontal completion to harvest gas from shale, could provide a much-needed economic boost. Shale extraction represents one of the most important developments for the economy in the last 60 years. It's pushing down energy prices and creating many new opportunities for jobs, investments and manufacturing. And the new innovations are unique to the United States. Although other countries will exploit shale, none will come close to the low costs in the U.S. That's because the U.S. has a unique governmental structure in which many powers remain with the states, along with a very competitive market for the product**, as opposed to the monopolies and oligopolies that control the market in almost every other country. **While it may sound like the latest energy fad, the shale boom is for real and a serious game changer because of its size and potential longevity.** Based on equivalent amounts of energy, natural gas has been about half as expensive as oil for many years. The Energy Information Administration now predicts gas will be only a quarter or a fifth of the cost of oil through 2030, a big enough price difference to overcome the disadvantages of gas, such as its lower energy intensity by volume. How did the situation change? Was it because of the tax advantages given to the large oil companies? In fact, no. Big oil largely gave up on drilling onshore in the U.S. to concentrate on finding big fields in other countries or offshore. But small, innovative companies continued to drill for gas and oil here at home and figured out how to drill sideways and use computer technology to find deposits and extract them. Financial markets helped make this happen because small drillers could sell oil and gas using futures contracts and protect themselves against wild price swings. An economic boom **The prospect of cheap gas for years to come is already spurring investment**. Waste Management Inc (WM, Fortune 500). is investing in natural gas trucks that cost $30,000 more but save $27,000 a year in fuel costs. The big engine manufacturers are developing long-haul trucks to operate on liquefied natural gas. Eighty percent of future electricity generating capacity is expected to be from natural gas and many coal-fired plants may be shifted to gas. The market incentives are already there and jobs are flourishing. Government could throw gas on this economic fire by allowing facilitation, better coordination and cutting of red tape between federal and state agencies. Working together, government at all levels can set clear standards that protect both people and profits, yet speed the approval process to create more jobs at a faster pace. The industry, too, needs to cooperate by disclosing the nature of the fluids they are injecting during the fracking process, and by limiting emissions from the thousands of wells they will drill to alleviate some environmental concerns. Environmentalists should recognize the longer-term benefits of abundant gas supplies -- burning gas emits a lot less carbon than burning oil and coal, and extracting it is far cleaner than extracting oil from Canadian tar sands -- and work to achieve a compromise that allows rapid development with the necessary safeguards. And President **Obama should help promote a cleaner fossil fuel that shows such promise and is already creating new jobs.** But government support isn't the main problem. Drilling is being authorized today at rates that exceed the industry's capacity to drill. The real problem is that drilling for shale gas and oil could be slowed or stopped if disputes over fracking are not resolved in a way that addresses the public's concerns. Activity has already been suspended in some promising areas. **Cheap gas** may not be enough to offset the drag of a slowing global economy this year, but it **will boost long-term investment, help the beleaguered manufacturing sector and increase exports. Building petrochemical plants could suddenly become attractive in the United States. Manufacturers will "reshore" production to take advantage of low natural gas and electricity prices. Energy costs will be lower** for a long time, **giving a competitive advantage to companies that invest in America, and also helping American consumers who get hit hard when energy prices spike.** Other countries like China will attempt to replicate America's good luck, but will fail because they lack the unique legal, political and market institutions which have led to our success. **After years of bad economic news, the natural gas windfall is very good news. Let's make the most of it.**

***The economy’s on the brink --- supercharges the risk of the impact***

**RAMPELL ’11** – economics reporter for The New York Times; wrote for the Washington Post editorial pages and financial section (Catherine, “Second Recession in U.S. Could Be Worse Than First”. August 7. http://www.nytimes.com/2011/08/08/business/a-second-recession-could-be-much-worse-than-the-first.html?pagewanted=all)

**If the economy falls back into recession**, as many economists are now warning, **the *bloodletting could be a lot more painful* than the last time around**. Given the tumult of the Great Recession, this may be hard to believe. **But the economy is much weaker than it was at the outset of the last recession in December 2007, with most major measures of economic health — including jobs, incomes, output and industrial production — worse today than they were back then**. **And growth has been so weak that almost no ground has been recouped**, even though a recovery technically started in June 2009. “**It would be disastrous if we entered into a recession at this stage**, given that we haven’t yet made up for the last recession,” said Conrad DeQuadros, senior economist at RDQ Economics. When the last downturn hit, the credit bubble left Americans with lots of fat to cut, but a new one would force families to cut from the bone. Making things worse, policy makers used most of the economic tools at their disposal to combat the last recession, and have few options available. Anxiety and uncertainty have increased in the last few days after the decision by Standard & Poor’s to downgrade the country’s credit rating and as Europe continues its desperate attempt to stem its debt crisis. President Obama acknowledged the challenge in his Saturday radio and Internet address, saying the country’s “urgent mission” now was to expand the economy and create jobs. And Treasury Secretary Timothy F. Geithner said in an interview on CNBC on Sunday that the United States had “a lot of work to do” because of its “long-term and unsustainable fiscal position.” But he added, “I have enormous confidence in the basic regenerative capacity of the American economy and the American people.” Still, the numbers are daunting. In the four years since the recession began, **the civilian working-age population has grown by about 3 percent. If the economy were healthy, the number of jobs would have grown at least the same amount**. **Instead, the number of jobs has shrunk**. Today the economy has 5 percent fewer jobs — or 6.8 million — than it had before the last recession began. The unemployment rate was 5 percent then, compared with 9.1 percent today. **Even those Americans who are working are generally working less**; the typical private sector worker has a shorter workweek today than four years ago. Employers shed all the extra work shifts and weak or extraneous employees that they could during the last recession. **As shown by unusually strong productivity gains, companies are now squeezing as much work as they can from their newly “lean and mean” work forces.** Should a recession return, it is not clear how many additional workers businesses could lay off and still manage to function. **With fewer jobs and fewer hours logged, there is less income for households to spend, creating a huge obstacle for a consumer-driven economy**. Adjusted for inflation, personal income is down 4 percent, not counting payments from the government for things like unemployment benefits. Income levels are low, and moving in the wrong direction: private wage and salary income actually fell in June, the last month for which data was available. **Consumer spending, along with housing, usually drives a recovery**. But with incomes so weak, spending is only barely where it was when the recession began. If the economy were healthy, total consumer spending would be higher because of population growth. And with construction nearly nonexistent and home prices down 24 percent since December 2007, the country does not have a buffer in housing to fall back on. Of all the major economic indicators, industrial production — as tracked by the Federal Reserve — is by far the worst off. The Fed’s index of this activity is nearly 8 percent below its level in December 2007. Likewise, and perhaps most worrisome, is the track record for the country’s overall output. According to newly revised data from the Commerce Department, the economy is smaller today than it was when the recession began, despite (or rather, because of) the feeble growth in the last couple of years. If the economy were healthy, it would be much bigger than it was four years ago. **Economists refer to the difference between where the economy is and where it could be if it met its full potential as the “output gap.”** **Menzie Chinn, an economics professor at the University of Wisconsin, has estimated that the economy was about 7 percent smaller than its potential at the beginning of this year**. **Unlike during the first downturn, there would be few policy remedies available if the economy were to revert back into recession**. **Interest rates cannot be pushed down further — they are already at zero**. The Fed has already flooded the financial markets with money by buying billions in mortgage securities and Treasury bonds, and economists do not even agree on whether those purchases substantially helped the economy. So the Fed may not see much upside to going through another politically controversial round of buying. “**There are only so many times the Fed can pull this same rabbit out of its hat,” said Torsten Slok, the chief international economist at Deutsche Bank**. Congress had some room — financially and politically — to engage in fiscal stimulus during the last recession. **But at the end of 2007, the federal debt was 64.4 percent of the economy. Today, it is estimated at around 100 percent of g**ross **d**omestic **p**roduct, **a share not seen since the aftermath of World War II**, and there is little chance of lawmakers reaching consensus on additional stimulus that would increase the debt. “There is no approachable precedent, at least in the postwar era, for what happens when an economy with 9 percent unemployment falls back into recession,” said Nigel Gault, chief United States economist at IHS Global Insight. “**The *one precedent you might consider is 1937*, when there was also a premature withdrawal of fiscal stimulus, and the economy fell into another recession more painful than the first**.”

***That goes global – causes conflict***

**Judis**, Carnegie Endowment, 20**11**, The New Republic, August 8, [John], p. <http://www.npr.org/2011/08/08/139080654/new-republic-a-lesson-from-the-great-depression>

The first consideration has to do with the sheer gravity of the situation. What is at stake goes beyond an abstract rate of unemployment, or the prospect of a Republican White House in 2012, or even the misery of the long-term unemployed. From the beginning, this recession has been global. Germany has to take leadership in Europe, but **the United States is still the world's largest economy, the principal source of consumer and investment demand, and the banking capital of the world. If the United States fails to revive its economy**, and to lead in the restructuring of the international economy, then **it's unlikely that other economies in the West will pull themselves out of the slump. And as the** experience of the **1930s testified, a prolonged global downturn can have profound political and geopolitical repercussions.** In the U.S. and Europe, **the downturn has already inspired unsavory, right-wing populist movements. It could also bring about trade wars and intense competition over natural resources, and the eventual breakdown of important institutions like European Union and the World Trade Organization. Even a shooting war is possible**. So while the Obama administration would face a severe challenge in trying to win support for a boost in government spending, failing to do so would be far more serious than the ruckus that Tea Party and Republican opposition could create over the next year.

***Draws in great powers***

Liu **Qing 11**, Director of the Department for American Studies and an associate research fellow at the China Institute of International Studies, May 20, 2011, “Existing and Emerging Threats to International Security: A View from the United Kingdom,” online: <http://www.nuclearsecurityproject.org/publications/deterrence-its-past-and-future-panel-one>

Financial and **economic crisis begets political turmoil and drives destabilization on** national, regional and **global scales**.¶ The current financial and economic crisis results in direct loss in wealth. A recent report by the Asian Development Bank suggests **the crisis has already obliterated** approximately **$50 trillion in asset value worldwide** - the equivalent of roughly a year of global economic output. Ultimately, **the effects of** **the crisis spark** **destabilization, geopolitical tensions with far-reaching impacts**.¶ **We have already seen political reactions in** public demonstrations in **a diverse list of countries** including both developed countries and developing countries. Some countries and key regions even suffer from unrests brought on by the crisis. Some unrests are taking the form of regime changes and social turmoil.¶ **The crisis eats away at the foundations of stable governments**. Job losers are angry at the “haves” and the failure of the government. The resentment produces social tensions. **Governing parties lose political credibility**, and opposition groups seek to use the crisis as a wedge issue or to mobilize support for their anti-government views. As a consequence, **viable states become weaker**; **weaker states become failed states**; **failed states cause rifts and potential conflicts**.¶ The **weakening of states can produce** **instability that spills across borders**. **Opportunistic neighbors** intend to **make use of the political and economic weakness in those nations, and find excuses to intervene** in their neighbour’s politics. **Some wish to produce distractions from their own crises; some** try to take **control** of **neighboring territories**. In order to respond to some of the geopolitical consequences caused by the crisis, some **global powers may be involved** **into regional turmoil** **through military**, aid or other forms of **intervention**. These actions eventually would worsen the regional security situation.

