

# Kansas Oil & Gas Industry Strategic Analysis

PREPARED BY:

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**Kansas Independent Oil & Gas Association**  
**Edward P. Cross, President**

## Introduction

### Special points of interest:

- *Oil and Gas industry critical part of Kansas economy.*
- *Fundamental supply challenges face policymakers.*
- *Oil and Gas Producers need policies that enhance access to capital.*
- *Kansas oil and gas industry supports \$2.7 billion in family income annually.*

After many decades of productive stewardship, oil and natural gas resources continue to play an important part in the livelihoods of Kansans throughout the state. The Kansas oil and gas industry is over a \$4.8 billion industry that puts tens of thousands of people all across Kansas to work each day and pumps hundreds of millions of dollars into the state's economy each year; money that helps support families, fund schools, and build roads. Over the past decade, the oil and gas industry in Kansas supported an average annual estimated 67,000 jobs, \$2.7 billion in family income, and

at least \$930 million in state and local tax revenue. The oil and gas industry is a dependable and stable element of the Kansas economy today and will be a critical part of the economy going forward.

Nationally, Kansas remains one of the major oil and gas producing states ranking 9th among the 31 oil producing states and 9th among the 32 natural gas producing states. Over 2,100 licensed oil and gas operators produce over 41 million barrels of oil and over 313 billion cubic feet of natural gas annually.

Oil and natural gas are an integral part of our



**Kansas Oil & Natural Gas Energy for the Future**

society. Much of our high standard of living can be traced to the use of petroleum. Today, an estimated 6,000 products are produced from petroleum. The Kansas oil and gas industry does more than fuel Kansas and help the Kansas economy. The industry fuels America and makes significant positive contributions to our way of life!

### Inside this Report:

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## Challenges Face Policymakers and the Kansas Oil & Gas Industry

The history of the oil and natural gas industry in Kansas is an American story. A story of daring talent, of dedication to an idea even if the odds were great, of the unshakable belief that is America, all things are possible.

Today, fossil fuels comprise 80% of global energy usage. To meet future energy demand growth, there will need to be more dramatic growth in non-fossil fuel energy sources. Yet, the fastest growing energy sources are going to be fossil fuels. The

bottom line is by 2035, despite all the rhetoric to the contrary, the International Energy Agency projects fossil fuels will still comprise about 80% of the world's energy usage.

If our nation is to achieve energy security, and very importantly, maintain competitiveness and not let our standard of living slip, we can no longer tolerate the misleading and often inaccurate rhetoric and quick fixes. We need a well-reasoned, fact-

based comprehensive energy strategy. Kansas needs real energy solutions!

The history of the Kansas oil and natural gas industry is an American story of industrious entrepreneurs who exhibited the pioneering spirit this country is known for, of innovation, speculation, and perseverance. All contributed to the founding and development of the Kansas oil and natural gas industry, which has, and continues to transform the world.

## Kansas Oil & Gas Industry Taxation Analysis

The Kansas oil & natural gas industry contributed over \$350 million to the State of Kansas in taxes last year. In addition, nearly \$9 million in fees were collected from the oil and natural gas industry. These tax dollars and fee collections come from oil and natural gas producers and royalty owners. We are happy to pay our fair share but also believe we are a highly taxed industry. Calendar year 2011 saw the oil & gas industry pay over \$128 million in severance taxes and \$225 million dollars in ad valorem taxes.

According to production data provided by the Kansas Department of Revenue, oil production in Kansas has risen 5 of the last 6 years. Total natural gas production in Kansas has declined by a Compound Annual Decline Rate (CADR) of 4 % over the last 10 years and oil production has increased by a Compound Annual Incline Rate (CAIR) of 2.12% over the same period. Production increases combined with a gradual rise in oil prices in 2011 have resulted in additional tax collections. As a result, the Kansas Department of Revenue reports that Kansas collected \$52.4 million more in oil & natural gas severance tax re-

tax collections were up nearly 21% over the last year and up 68.9% since 2000. Ad valorem tax collections were up 4% over the last year and up 171% since 2000. Strikingly, severance tax collections on oil production has increased over 121% over the last two years and ad valorem tax collections on oil production has increased over 40% over the same period.

