



# **IN THE NATIONAL INTEREST (PART 1):** **U.S. OIL EXPORTS AND THE GREAT LAKES REGION**

**JULY 29, 2015**

**PREPARED FOR SEN. LISA MURKOWSKI**

**U.S. SENATE COMMITTEE ON ENERGY & NATURAL RESOURCES**

# In the National Interest (Part 1): U.S. Oil Exports and the Great Lakes Region

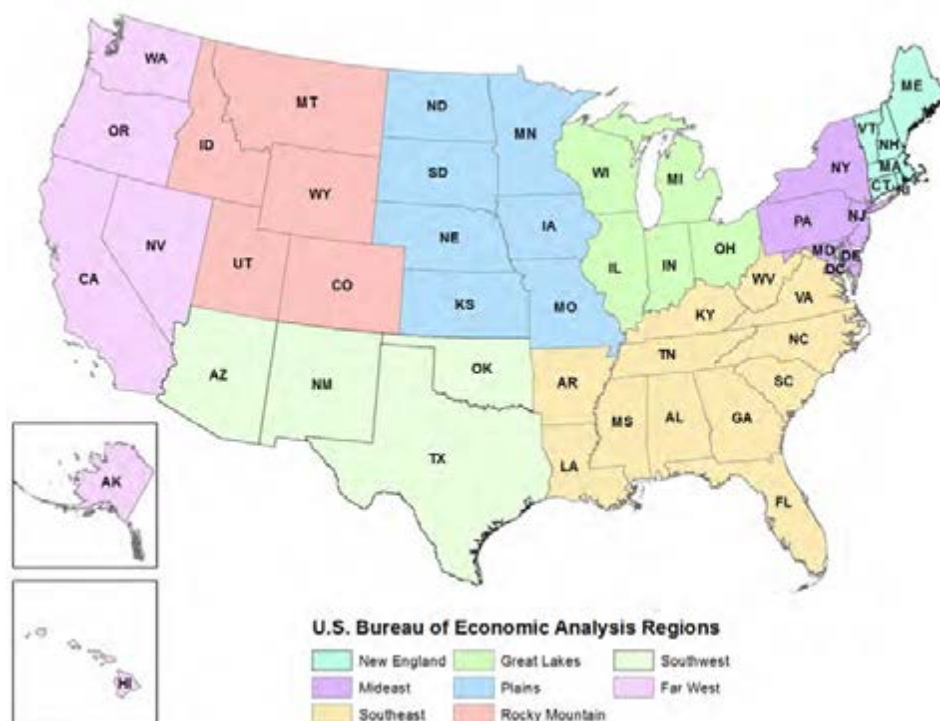
Prepared by Majority Staff for Chairman Lisa Murkowski  
U.S. Senate Committee on Energy & Natural Resources  
July 29, 2015

## Introduction

This report examines the benefits to the states of the Great Lakes region of lifting the ban on oil exports from the United States. It adopts the regional definition used by the Bureau of Economic Analysis at the Department of Commerce, which includes Ohio, Indiana, Michigan, Illinois, and Wisconsin. The report concludes that allowing U.S. producers to access global oil markets would benefit the region by:

- supporting oil, natural gas, and natural gas liquids production;
- encouraging the build-out of new infrastructure;
- boosting the manufacturing sector;
- creating and supporting new jobs;
- generating state and local revenue; and
- putting downward pressure on gasoline prices.

Lifting federal restrictions on oil exports would enhance the region's existing role as a crucial part of the North American energy system. Forthcoming reports will examine the impact of oil exports on other regions of the United States.



## **Current Role**

The Great Lakes region is already a major player in the North American energy renaissance. (See Appendix A.) While none of the five states are major producers of oil, taken in the aggregate the Great Lakes region is a substantial source of crude. Wells in Indiana, Michigan, and Illinois have been operating for decades, supplying a relatively small but reliable stream of 50,000 barrels per day into the North American market. Development of the Utica shale has benefited Ohio in particular. That state has seen its oil production jump from just 16,000 barrels per day in 2005 to 74,000 barrels per day this year, an increase of over 560 percent. (See Appendix B.) The region is also an important source of natural gas for the Midwest.

The Great Lakes region serves as a hub for energy pipelines across the North American continent. A dozen major oil pipelines take 6.5 million barrels of oil per day from Canada and the U.S. midcontinent into and through the region. Wisconsin plays a particularly vital role in the midstream sector, transporting oil from the Bakken fields of North Dakota and from Canada to the Chicago and Sarnia refining centers. Michigan is a key conduit to Great Lakes refiners and Indiana is the transit point between the pipeline hub in Patoka, Illinois, and Ohio refiners.

In addition to its upstream and midstream role, the Great Lakes region boasts a dozen refineries that process crude oil. These facilities produce petroleum products for some of the largest American cities, including Chicago, Indianapolis, Columbus, Detroit, and Milwaukee. Four of the region's refineries – in Whiting, Indiana, Joliet and Wood River, Illinois, and Saint Paul, Minnesota – are among the largest 25 refiners in the United States. Some of the refined products are even exported to Canada.

## **Potential Benefits from Oil Exports**

Although the United States already exports crude oil through the Great Lakes region to Canada (via Detroit), shipments of crude oil produced in the U.S. to overseas trading partners are largely prohibited. A growing body of analytical work confirms the positive impacts of lifting the ban from a geopolitical and national economic perspective.<sup>1</sup> The states of the Great Lakes region would generally share in these benefits and each would gain in certain ways.

### *Greater Oil and Natural Gas Production*

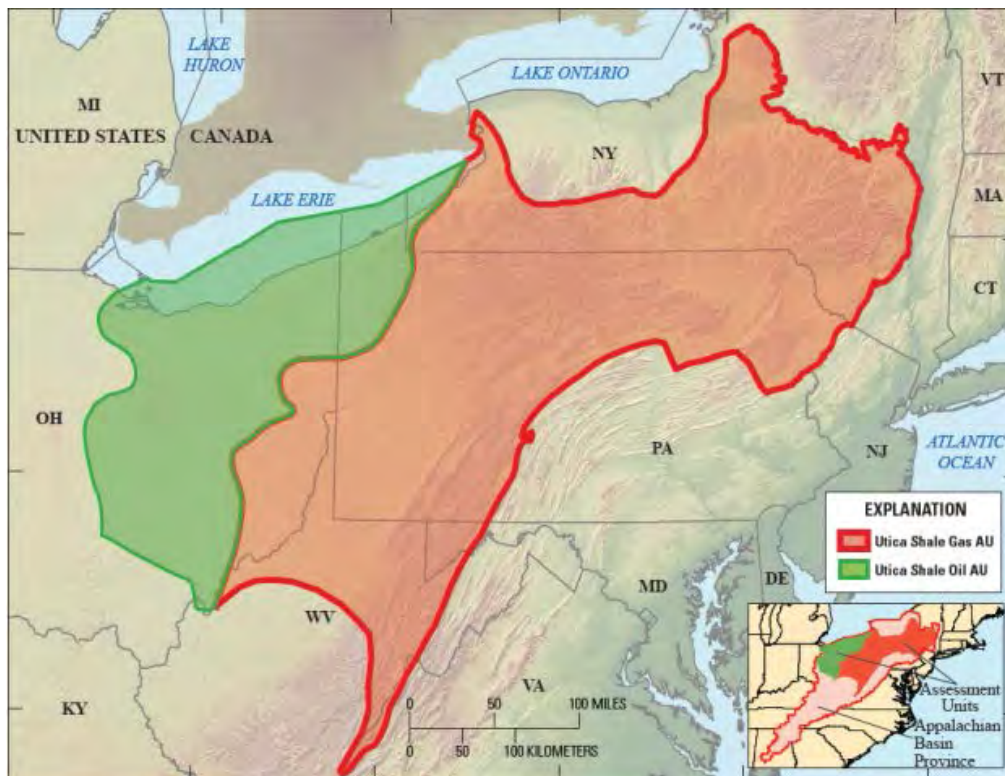
Lifting restrictions on exporting crude oil would allow American companies to sell U.S. crude oil, which is generally landlocked under current regulations, to international

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<sup>1</sup> See, for example, Elizabeth Rosenberg, et al, *Crude Oil Export & U.S. National Security*, Center for a New American Security (May 2015): [http://www.cnas.org/sites/default/files/publications-pdf/CNAS%20Crude%20Exports\\_052015.pdf](http://www.cnas.org/sites/default/files/publications-pdf/CNAS%20Crude%20Exports_052015.pdf). See also Kenneth Medlock, *To Lift or Not to Lift? The U.S. Crude Oil Export Ban: Implications for Price and Energy Security* (March 2015): <http://bakerinstitute.org/files/9319/>.



customers. The ability to export oil would give domestic oil producers, mainly independent companies, greater incentive to invest in the workers and projects needed to produce. The Utica shale in Ohio is an unconventional play in its relatively early stages and would benefit from access to global markets.