***This goes nuclear***

**Kemp 10**

Geoffrey Kemp, Director of Regional Strategic Programs at The Nixon Center, served in the White House under Ronald Reagan, special assistant to the president for national security affairs and senior director for Near East and South Asian affairs on the National Security Council Staff, Former Director, Middle East Arms Control Project at the Carnegie Endowment for International Peace, 2010, The East Moves West: India, China, and Asia’s Growing Presence in the Middle East, p. 233-4

The second scenario, called Mayhem and Chaos, is the opposite of the first scenario; everything that can go wrong does go wrong. **The world economic situation weakens rather than strengthens**, and **India, China, and Japan suffer a major reduction in their growth rates**, further **weakening the global economy**. As a result, **energy demand falls and the price of fossil fuels plummets, leading to a financial crisis for the energy-producing states, which are forced to cut back dramatically on expansion programs and social welfare. That** in turn **leads to political unrest: and nurtures** different **radical groups, including,** but not limited to, **Islamic extremists**. The **internal stability of** some **countries is challenged**, and **there are more “failed states**.” Most serious is **the collapse of the democratic government in Pakistan and its takeover by Muslim extremists, who then take possession of a large number of nuclear weapons. The danger of war between India and Pakistan increases significantly. Iran**, always worried about an extremist Pakistan, expands and **weaponizes its nuclear program. That** further **enhances nuclear proliferation in the Middle East, with Saudi Arabia, Turkey, and Egypt joining Israel and Iran as nuclear states.** Under these circumstances, **the potential for nuclear terrorism increases, and the possibility of a nuclear terrorist attack in either the Western world or in the oil-producing states may lead to a further devastating collapse of the world economic market, with a tsunami-like impact on stability. In this scenario, major disruptions can be expected, with dire consequences for** two-thirds of **the planet’s population.**

***Best studies prove***

**Royal 10** – Jedediah Royal, Director of Cooperative Threat Reduction at the U.S. Department of Defense, 2010, “Economic Integration, Economic Signaling and the Problem of Economic Crises,” in Economics of War and Peace: Economic, Legal and Political Perspectives, ed. Goldsmith and Brauer, p. 213-214

Less intuitive is how periods of **economic decline may increase the likelihood of external conflict**. Political science literature has contributed a moderate degree of attention to the impact of economic decline and the security and defence behaviour of interdependent states. Research in this vein has been considered at systemic, dyadic and national levels. Several notable contributions follow. First, on the systemic level, Pollins (2008) advances Modelski and Thompson's (1996) work on leadership cycle theory, finding that rhythms in the global economy are associated with the rise and fall of a pre-eminent power and the often bloody transition from one pre-eminent leader to the next. As such, exogenous shocks such as economic crises could usher in a redistribution of relative power (see also Gilpin. 1981) that leads to uncertainty about power balances, increasing the risk of miscalculation (Feaver, 1995). Alternatively, even a relatively certain redistribution of power could lead to a permissive environment for conflict as a rising power may seek to challenge a declining power (Werner. 1999). Separately, Pollins (1996) also shows that global economic cycles combined with parallel leadership cycles impact the likelihood of conflict among major, medium and small powers, although he suggests that the causes and connections between global economic conditions and security conditions remain unknown. Second, on a dyadic level, Copeland's (1996, 2000) theory of trade expectations suggests that **'future expectation of trade' is a significant variable** in understanding economic conditions and security behaviour of states. He argues that interdependent states are likely to gain pacific benefits from trade so long as they have an optimistic view of future trade relations. However, **if the expectations of future trade decline, particularly for difficult to replace items such as energy resources, the likelihood for conflict increases, as states will be inclined to use force to gain access to those resources**. **Crises could potentially be the trigger for decreased trade expectations either on its own or because it triggers protectionist moves by interdependent states**.4 Third, others have considered the link between economic decline and external armed conflict at a national level. Blomberg and **Hess (2002) find a strong correlation between internal conflict and external conflict, particularly during periods of economic downturn.** They write: The linkages between **internal and external** conflict and prosperity are strong **and mutually reinforcing**. **Economic conflict tends to spawn internal conflict**, which in turn returns the favour. Moreover, the presence of a recession tends to amplify the extent to which international and external conflicts self-reinforce each other. (Blomberg & Hess, 2002. p. 89) Economic decline has also been linked with **an increase in the likelihood of** terrorism (Blomberg, Hess, & Weerapana, 2004), **which has the capacity to spill across borders and lead to external tensions.** Furthermore, **crises generally reduce the popularity of a sitting government**. "Diversionary theory" suggests that, **when facing unpopularity arising from economic decline**, sitting governments have increased incentives to fabricate external military conflicts **to create a 'rally around the flag' effect**. Wang (1996), DeRouen (1995). and Blomberg, Hess, and Thacker (2006) find supporting evidence showing that economic decline and use of force are at least indirectly correlated. Gelpi (1997), Miller (1999), and Kisangani and Pickering (2009) suggest that the tendency towards **diversionary tactics are greater for democratic states** than autocratic states, due to the fact that democratic leaders are generally more susceptible to being removed from office due to lack of domestic support. DeRouen (2000) has provided evidence showing that **periods of weak economic performance in the United States, and thus weak Presidential popularity, are statistically linked to an increase in the use of force**. In summary, recent economic scholarship positively correlates economic integration with an increase in the frequency of economic crises, whereas political science scholarship links economic decline with external conflict at systemic, dyadic and national levels.5 This implied connection between integration, crises and armed conflict has not featured prominently in the economic-security debate and deserves more attention.

***Even a short term decline in the US would cause global catastrophe***

**Schuman 11/13/12** Michael Schuman writes about Asia and global economic issues as a correspondent for TIME in Beijing, China. In his 16 years as a journalist in Asia, he has reported from a dozen countries, including China, India, Japan and Indonesia. Assignments have taken him into Gobi Desert sandstorms, Malaysian mosques, Indian call centers and Chinese shirt factories and to a North Korean state dinner (complete with Kim Jong Il himself). Schuman is the author of The Miracle: The Epic Story of Asia's Quest for Wealth. Before joining TIME in 2002, he was a correspondent for the Wall Street Journal and a staff writer for Forbes. Originally from New Jersey, he has a B.A. in Asian history and political science from the University of Pennsylvania and a master of international affairs from Columbia. Nov. 13, 2012, Time Magazine, Will the Global Economy Tumble Off America’s Fiscal Cliff? <http://business.time.com/2012/11/13/will-the-global-economy-tumble-off-americas-fiscal-cliff/#ixzz2HtYJ44S6>, jj

**Forget all of the talk about the rise of China and the shift of economic power from West to East. The U.S. economy remains the largest and most important in the world, and what happens in America still determines what happens to the global economy.** No wonder, then, that investors from Hong Kong to London have become fixated on the looming “fiscal cliff” facing the U.S. government. If re-elected President Barack Obama can’t reach a new deal with Republican Party Congressmen in the House of Representatives on closing the country’s trillion-dollar budget deficit, a slate of deep spending cuts and tax hikes will automatically come into effect next year that will in all likelihood derail the slow-moving U.S. recovery from the 2008 financial crisis. That would without doubt do some serious damage to growth globally. Rating agency Fitch proclaimed that “the U.S. fiscal cliff represents the single biggest near-term threat to a global economic recovery.” A U.S. plunge off the fiscal cliff would hit the global economy at an especially fragile moment. The news just about everywhere has already been bad. **Fears that Japan might slip into** (yet another) **recession rose** on Monday **when the world’s third-largest economy reported its GDP shrank** by an annualized 3.5% in the quarter ending September. **The euro zone is expected to contract in 2012 as well**. On November 7, Mario Draghi, president of the European Central Bank, warned that even powerhouse Germany is starting to suffer the ill effects of the debt crisis. “Germany has so far been largely insulated from some of the difficulties elsewhere in the euro area,” Draghi said. “But **the latest data suggest that these developments are now starting to affect the German economy.”** European leaders and the IMF continue to bicker over the bailout of **Greece**, leaving open the possibility that the country **could still get forced from the monetary union**. **Even emerging markets are struggling**. **China and India are experiencing their worst slowdowns in many years and both have major reform challenges to confront**. No wonder the IMF in October lowered its forecast for global GDP growth to 3.3% in 2012. Next year was supposed to be a bit better. But that depends on the U.S.We’ve already witnessed the drastic impact that rapid fiscal retrenchment is having on some of the weaker economies in Europe, such as Spain. The U.S. would likely face similar turmoil. If the economy takes a full-on dive off the fiscal cliff, it would probably land in another recession. The Congressional Budget Office figures that such a sharp fiscal shock “will lead to economic conditions in 2013 that will probably be considered a recession, with real GDP declining by 0.5 percent between the fourth quarter of 2012 and the fourth quarter of 2013 and the unemployment rate rising to about 9 percent in the second half of calendar year 2013.” Simply put, it would be ugly. And not just for Americans. A U.S. leap off the fiscal cliff “would push the country into a recession with large international spillovers,” the IMF warned the G-20 recently. “Even if the fiscal cliff were quickly unwound, the damage to the economy could be substantial.” Fitch calculated that the dramatic fiscal tightening could possibly toss the entire global economy into recession. “While the world economy would still grow 1.3% in 2013, this is just half our baseline forecast of 2.6%,” Fitch said. The fiscal cliff would transfer to the rest of the world through many channels. The tax hikes and spending cuts would take cash out of the pockets of both companies and consumers, curtailing purchases of everything from German industrial equipment to Chinese-made blue jeans. **A U.S. slowdown would also dampen commodity prices, hurting raw material exporters like Brazil and Russia.** The **jitters created by the uncertainty** over U.S. fiscal policy **would ripple through global financial markets as well.**

### Advantage 2 is China

#### Chinese shale gas exploitation is inevitable --- they will model US practices

Daly ’12 – John Daly, Company: U.S.-Central Asia Biofuels Ltd, Position: CEO, Oil Price, 2/26/12, China Embraces Fracking in Seismically Active Province - Quakes to Follow?, <http://oilprice.com/Energy/Natural-Gas/China-Embraces-Fracking-in-Seismically-Active-Province-Quakes-to-Follow.html>, jj

While hydraulic fracturing, more familiarly known as “fracking,” a technique used to liberate shale oil and natural gas deposits, is in many countries coming under increased scrutiny because of environmental concerns, China has decided to embrace the process as a way to develop indigenous energy reserves.

According to the BP statistical review of world energy, In 2010 global natural gas consumption increased 7.4 percent, the biggest increase since 1984.

On 12 February China’s Ministry of Land and Resources (MLR) Vice Minister Wang Min said at a national geological survey conference that China will increase efforts to explore shale gas in 2012. Wang told his audience that China shale gas output will exceed 100 billion cubic meters by 2020.

Clearing the way for expanded shale gas production, China’s State Council recently decided to list shale gas as an independent mineral resource, bringing the country’s total number of shale gas resources discovered in China to 172.

China’s move towards exploiting shale natural gas is inevitable, given the country’s rising energy needs, coupled with growing uncertainty over the security of foreign supplies from such volatile regions as Africa and the Middle East. Last month National Energy Administration head Liu Tienan said at a national energy work conference, "It is always worrisome to have to sustain supply of energy and resources for a country with 1.3 billion people."

So, as China currently has no shale gas production, how is it going to develop the industry?

Simple – both partner with foreign firms and buy into them where possible, so as to acquire access to the technology.

On 24 February Chevron confirmed it has begun exploring for shale gas in China, stating in a filing to the U.S. Securities and Exchange Commission, "The company signed a joint study agreement to explore for natural gas from shale resources in the Qiannan Basin (in Guizhou Province in southwestern China) in April 2011 and commenced seismic operations in July 2011." While Chevron coyly declined to identify its Chinese partner, the Chinese media stated that it's a subsidiary unit of Chinese government-owned oil company China Petroleum and Chemical Corp., or Sinopec.

But Chevron won’t be lonely for long, as both Royal Dutch Shell Plc and BP Plc have been seeking partnerships with Chinese companies to tap China’s immense shale gas reserves, which the U.S. Energy Information Administration estimates at 1.275 quadrillion cubic feet of “technically recoverable” shale gas.

The U.S., by contrast, has a paltry 862 trillion cubic feet of estimated shale gas reserves.

But the U.S. has the world’s most advanced fracking industry and several Chinese companies are buying into U.S. firms working in the field.

#### Countries will adopt the US regulatory model --- effectiveness prevents pollution

Obold, 12 -- J.D. from the University of Colorado

(Jason, "Leading by Example" Colorado Journal of International Environmental Law and Policy, 23 COLO. J. INT'L ENVTL. L. & POL'Y 473, Summer 2012, l/n)

As the global leader in fracking technology, the United States has the ability to advocate effectively for safe fracking worldwide. Giving countries like China and India the technology to drill unconventional oil and gas reserves, without also advocating for better regulation of fracking, is an irresponsible policy and is inconsistent with the goals of America's global clean energy, shale development, and fracking initiatives. While the United States certainly does not have the authority to force any country to strictly regulate hydraulic fracturing, it can lead by example and demonstrate that strict, well enforced, and nationally consistent regulation can foster the exploitation of tight oil and gas formations in a way that is both economically and environmentally sound.

In the end, fracking will not have to disappear in order to fix the problem. However, the world's current fracking regulations do not adequately protect against environmental degradation. Pollution can be mitigated, if not eliminated altogether, through better regulation. People around the world can sleep better knowing that the international community is working to ensure that their natural resources are being used in a manner that is both efficient and environmentally friendly.

#### China models US safeguards --- ineffective Chinese regulations risk environmental accidents that collapse the environment and China economy

Hart and Weiss, 10/11 (Melanie, Policy Analyst on China Energy and Climate Policy Daniel J, Senior Fellow and the Director of Climate Strategy at American Progress. Center for American Progress, “Making Fracking Safe in the East and West” http://www.americanprogress.org/wp-content/uploads/issues/2011/10/pdf/china\_fracking.pdf)

The U.S.-China Shale Gas Resource Initiative aims to provide U.S. technical assistance ¶ to China across all aspects of shale gas development, including safety and environmental ¶ protection. So far, however, China’s policymakers have paid little attention to safeguards. ¶ This follows the U.S. model. Shale gas production here has far outpaced the establishment ¶ and enforcement of pollution protections. ¶ Environmental protection remains a low priority for both sides. Neither nation wants to ¶ risk the commercial potential of China’s shale gas by vigorously pursuing environmental ¶ protection there. Most of the U.S. companies involved in these bilateral exploration and ¶ development projects want to exchange assessment and extraction technology for Chinese ¶ commercial market access.3¶ The Chinese want technology transfers from the United States ¶ that include the more mature and advanced technologies that the United States often holds ¶ back due to intellectual property right concerns.4¶ Now that the initial exploration phase in China is complete, the United States must help prevent the environmental consequences of Chinese shale gas production. If China does not follow best practices to capture greenhouse gases, it is highly likely that shale development will ¶ increase China’s emissions instead of decreasing them. And that will worsen climate change. ¶ A major Chinese environmental disaster, such as groundwater pollution, could be devastating ¶ for China’s economy. It could also easily increase public opposition to fracking in the United ¶ States, just like the Fukushima nuclear meltdown in Japan increased American opposition to ¶ nuclear power. The U.S. companies involved in China’s shale industry therefore have a strong ¶ incentive to support bilateral environmental protection efforts.