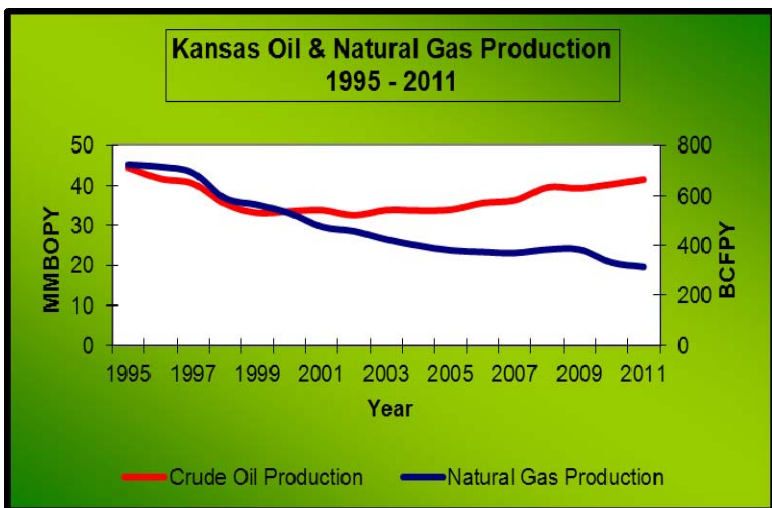
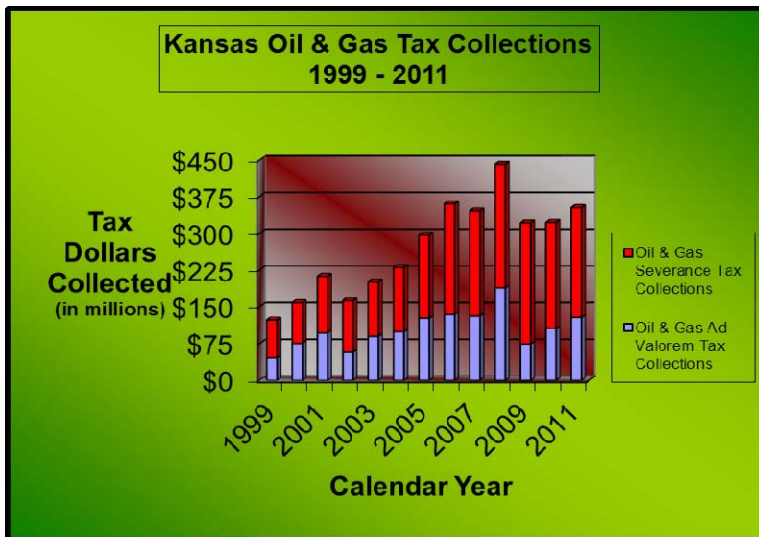
The relative tax burden on the Kansas oil and natural gas industry can be illustrated in three ways: marginal tax rate, discounted cash flow analysis, and finally the average effective tax rate.

### Marginal Tax Rate

The marginal tax rate for the Kansas oil and natural gas industry is a measure of the taxes paid on an increase or decrease in the marginal price of oil and natural gas expressed as a percentage of revenues. The marginal tax rate includes the combined effect of severance and ad valorem taxes on new primary production. Kansas' marginal tax rate on new primary oil and natural gas production is 9.5%. Kansas marginal tax rates for both oil and natural gas production are higher than all the other surrounding states (Colorado, Oklahoma, Texas, North Dakota, New Mexico, and Illinois).

### Discounted Cash Flow Analysis

The discounted cash flow analysis evaluates the impact of taxes on the economics of specific investments over their



ceipts in calendar year 2011 than in calendar year 2000 and \$22 million more in calendar year 2011 than in calendar year 2010. Kansas collected over \$142 million more in oil and gas ad valorem taxes in calendar year 2011 than in calendar year 2000. Severance

entire life. For the oil and natural gas industry, the analysis is helpful in gauging the effect of taxes on new exploration and production investments. Discounted cash flow analyses were performed, using current economic characteristics, on several typical Kansas exploration and production projects. With the development of the emerging Mississippian Lime Play in Kansas, a study was conducted to evaluate the tax implications of drilling and completing a Mississippian Lime well in Kansas, Oklahoma, Texas, and Arkansas. The study indicated that the total tax liability (severance, ad valorem, income, & sales) for drilling and completing a Mississippian Lime well in Kansas was 21.1% higher than Arkansas, 54.8% higher than Oklahoma, and 57.1% higher than Texas. The analyses indicate the impact of Kansas severance and ad valorem taxes alone is to generally reduce rates of returns by 25%-35% for all states. For Kansas, state taxes reduce the rates of return on new exploration and production investments by an average of 26.5%.