Source: U.S. Geological Survey

Resource estimates for the Utica shale have increased substantially over the past few years. (See Appendix C.) Advances in the field – new equipment, new techniques – could conceivably boost the technically recoverable resources even higher. The ability to export oil would make these resources more economical to explore and produce – and also may provide upward lift on the production of other types of energy. A great deal of natural gas, called “associated gas,” may be produced along with crude oil. To the extent that oil exports boost crude production, they will likely also increase gas production. Further, natural gas liquids (NGL) – ethane, butane, propane, etc. – are produced alongside both crude oil and natural gas itself. These are highly valuable commodities in their own right.<sup>2</sup>

### *The Build-Out of New Infrastructure*

The North American energy renaissance has seen a rapid increase in production, but necessary infrastructure to move that new energy from one place to another has not been

<sup>2</sup> Brookings Institution, *Natural Gas Liquids* (March 2013): [www.brookings.edu/~media/Research/Files/Reports/2013/04/01-natural-gas-ebinger-avasarala/Natural-Gas-Briefing-1-pdf.pdf](http://www.brookings.edu/~media/Research/Files/Reports/2013/04/01-natural-gas-ebinger-avasarala/Natural-Gas-Briefing-1-pdf.pdf).

built as quickly (particularly for liquids). A recent report by the Center for Strategic & International Studies noted that “building a new pipeline requires long-term volume commitments from producers and takes significant capital and time to complete.”<sup>3</sup>

Access to global markets would boost domestic oil production, enhancing the ability for pipeline operators to secure the requisite “long-term volume commitments” and to raise the necessary capital. Building new infrastructure would help protect the environment, as well as increase the efficiency of the national energy system.



Oil Pipelines and Refineries. (Source: Energy Information Administration)

There is not a fully developed distribution system to move oil efficiently from the Utica shale, for example, to refinery centers on the East Coast and in the midcontinent. Additional and cross-border projects with Canada may also be necessary. All of these developments would provide economic growth to the Great Lakes region.

### *Boosting the Manufacturing Sector*

Allowing overseas oil exports would benefit the U.S. economy broadly and American manufacturing specifically. A wide variety of stakeholders support lifting the ban on crude oil exports, including associations that represent manufacturers, road builders, equipment distributors and manufacturers, metals and mining, concrete, sand, gravel, tank trucks, and many others. (See Appendix D.) The Aspen Institute noted in a recent report:

“First, oil producers will increase expenditures for exploration, production, and transportation of crude oil. These activities involve long and complex supply chains which include manufactured products such as drilling pipes, pumps, drilling rigs, earth moving equipment, and motor vehicles. Purchases from manufacturers will be direct, as when a driller buys pipe or pumps and compressors. Much indirect

<sup>3</sup> CSIS, *Delivering the Goods: Making the Most of North America’s Evolving Oil Infrastructure* (February 2015), p. 21: [http://csis.org/files/publication/150209\\_Verrastro\\_DeliveringTheGoods\\_Web.pdf](http://csis.org/files/publication/150209_Verrastro_DeliveringTheGoods_Web.pdf).

activity also will be stimulated, such as the production of coal, ore, and limestone used to produce the steel that makes up the pipe.”<sup>4</sup>

To the extent that associated gas production will increase, the report further argued, lower natural gas prices domestically will also spur greater investment in gas-intensive industries. The Quadrennial Energy Review states:

“The availability of lower-cost natural gas and natural gas liquids (NGL) provides an advantage for U.S. manufacturers using natural gas or NGL for heat, power, or feedstocks...The industrial sector as a whole has also taken advantage of abundant natural gas.”<sup>5</sup>

With the prolific oil fields of North Dakota to the west and the developing shale play in the Utica to the east, the states of the Great Lakes region are uniquely positioned to realize benefits in the manufacturing sector as a consequence of oil exports.

### *Creating and Supporting New Jobs*

The combination of greater energy production, lower energy prices, new infrastructure builds, revitalized manufacturing, and the other benefits of exports will result in job creation across the Great Lakes region.

In 2015, IHS conducted a study on the supply chain related to crude oil exports. The report analyzed each state and determined that a broad range of sectors – “construction and well services,” “information technology,” “logistics,” “machinery and equipment,” “materials,” and “professional, financial, and other services” – would see job creation. It noted of the Great Lakes region:

“With its diverse economic landscape, Illinois is well situated to reap many of the direct and indirect benefits of unconventional oil and gas extraction. The state has already experienced gains in terms of jobs and higher incomes as a result of supplying manufactured goods and services throughout the country—a trend that will continue as unconventional production develops in the state in the near term.”<sup>6</sup>

“Firms throughout the Midwest states support equipment manufacturing largely through an integrated network of suppliers clustered around capital goods activity. Ohio, Indiana, Wisconsin and Michigan...are centers for making the raw materials (steel), components (gearing, electronics) and finished goods (compressors, earth-moving equipment) deployed at oil production sites.”<sup>7</sup>

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<sup>4</sup> Aspen Institute, *Lifting the Crude Oil Export Ban: The Impact on U.S. Manufacturing* (October 2014), p.11: [http://www.aspeninstitute.org/sites/default/files/content/upload/FINAL\\_Lifting\\_Crude\\_Oil\\_Export\\_Ban\\_0.pdf](http://www.aspeninstitute.org/sites/default/files/content/upload/FINAL_Lifting_Crude_Oil_Export_Ban_0.pdf).

<sup>5</sup> QER (April 2015), p. 1-6: [http://energy.gov/sites/prod/files/2015/05/f22/QER%20Full%20Report\\_0.pdf](http://energy.gov/sites/prod/files/2015/05/f22/QER%20Full%20Report_0.pdf).

<sup>6</sup> IHS, *Unleashing the Supply Chain* (May 2015), p. 76.

<sup>7</sup> IHS, p. 83.

## *Generating State and Local Government Revenue*

The 2015 IHS study also assessed the impact of lifting the ban on federal, state, and local revenues. The report stated:

“New investment in exploration and production stimulated by lifting export restrictions on US crude oil will flow through the supply chain and, as a consequence, will drive increases in federal, state and local tax receipts around the country.”<sup>8</sup>

As a result of the economic activity resulting from oil exports, the states of the Great Lakes region could well earn potentially billions of dollars in additional tax revenue.<sup>9</sup>

## *Putting Downward Pressure on Gasoline Prices*

In October 2014, the Energy Information Administration published a study of gasoline prices in the United States. The study determined that domestic gasoline prices are linked to the Brent global benchmark price, not to domestic benchmarks such as West Texas Intermediate (which trades at a discount to Brent).<sup>10</sup> In other words, lower global oil prices translate to lower global gasoline prices, including to the United States – and exporting oil would put downward pressure on global oil prices by increasing the global supply of oil. This conclusion was confirmed by many other research organizations.<sup>11</sup>

## **Conclusion**

The benefits of lifting the outdated ban on oil exports extend far beyond the oil patch of Texas and North Dakota. The five states of the Great Lakes region – Illinois, Indiana, Michigan, Ohio, and Wisconsin – are positioned to reap many of these gains, from greater energy production and manufacturing to new infrastructure, jobs, and state revenues.

## **Acknowledgments**

Staff wish to thank the Congressional Research Service for its assistance with this report. The cover image is drawn from NASA.<sup>12</sup>

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<sup>8</sup> IHS, p. 49.

<sup>9</sup> In 2014, IHS estimated that oil exports would generate some \$1.3 trillion in government revenues during the 2016-2030 period. Oil prices were significantly higher when this estimate was produced.

<sup>10</sup> EIA, *What Drives U.S. Gasoline Prices?* (October 2014):

<http://www.eia.gov/analysis/studies/gasoline/pdf/gasolinepricestudy.pdf>.

<sup>11</sup> See, for example, GAO, (July 8, 2015): <http://www.gao.gov/products/GAO-15-745T>.

<sup>12</sup> Jeff Schmaltz, MODIS Land Rapid Response Team, NASA/GSFC (September 23, 2007): [http://modis.gsfc.nasa.gov/gallery/individual.php?db\\_date=2007-09-26](http://modis.gsfc.nasa.gov/gallery/individual.php?db_date=2007-09-26).

**APPENDIX A:**

CRS Memo Re: the Great Lakes Region's Current Energy Role





**MEMORANDUM**

**To:** Senate Energy and Natural Resources Committee  
Attention: Tristan Abbey

**From:** Marc Humphries, Specialist in Energy Policy

**Subject:** Oil and Natural Gas Production, Refinery and Pipeline Capacity for Selected U.S. Great Lakes States (Wisconsin, Illinois, Indiana, Ohio, and Michigan)

This memorandum provides data on oil and natural gas production, and refinery and pipeline capacity for the U.S. Great Lakes States, specified by your office. The Selected U.S. Great Lakes States include Wisconsin, Illinois, Indiana, Ohio, and Michigan. If you have further questions, please contact me at the extension above or email ([mhumphries@crs.loc.gov](mailto:mhumphries@crs.loc.gov)).

**Table 1. Oil Production for Selected Great Lake States 2008-2014**  
(in thousand barrels, annual)

	2008	2009	2010	2011	2012	2013	2014
Michigan	6,270	6,224	6,943	7,013	7,422	7,706	7,247
Ohio	5,113	4,877	4,756	4,853	5,121	11,611	18,996
Illinois	9,448	9,097	9,069	8,742	8,908	9,488	9,540
Indiana	1,859	1,803	1,835	1,987	2,350	2,399	2,507
Wisconsin							

**Source:** Energy Information Administration, [http://www.eia.gov/dnav/pet/pet\\_crd\\_crpdn\\_adc\\_mbb1\\_m.htm](http://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbb1_m.htm)

**Notes:** Wisconsin: no production reported 2008-2014.

**Table 2. Natural Gas Production for Selected Great Lake States, 2008-2014**  
(volumes in billion cubic feet, annual)

	2008	2009	2010	2011	2012	2013	2014
Michigan	158.8	159.4	136.8	143.8	129.3	123.6	NA
Ohio	84.9	88.8	78.1	78.9	84.5	186.2	NA
Illinois	1.2	1.4	1.7	2.1	2.1	2.9	NA
Indiana	4.7	4.9	6.8	9.1	8.8	7.9	NA
Wisconsin							

**Source:** Energy Information Administration,

**Notes: Wisconsin:** no production reported 2008-2013. NA = not available

**Table 3. Operating Refinery Capacity: Selected Great Lake States**  
(Atmospheric Crude Oil Distillation Capacity)

State	Refinery	Location	Barrels per Calendar Day
<b>Illinois</b>			
	Exxon-Mobil Refining and Supply	Joliet	238,600
	Marathon Petroleum Co LP	Robinson	212,000
	PDV Midwest Refining LLC	Lemont	175,940
	WRB Refining LP	Wood River	314,000 (22,000 idle)
Illinois Total			940,540 (22,000 idle)
<b>Indiana</b>			
	BP Products North America Inc	Whiting	413,500
	Countrymark Cooperative Inc	Mount Vernon	27,100
Indiana Total			440,600
<b>Ohio</b>			
	BP Husky Refining LLC	Toledo	152,000
	Lima Refining Company	Lima	155,000
	Marathon Petroleum Co LP	Canton	90,000
	Toledo Refining Co LLC	Toledo	160,000
Ohio Total			557,000
<b>Michigan</b>			
	Marathon Petroleum Co LP	Detroit	130,000
Michigan Total			130,000
<b>Wisconsin</b>			
	Calumet Lubricants Co LP	Superior	38,000
Wisconsin Total			38,000

**Source:** Energy Information Administration, [www.eia.gov/energyexplained/index.cfm?page=oil\\_refining#tab4](http://www.eia.gov/energyexplained/index.cfm?page=oil_refining#tab4)

**Table 4. Major Pipelines Traversing Selected Great Lake States**

Ownership	Pipeline Name	Capacity (barrels per day)	Great Lake States Traversing
Enbridge <sup>a</sup>	Lakehead System	2,620,000	Wisconsin, Michigan, Illinois, Indiana

Ownership	Pipeline Name	Capacity (barrels per day)	Great Lake States Traversing
Enbridge	Lakehead Southern Access	included in Lakehead System above	Wisconsin, Illinois
Enbridge	Chicagap	360,000	Illinois
Enbridge	Spearhead	193,300	Illinois
BP <sup>b</sup>	Cushing to Whiting	175,000	Illinois, Indiana
Marathon <sup>c</sup>	Patoka	249,000	Illinois, Indiana, Ohio
Marathon	Catlettsburg, KY- Robinson, IL	495,000	Illinois, Indiana
Marathon	Wood River	314,000	Illinois
Exxon-Mobil <sup>d</sup>	Pegasus	95,000	Illinois
Shell <sup>e</sup>	Capline	1,200,000	Illinois
TransCanada <sup>f</sup>	Keystone Pipeline System	591,000	Illinois
Sunoco <sup>g</sup>	Mid Valley	238,000	Ohio, Michigan

**Source:** For pipeline routes and names see, <http://www.eia.gov/global/scripts/maps/fullmap.cfm?initialZoom=9244648.868618&ref=/state/&lat=40.09096203156256&lon=-89.76576177234283>

**Notes:** Pipeline capacities found from sources below.

- a. Enbridge Inc, Liquid Pipelines, [www.enbridge.com/delivering Energy/Our Pipeline/Liquid Pipelines](http://www.enbridge.com/delivering%20Energy/Our%20Pipeline/Liquid%20Pipelines).
- b. Janet McGurty, "BP's Cushing-to-Whiting pipeline ramped up ahead of Enbridge," *Reuters*, March 4, 2012
- c. Marathon Annual 10K Report, 2014.
- d. Christopher Smith, "Exxon-Mobil Pipeline addressing Arkansas crude oil spill," *Oil and Gas Journal*, April 1, 2013, [www.ogj.com/articlrs/2013/04/exxonmobil-pipeline-addressing](http://www.ogj.com/articlrs/2013/04/exxonmobil-pipeline-addressing).
- e. [www.shell.us/products-services/solutions-for-businesses/pipelines](http://www.shell.us/products-services/solutions-for-businesses/pipelines).
- f. [www.transcanada.com/oil-pipelines.html](http://www.transcanada.com/oil-pipelines.html)
- g. Zack.com, "Sunoco's Logistics' Mid Valley Pipeline Spills" – Analyst Blog, March 20, 2014.

**APPENDIX B:**  
CRS Memo Re: Utica Shale Assessments





**MEMORANDUM**

**To:** Senate Energy and Natural Resources Committee  
Attention: Tristan Abbey

**From:** Robert Pirog, Specialist in Energy Economics

**Subject:** Utica Shale Oil and Gas Resource Estimates

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This memorandum is written in response to your request for a comparison of Utica Shale oil and natural gas resource estimates. The resource comparison is based on the findings in two reports, the first published in 2012 by the U.S. Geological Survey (USGS), and the second published in 2015 by the Utica Shale Appalachian Basin Exploration Consortium (USABEC).<sup>1</sup>

**Resource Assessment**

Both the USGS and the USABEC studies use a probabilistic resource assessment technique to estimate quantities of oil and natural gas. These techniques provide probability ranges around three quantitative probability related estimates, low, mean, and high. The low estimate can be interpreted as meaning there is a 95% probability that actual resources are equal to, or greater than, the estimate. Similarly, the high estimate can be interpreted as meaning there is a 5% probability that resources are equal to, or greater than, the estimate. The mean estimate represents the average resource value.

**Table 1** provides comparative reserve estimates from the USGS and USABEC studies.

**Table 1. Utica Shale Resource Estimates**  
(oil in millions of barrels, natural gas in trillion cubic feet)

	Oil			Natural Gas		
	F95	F5	Mean	F95	F5	Mean
USGS	590	1,386	<b>940</b>	21.106	60.932	<b>38.212</b>
USABEC	791	3,788	<b>1,960</b>	255.332	1,674.398	<b>782.171</b>

**Source:** USGS, Table 2, and USABEC, Table 9-4, p.169.

**Notes:** F95 means a 95% chance of at least the amount tabulated, F5 means a 5% chance of at least the amount tabulated.

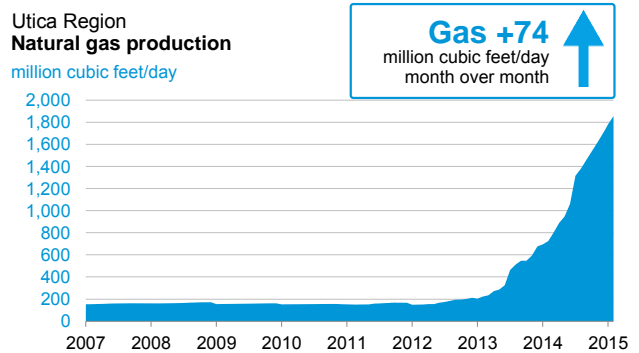
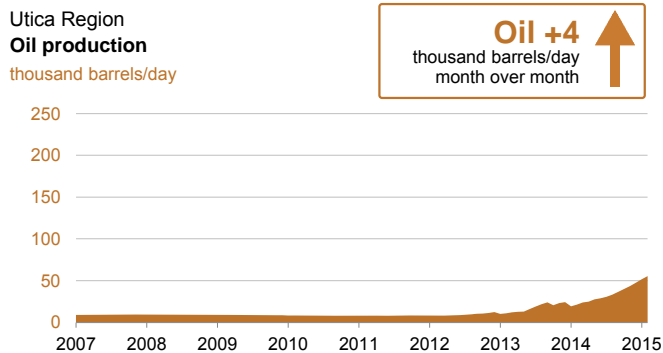
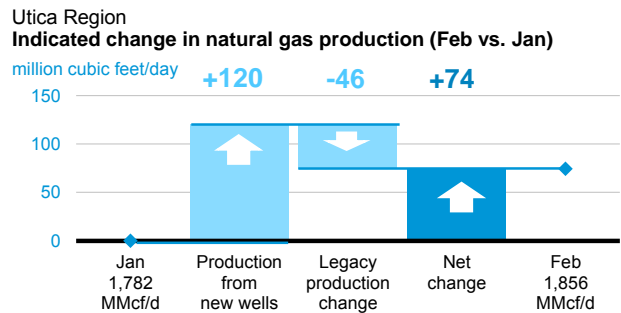
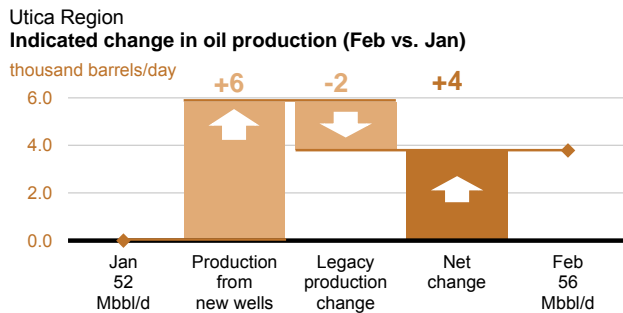
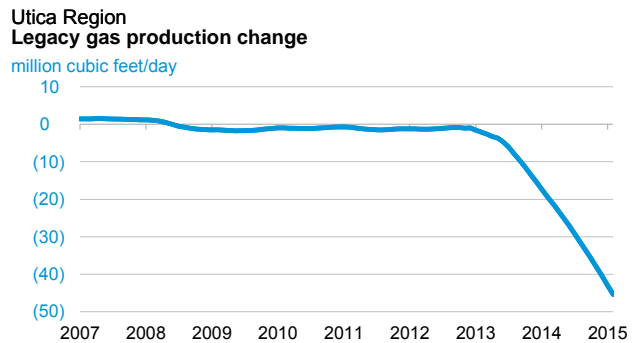
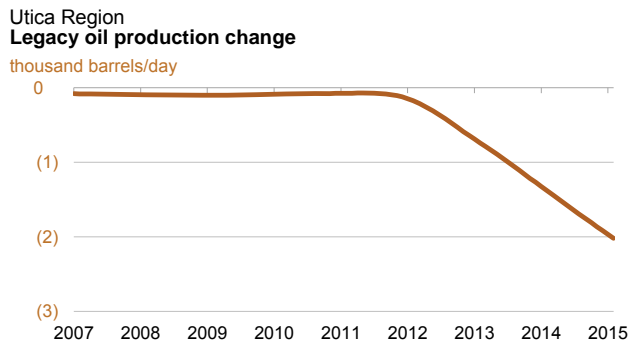
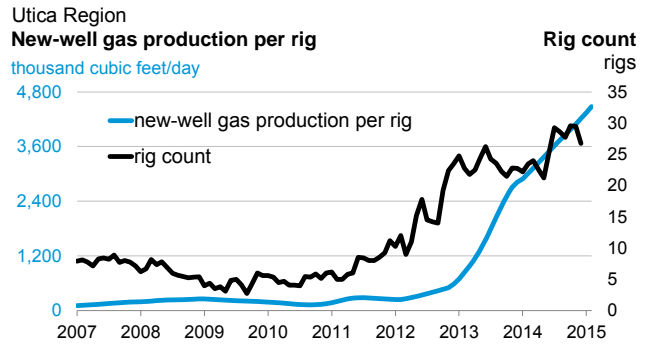
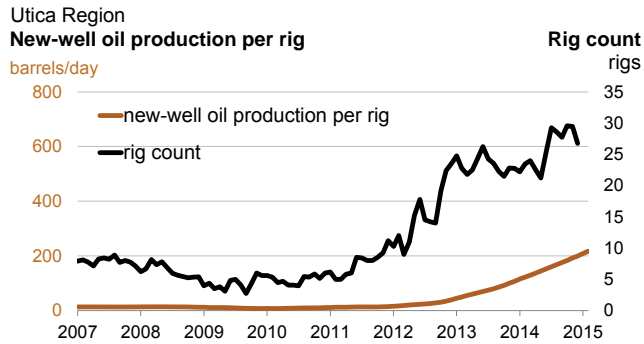
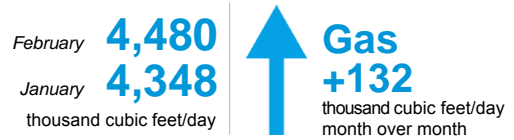
<sup>1</sup> U.S. Geological Survey, "Assessment of Undiscovered Oil and Gas Resources of the Ordovician Utica Shale of the Appalachian Basin Province, 2012," Fact Sheet 2012-3116, September 2012. Utica Shale Appalachian Basin Exploration Consortium, "A Geologic Playbook for Utica Shale Appalachian Basin Exploration," Final Report, July 1, 2015.