#### Causes Russia-China war

Nankivell 05 (Nathan Nankivell is Senior Researcher at the Office of the Special Advisor Policy, Maritime Forces Pacific Headquarters, Canadian Department of National Defence. 2005, “China’s pollution and its threat to regional and domestic stability,” http://www.jamestown.org/programs/chinabrief/single/?tx\_ttnews%5Btt\_news%5D=3904&tx\_ttnews%5BbackPid%5D=195&no\_cache=1)

While unrest presents the most obvious example of a security threat related to pollution, several other key concerns are worth noting. The cost of environmental destruction could, for example, begin to reverse the blistering rate of economic growth in China that is the foundation of CCP legitimacy. Estimates maintain that 7 percent annual growth is required to preserve social stability. Yet the costs of pollution are already taxing the economy between 8 and 12 percent of GDP per year [1]. As environmental problems mount, this percentage will increase, in turn reducing annual growth. As a result, the CCP could be seriously challenged to legitimize its continued control if economic growth stagnates.

Nationalists in surrounding states could use pollution as a rallying point to muster support for anti-Chinese causes. For example, attacks on China’s environmental management for its impact on surrounding states like Japan, could be used to argue against further investment in the country or be highlighted during territorial disputes in the East China Sea to agitate anti-Chinese sentiment. While nationalism does not imply conflict, it could reduce patterns of cooperation in the region and hopes for balanced and effective multilateral institutions and dialogues.

Finally, China’s seemingly insatiable appetite for timber and other resources, such as fish, are fuelling illegal exports from nations like Myanmar and Indonesia. As these states continue to deplete key resources, they too will face problems in the years to come and hence the impact on third nations must be considered.

Territorial Expansion or Newfound Alliances

In addition to the concerns already mentioned, pollution, if linked to a specific issue like water shortage, could have important geopolitical ramifications. China’s northern plains, home to hundreds of millions, face acute water shortages. Growing demand, a decade of drought, inefficient delivery methods, and increasing water pollution have reduced per capita water holdings to critical levels. Although Beijing hopes to relieve some of the pressures via the North-South Water Diversion project, it requires tens of billions of dollars and its completion is, at best, still several years away and, at worst, impossible. Yet just to the north lies one of the most under-populated areas in Asia, the Russian Far East.

While there is little agreement among scholars about whether resource shortages lead to greater cooperation or conflict, either scenario encompasses security considerations. Russian politicians already allege possible Chinese territorial designs on the region. They note Russia’s falling population in the Far East, currently estimated at some 6 to 7 million, and argue that the growing Chinese population along the border, more than 80 million, may soon take over. While these concerns smack of inflated nationalism and scare tactics, there could be some truth to them. The method by which China might annex the territory can only be speculated upon, but would surely result in full-scale war between two powerful, nuclear-equipped nations.

#### Goes nuclear

Hughes 6 (Mark W. Hughes, Infoshop News, 2/15, “An Analysis of Recent Moves By China Which May Signal Intentions To Invade Russia,” <http://news.infoshop.org/article.php?story=20060215180623912>)

Should China invade without a nuclear first-strike, then Russia would likely not respond with nuclear weapons, at least not initially. However, if nations armed with such weapons go to war, then the potential for a nuclear war always exists. Moreover, once one side sees that it is clearly loosing, and if the stakes are high for each nation, then there is a strong possibility that the losing side will attempt to gain some advantage by utilizing nuclear weapons on the battlefield. Once a war has gone nuclear, escalation is almost inevitable, as the other side retaliates, and the targets of the nuclear exchanges become more significant until a full-scale nuclear war in which populations of the largest cities will likely be targeted and killed. The implications of even a small-scale nuclear exchange (to the extent a nuclear exchange can be small-scale) in Central Eurasia are staggering. The death toll would be in the millions and the region would be poisoned with radiation and fallout. Since China lacks the massive nuclear arsenal of Russia, even a full-scale nuclear exchange would not quite be the global doomsday scenario that would arise from a U.S.-Russian exchange, since the total number of nuclear detonations would be barely more than half of the doomsday scenario and would be restricted to a much more narrow targeting area. But the war would take place in the most populated part of the entire world, Central Eurasia, and where a huge amount of global resources are found. The radiation and fallout would affect other large parts of the world, and the death toll from the initial nuclear detonations combined with those suffering radiation sickness and long-term related illnesses would no doubt be in the hundreds of millions. And of course, the political and economic impacts would be earth-shattering, especially in light of the scenarios leading up to the war and if North Korea were enlisted to attack South Korea at the same time. China would have to be willing to gamble that the war would not turn nuclear, unless they devised a way to take out Moscow without any danger of being detected. Most likely, China will bet on keeping the war conventional and hope that surprise and a quick victory will make the operation a success before events spiral out of control. They might also count on Europe and the U.S. pressuring Russia not to respond with nuclear weapons. Ultimately, the realities of peak oil and the survival of China's current government combine to leave China with little choice but to place their bets and face the risk of the conflict becoming nuclear. Whether China will ultimately embark on such a risky venture is, obviously, to be seen. However, the recent developments in relation to China, Russia, and the Middle East, and the increasingly evident crisis regarding peak oil, all combine to suggest that the possibility of a Chinese invasion of Russian territory looks more plausible with each passing day.

#### Economic decline in China causes multiple scenarios for war

**Friedberg** 20**11** (July/August, Aaron L., professor of politics and international affairs at the Woodrow Wilson School at Princeton University, Hegemony with Chinese Characteristics, The National Interest, lexis)

Such **fears of aggression are heightened by an awareness that anxiety over a lack of legitimacy at home can cause nondemocratic governments to try to deflect popular frustration and discontent toward external enemies**. Some Western observers worry, for example, that **if China’s economy falters its rulers will try to blame foreigners and even manufacture crises with Taiwan, Japan or the United States in order to rally their people and redirect the population’s anger. Whatever Beijing’s intent, such confrontations could easily spiral out of control.** Democratic leaders are hardly immune to the temptation of foreign adventures. However, because the stakes for them are so much lower (being voted out of office rather than being overthrown and imprisoned, or worse), they are less likely to take extreme risks to retain their hold on power.

#### Goes global and nuclear

Hunkovic 9 **–** American Military University [Lee J, 2009, “The Chinese-Taiwanese Conflict: Possible Futures of a Confrontation between China, Taiwan and the United States of America”, http://www.lamp-method.org/eCommons/Hunkovic.pdf]

A war between China, Taiwan and the United States has the potential **to escalate into a nuclear conflict and a third world war**, therefore, many countries other than the primary actors could be affected by such a conflict, including Japan, both Koreas, Russia, Australia, India and Great Britain, if they were drawn into the war, as well as all other countries in the world that participate in the global economy, in which the United States and China are the two most dominant members. If China were able to successfully annex Taiwan, the possibility exists that they could then plan to attack Japan and begin a policy of aggressive expansionism in East and Southeast Asia, as well as the Pacific and even into India, which could in turn create an international standoff and deployment of military forces to contain the threat. In any case, if China and the United States engage in a full-scale conflict, there are few countries in the world that will not be economically and/or militarily affected by it. However, China, Taiwan and United States are the primary actors in this scenario, whose actions will determine its eventual outcome, therefore, other countries will not be considered in this study.

### Advantage 3 is Methane

####  EPA has established emission regulations on fracking – these are insufficient to solve

Groeger 12 Lena Groeger, Alternet, previously worked at Scientific American, where she wrote about topics in science and health. Prior to that she was at Wired, where she designed infographics and reported on technology and national security, April 19th 2012, http://www.alternet.org/story/155062/epa's\_first\_fracking\_rules\_seen\_as\_limited\_and\_delayed?akid=8636.1080031.EzL73\_&rd=1&t=13&paging=off

The Environmental Protection Agency issued the first-ever national air pollution regulations for fracking on Wednesday. First proposed in July 2011, the final rules have been welcomed by environmental groups as a much-needed initial move in reducing pollution and protecting public health from the toxic chemicals involved in the oil and natural gas drilling process. But many cautioned it was just a first step. “It sets a floor for what the industry needs to do,” said attorney Erik Schlenker-Goodrich of the Western Environmental Law Center. “The reality is we can do far better.” Over the past few years, more information has come out about fracking’s potential harms to the environment and human health, particularly relating to the risk of groundwater contamination. In addition to the many potentially toxic components of the highly pressurized fluid injected into the ground during the natural gas drilling process, fracking can also release cancer-causing chemicals like benzene and greenhouse gases like methane into the air. The federal government has made moves to tighten regulations, and we’ve chronicled the history of those regulations. The EPA’s new rules don’t cover most of those issues. Instead, they address a single problem with natural gas: air pollution. “These rules do not resolve chronic water, public health and other problems associated with fracking and natural gas,” Schlenker-Goodrich said. The agency is actually barred from regulating the impact of fracking on groundwater because, in 2005, Congress exempted fracking from the Safe Water Drinking Act. Congressional proposals to give the EPA more oversight have so far failed. With the new rules on air pollution, the EPA rejected an industry request to exempt some wells with low emissions of toxic compounds but did give drilling companies more time to comply. Notably, the final version provides a two-and-a-half-year transition period (rather than the 60 days in the original proposal) that gives drilling companies until 2015 to comply with the strictest regulations. The industry lobbied hard for the delay, and its reaction to the rules have been mixed. A spokesman for the American Petroleum Institute, the largest oil industry trade group, said it is still reviewing the new rules but said it's happy with changes from the original proposal that will allow companies to “continue reducing emissions while producing the oil and natural gas our country needs.” Another industry group told The New York Times that the rules are too strict and could “make exploring in new areas cost-prohibitive.” A key rule targets one large source of air pollution — the burst of gas released during the first few days after a well is first tapped but before production begins. The EPA requires that companies start using “green completions,” a technology that captures the released gas and fumes in tanks and transports them via pipelines to be sold as fuel. (The Natural Resources Defense Council has a good breakdown of the process). Many drilling companies already use green-completion systems. One natural-gas company recently told Bloomberg that the system doesn’t cost the company “any more than just venting the gas into the atmosphere.” The EPA says that once companies buy the necessary equipment to separate and collect the released gas, they could actually make up to $19 million a year selling the captured gas.

#### EPA emission regulations encourage companies to use outdated tech – increasing methane emissions

**Peshek & Millican ‘12**

Adam Peshek, Research Associate Reason Foundation, Robin Millican, Policy Associate Institute for Energy Research, 2-28-12, Reason Foundation, Letter to U.S. Environmental Protection Agency Office of Administrator Lisa Jackson, <http://reason.org/files/oil_and_gas_nsps_and_neshap_comment.pdf>, jj

6) **The NSPS Incentivizes the Use of Outdated Equipment and Deters Development** **Because the NSPS standards apply only to new or modified facilities, the rule creates the inadvertent economic incentive for owners and operators to continue using outdated, lessefficient equipment rather than incurring new costs and regulations to change.** Furthermore, **because the proposed NSPS revisions would apply to new natural gas wells— approximately 11,400 of which are drilled each year—the rule may cause operators to undertake fewer projects.**

7) **Regulatory Alternatives Should Be Evaluated** Prior To Regulation Although EPA has indicated its openness to making modifications to a handful of provisions in its proposed rule—including evaluating ways to reduce reporting requirement burdens—**no evidence was presented in the proposed rule to indicate that EPA had evaluated the costs and benefits of regulatory alternatives**, such as positive incentives to achieve the desired result. The Agency is obligated to do so under Executive Order 12866 (EO 12866), which states: “**In deciding whether and how to regulate, agencies should assess all costs and benefits of available regulatory alternatives, *including the alternative of not regulating***.” Furthermore, EO 12866 directs that “each agency shall identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or providing information upon which choices can be made by the public.”