## Taxation Analysis (continued)

### Average Effective Tax Rate

The average effective tax rate focuses on the total taxes paid in relation to total taxable value. The Kansas oil and natural gas industry's 2011 effective tax rate was 11.61%. Different state tax systems greatly impact the average tax rate for the oil and natural gas industry. For example, the Oklahoma oil and gas industry pays a 7% severance tax and ad valorem taxes on equipment only, not reserves. On the other hand, the Kansas oil and gas industry pays a 4.33% severance tax and ad

sanctions were imposed. The U.S. hasn't imported crude oil from Iran since the late 1970's but crude oil markets would be affected due to a shift in destinations. Several other factors could also contribute to potential crude oil price increases in 2012. Kazakhstan, an exporter of light-sweet crude oil which is in short supply, is experiencing riots in the oil patch. Also, there is upward pressure on WTI relative to Brent as Enbridge and Enterprise are reversing the flow of the Seaway Pipeline from Cushing to the Gulf of Mexico thereby narrowing the spread between the two crudes. The Organization of Petroleum Exporting Countries (OPEC) met in December 2011 and set a production limit of 30 million barrels per day. The OPEC quota includes Iraqi production for the first time in years with Saudi Arabia remaining the swing producer. OPEC will

probably not reduce quotas unless a European led recession drives oil prices lower. Europe has had enough problems to justify a full blown recession. The impact of high oil prices and a weaker euro increases the chance of a European economic meltdown. If that turns out to be the case, contagion would expand to the U.S. followed by Asia. If that were to occur, crude oil prices would drop significantly. Recessionary worries combined with potential supply interruptions could result in volatile crude oil prices in 2012 with wide fluctuations in crude oil prices.

Although the world continues to recover from global recession, the recovery is uneven. In advanced economies, recovery has been slow in comparison with recoveries from past recessions. Unemployment is still high among advanced economies, and real estate markets and household income growth remains weak.

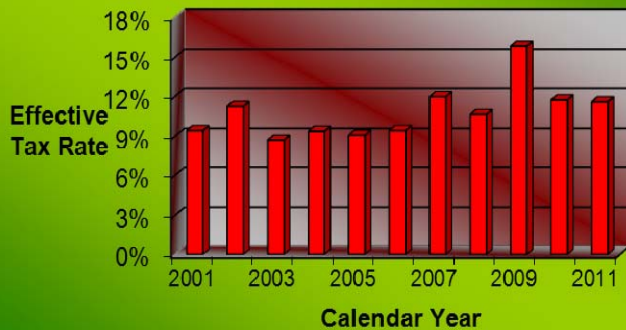
Debt levels in a number of small economies of the European Union required European Union intervention to avert defaults. Concerns about fiscal sustainability and financial turbulence suggest that economic recovery will not be accompanied by the higher growth rates associated with past recoveries.

### Conclusions

Tax analyses indicate that Kansas taxes on oil and natural gas production are high relative to other states examined, and we are especially high considering the characteristics of the Kansas resource relative to most other states evaluated. Kansas oil and natural gas producers are taxed five times on each barrel of oil or Mcf of natural gas produced (severance tax, property tax on equipment, property tax on reserves, state income tax, and federal income tax). Kansas oil and natural gas producers pay considerably higher taxes as a percentage of revenue than most other oil and natural gas producing states.

The ad valorem tax structure has several features which are detrimental to the state's oil and natural gas industry and hinders economic growth in the oil and gas industry and the State of Kansas. Ad valorem taxes are levied based on ability to produce rather than actual production, resulting in very high taxes relative to revenues for some wells. In addition, ad valorem taxes vary county by county based on variations in local mill levies. The current tax policy of levying ad valorem taxes on reserves contradicts good engineering practices. Good engineering practices suggest slow development of oil and natural gas reserves to more thoroughly drain oil and gas reservoirs. Ad valorem tax policy encourages producers to produce oil and natural gas reserves as quickly as possible to avoid double-taxation. Finally, ad valorem taxes encourage premature abandonment of oil and gas wells by applying a minimum tax to non-producing marginal wells, thus creating an incentive to plug and abandon such wells. Perhaps tax structure revisions are needed.

**Kansas Oil & Gas Effective Tax Rate  
2001 - 2011**



valorem taxes on equipment **AND** reserves resulting in double-taxation of oil and gas reserves that leads to a 31% higher average tax rate than Oklahoma.

