

## Center for Applied Economic Research

Economic Outlook 2015: Summer Update

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The dramatic decline in oil prices and associated job losses in the energy sector have taken a toll on the Oklahoma economy during the first half of 2015. After increasing the first quarter of the year, total nonfarm employment, as reported in Current Employment Statistics by the Bureau of Labor Statistics, fell back in the second quarter to the level posted in the last quarter of 2014. Employment in the mining sector has fallen over twelve percent from the fourth quarter of 2014 to the second quarter of 2015; the decline is thirteen percent from the peak in November 2014 to June 2015. The number of drilling rigs fell by nearly one-half during the November-June period. Based on the Oklahoma State University econometric model, we estimate that from November 2014 to June 2015 the total loss of nonfarm jobs associated with the decline in the energy sector exceeded thirteen thousand, over eight thousand were lost in the mining sector alone. For every 10 jobs lost in the energy sector in the state, we estimate that another 6 jobs are lost in other sectors statewide.

In July, IHS Global Insight, Inc. forecast the average West Texas Intermediate crude oil price to retreat below \$50 by the first quarter of 2016 before rebounding to \$65 by the end of 2016 (Figure 1). The most recent drop in oil prices, however, points to additional potential downside risk in the oil sector. The Henry Hub cash market natural gas price is forecast to remain fairly stable until slightly increasing late 2016 to over \$3/mmBtu.

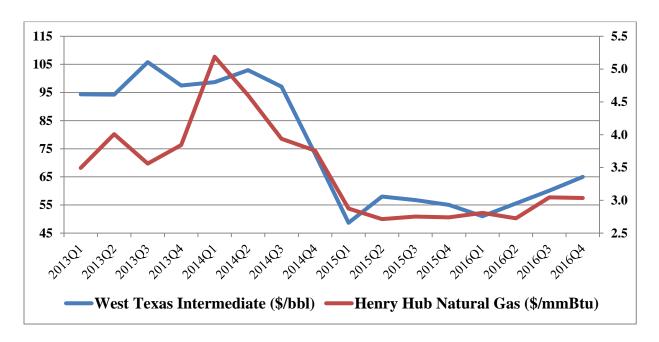


Figure 1: Oil and Natural Gas Prices (forecast begins 2015Q3)

As shown in Figure 2, employment in Oklahoma's mining sector generally follows the path of mining employment nationally. The swings in Oklahoma mining employment are greater than the nation's, largely likely because national mining employment includes that outside of oil and gas (e.g., coal mining). Using the first quarter of 2010 as the benchmark, mining employment for both Oklahoma and the nation peaked in the fourth quarter of 2014, having risen over fifty percent in Oklahoma and nearly forty percent nationally. Oklahoma's decline off the peak exceeds that of the nation. Mining sector employment is forecast to continue declining in both Oklahoma and the U.S. before picking up in the second half of 2016, leaving mining employment in the state and nation about twenty percent above 2010 first quarter levels.

Low energy prices will be a significant drag on the Oklahoma economy throughout 2015 and 2016. As shown in Figure 3, high energy prices delayed Oklahoma's entry into the Great Recession and caused the state economy to outperform the national economy during the initial years of the recovery. Oklahoma employment growth began to lag that of the nation in 2013, well before the decline in energy prices, but as mining employment flattened out (Figure 2). Only if oil prices rebound as forecasted by IHS Global Insight will Oklahoma total nonfarm employment growth return to that of the nation.

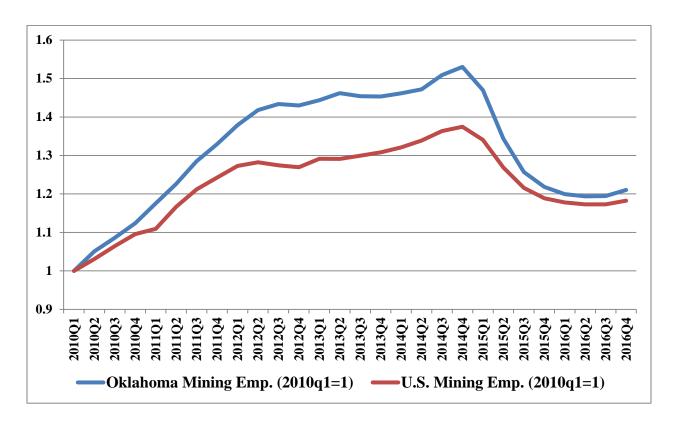


Figure 2: Oklahoma and U.S. Mining Employment (forecast begins 2015Q3)

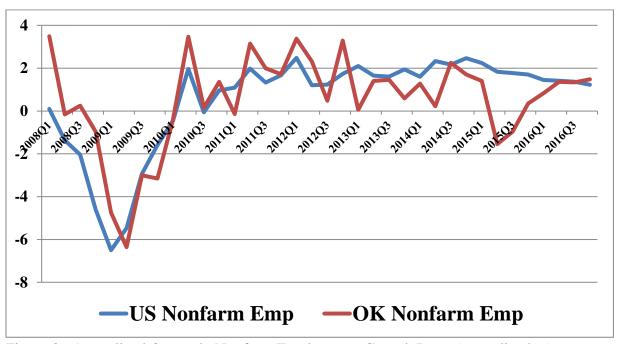


Figure 3: Annualized Quarterly Nonfarm Employment Growth Rates (annualized %)

Average annual Oklahoma total nonfarm employment is forecast to grow slightly below 0.6 percent in each of 2015 and 2016 (Table 1). This falls below the corresponding forecasted U.S. growth rates of 2.1 and 1.5 percent. U.S. unemployment is forecast to decline to almost 5 percent, a level commonly believed to be full employment, which would allow the FED to begin raising short-term interest rates. Rather than decline, Oklahoma unemployment will rise slightly in response to weak employment growth brought about by the decline in the energy sector.

Table 1. Oklahoma and National Employment Growth and Unemployment

	2013	2014	2015	2016
Oklahoma Unemployment Rate	5.35%	4.49%	4.41%	4.58%
U.S. Unemployment Rate	7.37%	6.15%	5.42%	5.09%
Oklahoma Nonfarm Emp. Growth	1.31%	1.13%	0.57%	0.57%
U.S. Nonfarm Emp. Growth	1.71%	1.93%	2.11%	1.53%
U.S. Nonfarm Emp. Growth	1.71%	1.93%	2.11%	1.53

Risks to the forecast include further declines in oil prices. Slowing growth in world demand and continued strong supply could bring further declines in oil prices before they recover. A slowing Chinese economy, strong supply by OPEC, and expectations of easing of the sanctions imposed on Iran, together have brought additional weakness to oil prices. Volatility in the stock markets of China and U.S. also could play out in slower spending and economic growth. U.S. economic growth consistently has failed to meet optimistic expectations during the current economic expansion and could once again prove to be disappointing.