#### EPA regulations will be a ceiling and discourage state regulations – Prefer our evidence – it uses empirical models

Adler 06 – Jonathan H. Adler, Professor of Law and Co-Director, Center for Business Law and Regulation, Case Western Reserve University School of Law, “WHEN IS TWO A CROWD? THE IMPACT OF FEDERAL ACTION ON STATE ENVIRONMENTAL REGULATION”, Harvard Environmental Law Review, May 1st 2006, http://www.law.harvard.edu/students/orgs/elr/vol31\_1/adler.pdf

Just as federal action may indirectly encourage greater state regulatory activity, federal action may discourage state regulatory action. This can occur in at least two ways. First, the adoption of a federal regulatory standard may “signal” that more stringent state regulations are unnecessary. In effect, the federal standard may be seen as evidence that a given level of regulatory protection is sufficient to safeguard relevant public interests, and more stringent measures are unnecessary. As a result, the adoption of a federal regulation may induce state policy-makers to adopt comparable state protections. In addition, the adoption of a federal regulation may crowd out state regulatory measures by reducing the net benefits of additional state measures. As a result, the existence of federal regulation may discourage the adoption of additional state-level regulatory protections in the future. The potential for federal regulatory measures to reduce the level of state regulatory activity is significant because it challenges the prevailing assumption that the adoption of a federal regulatory standard raises, or at least maintains, the aggregate level of protection nationwide. 116 Many environmental analysts, for example, suggest that the federal government should adopt a regulatory floor, but allow states to implement federal standards and adopt more stringent measures of their own. 117 The general belief is that this will maximize the extent of environmental protection. Yet if the adoption of federal regulatory standards can induce states to adopt less protective environmental measures than they would otherwise have adopted, the net benefits of a federal floor will be less than traditionally assumed, and in some states it will actually result in a net reduction in the aggregate level of environmental protection. Indeed, it is possible that the net result of a federal regulatory floor, over time, could be the maintenance of lower levels of environmental protection than would otherwise have been adopted. Even if such effects are unlikely, federal policy-makers should consider these possibilities when assessing the likely costs and benefits of federal action. 1. Signaling Just as federal attention to a given environmental concern may increase the demand for state-level action, the adoption of a given federal standard may send a signal that discourages the adoption or maintenance of more protective state regulations. Specifically, the adoption of a given regulatory standard by a federal agency sends a signal that the standard is worthwhile. 118 Among other reasons for this effect is that federal policy-makers, particularly federal agencies, are presumed to have substantial technical expertise. Thus, their actions may convince state policy-makers (or their constituents) that additional safeguards are “unnecessary” or that the benefits of more stringent regulatory protections are not worth their costs. The magnitude of this effect is likely to correspond with the magnitude of the difference between the relevant federal and state standards. In this way, federal standards can discourage state policy-makers from adopting and maintaining more stringent measures of their own, even where such measures could be justified. As a practical matter, the federal “floor” may become a “ceiling” as well. This effect is not merely hypothetical. There are numerous examples of state legislation designed to prevent state environmental agencies from adopting regulatory standards that are more stringent than federal rules. 119 Between 1987 and 1995, nearly twenty states adopted at least one statute limiting the ability of state agencies to adopt regulatory controls more stringent than relevant federal standards. 120 Some states focus on a given environmental concern, while others have general prohibitions against the adoption of any environmental rules more stringent than applicable federal standards. 121 New Mexico and Colorado, for example, have statutes prohibiting the promulgation of air pollution controls more stringent than those required by federal law. 122 Virginia law bars state regulatory authorities from requiring greater amounts of water treatment than mandated under the federal Clean Water Act (“CWA”). 123 Other states have general prohibitions against agency promulgation of environmental rules more stringent than federal law. 124 The existence of statutes barring state regulatory agencies from adopting more stringent regulations may be evidence of a greater hostility to environmental protection in some state legislatures than in Washington, D.C. Yet such laws may also be a rational response to the signal created by the adoption of a federal standard at a given level, particularly insofar as state policy-makers conclude that their federal counterparts have greater expertise and understanding of relevant environmental concerns. Information is costly, and the knowledge and expertise necessary to determine a given level of protection may tax the resources of state governments. Therefore, deferring to federal policy judgments by responding to the signal of a federal standard may enable state policy-makers to economize on information and policy development costs. 125 On the other hand, the localized nature of much environmental knowledge and expertise could suggest that signaling may systematically encourage less optimal state-level regulation to the extent that federal standards fail to take local needs and variation into account. 126 Some state laws may address this concern, however, as they allow state agencies to adopt more protective measures where local conditions warrant. 127 There are several reasons why this signaling effect may be of concern. First, and perhaps most important, the existence of a signaling effect that reduces the level of state regulations below what they would otherwise be could reduce the net benefits provided by federal regulations. When the federal government adopts a federal regulatory standard, this will increase the level of regulation in states that have lower levels of regulation. At the same time, it will lower the level of regulation in any state that adopts laws barring the promulgation of regulations more stringent than the federal standard. The net effect of such signaling is represented in Figure 2 above. States A and B have regulatory standards (QAReg and QBReg , respectively) less stringent than the federal standard (QFReg ). State C, on the other hand, has a regulatory standard (QCReg ) greater than the relevant federal standard. Adoption of the federal regulatory standard increases the aggregate level of regulation by a quantity equal to the sum of the difference between the federal standard and the lower state standards ((QFreg – QAReg ) + (QFreg – QBReg )). The net effect of the federal standard may be lower than this, however. If State C adopts a law prohibiting state standards that exceed relevant federal requirements, the aggregate level of regulation will be reduced by the amount to which State C’s standard exceeded the federal standard (QCreg – QFReg ). Thus, the net effect of the federal standard will be the extent to which the increase in regulation in States A and B exceeds the reduction in State C ((QFReg – QAReg ) + (QFreg – QBReg ) – (QCreg – QFReg )). In the unlikely event that the reduction in regulation in State C exceeds the increase in regulation in States A and B, the adoption of a federal standard could actually result in a net reduction in the aggregate level of regulation. There are other reasons to be concerned about a signaling effect. Insofar as federal standards are not based upon accurate, up-to-date scientific assessments of environmental problems, 128 and such information is not available to state and local policy-makers, the federal regulation may have an even greater distorting effect on state priorities. Such laws may also serve to shift effective control over environmental priorities from the state to the federal level. 129 Of course, to the extent federal policy-makers are likely to adopt quantitatively or qualitatively superior regulatory standards, the signaling effect may have a positive effect on regulatory policy. Insofar as there are welfare benefits from regulatory uniformity, there could be additional welfare benefits to the extent a signaling effect reduces regulatory variability across states. 130 The importance of signaling is not that it necessarily results in less optimal regulation. Rather, the primary importance of the signaling effect is that it often reduces the net benefit provided by the adoption of a federal regulatory standard. Taking this indirect effect of federal regulation on state regulatory choices into account will likely improve the quality of environmental policy-making. 2. Crowding Out A second potential negative indirect effect of federal regulation on state regulatory choices is crowding out. This occurs because federal regulation may serve as a substitute for state-level regulation, thereby reducing the benefits of adopting or maintaining state-level protections. Insofar as voters in a given state demand a certain level of environmental protection, there is no reason to expect states to duplicate federal efforts when a federal program satisfies that demand, particularly if a state has not already created such a program. If the federal floor is greater than or equal to the level of environmental protection demanded by a state’s residents, that state has no reason to adopt environmental regulations of its own once the federal government has acted. To the extent that this effect occurs, it is separate from—perhaps even in addition to—the signaling effect described above. The claim here is not simply that states regulate less than they would absent federal regulation—although this claim is almost certainly true. Rather, the claim is that some states that would adopt regulations more protective than the federal floor, absent the imposition of federal regulation, have not done so due to federal regulation and may not do so in the future. If this hypothesis is correct, the net effect of federal environmental regulation in at least some states could be less environmental protection than would have been adopted had the federal government not intervened. To see how this could occur, recall that the demand for environmental regulation in any given jurisdiction tends to increase over time as wealth, technical capability, scientific knowledge, and environmental impacts increase. 131 In any given state (as in the nation as a whole), there is an initial period (“Period A”) during which the demand for a given type of environmental protection is relatively low. The costs of adopting environmental regulations in this period are greater than the benefits of adopting any such protections. These costs include the costs of developing, drafting, and passing legislation; the costs of creating a new policy program, drafting and implementing regulations, defending the regulations from any potential legal or administrative challenges, creating a means to monitor and enforce regulatory compliance; and so on. In addition, there are opportunity costs of devoting state resources and political capital to the cause of environmental protection as opposed to some other policy goal. As discussed earlier, the demand for environmental protection has tended to increase over time along with increases in living standards. 132 At the same time, increases in technical knowledge and administrative efficiency may lower the costs of a given regulatory program. Eventually, a state will enter a second period (“Period B”) in which the benefits of a given environmental regulatory program are greater than the costs of initiating, implementing, and operating such a program. Absent any federal interference, the hypothetical state will not adopt environmental regulations in Period A, but will adopt such regulations in Period B. See Figure 3. This is the environmental transition discussed in Part I. In Period A, the demand for environmental protection is insufficient to justify the costs of implementing environmental protection measures. By Period B, however, the demand for environmental protection has risen due to increases in wealth and knowledge, among other factors. At the same time, increases in technical capacity and scientific understanding have reduced the cost of adopting environmental protections. As a result, in Period B a state will adopt QB amount of environmental protection. 133 The timing of Period A and Period B will vary from state to state. This is clearly the case as different states have enacted different environmental regulatory measures at different times—some before the adoption of federal environmental regulation, some after, and some not at all. Looking at the history of various environmental concerns, such as air quality, water quality, or wetlands, it is clear that many states moved from Period A to Period B for these environmental concerns at various times prior to the onset of federal regulations in the 1970s. In many other states, however, a federal regulatory floor was adopted before the onset of Period B. For states that went through their environmental transition and entered Period B prior to the enactment of federal environmental protection, whether the adoption of a federal regulatory floor increased the aggregate level of environmental protection in that state depended upon whether preexisting state policies offered greater or lesser levels of protection than the relevant federal policies. For states in which the onset of Period B begins after the adoption of federal regulations, the enactment of a federal regulatory floor will, at the time of enactment, increase the aggregate level of environmental protection in that state. However, this may not be the case over time. In states that desire a greater level of protection than that provided by the relevant federal regulations, it is not clear that the existence of the federal regulatory floor will result in an equal or greater level of protection than would be adopted were it not for the federal regulations. This is because federal regulation will, to some extent, act as a substitute for state regulation. As a result, the adoption of federal regulation has the potential to reduce the demand for state regulation and, in some instances, even result in less aggregate regulation in a given state than would have been adopted absent federal intervention. In short, federal regulation can crowd out state regulation. The potential for such a crowding-out effect is illustrated in Figure 4. The existence of federal regulation will reduce the demand for state regulation by an amount equal to the extent to which federal regulation is a substitute for state regulation of the same environmental concern (QFReg ). This substitution effect will reduce the net benefit of adopting state-level environmental regulations from OCQB to OC’Q’B . By reducing the net benefits of state-level environmental regulation in this manner, federal regulation has the potential to crowd out state-level environmental protections, even if the quantity of environmental protection demanded in the state is greater than that provided by the federal government. In such cases, the aggregate level of environmental protection will be lower with federal regulation than it would be without it. A key assumption in this analysis is that there are significant fixed costs to the adoption of environmental protections (or, for that matter, any regulatory program). In some states, the additional benefits of adopting more stringent regulations on top of the federal requirements will more than offset the costs of adopting the new program. In these states the fixed costs of creating a program plus the operating costs are less than the expected marginal benefits from the additional margins of regulation. However, it seems likely that there are at least some states in which the aggregate net benefits of regulation at a level more protective than the federal standard are greater than the costs, but where the net benefits of additional regulation above the federal floor are less than the costs of adopting such additional regulations. In other words, if the net benefits of adopting state regulations alone (OCQB ) are greater than the costs of adopting such regulations (CReg), but the net beneªts of adopting such regulations given federal regulations are already in place (OC’Q’B ) are less than CReg, then the presence of a federal regulatory ºoor will produce a lower level of environmental protection than were that ºoor not to exist. 134 In this latter situation, one would not expect the state to regulate, even though the amount of regulation demanded in the given state is greater than that provided by the federal government. While federal regulation creates a ºoor, raising the regulatory baseline, it does not reduce the ªxed costs of policy change. If anything, it may increase the opportunity costs for state policy-makers who devote their political capital to the environmental resource at issue rather than another environmental concern in which the federal government is not active. Federal regulation does, however, reduce the beneªts of state regulation, and may do so signiªcantly, making state-level initiatives less attractive to state policy-makers. This theory is based on several premises and observations about the political economy of policy-making. First, environmental regulation, like most forms of regulation or other government action, experiences diminishing marginal beneªts and increasing marginal costs. That is, the marginal environmental gains from each additional increment of regulation will tend to be less than the gains from the preceding increment. Thus, when the federal government establishes a ºoor, it has likely displaced those state efforts that would be most cost-beneªcial. (This has the effect of shifting the demand curve for state regulation to the left, reducing the net bene- ªts of state regulation.) Second, the political process imposes substantial transaction costs on the creation (or elimination) of new government programs, and these costs are relatively ªxed such that they do not vary with the size of the program in question. The most obvious example of such transaction costs is the existence of so-called “vetogates” 135 that determined minority interests can use to prevent the adoption of policies that enjoy majority support. 136 The existence of these vetogates means that many policy changes must have supermajority support before they are enacted—or at the very least require the expenditure of substantial amounts of political capital by their proponents (as a means of purchasing supermajority support). 137 The fragmentation of policy-making authority across branches of government adds to the difªculty of adopting new policies. These obstacles may also be particularly large in highly complex policy areas like environmental protection. 138 Third, policy-makers are, to some extent, utility maximizers such that, all else equal, they will invest in policies that provide the greatest beneªts and lowest costs to them. 139 Insofar as state policy-makers “share” responsibility for some environmental concerns with their federal counterparts, it may be difªcult for them to secure the beneªts of their efforts. 140 Relatedly, information about the relative activities of the federal and state governments and their relative merits is costly to the average voter where both the state and federal governments are active. As a result, it may be difªcult for policy-makers to get credit for all of the policies they promote or implement. 141 This is one reason why some argue that cooperative federalism undermines accountability. When both the federal government and the states are involved, it is more difªcult for a voter to know who to credit or blame for a given policy. 142 Because it is easier for a state policy-maker to get credit for a policy when the state does not compete with the federal government in the provision of that policy goal, all else being equal, a state policy-maker will prefer to legislate where the federal government is less active. One implication of the crowding-out effect is that it is possible that the adoption of a federal regulatory ºoor may result in lower aggregate levels of regulatory protection than had the federal government not entered the ªeld at all. This potential is illustrated in Figure 5 below. As in Figure 2, which illustrated the signaling effect, States A and B initially have regulatory standards (QAReg and QBReg , respectively) less stringent than the federal standard (QFReg ), while State C has a regulatory standard (QCReg ) greater than the relevant federal standard. Here, however, the demand for environmental regulation in each state is not static. Rather, the demand for regulation in State B is increasing over time as State B goes through its own environmental transition. Absent federal regulation, State B would eventually adopt a higher level of protection—a level of protection greater than that which would be adopted at the federal level. In this scenario, the adoption of a federal standard has the potential to signal to states to reduce their levels of protection. It may also discourage the adoption of even greater levels of protection in those states that go through their environmental transition after the adoption of the federal standard. This potential opportunity cost of federal regulation is no less important than the more observable effects illustrated in Figure 2. When the crowding-out effect is combined with the signaling effect discussed above, the likelihood that federal regulation could result in a net decline in the aggregate level of regulatory protection increases. As before, adoption of the federal regulatory standard increases the aggregate level of regulation by a quantity equal to the sum of the difference between the federal standard and the lower state standards. The net beneªt of the federal standard at any given point in time is this amount (QFReg– QAReg ), less any reduction due to signaling (QCReg– QFReg ), and the extent to which State B would have regulated absent federal action (QBReg– QFReg ). Here the net effect of the federal standard will be the extent to which the increase in regulation in State A varies from the reduction in State C and regulation abandoned in State B. Stated as a formula, the net beneªts of federal regulation equal: (QFReg– QAReg ) – [(QBReg– QFReg ) + (QCReg– QFReg )]. Even if the adoption of federal regulation initially increased the aggregate level of regulatory protection, over time the level of protection might be less than it would otherwise have been. As more states go through their environmental transitions, the magnitude of this crowding effect could increase, unless federal regulatory standards are able to keep pace. Given the slow rate at which existing federal regulatory programs are reviewed and expanded, however, this is a questionable assumption.