### Oil & Natural Gas Prices

Oil prices rose in 2010 as a result of growing demand associated with signs of economic recovery and a lack of a sufficient supply response. Prices were driven higher in 2011 as social and political unrest unfolded in several Middle Eastern and African economies. Now, the U.S. is out of Iraq, but the fate of Iraq remains an open question. There remains growing uncertainty about the long-term stability of Iraq. In addition, the U.S. and European Union are talking about an embargo of Iranian crude oil that could take effect in the first quarter of 2012 in an effort to persuade Iran to abandon nuclear ambitions. Iran has threatened to block the Strait of Hormuz if such

## Taxation Analysis (continued)

### Policy Recommendations

Kansas oil and natural gas producers need policies that enhance access to capital to develop and maintain production. Tax reforms are particularly important for Kansas oil and natural gas producers. Independent oil and natural gas producers generate their capital through their production. These small businesses do not have the substantial additional resources possessed by many major integrated companies. Independents raise their capital through the wellhead, not by tapping equity markets or other corporate measures. Consequently, tax reforms that allow oil and natural gas producers to retain more of their revenues to reinvest directly translates into new resources and economic development for Kansas. Historically, independent oil and natural gas producers reinvest more than 100% of their cash flow into new projects. Every new oil and gas project is like a new small business start-up. The Kansas oil and gas industry generates over \$1 billion of economic development for rural Kansas each year. Kansas severance tax collections have increased by nearly 70% and ad valorem tax collections have increased by more than 171% since 2000. Perhaps restructuring the severance and ad valorem tax structure would promote more economic growth for Kansas and more energy for our nation.

The Kansas oil and natural gas industry contributed over \$362 million to the State of Kansas in taxes

and fees in 2011, over \$330 million in 2010, and over \$330 million in 2009. We are happy to contribute our fair share but, as pointed out, are a highly taxed industry. Perhaps restructuring the current severance tax structure could preserve the absolute tax dollars received by the State of Kansas while providing the incentives needed by oil and natural gas producers to expand oil and gas development and create significant economic growth for Kansas. The current severance tax structure as defined in K.S.A. 79-4217 imposes an 8% tax rate on the gross value of all oil and gas severed from the earth or water. K.S.A. 79-4219 provides for a property tax credit in the amount of 3.67% for ad valorem taxes paid. Therefore, the effective severance tax on oil and gas severed from the earth or water in Kansas is 4.33%.

Oil and natural gas production in Kansas has increased 5 of the last 6 years. Kansas crude oil production has increased by more than 27% over the last 10 years. Kansas oil and natural gas production could continue to increase as emerging unconventional resources are discovered. However, even a decline in production may not effect tax receipts. Production decline would likely follow the law of diminishing returns, that is to say oil and gas production will decrease at a decreasing rate as oil and gas prices encourage more and more exploration and development.

Now is the time to restructure the severance and ad valorem tax system to maintain absolute tax dollars received by the State while providing producers incentives to expand economic growth. Perhaps amending K.S.A. 79-4219 to increase the property tax credit from 3.67% to 4.5% will partially compensate the oil and gas industry for the 171% increase in ad

valorem taxes paid since calendar year 2000. A property tax credit of 4.5% would make the effective severance tax rate 3.5% and allow producers to retain more of their revenues to reinvest into more projects that generate economic growth for Kansas. Any decrease in absolute tax revenues to the State of Kansas would be mitigated by increased oil and natural gas production.

The ad valorem tax structure could be addressed directly. Only Kansas, California, Utah, and Texas assess ad valorem taxes on reserves. Other states assess ad valorem taxes on equipment only. Empirical evidence suggests assessing ad valorem taxes on reserves causes outside oil and gas investors to devalue Kansas properties by 25%-30% greatly reducing outside investment capital. Perhaps Kansas could restructure ad valorem taxes to eliminate the double-taxation of reserves. By assessing ad valorem taxes on equipment only, reserves would be taxed only once through the severance tax structure. An increase in the severance tax rate from the effective 4.33% to something around 6% could make up the difference between total taxes collected under the current ad valorem tax system of assessing equipment and reserves and the proposed ad valorem system of assessing only equipment. By eliminating ad valorem taxes on reserves, counties and companies will be able to greatly reduce administrative costs. The increase in severance tax receipts to the State's general revenue fund could then be allocated as seen fit back to the counties. Such a design would eliminate the need for counties to perform oil and gas property appraisals and greatly reduce complaints, all of which saves the State, counties, and companies time, money, and resources.

