

STUDY FORECASTS MAJOR INVESTMENT, GROWTH IN JOBS



THE FINDINGS

	2011	2012	2013	2014
VALUE ADDED	\$162,030,036	\$878,982,133	\$2,980,378,198	\$4,857,632,095
EMPLOYMENT	2,275	12,150	40,606	65,680
LABOR INCOME	\$99,758,497	\$571,543,463	\$1,994,216,405	\$3,298,757,195
OUTPUT	\$291,574,770	\$1,667,574,417	\$5,823,268,396	\$9,642,544,988
TOTAL STATE & LOCAL TAXES	\$16,522,865	\$73,422,148	\$271,539,607	\$433,528,922



ABOUT THE STUDY:

The Study Team used very conservative projections for all variables used in the economic development model. Industry experts and company representatives who were interviewed by the Study Team gave a range of estimates from very modest to very optimistic. The Study Team opted for averages and omitted some possible economic benefits, such as projections on future spending and engagement of Ohio businesses in future Utica Shale development.

Additionally, the Study Team did not include the "downstream" benefits of Utica Shale development in the study. "Downstream" impact can be described as the benefit to Ohio as a whole from the oil and gas industry operating in the state, particularly in the industries that consume oil and gas in their operations, such as oil refining, fertilizer production, and the chemical and polymer sector.



ABOUT THE OHIO SHALE COALITION

The Ohio Shale Coalition is a broad-based, statewide partnership for affordable energy and jobs. Its membership includes local chambers of commerce, businesses, development organizations and individuals who seek to maximize the jobs and economic potential of shale gas and affordable energy production in Ohio.

The major focus of the Ohio Shale Coalition is on the potential of shale energy to drive economic development and job growth in every corner of Ohio. From land payments and pipelines to the entire supply chain and supporting infrastructure, the opportunity to create thousands of jobs for Ohioans and achieve prosperity for our state is tremendous. At the same time, the Ohio Shale Coalition supports sound government policies that promote affordable energy and job growth, and also protect our state and its citizens.



It should be noted that Ohio's shale industry is in its early stages and new data is gathered every day. As more information becomes available, the public will get a more accurate picture of the economic impact of the development of the Utica Shale. It is also important to point out this study only projects to 2014, and the Study Team expects the industry to continue to be growing in Ohio. Additionally, the Study Team expects the economic impact of the Utica Shale development in Ohio will still be growing beyond the end date of this study.

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The Ohio Shale Coalition sponsored a research study focused on the economic impact and opportunities associated with the development of oil and gas resources in the Utica Shale. The study was conducted by researchers at Cleveland State University, The Ohio State University and Marietta College.

The technologies that have enabled the development of the Utica Shale - horizontal drilling and improved hydraulic fracturing - will require considerable investment by companies in Ohio. There are four major areas of investment that the Study Team reviewed for this report:

- Leasing, Royalties, and Right-of-Way Payments
- Road Construction
- Drilling and Completion of Wells
- Midstream Infrastructure

The Study Team projects the annual production of oil and gas from the Utica Shale will grow to \$9.6 billion in 2014, when the total value added will amount to \$4.9 billion. Utica Shale development will also support 65,680 jobs and generate an additional \$3.3 billion in labor income in 2014.

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VALUE ADDED

Total value added is expected to grow during the next three years in part due to increased oil and gas drilling and also due to expansion in other parts of the economy. For example, demand will go up for architectural and engineering services. In addition, improved earnings will be spent on a wide variety of local goods and services, including for example more retail, entertainment, and healthcare.

In 2011, the value added impact totaled \$162 million, with the biggest contributors being leases and right-of-way payments to land owners. By 2014, value added impact will grow to \$4.9 billion, and more than 75% of the value added impact will come from drilling and well maintenance.

EMPLOYMENT

Development of the Utica Shale will trigger job growth in four general areas:

- Field Development and Supply Chain,

- Mixed Sources of Demand
- Professional Services
- Personal Services

With the growth of local service industries supplying to oil and gas producers, the number of workers supported by the Utica Shale development is expected to grow rapidly.

By 2014, the economic impact of development will create or support at least **65,680 jobs**. The majority of the increase in employment will come from oil and gas service companies, with employment doubling between 2013-2014. The personal service sector will also grow significantly, with over 16,000 jobs created or supported in 2014. This number is a great indicator of the broad effect the development of the Utica Shale will have on the entire economy.

LABOR INCOME

Based on employment projections, wages and benefits for workers will grow to **\$3.3 billion** in 2014, with an average income of more than \$50,000 a year per job. In the majority of growing industries we expect the average

income to be significantly above this level. Expected average earnings are highest in the professional services sector, following by those directly involved in developing the resources.

OUTPUT

Output is the economic development number most policy makers look to for guidance as to the economic impact of a particular industry. It is calculated by adding the direct effects of expenditures, indirect expenditures from subsequent business, and induced effects, which is basically household spending.

The Study Team expect outputs to total nearly **\$10 billion** dollars per year by 2014 and those numbers will likely continue in this range in the years beyond the study.

STATE AND LOCAL TAXES

The growth in sales and employment as a result of the Utica Shale development will lead to increases in the amount of state and local taxes.

There are two forms of taxes that are directly

impacted by shale development:

- Severance Taxes - imposed by the State of Ohio on natural gas and oil production. Current rates are \$0.10/bbl and \$0.025/mcf with a cost recovery fee of \$0.10/bbl and \$0.005/mcf.
- Ad Valorem Taxes - (meaning "based on value") are property taxes based on the value of hydrocarbon reserves in the ground. These taxes are assessed by the county auditor and the tax revenue is paid to the county taxing district political subdivision where the oil and gas property is located. This tax will primarily benefit the counties in eastern Ohio where shale development activity is greatest.

Companies that have already seen an increase in demand for their products and services and land owners who have received lease bonus and royalty payments combined to contribute an additional **\$16.6 million** in taxes in 2011.

It is projected that, by 2014, additional state and local income taxes collected as a result of the Utica Shale development will total **\$433.5 million**.



BY 2014:

Field Development & Supply Chain
(construction, transport, distribution, etc.)
28,153 Jobs
\$59,451 Avg. Income

Mixed Sources of Demand
(real estate, insurance, employment services, etc.)
6,279 Jobs
\$38,414 Avg. Income

Professional Services
(engineering, legal, business support, etc.)
5,712 Jobs
\$69,177 Avg. Income

Personal Services
(retail, healthcare, auto repair, etc.)
16,066 Jobs
\$36,018 Avg. Income

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