#### This is uniquely the case with fracking regulations

Wyoming brought together geologists, engineers, industry, landowners, citizens, environmental groups and policymakers to develop reg’s

Fed = duplicative, adds cost and time delays

Ceiling – disincentivizes state action

States can address problems more efficiently and quickly

Fed regs deter investment

Not consistent – doesn’t apply to state or private lands

**Mead**, 9/17/**12** (Matthew, Matt Mead was elected last November and sworn in as Wyoming's 32nd governor on January 3, 2011. Born in Jackson, Wyoming, Governor Mead was raised on the family ranch in Teton County. He has a BA degree from Trinity University in San Antonio and a law degree from the University of Wyoming. After law school, the Governor served as a county and federal prosecutor, practiced in a private firm in Cheyenne with now-Attorney General Greg Phillips, and served as United States Attorney for Wyoming from October 2001 to June 2007. After he stepped down as U. S. Attorney, Matt and his wife Carol, the First Lady, returned fulltime to operating their farming and ranching business in southeast Wyoming. Matt and Carol have been married 20 years, with Cheyenne as their home. They have two children, Mary and Pete, who attend Cheyenne public schools. The Washington Times: “MEAD: Hydro-fracking regulations should be left to states” http://www.washingtontimes.com/news/2012/sep/17/hydro-fracking-regulations-should-be-left-to-state/

States’ rights come with states’ responsibilities. **Wyoming** time and again **has proved it can promote development, support its economy and protect the environment**. From hydraulic-fracturing rules to air-quality strategies, Wyoming leads in developing solutions that work for people and the future, without compromise on clean air, wildlife, land or water. Those of us who call Wyoming home only want to make the state better. Our environment and natural wonders are among the many reasons we choose to live here. We always have them in mind; we know they are important, and so we balance energy development and environmental protection — **and we regulate accordingly, getting the balance right. Where Wyoming has gotten it right — regulating at the state level in a reasonable and responsible way — regulation should be left to the state.** **Such is the case with hydraulic fracturing**. The [federal government](http://www.washingtontimes.com/topics/federation/) should reward us for our successful regulatory effort, allow us to continue it and put federal regulation aside**. Specifically, in 2010, Wyoming brought together geologists, engineers, industry, landowners, citizens, environmental groups and policymakers to address hydraulic fracturing**. As a result, our state developed pace-setting rules. Wyoming did so well that in 2012, the [federal government](http://www.washingtontimes.com/topics/federation/) attempted to follow our lead**. The** [**Bureau of Land Management**](http://www.washingtontimes.com/topics/bureau-of-land-management/) **(**[**BLM**](http://www.washingtontimes.com/topics/bureau-of-land-management/)**) began to consider hydraulic-fracturing rules.** [**BLM**](http://www.washingtontimes.com/topics/bureau-of-land-management/)**’s proposed rules are based on those Wyoming drafted,** adopted and has followed since 2010. Those proposed **federal rules add unnecessary and often repetitive requirements**, **which add cost and delay projects**. **They would pile on federal rules over existing, effective state rules, with negative consequences.** **Those consequences include inconsistency and uncertainty for operators and drillers, which could result —** albeit unintentionally — **in harm, not benefit.** [**BLM**](http://www.washingtontimes.com/topics/bureau-of-land-management/)**’s use of Wyoming’s rules as a foundation has**, perhaps inadvertently, **added steps, twists and even a few locked doors in developing hydraulic-fracturing rules for federal lands. Even discounting factors such as inconsistency and uncertainty, the proposed federal rules do not bring perceptible benefit to the environment or the economy.** They intrude into an area Wyoming already has addressed**. They add new requirements without sound basis. When the** [**federal government**](http://www.washingtontimes.com/topics/federation/) **improvidently steps in, it creates a disincentive for states to implement strategies and programs better left to the states to manage**. **The** [**federal government**](http://www.washingtontimes.com/topics/federation/) **should recognize the states’ leadership role in many arenas — especially when borrowing state work. Well-run state permitting and regulatory programs achieve results**. **They help industry create jobs and maintain environmental standards.** **Wyoming has a record of success in environmental stewardship, natural-resource development and job generation. We are accountable every day for decisions made and actions taken. We take responsibility.** We want to leave a legacy for future generations that is ever better**. Our state is simply in the best position to get results. Wyoming’s hydraulic-fracturing rules are working. The Wyoming Oil and Gas Conservation Commission is capable of administering these rules well across private, state and federal lands. State government is nimble. If state rules are a bad fit, they can be changed quickly. In contrast, the** [**federal government**](http://www.washingtontimes.com/topics/federation/) **by size alone moves at tortoise speed.** Examples are plentiful. **Pick one, such as the** [**BLM**](http://www.washingtontimes.com/topics/bureau-of-land-management/)**’s well-stimulation regulations, last updated in the 1980s.** **The Wyoming Oil and Gas Conservation Commission has considered changes to its rules 19 times since 1996. Federal hydraulic-fracturing rules will only exacerbate the problem of chronic federal permitting delays. The delays are attributed to federal staffing issues now. New rules will add new burdens.** There are many examples, but well-plugging is a good illustration. **According to the Government Accountability Office, the** [**BLM**](http://www.washingtontimes.com/topics/bureau-of-land-management/) **has not managed its liability for non-producing wells that need to be plugged, reclaimed or put back into production. If the agency cannot handle what it has on its plate, it makes no sense to add more.** While the [BLM](http://www.washingtontimes.com/topics/bureau-of-land-management/) hosted public forums in a few locations (North Dakota, Arkansas, Colorado and Washington, D.C.) and consulted with tribes, industry and the environmental community as it explored its hydraulic-fracturing rules**, the** [**BLM**](http://www.washingtontimes.com/topics/bureau-of-land-management/) **has not consulted with states.** **This is troubling. States are the primary regulators of oil and gas and are better positioned to meet the challenges presented by constantly developing technologies. State rules apply across jurisdictions.** [**BLM**](http://www.washingtontimes.com/topics/bureau-of-land-management/) **rules, on the other hand, would not apply on state or private land.** If there is no consultation with the states when the proposed rules are developed, what will happen when the rules are implemented? What if federal regulations conflict with state regulations? Which rules take precedence? Rules must be consistent and uniform. Water does not understand boundaries. It flows indiscriminately beneath federal, state and deeded land. We need one consistent rule. **We already have one in Wyoming. Oil and gas operations on public lands have been following state environmental oil and gas laws and regulations for decades. Indeed, oil and gas operators on public lands in Wyoming are following hydraulic-fracturing and environmental laws, including “green completion” air regulations. Oil and gas royalties from drilling on public lands are a significant source of revenue for the** [**federal government**](http://www.washingtontimes.com/topics/federation/) **and for Wyoming.** Affordable domestic energy helps fuel the economy. **Unnecessary regulation on public lands could force operators to shift investment away** from public lands, resulting, among other things, in less oil and gas, fewer jobs, less multiple-use, less revenue and more dependence on foreign sources. **Both the environment and energy are important to us.** Wyoming’s proactive work on hydraulic-fracturing regulation demonstrates our commitment to each. **The** [**federal government**](http://www.washingtontimes.com/topics/federation/) **should show its commitment to sound state regulation by leaving fracturing rules to the state.**

#### Methane emissions cause extinction

**Heinberg 4** (Richard, Award-Winning Author and Core Faculty Member of New College of California, “Power Down: Options and Actions for a Post-Carbon World,” pp.122-4)