**TAX REFORMS THAT ALLOW OIL AND GAS PRODUCERS TO RETAIN MORE OF THEIR REVENUES TO REINVEST DIRECTLY TRANSLATES INTO NEW RESOURCES AND ECONOMIC DEVELOPMENT FOR KANSAS**

## Kansas Energy Outlook & Key Energy Issues

U.S. and global energy policy are at the forefront of public debate, and will most likely remain there well into this decade. Unfortunately, too often lost in the rhetoric is the reality of what it will take to provide the nation affordable, reliable energy and assist in returning our economy to full strength at a time of high unemployment.

We need to look no further than the oil and natural gas industry to understand this challenge. During the give and take of public discourse, few truly stop to think how absolutely essential oil & natural gas are to our lives, our prosperity and security, and to our future.

Oil and natural gas are the foundation of our energy-dependent economy. They profoundly affect how we live and work. They are key to our mobility, to keeping our homes and businesses warm, to providing us with electric power, and to supplying the raw materials for countless consumer and industrial products.

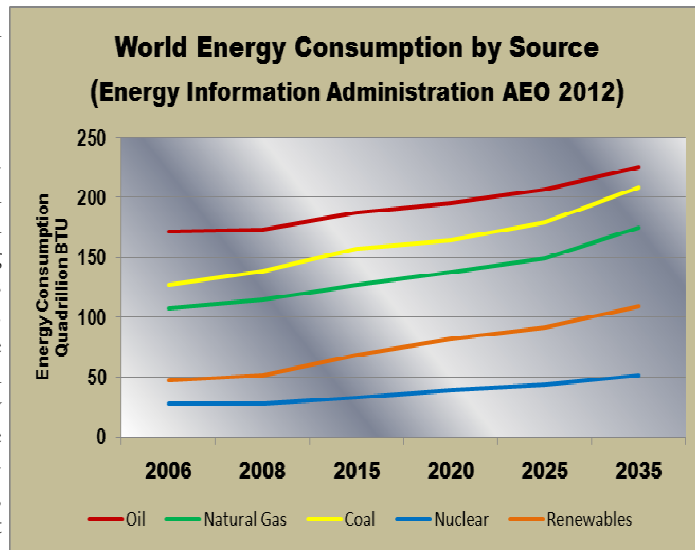
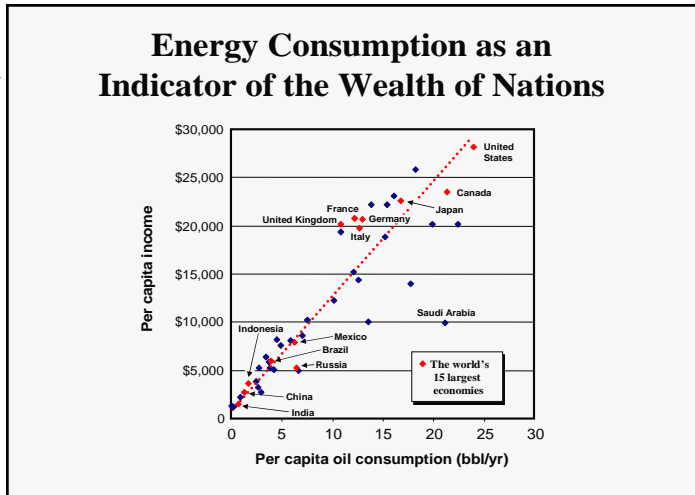
Nationally, oil and natural gas meet about 63% of the nation's energy needs today and represent more than \$1 trillion of U.S. economic activity, accounting for some 7.5% of U.S. GDP - helping make our economy the biggest in the world.

In Kansas, small independent oil and natural gas producers account for 92% of the oil and 63% of the natural gas produced. Nationally, small independent producers drill 94% of domestic wells. Nationally, small independent producers' employees paid \$30.7 billion in income taxes (federal and state), sales tax, and excise tax last year. The entire direct/indirect/induced economics of small independent producers generated \$131 billion of federal and state taxes last year, a figure that will increase to \$189 billion by 2020. Every \$1 million of capital expenditures (capex) for inde-

pendents result in \$1.1 million of total taxes generated by independents along with the creation of 6 direct and 33 total jobs. Every \$1 million of capex for independents result in \$2.4 million of direct and \$5.1 million of overall contribution to GDP.

And, just as important, oil and natural gas are putting huge numbers of Americans to work. The oil and natural gas industry supports more than 9.2 million U.S. jobs, a job base that even with the assumed maturity of this industry is surprisingly dynamic and growing and has the potential for more growth. In Kansas alone, the oil and natural gas industry supports over 67,000 jobs and \$2.7 billion in family income.

As the public debate focuses on how to move to a vibrant energy future, we must recognize that oil and natural gas will continue to serve as the principal component of our economy for many years to come. The U.S. Energy Information Administration projects that oil and natural gas will supply over 50% of our energy in 2035. We need to be investing now to meet this demand. The International Energy Agency has warned that failure



to develop now the oil and natural gas resources to meet future needs could lead to a supply crisis.

The oil and natural gas industry is one of the nation's premier job creating engines today and has the potential to expand that role tomorrow, provided our public policymakers understand the future as well as present breadth and significance of oil and natural gas to our domestic economy. We seek no handouts and need no stimulus - just opportunity.

## Energy Issues (continued)

Opportunity that is, which is supported by sensible energy policy. Some of the policies proposed over the last several years seemed aimed at chilling the job creation potential of domestic oil and natural gas development. Proposals to eliminate important oil and gas tax provisions, impose federal regulation of hydraulic frac-

**WE NEED A WELL  
-REASONED,  
FACT-BASED  
COMPREHENSIVE  
ENERGY  
SECURITY  
STRATEGY**

turing, and impose air emission policies would serve only to depress investment in new domestic oil and natural gas projects, weaken the nation's energy security, and make it more difficult to achieve economic recovery.

Americans are skeptical of such proposals. They have concerns about lost jobs and higher energy costs. About new taxes. About shifting energy production out of the country. And about ultimately pushing the costs on to consumers.

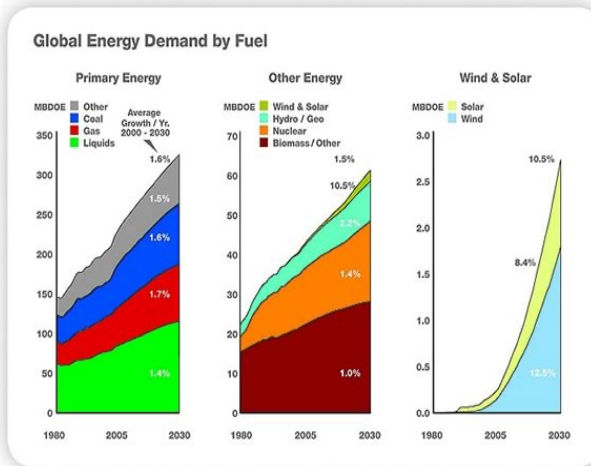
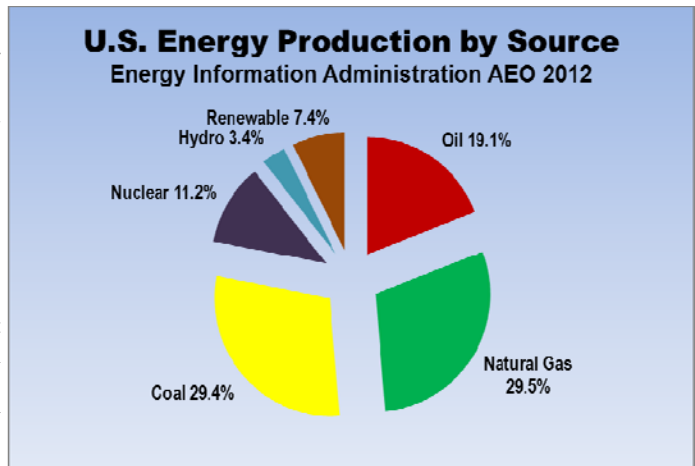
Americans support developing our plentiful domestic energy resources and believe that can be done

in a way protective of our environment. They value a future where we encourage domestic energy development to generate the jobs that will put them to work as well as supply the energy to help secure our economy, allowing it to thrive in the years and

decades ahead.

decades ahead.

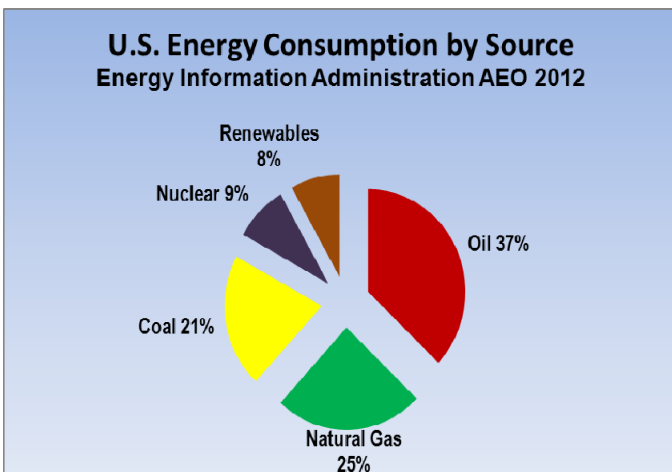
The opponents of American energy development have shown a propensity to align themselves rhetorically with public sentiment even as they consistently espouse policies that would put that goal farther and farther out of reach. History has shown that increasing taxes on oil and nat-



ural gas development negatively affects consumers, businesses, and the economy. Imposing new federal regulations, like hydraulic fracturing, when the procedure is already well-regulated by the states will not put America on a path of preparing for its real energy future. Imposing burdensome and restrictive air emission regulations will not ensure Americans have ample supplies of the oil and natural gas that every projection shows they will be demanding in the near future.

If we as a nation are serious about new jobs, if we want to stimulate our economy, if we want to constructively increase revenues to federal, state, and local governments, which could be used to build roads, fund schools, support communities, or battle deficits, we clearly have the means of doing so. Most Americans understand this. They want more jobs. They want more affordable and reliable energy. It's time to move policy in that direction.

If our nation is to achieve energy security and maintain economic competitiveness and not let our standard of living slip, we need a well-reasoned, fact-based comprehensive energy security strategy.



## Energy Issues (continued)

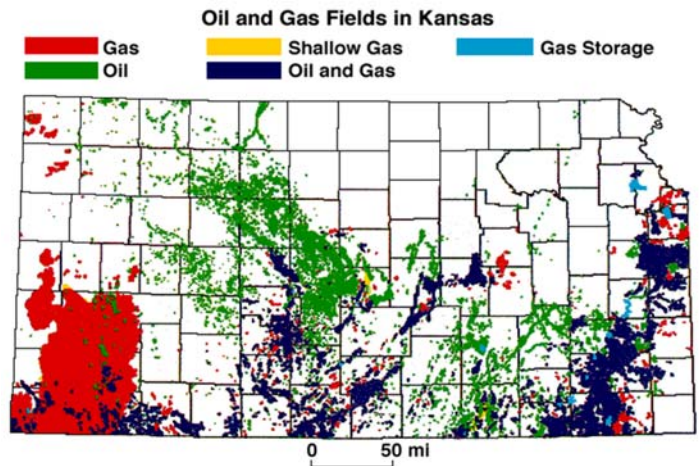
The Kansas oil and gas industry is a \$4.8 billion industry that employs an annual average of 13,800 people paid \$814 million, an average salary of nearly \$60,000 per year, according to a University of Kansas study. The Kansas oil and gas industry makes up between 2.5% and 4.5% of the state's economy, depending on prices. In areas where oil and natural gas are found, the industry represents a quarter of the jobs in some counties and 60% to 70% of the property tax. The oil and gas industry, like aircraft construction, has a powerful ripple effect. Add in new cars and restaurant food bought by oil workers, and the number of jobs grows to 28,000, payroll \$1.4 billion and state local taxes to \$403 million. And throw in every Kansas job touched by the oil and gas industry, such as refinery workers, fuel haulers, even the clerk selling gasoline at the gas station, and the number of employees swell to 68,000, payroll to \$2.7 billion and taxes to \$930 million.

Over 5,440 permits to drill oil and gas wells were issued in 2011. The Kansas oil and gas industry invested just over **\$1 billion** into rural Kansas 4 of the last 5 years. Few industries invest \$1 billion annually into rural Kansas.

The Kansas oil and gas industry produced over 41 million barrels of oil and 313 billion cubic feet of natural gas in 2011. Nearly 72% of the value of the Kansas oil and natural gas industry comes from oil production and 28%

comes from natural gas production. The top ten oil producing counties last year were Ellis - Barton - Rooks - Haskell - Russell - Ness - Barber - Finney - Graham - and Stafford. The top ten natural gas producing counties last year were Stevens - Grant - Kearny - Haskell - Morton - Finney - Barber - Seward - Neosho - and Stanton. In addition, 95 new oil and gas fields were named in Kansas in 2011.