While estimates of both oil and natural gas resources have increased during the three years between the USGS and USABEC studies, the high estimates have increased the most. For oil, while the F95 estimate has increased by 34%, the F5 estimate has increased by 173%. For natural gas, the F95 estimate increased by 1,109% the F5 estimate increased by 26,479%. These skewed increases in the resource estimates imply that the mean values for oil and natural gas increased more than proportionately, compared to the F95 values, due to the widening gap between F95 and F5 values.

**APPENDIX C:**  
EIA Drilling Productivity Reports for the Utica Shale



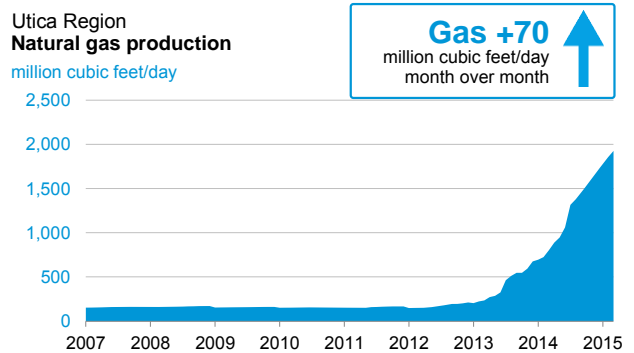
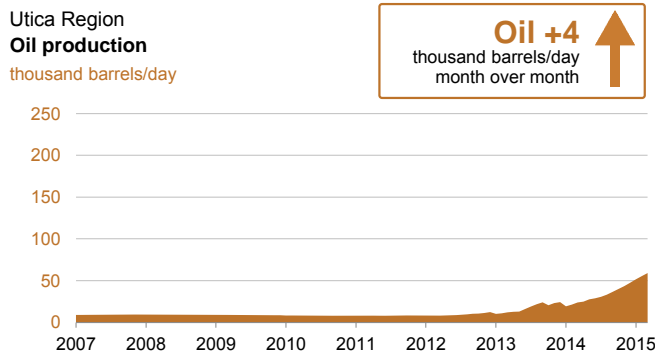
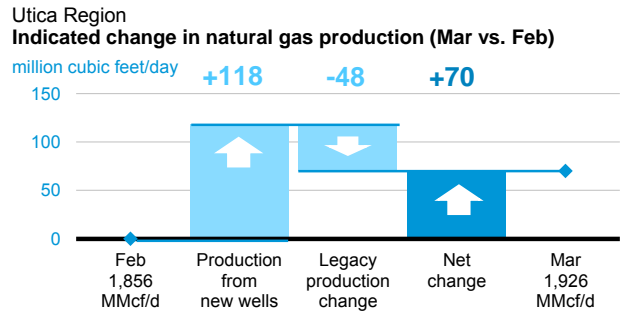
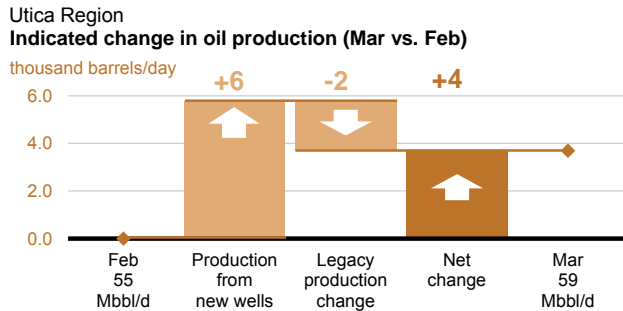
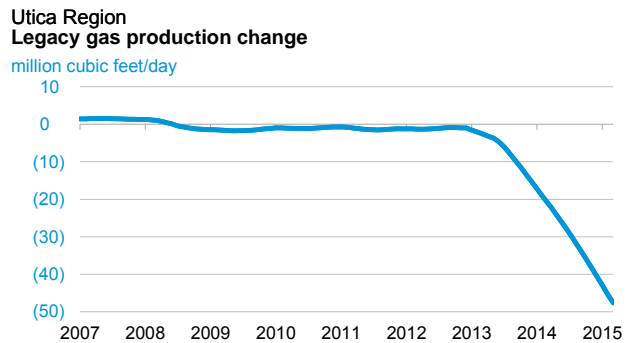
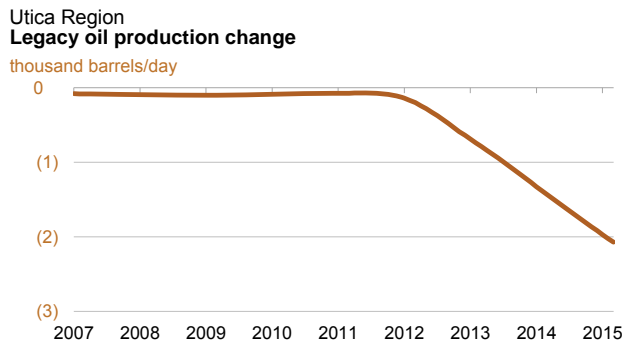
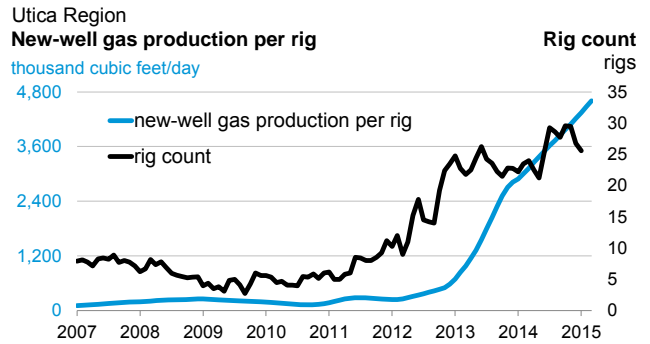
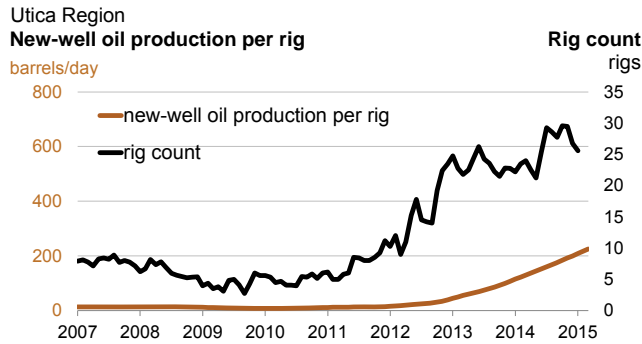
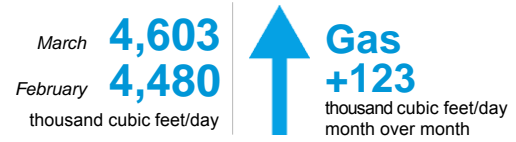
**Monthly additions from one average rig**





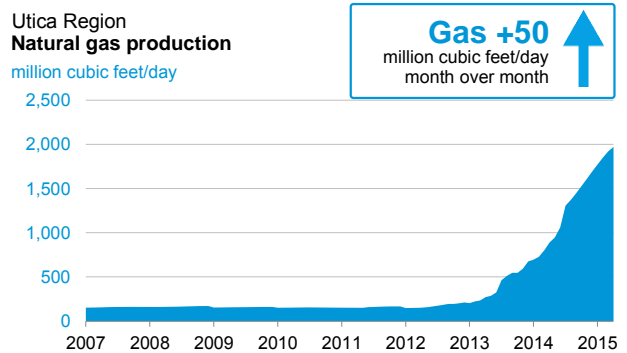
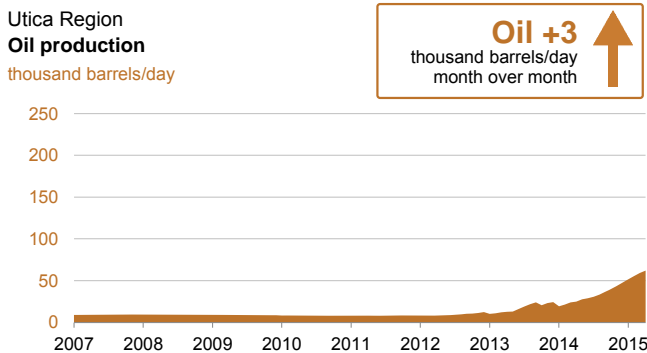
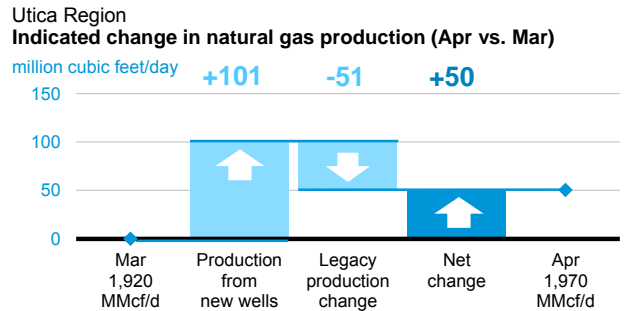
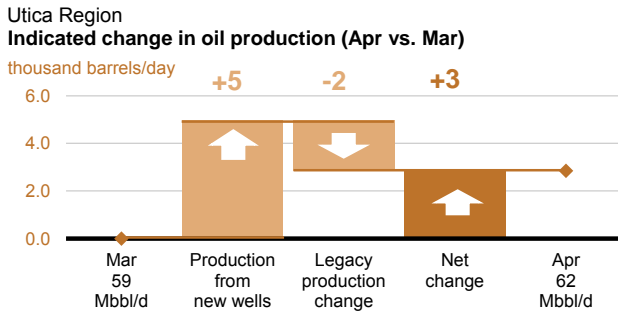
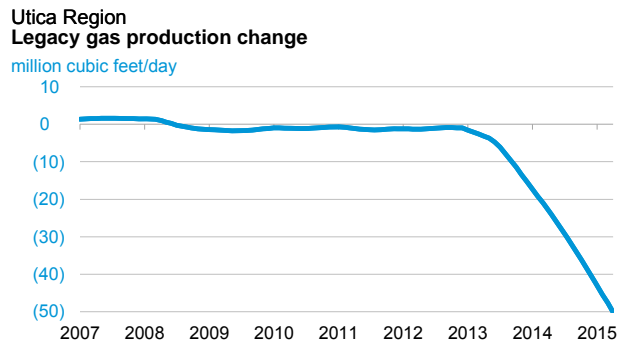
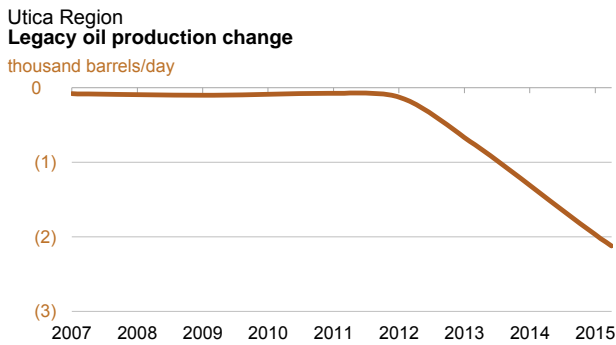
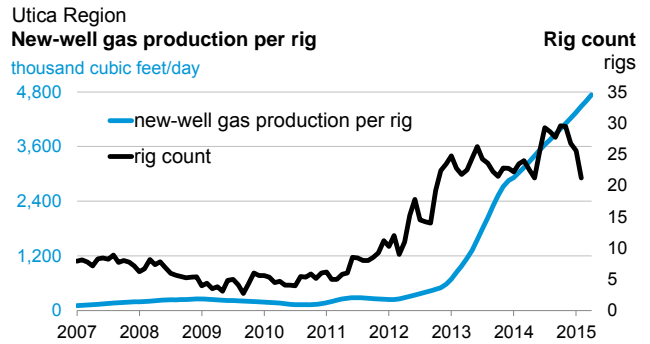
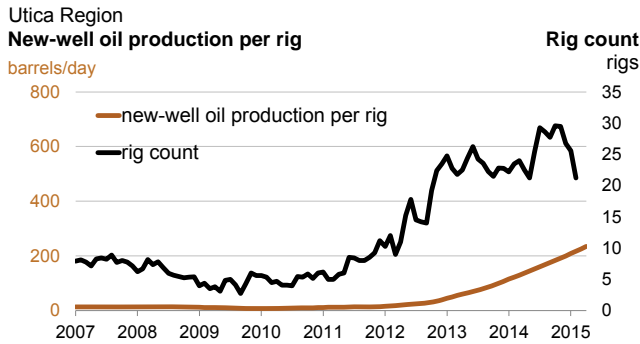
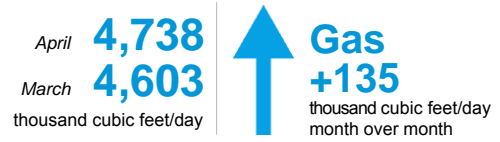


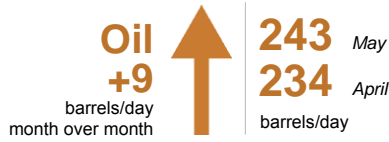
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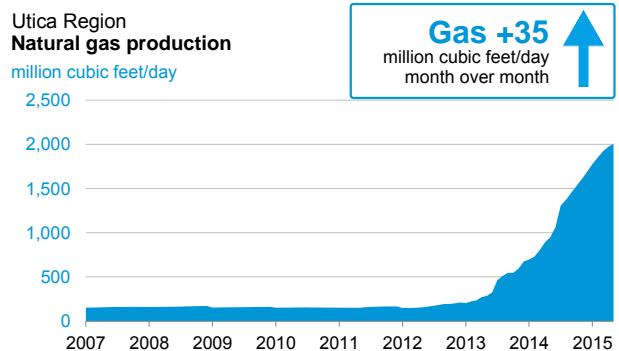
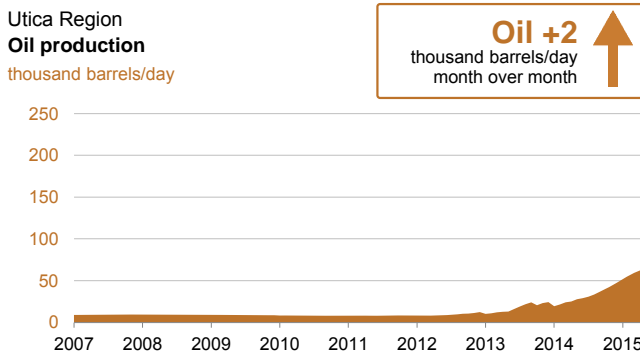
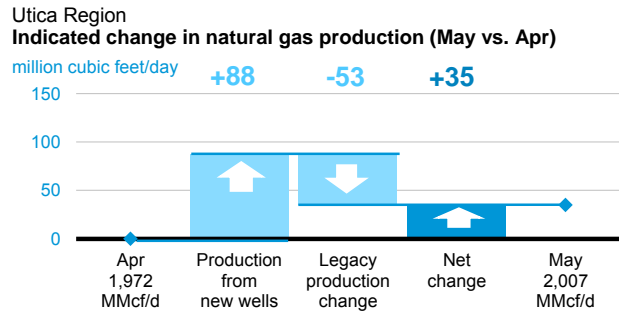
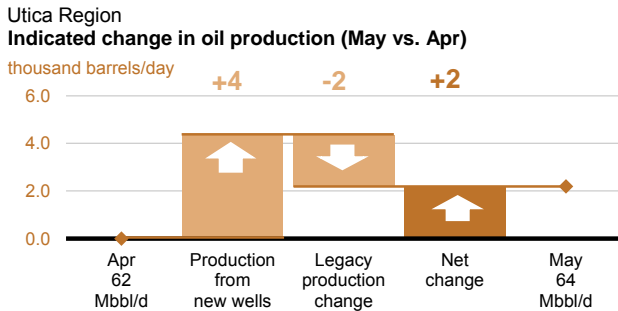
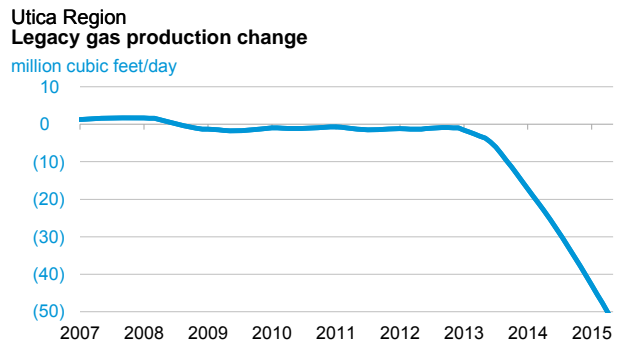
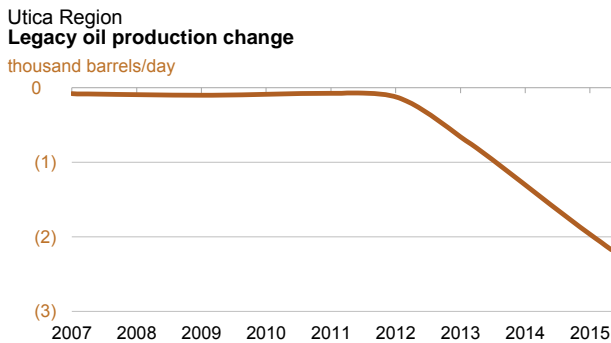
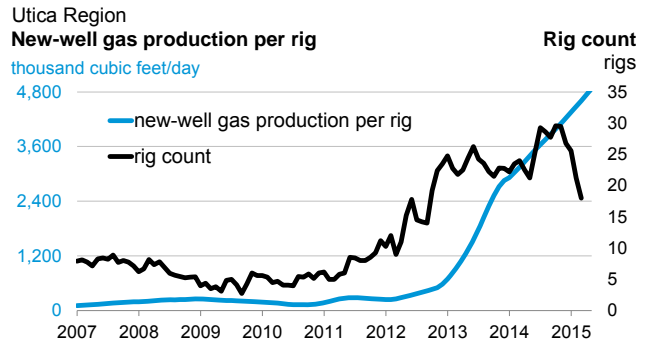
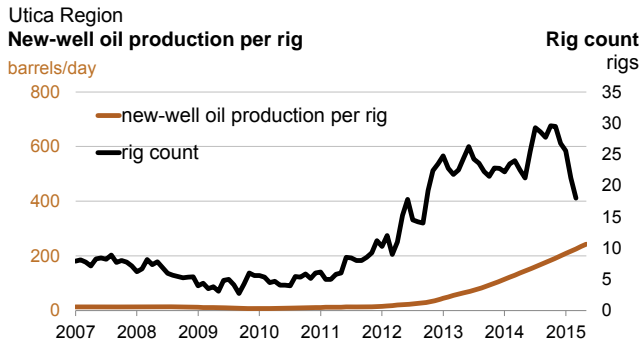
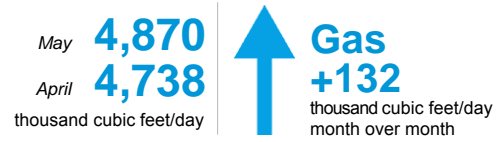