Methane hydrates represent an even larger store of hydrocarbons in Earth’s crust; however, in the end, the prospects for exploiting them may be even more discouraging than is the case with tar sands. As marine organisms decompose, they release methane. Under certain conditions, that methane can become trapped on the ocean floor in ice crystals, and can build up over time. The resulting mixture of methane and ice is called methane hydrate. This material is also sometimes found in permanently frozen soil on land: there are, for example, methane hydrate deposits in Siberia and Alaska. Oceanic methane hydrates are so plentiful that, in theory, they could power the world for centuries. Some estimates put the total at more than twice the amount of all other fossil fuels combined. However, the harvesting of the resource constitutes a technical problem of immense proportions. As hydrate material is mined and brought to the ocean surface, it fizzes and bubbles as methane turns to gas and dissolves in the water. Eventually, the methane makes its way into the atmosphere. The problem then is not merely that a potentially valuable substance has been lost, but that a previously stored greenhouse gas has been loosed on the environment. The most frequently discussed greenhouse gas is carbon dioxide, which is released with the burning of fossil fuels. However, ***methane is over twenty times as effective as carbon dioxide at trapping the heat from sunlight***. Thus, ***if a significant quantity of methane were to be freed into the atmosphere, the resulting contribution to global warming could be cataclysmic***. Is there enough methane trapped in hydrates to make much of a difference in this regard? There is, and by a long shot. Altogether, there is roughly 3,000 times more methane locked up as hydrates than is currently found in Earth’s atmosphere. Even without attempts at commercial exploitation, oceanic hydrates are already responsible for between 5 and 10 million tons of methane emissions to the atmosphere each year. Seabed methane hydrates already represent a serious environmental threat in the context of global-warming trends. As the temperature of the oceans rises, hydrate deposits may become unstable**. This could release large amounts of methane into the atmosphere, thus greatly exacerbating the greenhouse effect, which would in turn warm the oceans even further. The result could be a self-reinforcing feedback loop with unimaginably horrific consequences.** Adding commercial extraction procedures to this existing precarious situation hardly seems prudent. Some scientists, including Charles Paull, a researcher with the Monterey Bay Aquarium, say that extracting gas hydrates could disrupt seafloor stability.1 Geologists suspect that the large-scale breakdown of methane hydrate deposits was responsible for huge underwater landslips and the creation of massive tsunami waves earlier in Earth’s history, as well as for sudden periods of intense global warming. If in the future unstable hydrates were dislodged by attempts to extract them, the result could be a modern rerun of those ancient cataclysms, with immense waves sloshing across the oceans, scouring the surfaces of islands and inundating coastal cities, while the entire planet baked under a methane fog. Nonetheless, when the human economic need is great enough, we can be sure that attempts will be made to produce usable energy from methane hydrates. Resource-poor Japan (which imports nearly all of its oil and gas) is already involved in research in hydrate beds along the Nankai Trough, some 3,500 feet (1,100 meters) under water, and at an international test site in the frozen Mackenzie River delta in northern Canada. In 2002, the Japan National Oil Corporation announced some success in the Mackenzie Delta tests. Japan hopes to determine by 2011 whether commercial methane hydrate mining is feasible; if it is, efforts could begin by 2015. In the US, Congress has appropriated $47 million for methane hydrate research over the next few years — though many of the funded projects are mostly academic, with methane deposits on the moons of Jupiter and Saturn envisioned as a fuel source for future space travel. However, as the North American natural gas crisis deepens, there will be increasing incentive to explore the possibility of extracting methane from coastal seabeds or frozen tundras. The US Geological Survey has estimated that the quantity of gas hydrates in the United States is equal to roughly 200 times the conventional natural gas resources remaining in the country; according to the Department of Energy, if only one percent of the deposits could be exploited for domestic consumption, the US could more than double its supply of energy resources. The exploitation of land-based methane hydrates is especially likely to garner increasing interest — but the technical hurdles in this instance are almost as problematic as in the case of seabed deposits. Russian engineers have suggested pumping nuclear waste under the Siberian permafrost to thaw the hydrate fields there so that they can be exploited. Such methods are sure to provoke quite an outcry from environmentalists and native populations if applied in North America. Will methane hydrates be the energy source of the future? Don’t hold your breath. The inevitable efforts in that direction may or may not yield useful net energy; in either case, intense battles will be waged between environmentalists on one hand and government and industry leaders on the other. The stakes will be breathtaking: if the concerns of Earth scientists are well founded, and if a miscalculation were to occur, the damage could be incalculable**.** With the development of the hydrogen bomb, humanity was forced to confront the fact that it had invented a means for its own extinction. If an industry emerges devoted to seabed methane hydrate extraction, **humankind might find itself facing another similarly stark awakening.**

#### Methane outweighs Co2 and gas leaks are key

Leahy, 1/24/12 (Stephen, lead international science and environment correspondent at IPS, where he writes about climate change, energy, water, biodiversity, development and native peoples. Based in Uxbridge, Canada, near Toronto, Steve has covered environmental issues for nearly two decades for publications around the world. He is a professional member of the International Federation of Journalists, the Society of Environmental Journalists and the International League of Conservation Writers. He also pioneered Community Supported Environmental Journalism to ensure important environmental issues continue to be covered.

IPS: “Shale Gas a Bridge to More Global Warming,” http://www.ipsnews.net/2012/01/shale-gas-a-bridge-to-more-global-warming/

However, those climate gains are more than negated by methane leaks both at the well during the fracking process (called flow-back), and through the gas delivery and distribution system. Howarth and colleagues estimate that between 3.6 and 7.9 percent of all shale gas produced leaks – called “fugitive emissions” – into the atmosphere, making it worse than burning coal or oil. Methane has 105 times the warming potential of CO2 over a 20-year time frame, after which it rapidly loses its warming potential. If large amounts of methane are released through fracking – as seems likely with hundreds of thousands of new wells forecast in the next two decades – Howarth says global temperatures could rocket upward from 0.8C currently to 1.8C in 15 to 35 years, running the risk of triggering a tipping point that could lead to catastrophic climate change. “Our primary concern is that methane emissions over the coming two decades will drive the entire climate system past a major tipping point,” he told IPS.

#### States key to methane capture

Worldwatch Institute, An independent research organization based in Washington, D.C. that works on energy, resource, and environmental issues, “Despite Methane Emissions Upstream, Natural Gas Is Cleaner than Coal on a Life-Cycle Basis”, Updated Feb 4th 2013, http://www.worldwatch.org/despite-methane-emissions-upstream-natural-gas-cleaner-coal-life-cycle-basis

Washington, D.C.-Over its full cycle of production, distribution, and use, natural gas emits just over half as many greenhouse gas emissions as coal does for equivalent energy output, according to a new study from the Worldwatch Institute and the Deutsche Bank Climate Change Advisors. The analysis clarifies the role of methane releases in the calculation of comparative emissions between the two fossil fuels and explores how the growing share of natural gas production from shale formations could change that fuel's footprint. Earlier this year, the U.S. Environmental Protection Agency (EPA) updated its methodology for estimating methane emissions from natural gas systems, generating concern that the new, higher methane figures could minimize the greenhouse gas advantage that natural gas is seen widely to have over coal. Applying the EPA's new estimates, the life-cycle greenhouse gas footprint of natural gas-fired electricity increased roughly 11 percent, according to the study. "Despite a substantial increase in the methane assumed to be emitted during natural gas production, we found that U.S. natural gas-fired electricity generation still released 47 percent fewer greenhouse gases than coal from source to use," said Saya Kitasei, a Worldwatch Institute Sustainable Energy Fellow and one of the contributing writers. The authors stress that although methane emitted during natural gas production might not make natural gas-fired electricity dirtier than coal, it can and must be mitigated immediately. "In addition to being a potent greenhouse gas, methane is a valuable energy source that natural gas producers should be capturing for sale," said Kitasei. "Because some of the same technologies that prevent methane from entering the atmosphere also reduce emissions of smog-forming compounds, tackling methane emissions is a win-win-win proposition." The study points out that regulatory and technological tools to reduce methane emissions are being demonstrated in some U.S. states and by some companies. Although reducing methane emissions has been largely voluntary to date in the United States, new EPA rules could require the natural gas industry to measure and report its greenhouse gas emissions and to use control technologies that will significantly reduce associated methane emissions as early as 2012. Further highlights from the study: The EPA's recent upward revisions of methane emissions from natural gas are related largely to the production share of the gas value chain, especially during the unloading of liquids and (in the case of hydraulically fractured wells) during flowback. The life-cycle greenhouse gas footprint of natural gas is lower than coal under all "global warming potentials" tested, with the smallest difference calculated using a GWP of 105, where the emissions are 27 percent less than those of coal-fired generation. Methane emissions during natural gas production, processing, transport, storage, and distribution can be mitigated now at moderately low cost using existing technologies and best practices. Such capture potential presents a commercial and investment opportunity that would further improve the life-cycle greenhouse gas footprint of natural gas.

### Contention 2 – Solvency

***Plan causes state regulators to fill in – solves better***

**Willie ‘12**

Matt Willie, J.D. candidate, April 2012, J. Reuben Clark Law School, Brigham Young University, Brigham Young University Law Review, 2011 B.Y.U.L. Rev. 1743, Hydraulic Fracturing and "Spotty" Regulation: Why the Federal Government Should Let States Control Unconventional Onshore Drilling, Lexis, jj

**What is conspicuously missing from many of these groups' arguments, however, is an explanation of how and why federal regulation will actually diminish fracking's environmental risks**. In fact, a closer look at much of the rhetoric against a state-centric regulatory system reveals not so much a push for federal regulation, but rather for federal prohibition of hydraulic fracturing. n122 Perhaps [\*1762] this is because, by and large, **state control of hydrofracking is already relatively expansive. As fracking has become more widespread, state regulation of the practice has intensified**, although specific rules vary widely. n123 Some see this variation as a reason for more federal control. n124 But as the following discussion illustrates, **every producing state has promulgated a considerable amount of fracking regulation, whether through general permitting processes or more directly**. n125 **Wyoming**, for example, **was the first state to require companies to fully disclose the chemicals used in their fracking fluids.** n126 **The state also requires drillers to give notice to surface owners of planned oil and gas operations on their lands and make good faith efforts to enter into "surface use agreements" that will protect surface resources, provide for reclamation of disturbed areas, and determine a payment for any** damages caused by the operations. n127 **Developers must show that they have complied with this requirement before the** [\*1763] **Wyoming Oil and Gas Commission will grant a permit to drill** n128 or a permit to construct a pit for retaining fluids. n129 Moreover, before any well can be used for injection activities, **an operator must demonstrate to the Commission that its casing is leak-proof and able to withstand pressures of at least 300 pounds per square inch**. n130 **New York has perhaps the nation's strictest fracking controls**. Shortly before leaving office in late 2010, former governor David Paterson "issued an executive order imposing a moratorium on permits for horizontal wells and instructed the [Department of Environmental Conservation] to revise its draft of standards governing the use of high-volume fracking." n131 In July of 2011, the Agency released a revised Draft Supplemental Generic Environmental Impact Statement (SGEIS) which recommended that the moratorium be kept in place in certain areas and lifted in others, subject to strict regulation. n132 Even without the moratorium, the state's rules are far from lenient. An operator seeking to drill needs to submit an application for a permit, pay a permit fee, offer a description of the planned drilling project, provide three copies of a plat, and complete an Environmental Assessment Form. n133 This form "provides information about the physical setting of the proposed project, the general character of the land and land use, the projected size of the area that will be disturbed and the length of time the drilling rig will be on the [\*1764] site." n134 A Supplemental Environmental Impact Statement and additional permits may also be necessary. n135 Even **Professor Wiseman calls the state's fracking rules "relatively comprehensive**." n136 **She says the same about Pennsylvania**, even though the state uses general oil and gas rules to regulate fracking. n137 Strong permitting requirements compel operators to account for any water sources or coal seams near drilling sites, n138 and the Department of Environmental Protection may deny permits that would violate any applicable environmental law. n139 The state also has separate rules for exploration activities in the Marcellus Shale. n140 Likewise, **Colorado has adopted comprehensive fracking regulations**. In 2009, the state overhauled its rules, providing more protections against methane contamination. n141 Even before the overhaul, the Colorado Oil and Gas Conservation Commission (COGCC) instituted a "mitigation program" to seal improperly abandoned wells. The program resulted in a reduction of methane concentrations in close to 30% of all sampled water wells. n142 More recently, the Commission has begun investigating the use of diesel fuel in fracking operations and regularly testing groundwater wells for contamination. n143 The COGCC also requires operators to maintain a "Chemical Inventory" of all chemicals used in drilling and completion, including fracturing, at each well site. n144 **The Alabama Oil and Gas Board claims that it "investigates every complaint it receives**." n145 A unique feature of its investigations is that each one includes research regarding "historical water quality [\*1765] data." n146 As the EPA explains, this "information is important because the coal-bearing Pottsville Formation often contains high concentrations of iron." n147 The symptoms of iron staining, which can occur suddenly and "in water with a history of good quality," are apparently similar to those of methane contamination. n148 Such observations show the importance of accounting for regional characteristics in fracking regulations. Perhaps more than any other state, **Texas has been criticized for its fracking regulations**, primarily because until recently no rule addressed the practice specifically. n149 **That changed** in June of 2011, **when** Texas governor **Rick Perry** **signed into law H.B. 3328, which requires operators to publicly disclose chemicals used in fracturing applications**. n150 Even without the legislation, much of the criticism of Texas is misplaced, since, as Professor Wiseman herself admits, **many of the state's general oil and gas regulations "apply to various components of the fracking process.**" n151 Like other states, **operators cannot drill without a permit**, n152 **and they must obtain a Water Board Letter from the state Commission on Environmental Quality setting out "the depth to which fresh water must be protected" for each well**. n153 **No operator in the state "may dispose of any oil and gas wastes [which would include fracking fluids] by any method without obtaining a permit**." n154 In addition, **the state has extensive casing and cementing regulations, including requirements that all casing be** [\*1766] **made of steel and "hydrostatically pressure tested," and that "all usable-quality water zones be isolated and sealed off to effectively prevent contamination or harm."** n155 Despite the peculiarities of each state's regulatory system, **almost all share several common features. Every producing state, for example, has "permitting requirements governing the locating, drilling, completion, and operations of wells."** **n156 Almost all have casing and cementing requirements designed to isolate ground water from production zones**. n157 **Every state but one requires regulatory authorization before operators can leave a well idle**. n158 **And all twenty-seven producing states have regulations regarding the proper plugging of wells**. n159 **Given the level of scrutiny most states are already applying to hydraulic fracturing, it is difficult to see how federal agencies could significantly curb any of the few environmental effects left unaddressed**. Congress's decision in 2005 to exempt most aspects of fracking from federal regulation has been criticized as a "loophole" for developers. n160 But as the Independent Petroleum Association of America states, "This characterization is entirely inaccurate; **Congress' action merely keeps in place a system that has worked for half a century**." n161

***State regulations solve federal inadequacies – even if some states are inadequate now – they will race-to-the-top***

Even if the reg’s are the same, states place less burden on producers because they provide more flexibility [tailorized and localized responses to concerns – and someone to answer the phone when a company needs calrification] & accountability to both environmental and economic players

