Fluctuating Oil Prices and Employment: Tracking Employment Estimates in Kern County since 1990

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The nature of oil prices being determined on an international market means that employment in the agricultural, oil, manufacturing and service related industries in Kern County may suffer severe adverse impacts from these cycles. In this article, employment estimates from the Bureau of Labor Statistics are used to assess changes in Kern County employment following a change in oil prices. Conventional wisdom states that lower oil prices will cause a reduction in employment especially in areas like Kern County where a significant proportion of the labor force works in the oil industry.¹

Lower oil prices that save motorists at the pump hurt energy workers. Employees working in drilling and exploratory industries face pay cuts and layoffs when prices are low. Thus regions where a large population of the labor force works in the oil and gas industry may experience reduction in overall employment because workers have less disposable income to spend on the economy. On the other hand, lower oil prices could fuel employment in the food, manufacturing, transport and housing industries. With less money to spend at the pump, people can splurge on purchases such as clothing, restaurant meals, automobiles and vacation. Other sectors of the economy such as manufacturing, trade, service and retail industries may see an increase in employment numbers.

This article seeks to provide facts on some of the commonly held beliefs regarding the oil prices and employment relationship. To investigate this, oil prices from January 1990 to May 2015 were analyzed, where periods experiencing an abrupt increase or decrease in oil prices were identified. Average employment growth rates in the 12 months following a price increase/decrease were calculated. Finally, a discussion of the findings followed the analysis. The graph below traces oil prices and employment in Kern County over the last 25 years. The shaded sections in the graph indicate areas of interest where oil prices increased or decreased for a period of 12 months or more.

Figure 1: WTI, Brent, and Kern County Employment

![Graph showing WTI, Brent, and Kern County Employment over 25 years]

Source: Bureau of Labor Statistics and the U.S. Energy Information Administration

¹ As of May 2015, an estimated 10,300 people work in oil and gas extraction, which along with related positions in the refineries and transport sector, account for nearly seven percent of all jobs in the region. Employment by industry is as follows: total farm workers are 62,300; construction 17,100; retail 31,400; education 33,300; healthcare 31,700 and hospitality industry 25,600 for the (California Employment Development Department 2015).
A cursory observation of the graph reveals that oil prices and employment moved together between 1990 and 1996. The two deviated in January 1997 when oil prices dropped and employment increased. In November 1996 when oil prices started declining, roughly 241,975 persons were employed in comparison to the 242,486 employed one year later in November 1997. This indicated an increase of 511 employees over one year. Average employment growth rate grew at 0.03% during that period. This change in employment is not large enough to arrive at a conclusion that a drop in oil prices was associated with growth in employment.

Between February 2007 and January 2008, the price of Brent increased from $57.56 to $92.18 a barrel. During the same period, employment increased by 3,975 or grew by an average of 0.11% each month over the 11 month period. These findings concur with conventional wisdom which imply that increased oil prices are associated with increased employment.

In June 2008, oil prices rose to record high of $132.32. The next 12 months witnessed a drop in oil prices. During the same period, Kern County witnessed a loss of 10,297 jobs with employment dropping from 327,230 to 316,933. Average employment growth rate was – 0.27%.

In June 2010, a barrel of oil cost $74.76 compared to the $113.83 in June 2011. During the same period, employment increased by 7,895 at an average growth rate of 0.28%. The surge in oil prices was accompanied by an increase in employment.

In June 2014, a barrel of oil cost $111.80 but in May 2015, the price had dropped to $64.08. During this period, employment increased by 5,956 at an average growth rate of 0.16% over the last 11 months. These findings go against conventional belief that oil price decreases are accompanied by lower levels of employment.

Our study yields several conclusions. In most cases, increased oil prices were marked with increased employment as seen in the 12 months following February 2007 and June 2010. However, we have witnessed a decline in oil prices over the last 12 months which have been accompanied by an increase in employment which goes against popular belief. Of course employment is affected by factors such as economic conditions and this is seen in June in 2008 where the economic recession led to decreased employment. This analysis does not go without caveats. The study does not account for seasonal changes in employment, age, education, experience and size of the labor force. Incorporating these factors will have an effect on the findings. Furthermore, it is important to note that oil prices affect employment indirectly.

References:

