

Benefits of Natural Gas Production and Exports for U.S. Small Businesses: Nationally and Key States

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November 2014



www.sbecouncil.org

Executive Summary

The U.S. has undergone nothing less than an energy revolution over the past decade – shifting from a nation of energy dependence to a nation of energy abundance. The U.S. became the top natural gas producer in 2010, the largest combined oil and natural gas producer in 2013, and the largest oil producer in 2014.

Looking at natural gas, this revolution has come about due to private-sector investment, innovation and efficiencies, specifically in the forms of horizontal drilling and hydraulic fracturing allowing for access to shale gas that previously was uneconomical to produce. Indeed, the U.S. natural gas market has changed dramatically over the past near-decade. For example, the annual average price of natural gas in the U.S. declined by 57 percent from 2005 to 2013. While assorted market factors come into play, lower prices have resulted directly from expanded U.S. natural gas production – a 35 percent increase from 2005 to 2013.

That increased production has been good news for the energy sector, including for employment and business growth (especially small and midsize businesses), especially in those states where natural gas production has expanded, with indirect benefits spreading across the nation. The excellent performance of the oil and natural gas sectors of our economy stands in sharp contrast to the gross under-performance of the overall economy since 2007.

Looking ahead, the opportunity exists for exporting liquefied natural gas (LNG), given the large differential in natural gas prices in the U.S. versus elsewhere in the world, increasing U.S. production, and rising global demand.

Positive Impact on Job Growth. The difference in the employment story between the energy sector and the overall economy could not be starker. While overall employment fell between 2005 and 2012, jobs grew markedly in the energy sector given the striking expansion in domestic natural gas and oil production. While U.S. total employment *declined* by 0.3 percent from 2005 to 2012, jobs *grew*:

- By 46.1 percent in the oil and gas extraction sector;
- By 61.0 percent in the drilling oil and gas wells sector;
- By 100.2 percent in the support sector for oil and gas operations;
- By 66.1 percent in the oil and gas pipeline and related structures construction sector;
- And by 67.1 percent in the oil and gas field machinery and equipment manufacturing sector.

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While U.S. employers overall shed more than 378,000 jobs over this period, employers in the five energy industries included here directly added more than 293,000 jobs (that is, direct jobs in each sector without factoring in broader indirect jobs tied to expanded production and reduced prices).

Impact on Small Business and Entrepreneurship. For all of the U.S., total employer firms declined by 5.0 percent from 2005 to 2011, including a 4.7 percent decline in firms with less than 20 workers, and a 5.0 percent fall in firms with less than 500 workers. Consider the growth in energy industries over the same period. The number of employer firms:

- Among oil and gas extraction businesses, grew by 4.9 percent, including 4.1 percent among firms with less than 20 workers and 4.8 percent among firms with less than 500 workers.
- Among drilling oil and gas wells businesses, grew by 11.3 percent, including 7.9 percent among firms with less than 20 workers and 11.3 percent among firms with less than 500 workers.
- Among support for oil and gas operations businesses, grew by 31.3 percent, including 29.1 percent among firms with less than 20 workers and 31.3 percent among firms with less than 500 workers.
- Among oil and gas pipeline and related structures construction businesses, grew by 14.3 percent, including 12.2 percent among firms with less than 20 workers, and 12.5 percent among firms with less than 500 workers.
- Among oil and gas field machinery and equipment manufacturing businesses, grew by 15.0 percent, including 8.5 percent among firms with less than 20 workers and 14.7 percent among firms with less than 500 workers.

While the number of U.S. employer firms overall declined by 299,122 over this period, employer firms in these five energy industries included here increased by 2,758.

Small Business Dominates the Energy Sector. Each energy sector reviewed in this report is overwhelmingly populated by small and midsize businesses:

- Among oil and gas extraction businesses, 91.1 percent of employer firms in 2011 had less than 20 workers, and 98.5 percent had fewer than 500 employees.
- Among drilling oil and gas wells businesses, 79.8 percent of employer firms in 2011 had less than 20 workers, and 97.6 percent had fewer than 500 employees.
- Among support for oil and gas operations businesses, 83.3 percent of employer firms in 2011 had less than 20 workers, and 98.7 percent had fewer than 500 employees.
- Among oil and gas pipeline and related structures construction businesses, 65.5 percent of employer firms in 2011 had less than 20 workers, and 95.3 percent had fewer than 500 employees.
- Among oil and gas field machinery and equipment manufacturing businesses, 57.6 percent of employer firms in 2011 had less than 20 workers, and 91.8 percent had fewer than 500 employees.

In the States. This report features profiles in terms of natural gas production, employment in key energy sectors, and business establishment growth and size data in each of those sectors for the top 19 states in terms of natural gas marketed production in 2012. States are listed as growth states, declining states or mixed states in terms of the recent trend in natural gas production.

The benefits of being a growth state are clear. Among the 12 growth states, all experienced growth in jobs, and in the number of small and midsize businesses within the key energy sectors examined, with growth being particularly robust in ten of those states. The 12 growth states are: Arkansas, Colorado, Louisiana, North Dakota, Ohio, Oklahoma, Pennsylvania, Texas, Utah, Virginia, West Virginia, and Wyoming.

LNG Export Opportunities. The trends in terms of expanded investment, entrepreneurship, economic growth and employment given the expansion of domestic energy production can be expanded further through LNG exports to meet growing global energy demands.

While arguments have come from some circles that LNG exports would hurt domestic businesses that use natural gas as an industrial input, Economics 101 reminds us that the economy is not a zero-sum game. Therefore, expanded demand for U.S. natural gas in international markets will result in greater U.S. natural gas production, increased investment, enhanced GDP growth, rising incomes, and more jobs – just as is the case with increasing exports in other U.S. industries, including those that utilize natural gas.

Increased U.S. natural gas production to meet growing global needs obviously points to further strong growth for small and midsize businesses, and for employment. At the same time, the minimal price impact that expanded exports might have on domestic prices would have small effects on domestic consumers of natural gas – especially given the enormous declines we’ve already experienced in natural gas prices. And even those small, potential price increases must be further offset against the effect of the overall positive for economic growth coming via generally lower natural gas prices and expanded natural gas production. Study after study has confirmed these basic tenets of economics and how markets work.

After reviewing the available research, Margo Thorning, chief economist for the American Council for Capital Formation, concluded that “the preponderance of the economic analyses of the impact exports of LNG from the U.S. show positive overall benefits in terms of jobs, investment and GDP growth. In addition, the impact on U.S. domestic natural gas prices rises will be relatively small, thus allowing U.S. customers to maintain a strong competitive advantage over our trading partners.”

In the end, LNG exports would further enhance incentives for domestic natural gas production, with commensurate benefits being accrued in terms of economic, employment, business, and income growth. The lone real obstacle to this tremendous opportunity is government policy going awry, whether that be misguided limits on or obstacles to U.S. exports, or wrongheaded and costly tax and/or regulatory burdens or schemes imposed on carbon-based energy production at the national level or in the states.