Future demands for energy are enormous. As Kansas' oil and gas industry tries to supply ever-increasing demand, the industry is looking for the next generation of energy industry leaders. Oil and gas companies across Kansas are concerned about future



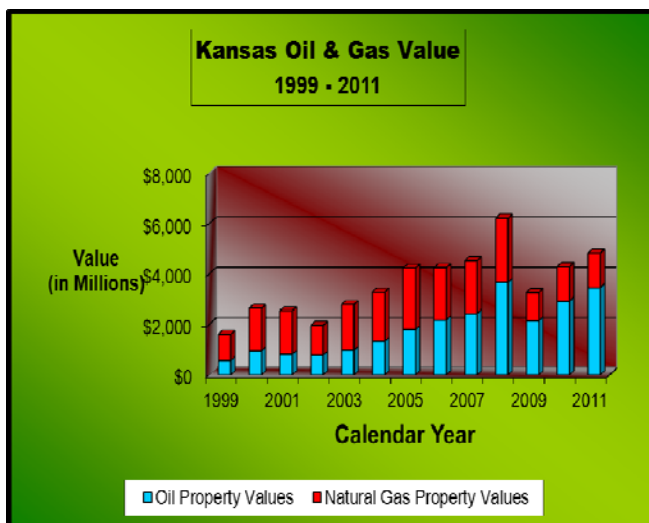
labor shortages. Selecting and retaining the best employees is becoming essential for the Kansas oil and gas industry.

Through the Kansas Independent Oil & Gas Association (KIOGA), the Kansas oil and gas industry has developed a strategy

and plan to recruit more workers and professionals. KIOGA's *Kansas Oil & Gas Career Toolkit* provides information that helps individuals map out a career strategy and provides reassurance that careers in Kansas' oil and gas industry are diverse, challenging, rewarding, and attainable. Visit KIOGA's Career Center at [www.kioga.org](http://www.kioga.org) to learn more and to download the toolkit.

Meeting our future energy needs will require deliberate action, extremely high technology, and high capital investment for many years. Putting together long-term solutions to economically produce multi-billion barrel, long-life oil and natural reserves in Kansas and across the nation is how we will help meet American energy demand. Every energy forecast from every energy agency in the U.S., Europe, and elsewhere predicts the vast majority of our energy will be fossil fuels through 2050.

Oil and natural gas is and will be the most critical and strategic component of the global energy mix for decades to come. Our nation and state needs energy policy that recognizes these realities. Kansas oil and gas is good for Kansas, the economy, and the nation. Energy policy focusing on optimizing oil and natural gas production will result in economic growth, increased state revenues, and demonstrate leadership in formulating sound energy policy.



**Kansas Independent Oil & Gas Association  
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**WE'RE ON THE WEB!**

[WWW.KIOGA.ORG](http://WWW.KIOGA.ORG)

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## **Kansas Independent Oil & Gas Association**

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Founded in 1937, the Kansas Independent Oil & Gas Association (KIOGA) is a nonprofit member organization representing oil and gas producers in Kansas, as well as allied service and supply companies. The purpose of KIOGA as stated in the original articles of incorporation, is “. . . to improve the market for oil and gas produced in Kansas and to promote the welfare of the oil and gas industry in the State of Kansas.” We are the lead state and national advocate for Kansas independent oil and gas producers. KIOGA represents the interests of the Kansas oil and gas industry at the local, state, and federal levels of government. We are committed to

ensuring that tomorrow's climate will be one in which our members grow and prosper. Our active presence before the Kansas Legislature, U.S. Congress, and state and federal regulatory agencies means the concerns of Kansas independent oil and gas producers are foremost in the minds of legislators and government officials. Our cooperative partnerships with the Domestic Energy Producers Alliance (DEPA), Independent Petroleum Association of America (IPAA), Energy in Depth (EID) Coalition, and Interstate Oil & Gas Compact Commission (IOGCC) means the concerns of Kansas independent oil and gas producers are heard in Topeka and Washington.

The challenges facing the oil and gas industry have grown both in number and complexity. KIOGA continues to leverage our core competencies, namely intellectual capital, volunteerism, and leadership. These competencies set KIOGA apart from other oil and gas advocacy groups and makes us the lead state and national advocate for the Kansas oil and gas industry. Because of the efforts of KIOGA members, voters and policymakers in Kansas are learning that the oil and gas industry is working for them, the economy, and the environment.

KIOGA's past successes have been due to the spirit and commitment of the Kansas oil and gas industry. That same spirit and commitment will carry us into the future. The Kansas oil and gas industry still faces many challenges. Today, KIOGA is over 1,400 members strong. We believe we will achieve our goals because we have the human capital and corporate values essential for success. Please feel free to contact the KIOGA Topeka Office with any questions or comments at 800 SW Jackson Street, Suite 1400, Topeka, Kansas 66612, phone 785-232-7772, fax 785-232-0917, or visit our website at [www.kioga.org](http://www.kioga.org).