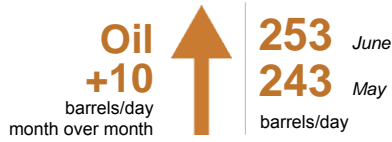
**Monthly additions from one average rig**



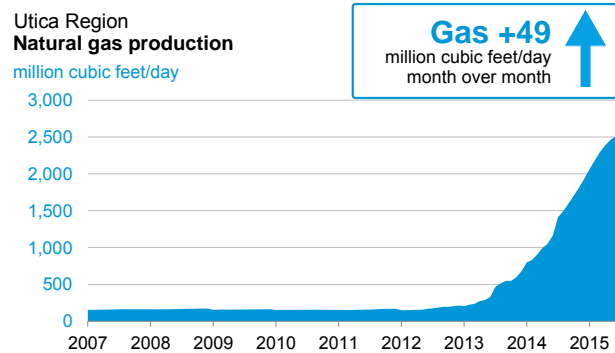
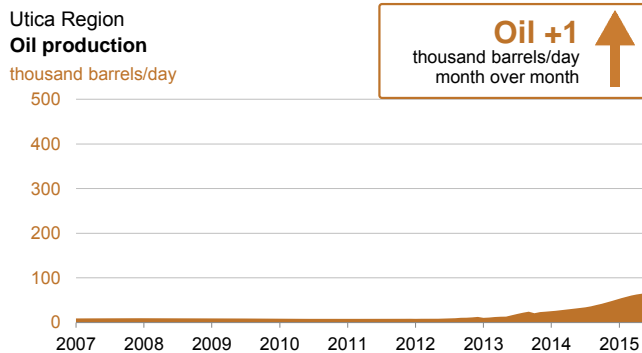
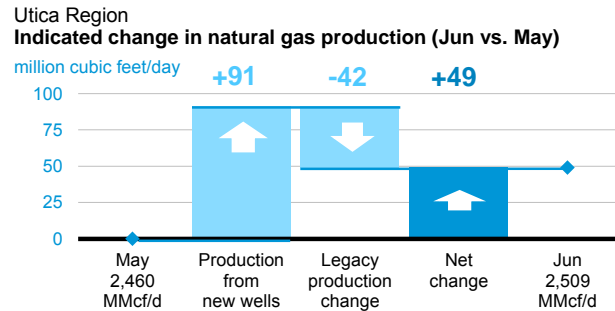
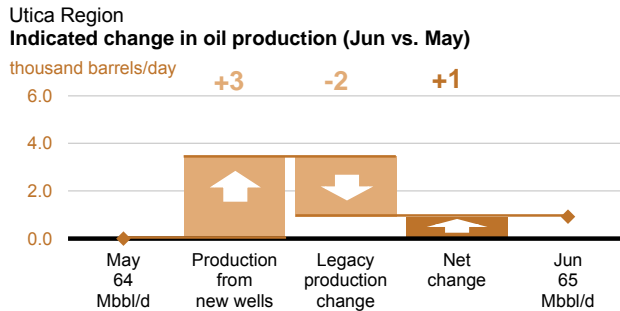
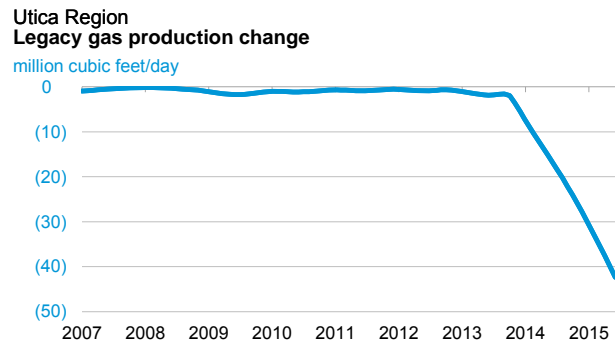
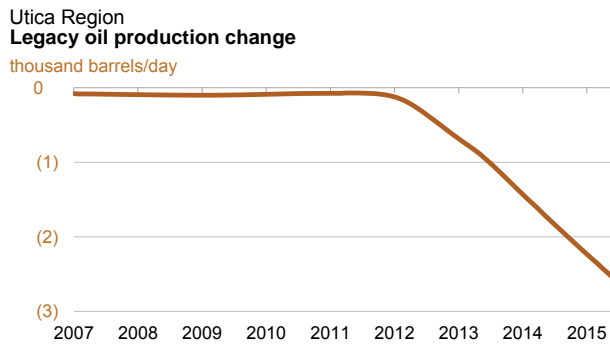
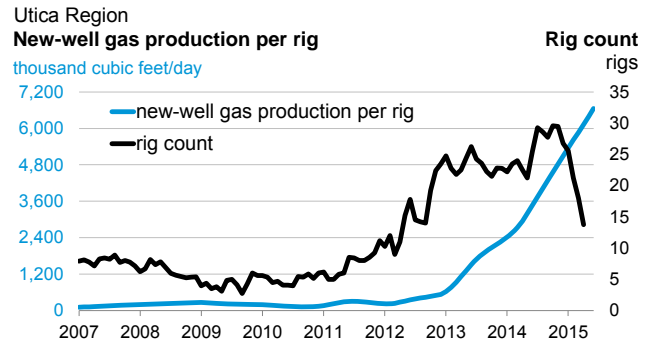
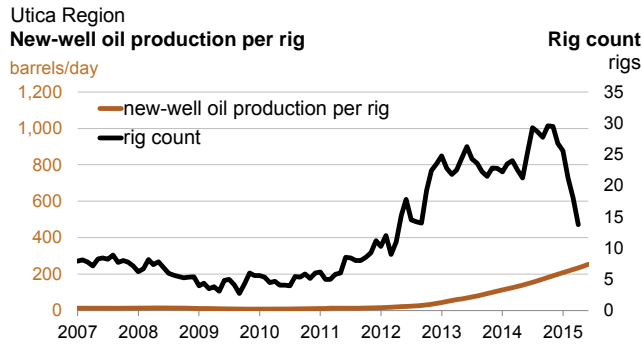
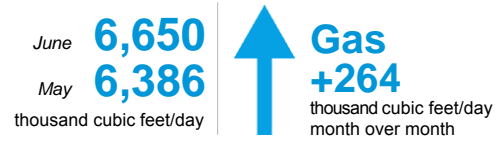