**Peshek & Millican ‘12**

Adam Peshek, Research Associate Reason Foundation, Robin Millican, Policy Associate Institute for Energy Research, 2-28-12, Reason Foundation, Letter to U.S. Environmental Protection Agency Office of Administrator Lisa Jackson, <http://reason.org/files/oil_and_gas_nsps_and_neshap_comment.pdf>, jj

5) **States are in a Better Position to Regulate** Through both their proximity to the affected facilities and their intimate knowledge of local resources, states are in a better position to regulate toxic **air emissions than a federal agency**. In fact, **the effectiveness of states’ current regulatory efforts have been lauded by a government task force** charged with reviewing the state of the natural gas sector. The Natural Gas Subcommittee of the Secretary of Energy’s Advisory Board has been tasked, and is in the midst of recommendations to improve the safety and environmental performance of hydraulic fracturing. In testimony before the Senate Energy and Natural Resources Committee, all four representatives from the subcommittee on natural gas remarked on the quality of the states’ regulatory process. **Daniel Yergin, Chairman of IHS Cambridge Energy Research Associates and member of the subcommittee noted** that he was “very impressed by the extent and the seriousness of the states [regulations], and as I said before, there is a tendency to assume that this isn’t going on but it’s been going on for decades. **The states are the leader and bring that long experience** to it.” **When asked if there is any danger in the federal government stepping in to regulate areas that have historically been regulated by states, Yergin commented: “Certainly you can end up having a kind of super structure on top of a superstructure that would make investment more difficult, would take a much longer time to get things done, and move farther away from communities**.” Kathleen McGinty, Former Secretary of the Pennsylvania Department of Environmental Protection and subcommittee member remarked that “there was nothing in the testimony we heard, the substance we focused on, or what needs to be done that lead to a glaring conclusion that there is an actor missing from the [regulatory] scene.” Mark Zoback, Professor of Geophysics at Stanford University noted that the subcommittee recognizes that “the differences geologically from place to place put the states in the right position to do this because we did not see a one size fits all solution. That’s why we endorse **groups like STRONGER** – to **allow the states to learn from each other**…” STRONGER – the State Review of Oil and Natural Gas Environmental Regulation – is a not-forprofit organization whose mission is the scientific peer-review of state regulations around oil and natural gas. “There are other important mechanisms for improving the availability and usefulness of shale gas information among various constituencies. The Subcommittee believes two such mechanisms to be exceptionally meritorious (and would be relatively inexpensive to expand).” **State reviews are conducted by a state regulators, environmental organizations, and industry representatives and facilitate the sharing of best practices** (environmental protections strategies, regulations, technical aspects, etc.) **among states**. Both the Environmental Protection Agency and the Department of Education have supported STRONGER. **State-focused programs like this should be supported, not superseded, by the federal government.** The kind of emissions controls employed by facilities are dependent on a variety of factors, including the age, location, and size of a facility. In this case, **flexibility is warranted and in fact can yield the same reductions in a more cost-effective fashion.** Indeed, as enumerated above, **the highly localized nature of air quality responses and the variances in well locations would make states a better candidate to regulate than a federal agency.**

#### States are empirically better – studies

Entine, 5/15/12 (Jon, Senior Fellow at the Center for [Health](http://www.forbes.com/health/) and Risk Communication and at STATS at George Mason University, Forbes, “Fracking Safety Improves Dramatically, Says Independent Study” <http://www.forbes.com/sites/jonentine/2012/05/15/fracking-safety-improves-dramatically-says-independent-study/>, ts)

A team of researchers from UB, [University of Wyoming](http://www.forbes.com/colleges/university-of-wyoming/) and Penn State University examined violations at almost 4,000 natural gas wells in Pennsylvania between January 2008 and August 2011. The peer-reviewed study found approximately two-thirds of the 3,000 violations were administrative, 38 percent were environmental, and only 25 were deemed “major,” defined as site restoration failures, serious contamination of water supplies, major land spills, blowouts and venting and gas migration. The majority were “due to operator error, negligence, or a failure to follow proper procedures when drilling,” according to the report. “This suggests that the industry has room for improvement, and the frequency of environmental events can be reduced,” the authors wrote. The safety profile of hydraulic fracturing has improved dramatically in Pennsylvania since 2008. Environmental violations as a percentage of wells drilled dropped by more than half over the course of the years examined. The study—the first based on comprehensive data rather than on anecdotal claims or selective reports—contradicts claims by anti-fracking groups that shale gas extraction is poorly regulated in Pennsylvania and that the environmental dangers are increasing. “This study presents a compelling case that state oversight of oil and gas regulation has been effective,” said University of Wyoming economics professor Timothy Considine, who was the lead author. “Regulatory learning and technological progress has been considerable over the past four years.” “While prior research has anecdotally reviewed state regulations, now we have comprehensive data that demonstrates, without ambiguity, that state regulation coupled with improvements in industry practices results in a low risk of an environmental event occurring in shale development, and the risks continue to diminish year after year,” Considine added.

***States solve the multiple warrants for why federal regulations are insufficient***

Fed is unconcerned with production benefits --- states better able to forge agreement between environmental groups while working with production companies. Also better able to respond to emerging situations. Uncertainity about fed reg’s already slowing down fracking on federal lands – dropped 14% in past two years.

**Maddox, 12/1/12** (Mark, has held a variety of senior strategic policy, communications, and political positions during his 25-year career, and currently serves as the Senior Vice President of Government Affairs for Arcadian Networks, where he serves as chief strategist on government policy and as a member of the executive team. He is currently a member of the Gridwise Alliance Board of Directors.¶ Previously, he served as Assistant Secretary (acting) and head of the U.S. Department of Energy’s Fossil Energy program from 2004 to 2006. ¶ Maddox oversaw the development of many of the critical technologies that will be essential to controlling future green house gas emissions. He also managed a $750 million budget, and high profile initiatives including the FutureGen Zero Emissions Power Plant, He also served as a Senior Policy Advisor to the Secretary on fossil energy, environmental management, and budget issues. ¶ Additionally, Maddox worked in the Government and Public Affairs offices at Lockheed Martin as a director for the Integrated Management Systems division, Maddox received a Masters of Business Administration from George Washington University and earned an undergraduate degree from Bowling Green State University, OH. ¶ the Washington Examiner: “Let the States Regulate the Natural Gas Boom,” <http://americanactionnetwork.org/topic/let-states-regulate-natural-gas-boom>, ts)

One example in the 2012 presidential election was the shale gas critics justifying the Environmental Protection Agency's relentless push for a single, overarching federal law to regulate the entire industry. **They made the dubious claim that one law is superior to a patchwork of 50 state regulations.¶ This language holds out hope for regulatory simplicity. But this approach, at least for natural gas, is misguided.** It perpetuates the myth that there isn't already federal regulation of the oil and gas industry. In reality, **various parts of the drilling process are regulated under the Safe Drinking Water Act, Clean Water Act, Clean Air Act and others**.¶ Additionally, the **U.S. Department of Energy and the EPA fund the State Review of Oil & Natural Gas Environmental Regulations program and the Ground Water Protection Program, which audit state regulatory programs and share best practices.** **In fact, the Secretary of Energy Advisory Board's report on fracking supported continued state oversight through these programs and called for additional funding of these programs in its report last year**.¶ Though broad, simple campaign declarations sound great, they fail to take into consideration that **each company -- in whatever industry a policy regulates -- is very different. Even the shale fields themselves differ greatly in terms of geology, topography and hydrology from state to state. Shale gas deposits are different in Pennsylvania's Marcellus, Ohio's Utica, and Texas' Barnett deposits**. Because of this, **drilling strategies need to be tailored to individual circumstances**.¶ So the question is, **how do you create a master set of federal regulations that can efficiently and effectively balance safety and resource development when every case is different? The simple truth is you can't.¶ A one-size-fits-all approach would probably require a federal waiver for every shale gas field permit. Even in a perfect world, getting a permit under any federal rule is time-consuming and expensive**. **But to obtain a federal permit through a waiver process only compounds the difficulty.¶** In practice, **states are also usually more sensitive to overregulation. At the federal level, the benefits of production are of secondary concern, and no federal regulator is accountable for the impact of decreased production.** In contrast, **state legislatures from both parties in places as different as Ohio, Pennsylvania, Colorado and Texas have effectively engaged stakeholders, from the environmental community to the producing community, to craft effective laws.** **In each of those states, lawmakers identified the need to set rules for shale gas exploration early in the process, and to address in legislation chemical disclosure requirements that balance the need for public transparency and protection of trade-sensitive information**.¶ **Another benefit of state over federal regulation is the states' ability to respond to emerging issues**. **As Washington still wrestled with what role government should play, state governments had already established well-engineering standards, cleanup requirements, water guidelines, local government revenue sharing and clear guidelines in the permitting process**.¶ **The growth in natural gas production occurring under state regulation contrasts dramatically with the trend on federal lands. According to the U.S. Energy Information Administration, onshore federal natural gas production has dropped the past two years as its share of our natural gas production has dropped from 35 percent to 21 percent, a track record that is hardly comforting for federal regulation skeptics**.¶ Ultimately, **if the EPA continues to limit coal** generation **and pursues an "all in" strategy with natural gas** generation, **it must stop working at cross purposes with itself. The best way is drop out of this debate and let individual states do what the federal government cannot.**

***Race-to-the-bottom doesn’t apply to state fracking regulations***

The states can’t race to the bottom --- there necessarily has to be different regs in different states ---the gas cant move

**Spence ‘12**

David B. Spence, Prof. of Law, Politics & Regulation, University of Texas at Austin, Northwestern Law School's Searle Center Conference, Federalism, Regulatory Lags, and Energy Production,

<http://www.law.northwestern.edu/searlecenter/papers/Spence_Federalism_Energy_3-4.pdf>, jj

**Decisions governing** shale **gas regulation are unlike the typical race to the bottom scenario, such as a decision to locate a new manufacturing plant in one of several candidate states. In the latter case, multiple states compete for a single** (or small number of) **large and long-lived capital investments**. **One** (or a few **can win**), **most will lose**. **While the manufacturing plant can be constructed** (absence legal impediments) almost **anywhere, hydraulic fracturing occurs only where shale gas deposits are found**, and companies will invest in natural gas production wherever gas can be profitably produced. **Investment in production in one state does not preclude simultaneous investment in another**; to the contrary, companies will invest simultaneously in hundreds or thousands of wells. **States are not chasing limited investment capital**, as in the usual race to the bottom scenario; rather, in shale gas production, investment capital is chasing production opportunities. Thus, **a state does not risk losing the economic benefits of shale gas development unless the regulatory costs it imposes on production are sufficient to render otherwise profitable production unprofitable. Even then, the state does not lose that capital to another state** forevermore; **that capital may yet return** when and **if natural gas prices increase** sufficiently to make production profitable within the state. **Thus, state regulation of natural gas production ought not to be characterized by a race to the bottom.** On the other hand, there is at least a theoretical argument that unless the costs and benefits of shale gas production are evenly distributed throughout the state, state regulators may tend to under-regulate because those who bear the costs of fracking are outnumbered by those who do not. Consider Figure 1, which depicts a potentially productive shale gas area within the hypothetical "ABC State." Consistent with the discussion in the previous section, most of the external costs of shale gas production will fall primarily on the residents of Alphaville, though we might imagine some costs falling beyond the boundaries of Alphaville. Of course, Alphaville will capture some of the benefits of shale gas development as well, in the form of royalty payments to landowners, jobs, and the indirect economic benefits of production. The residents of Betavilla, Gammaville, and Deltaville may also capture some of the benefits of production, including some of the ripple effects (secondary economic effects and state budgetary effects) of shale gas production. If the costs are more closely concentrated near the shale gas production area (in Alphaville) than the benefits, it may be that the more numerous residents of Betavilla, Gammaville, and Deltaville will cast their vote in favor of relatively light regulation, outvoting their Alphaville counterparts. In that case, the residents of Alphaville may be forced to suffer externalities that would have been outlawed or more closely regulated if they had fallen upon a majority of the residents of ABC State. One solution would be to permit local governments to retain a veto over shale gas production within their borders. That way, those closest to the costs and benefits will be able to dominate the policy decision. Indeed, the countless local debates taking place nationwide over whether to permit shale gas development, while heated, seem to reflect the very sort of political conflict (over the relative merits of development versus environmental protection) that one might expect to see in a well functioning local democracy. 268 On the other hand, providing local jurisdictions with a veto over shale gas production creates the potential for overregulation, because it creates the possibility that development with positive social net benefits can be vetoed by locals who bear most of the costs of development. The real problem is that the distribution of the costs and benefits of production will never fall neatly within the boundaries of any political jurisdiction. 269 How, then, to address the risks of under- or over-regulation caused by geographically mismatched costs and benefits? One possible solution to the problem of under-regulation is for the winners (those who benefit from development) to compensate the losers) those who bear the external costs). However, compensation is a much neater solution theoretically than practically, in part because of moral hazard problems and political distortions. 270 **We might resolve this question by asking whether under-regulation or over-regulation is the bigger problem**? **If shale gas development is left to states** and their political subdivisions to sort out, **the danger of overregulation appears to be fairly remote**, **because most of the costs and benefits of production will be experienced by voters within the** (potentially) **regulating jurisdiction**. Despite some states’ home rule provisions, states can preempt local law, and it seems unlikely that local vetoes will prevent positive net benefit shale gas development for long. **If under-regulation is likely to be the more common problem, it is difficult to see how federal regulation can help, since the mismatch between the set of people who bear the costs and those who reap the benefits is even greater at the national level**. 271 Moreover, in some shale gas producing states (like those of the Marcellus Shale), producing areas are fairly widely distributed, reducing the intrastate geographic mismatches between the relative distributions of costs and benefits pictured in Figure 1. For all of these reasons, **a race to the bottom rationale for federal regulation of hydraulic fracturing is not a persuasive one.**

#### State regs are qualitatively better

Jonathan H. Adler, Professor of Law and Co-Director, Center for Business Law and Regulation, Case Western Reserve University School of Law, “WHEN IS TWO A CROWD? THE IMPACT OF FEDERAL ACTION ON STATE ENVIRONMENTAL REGULATION”, Harvard Environmental Law Review, May 1st 2006, http://www.law.harvard.edu/students/orgs/elr/vol31\_1/adler.pdf

Up until this point, this Article has discussed environmental protection in a two-dimensional fashion, focusing on quantitative changes in regulatory protection. This vastly oversimplifies the relevant analysis, as various regulatory programs will vary in both quantitative and qualitative terms. 143 Two programs that appear to adopt the same quantitative level of environmental protection, such as the same ambient standard or emission limit, may vary quite significantly in cost, effectiveness, equitableness, and external effects on other media. Conversely, two programs that adopt superficially disparate goals may, in fact, offer qualitatively similar environmental protection. For these reasons, any complete analysis must acknowledge that environmental measures vary in both qualitative and quantitative ways. There are several factors that may cause state-level environmental regulations to be more cost-effective, or otherwise qualitatively superior, than federal regulations of equivalent cost or scope. 144 First, and perhaps most important, state policy-makers and regulators may have access to knowledge of local problems and conditions. 145 Consideration of such knowledge in the development and implementation of state regulatory programs may increase the protectiveness of existing programs without increasing their cost or scope. Second, state policy-makers, because they are closer both to the environmental problems they seek to address and the regulated community, may be more responsive to local needs and concerns. Third, insofar as environmental problems vary from place to place, state policy-makers may be able to focus state resources on environmental problems that exist in a given state. Federal standards, on the other hand, tend to impose broad one-size-fits-all requirements that, in actuality, often fit no state particularly well. 146 A regulatory requirement that makes perfect sense in one state may not provide much environmental protection in another. Fourth, the existence of a federal standard may inhibit the ability of (or incentive for) state policy-makers to innovate or experiment with different approaches to meeting a given environmental goal. 147 There is empirical evidence that, at least in some areas, state regulation may do a better job of addressing local environmental concerns in a cost-effective manner. Several states clean up abandoned hazardous waste sites at lower cost and more rapidly than the federal Superfund program. 148 Similarly, federal regulations may hinder the adoption of more effective pollution control or resource conservation strategies, and state policy-makers may be more sensitive to such concerns. The federal CAA requires many states to adopt suboptimal pollution control strategies when equally stringent—but differently targeted—measures would produce better results. 149 In the wetlands context, states took the lead in evaluating wetland functions and incorporating the ecological value of particular wetlands into the regulatory process when there was no evidence that similar considerations entered the federal permitting process. 150 In other words, at a given level of stringency, some states were beginning to incorporate ecological considerations so as to maximize the environmental value of regulations on wetland development when the federal government was doing no such thing. States need not regulate “more” than the federal government to provide greater levels of environmental protection. Better regulation—that is, environmental protection measures that are qualitatively different—may be sufficient in some instances to improve the level of environmental protection. Insofar as federal regulation encourages states to adopt a particular approach to environmental protection, or discourages states from adopting programs more suited to specific state conditions, it can reduce aggregate environmental protection. Just as the federal government’s regulatory programs may discourage more extensive state regulatory efforts, these programs may also discourage the adoption of qualitatively preferable state level programs that may differ more in kind than in their degree of stringency.

***State regulations are better for the environment***

**Willie ‘12**

Matt Willie, J.D. candidate, April 2012, J. Reuben Clark Law School, Brigham Young University, Brigham Young University Law Review, 2011 B.Y.U.L. Rev. 1743, Hydraulic Fracturing and "Spotty" Regulation: Why the Federal Government Should Let States Control Unconventional Onshore Drilling, Lexis, jj

B. Federal v. State: Why "Spotty" Regulation is Better Regulation **The push for more federal control of hydraulic fracturing** seems at least partly motivated by differences in state approaches to the issue. Professor Wiseman, for example, argues that "the varying complexity and breadth of state oil and gas regulation suggests that some states are not adequately protecting underground sources of drinking water." n198 The flaw in such arguments, however, is that they [\*1772] **ignore the fact that the depth, accessibility, extraction techniques, and characteristics of oil and gas reserves vary from state to state**. In fact, **that fracking regulation in the United States has been "spotty**" n199 **may actually be a good thing.** 1. Regional differences In many respects, **the more local and specialized the regulation, the better**. This is true primarily because **oil and gas extraction methods**, and therefore hydrofracking techniques, **are** almost **always geologic-and region-specific**. n200 **This fact makes additional federal regulation unnecessary at best and** potentially **extremely problematic** **if it conflicts with local and state land use controls.** The Texas Supreme Court hinted at this idea in the Coastal Oil opinion. n201 A major basis for the court's decision was the desirability of deferring to the Texas Railroad Commission on oil and gas matters, especially where they involve questions of property boundaries and extraction techniques within specific reserves. n202 The Commission has the luxury of focusing all its time and manpower on oil and gas regulation (something the court lacks) and has sufficient remedial authority to enforce its rules in a way that both protects landowners n203 and promotes "the state's goals of preventing waste and conserving natural resources." n204 Such realities make the Commission, not the court, the appropriate entity for formulating effective regulatory provisions. For similar reasons, **federal intervention into state regulation of fracking seems unnecessary**. Just as a commission's staff of experts is better equipped than judges to promulgate rules for state oil and gas development, **state officials are** generally **more informed about local and regional production techniques than federal regulators**. n205 Not [\*1773] only do many energy-producing states operate under somewhat conflicting theories of oil and gas law, n206 but **the state commissions that design rules that conform to those theories must be aware of the location, form, and accessibility of their hydrocarbon reserves in order to effectively regulate.** Of course, federal agencies can set up regional offices, and federal regulators can familiarize themselves with local industry realities, but **federal employees will never be subject to the same kind of political accountability as state officials, and this may make them less receptive to local concerns**. Perhaps more importantly, **federal officials remain bound by federal directives drawn up by bureaucrats who reside far from most of the reserves their regulations affect.** Ironically, **even proponents of federal regulation acknowledge the need for region-specific fracking rules**. Professor Wiseman notes that, "**invariably, effects will differ by region, by the type of operation and disposal methods used, and the type of formation fracked**." n207 **State officials are arguably more familiar with these variables than federal employees, yet she promotes an additional, potentially burdensome layer of federal control**. n208 This seems shortsighted simply because **what works well in one state may work poorly in another**. This reality has long been a burr in the side of would-be federal mining regulators. Despite widespread expansion of national environmental protections throughout the twentieth century, n209 Congress struggled to craft effective mining legislation. This was primarily because geological and regional differences encouraged a [\*1774] state-centric regulatory scheme. n210 A former government attorney who helped draft the Surface Mining Control and Reclamation Act of 1977 pointed out that coal regulation "differs significantly from other federal environmental regulatory statutes" primarily because of "the "diversity' in coal mining areas." n211 This concern eventually resulted in Congress admitting that "**the primary governmental authority for developing, authorizing, issuing, and enforcing [mining] regulations ... should rest with the States**." n212 Such **diversity is** even more **apparent among** oil and **gas formations**. A comparison of operations in the Bakken Shale with those in the Barnett Shale is illustrative. Bakken companies primarily drill for oil, n213 while Barnett operators produce gas. n214 **Typical spacing in the Bakken can be as much as 1280 acres per well**, n215 **as opposed to Barnett spacing, which rarely exceeds 100 acres**. n216 **This, of course, creates far fewer wells in the Bakken states and thus a better opportunity to avoid drilling near communities. Likewise, Bakken states** (Montana and North Dakota) **are largely rural to begin with, making land use decisions simpler and disputes regarding property lines and leasehold interests less common. Even the use of fracking fluids varies widely by field and formation. As the EPA noted, "on any one fracturing job, different fluids may be used in combination or alone at different stages in the fracturing process**. **Experienced service company engineers will devise the most effective fracturing scheme, based on formation** [\*1775] **characteristics, using the fracturing fluid combination they deem most effective**." n217 Fracking companies in Montana, for example, "have been using relatively non-intrusive fluids - mostly a gel water sand frack, with the gel consisting of a drilling mud or a polymer." n218 In Pennsylvania's Marcellus Shale, on the other hand, there have been reports of higher than expected levels of radiation in wastewater from fracked wells. n219 **Arguments for more federal intervention consistently fail to account for these realities**. Professor Wiseman writes, for example, that an "absence of regulation [would] not [be] of great concern if fracking [were] a relatively benign practice that could be sufficiently controlled through the general permitting process; but if fracking has significant environmental and public health impacts, the lack of regulation is problematic." n220 The problem with such an all-or-nothing analysis is that **fracking is both benign and environmentally hazardous - depending on its location**. n221 **In some states, the general permitting process provides adequate environmental protections; in others, more stringent rules are justified**. n222 But **these are decisions that ought to be left to state policymakers and state regulatory agencies, not federal employees who may be ignorant to specific local and regional practices and** may **thus** rely on articles like Wiseman's, which **downplay the importance of geological dissimilarities and variations in fracking technique. With state regulations already providing extensive environmental protections, additional federal fracking controls**, in all likelihood, **can** [\*1776] **have only one of two effects: either (1) they will "have little impact," representing "no more than ideological tinkering with state law";** n223 **or (2) they will alter the entire state-centric system, essentially voiding many workable state rules, creating overlapping controls that slow down domestic oil and gas production, and producing uniform standards for fracking techniques that ought to vary by field and region.** Should Congress opt for such a uniform system, the safest route would be to force all states to adopt stringent fracking rules. The problem is that while **such regulations** might be appropriate and welcomed in New York, they **could be unnecessarily restrictive in states like Montana and North Dakota.** At the same time, **crafting a middle-of-the-road national standard could send the message that stricter requirements are unnecessary.** n224 2. Federal regulatory failures Obviously, only a shortsighted system would fail to account for at least some regional and geological differences. But **even if each state's reserves were identical, no evidence suggests that federal fracking regulation would be superior to state control**. In fact, **the BP spill and other recent energy industry problems have created concerns that the entire federal energy regulatory machine is simply too large, and too politically dominated, to be effective**. n225 As **the National Commission on the BP Deepwater Horizon Spill** and Offshore Drilling **described, from its outset "federal regulation of offshore drilling awkwardly combined" two competing priorities - environmental protection and energy independence - which were often difficult to reconcile "as a series of Congresses,** [\*1777] **Presidents, and Secretaries of the Interior" moved in and out of power**. n226 **The result was an odd**, and **often irrational, set of rules**. "**In some offshore regions**," for example, "oil **drilling was essentially banned in response to environmental concerns. Elsewhere**, **most notably in the Gulf, some environmental protections and safety oversight were formally relaxed or informally diminished so as to render them ineffective**." n227 **As drilling moved further offshore and more money poured into federal coffers, safety and environmental risks increased**. Unfortunately, **these risks "were not matched by greater, more sophisticated regulatory oversight**." n228 Some problems were due to the fact that **the same federal agency, the** Minerals Management Service (**MMS**), **was "responsible for regulatory oversight of offshore drilling - and for collecting revenue from that drilling**." n229 **A 2008 study by the Interior Department revealed numerous ethical scandals involving MMS employees**, "including allegations of financial self-dealing, accepting gifts from energy companies, cocaine use and sexual misconduct." n230 **Another Interior Department report prepared after the BP spill cited communication problems at the Agency as well as unevenly staffed offices and inadequate training.** n231 As the National Commission put it: **The overall picture of MMS that has emerged since [the spill] is distressing. MMS became an agency systematically lacking the resources, technical training, or experience in petroleum engineering that is absolutely critical to ensuring that offshore** [\*1778] **drilling is being conducted in a safe and responsible manner. For a regulatory agency to fall so short of its essential safety mission is inexcusable**. n232 **In light of such failures, it is puzzling that critics of fracking believe so adamantly in the superiority of national controls over a state-centric system that has worked with relatively few problems for six decades.**