**Monthly additions from one average rig**





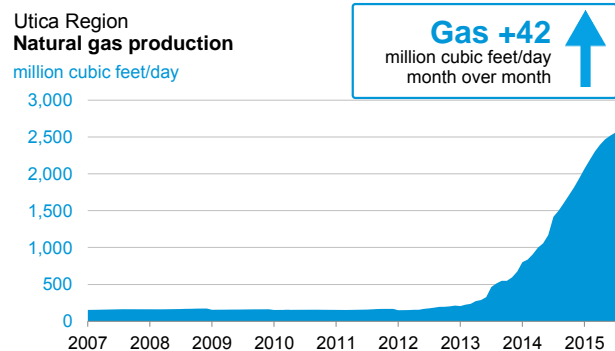
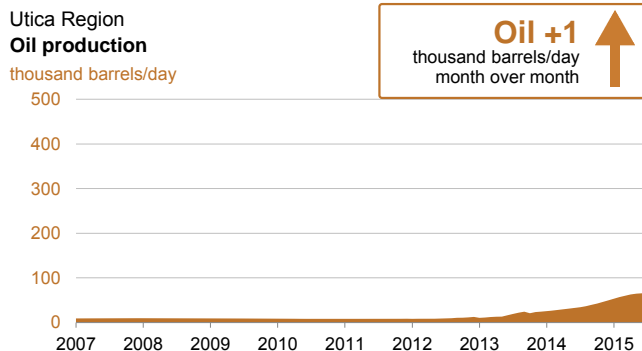
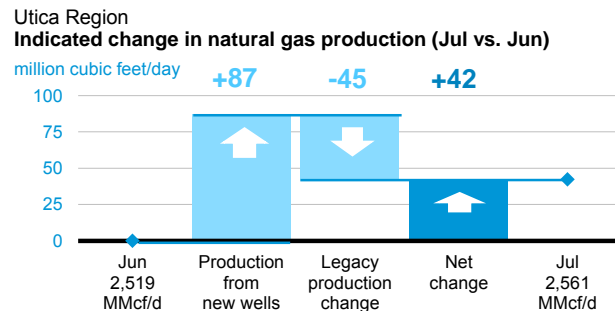
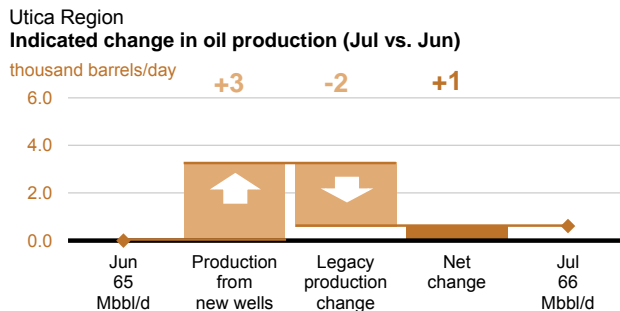
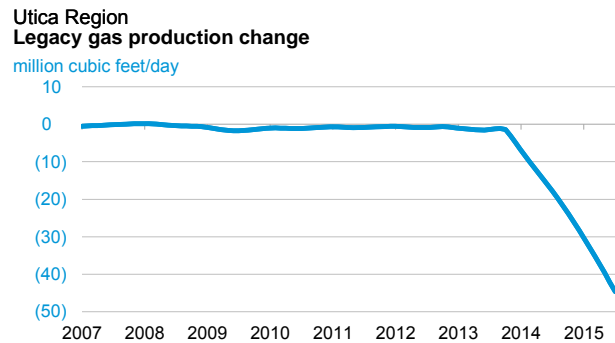
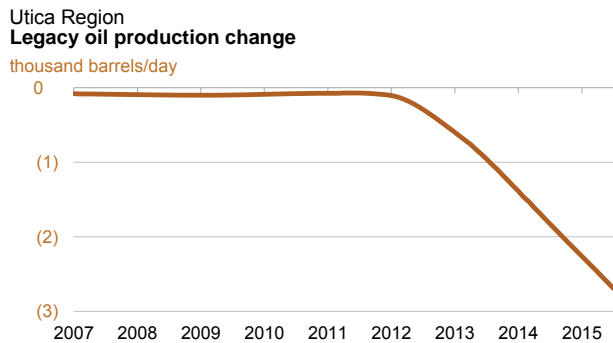
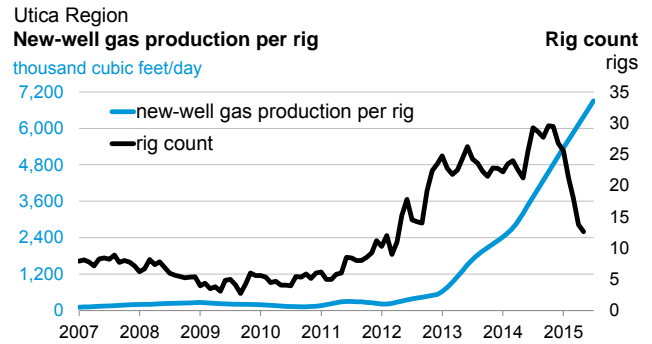
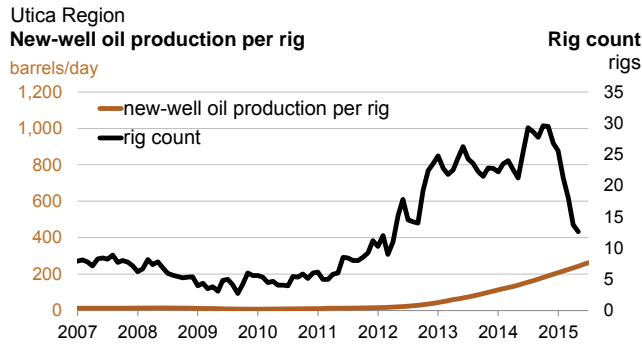
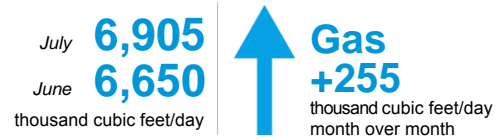
Monthly  
additions  
from one  
average rig





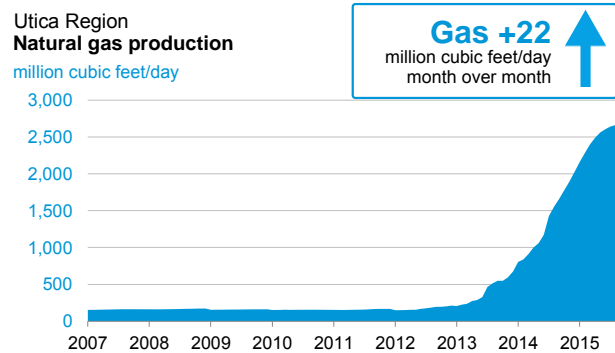
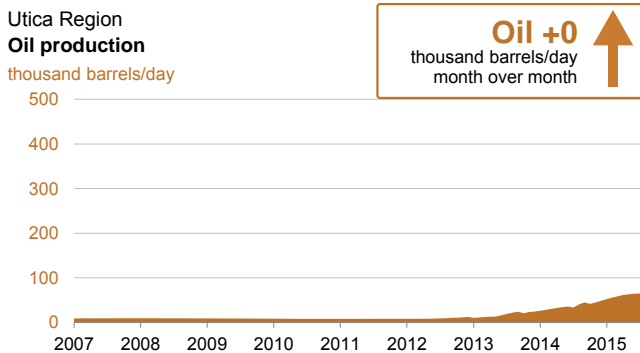
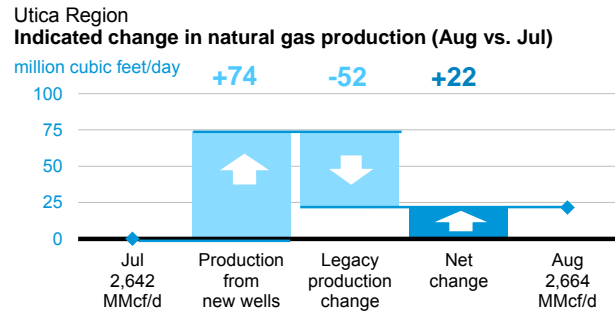
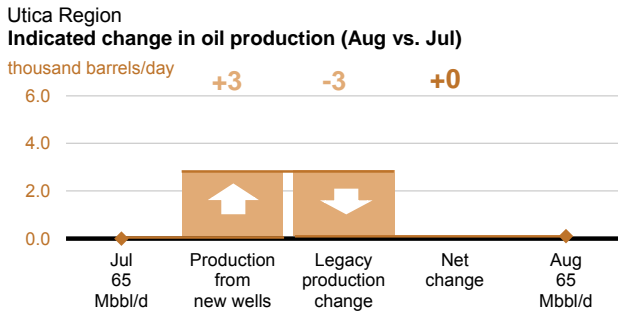
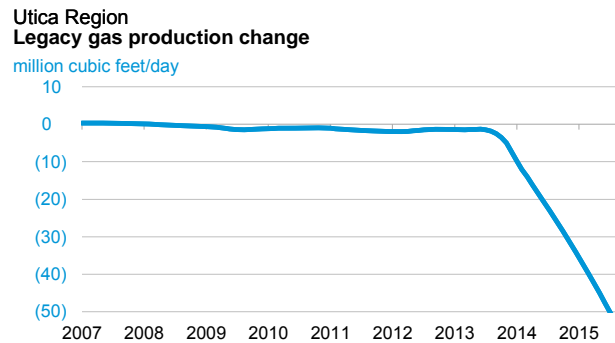
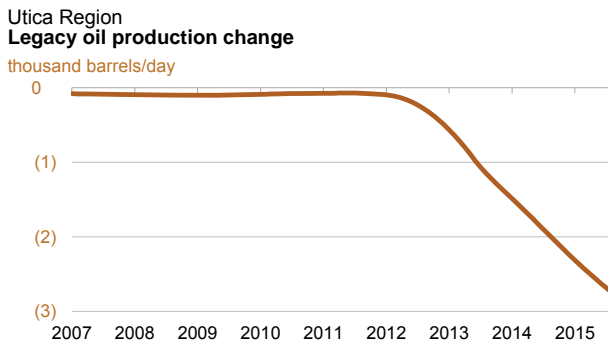
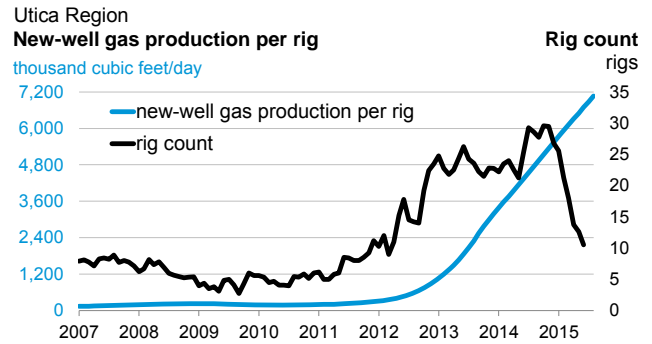
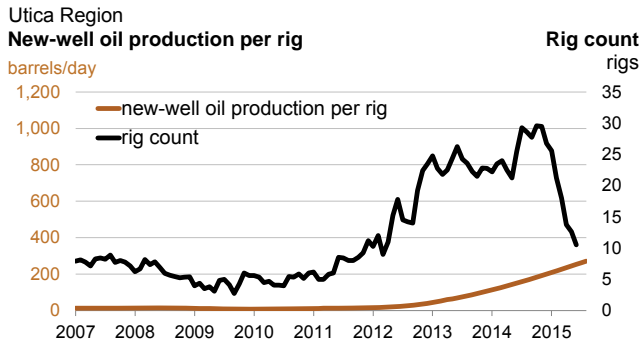
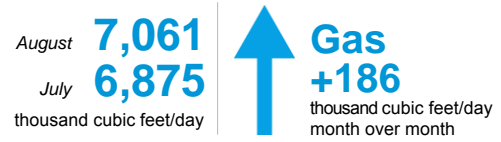


Monthly  
additions  
from one  
average rig





Monthly  
additions  
from one  
average rig



**APPENDIX D:**  
Stakeholder Letters of Support

May 26, 2015

The Honorable Lisa Murkowski  
Chairman  
Committee on Energy and Natural Resources

The Honorable Fred Upton  
Chairman  
Committee on Energy and Commerce

The Honorable Bob Corker  
Chairman  
Committee on Foreign Relations

The Honorable Ed Royce  
Chairman  
Committee on Foreign Affairs

The Honorable Maria Cantwell  
Ranking Member  
Committee on Energy and Natural Resources

The Honorable Frank Pallone, Jr.  
Ranking Member  
Committee on Energy and Commerce

The Honorable Ben Cardin  
Ranking Member  
Committee on Foreign Relations

The Honorable Eliot Engel  
Ranking Member  
Committee on Foreign Affairs

United States Senate  
Washington, DC 20510

U.S. House of Representatives  
Washington, DC 20515

Dear Chairmen Murkowski, Upton, Corker and Royce, and Ranking Members Cantwell, Pallone, Cardin and Engel:

The National Association of Manufacturers (NAM), the largest manufacturing association in the United States representing small and large manufacturers in every industrial sector in all 50 states, believes exports are critical to the growth and success of our nation's manufacturing base. We do not believe the government should be imposing artificial, market-distorting barriers to the operation of open markets. For this reason, the NAM urges you to take action to remove the outdated U.S. export ban on crude oil.

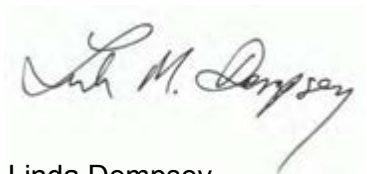
Since its origin, the United States has recognized the importance of exports to promoting industrial and economic growth and supporting jobs. Early on in its history, the United States banned taxes on exports and then, in the 1940s, led the world in crafting international rules to prohibit countries from imposing quantitative restraints on exports. Those rules, now enshrined in the 160-member World Trade Organization (WTO), are critical to ensure a fair and level playing field for manufacturers throughout every sector of the U.S. economy, particularly in the face of other countries' efforts to restrict access to key materials, such as China's export restrictions on rare earths and raw materials that the United States successfully challenged under WTO rules. As a Member of the WTO, the United States is also bound to comply with these same rules with respect to all products, including crude oil exports. The decades-old ban on crude oil exports is clearly contrary to these basic provisions of the WTO, that were created to help prevent unfair distortions to trade. It is long past time for the United States to lift the crude oil ban and put itself into compliance with its international commitments. Taking this action will also send a strong message to the global community that exports restrictions are contrary to the basic rules of the global economy and help prevent other countries from taking similar actions with respect to a variety of exported materials.

*Leading Innovation. Creating Opportunity. Pursuing Progress.*

Lifting the crude oil export ban is but one of a broader set of measures the Congress should take now to make manufacturers more competitive in the global economy. From new trade negotiating authority, export financing legislation and investments in infrastructure to the reform of the U.S. tax code and regulatory rules that undermine the competitiveness of our manufacturers, there are many important areas for Congress to act. On energy specifically, Congress should take a holistic approach that promotes and protects a strong and robust energy sector. Increasing access to and availability of fossil, renewable and alternative energy sources while restoring balance to costly new regulations on ozone, greenhouse gases, “waters of the United States” and others will make the U.S. truly energy secure and benefit the entire manufacturing supply chain.

Manufacturers urge Congress to eliminate the WTO-inconsistent crude oil export ban in order to promote the export of all products from the United States that will advance America’s economic and broader interests.

Sincerely,



Linda Dempsey  
Vice President  
International Economic Affairs



Ross Eisenberg  
Vice President  
Energy and Resources Policy

Cc: Members of the Senate Committee on Energy and Natural Resources  
Members of the Senate Committee on Foreign Relations  
Members of the House Committee on Energy and Commerce  
Members of the House Committee on Foreign Affairs

June 1, 2015

## Shale Energy Supply Chain Industries and Workers Support Crude Oil Exports

Honorable Lisa Murkowski  
United States Senate  
Washington, DC 20510

Honorable Heidi Heitkamp  
United States Senate  
Washington, DC 2051

Dear Senators Murkowski and Heitkamp:

The undersigned organizations represent the industries and workers that build and supply shale energy infrastructure, including construction, equipment, components and materials, technology, professional services and logistics – in other words the Shale Energy Supply Chain. Members of our organizations create the facilities that produce, transport and process the remarkable and growing abundance of crude oil, natural gas and liquids from shale that has transformed America into an energy superpower in a few short years. In the process the supply chain has created over 600,000 jobs and contributed over \$170 billion annually to the American economy, dedicated to supplying shale energy operations.

This transformation has played out on America's Main Street as well as in energy producing areas. Our members operate in all fifty states – where tens of thousands of predominantly smaller local and regional businesses and their workers join with large corporations to contribute to opportunity and prosperity in their communities as they supply the unconventional energy revolution. The supply chain in fact provides three jobs for each one created at the producer level. Today these contributions are in jeopardy. Jobs are being lost and investments are being reduced or redirected overseas because American producers are prevented from exporting American crude oil.

We want to convey our strong support for S. 1312, the "Energy Distribution and Supply Act of 2015", and applaud your leadership in the bi-partisan effort to end the obsolete restriction on crude oil exports. Opening global markets to U.S. producers will support added domestic production that will create hundreds of thousands of new jobs and contribute tens of billions of GDP dollars in the supply chain within the next few years. At the same time, we will put downward pressure on domestic fuel prices, while we provide our allies and trading partners with an alternative to sourcing energy from unfriendly and unstable sources.

We look forward to engaging our members in support of your efforts to end the export ban, and encourage you to consider the great potential of the voices of the shale energy supply chain in building strong bipartisan support for ending this counterproductive and obsolete policy.

Sincerely,



Energy Equipment and Infrastructure Alliance  
Toby Mack, President & CEO



American Rental Association  
John McClelland, Vice President, Government Relations



American Road & Transportation Builders Association  
T. Peter Ruane, President and CEO



American Supply Association  
Michael Adelizzi, Executive Vice President



Associated Equipment Distributors  
Brian P. McGuire, President & CEO



Quality People. Quality Projects.

Associated General Contractors of America  
Stephen Sandherr, Chief Executive Officer



Association of Equipment Manufacturers  
Dennis Slater, President & CEO



Distribution Contractors Association  
Robert Darden, Executive Vice President



Industrial Minerals Association - North America  
Darrell Smith, Executive Vice President



The INGAA Foundation, Inc.  
Donald F. Santa, President & CEO



Laborers' International Union of North America  
Terry O'Sullivan, General President





*Liz Richards*

Material Handling Equipment Distributors Association  
Liz Richards, Executive Vice President



*M. Robert Weidner, III*

Metals Service Center Institute  
M. Robert Weidner III, President & CEO



National Electrical Contractors Association  
John M. Grau, Chief Executive Officer



*Darrell K. Smith*

National Industrial Sand Association  
Darrell Smith, Executive Vice President



*Robert G. Garbini*

National Ready Mixed Concrete Association  
Robert G. Garbini, President & CEO



*Michael W. Johnson*

National Stone Sand and Gravel Association  
Michael W. Johnson, President & CEO



*Daniel R. Furth*

National Tank Truck Carriers  
Daniel R. Furth, President



National Utility Contractors Association  
Bill Hillman, Chief Executive Officer



*Leslie Beyer*

Leslie Beyer, President & CEO  
Petroleum Equipment and Services Association



*James G. Toscas*

Portland Cement Association  
James G. Toscas, President & CEO