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CSU Bakersfield

Kern Economic Journal

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2015 Fourth Quarter

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Oil Prices: Why? So? Then What?

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KERN ECONOMIC JOURNAL is a quarterly publication (February, May, August, November) of California State University, Bakersfield. Its purpose is to track local trends and analyze regional, national, and global issues that affect the economic well-being of Kern County. The journal provides useful information and data that can help the community make informed economic decisions. Sources of funding for this journal include university contributions and sponsorship and subscription fees.

Editorial and analytical articles on important local, regional, national, and international issues and trends are invited for consideration of publication in the journal. Articles (not exceeding 800 words in length) must be submitted to the Managing Editor in electric copy. Individual authors are responsible for the views and research results.

Contact Information
Dr. Richard S. Gearhart, rgearhart1@csub.edu, 661-654-3962
Dr. Nyakundi M. Michieka, nmichieka@csub.edu, 661-654-2465

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Kern Economic Journal

Inside this Issue:

Economy at a Glance!

by Dr. Richard S. Gearhart III and
Dr. Nyakundi M. Michieka

National Economy[1]

The world's largest economy of more than $16.5 trillion, the United States, grew by 0.7 percent, but at a much slower rate than the real Gross Domestic Product (GDP) growth rate from the third quarter of 2015, where real GDP grew by a modest 2.0 percent. Real GDP increased largely because of increases in consumer spending, largely from purchases of durable goods (mostly vehicles and recreational goods), non-durable goods, and large increases in spending on healthcare, as the effects of the Patient Protection and Affordable Care Act (PPACA) continue to unfold. However, the growth rate was moderated by decreases in private inventory investment, as firms in wholesale trade and manufacturing continued to let inventories drop, perhaps as a hint to the state of the global and national economy, as well as decreases in exports.

Real disposable personal income, which is adjusted for inflation and taxes, increased by a whopping 3.2 percent in the fourth quarter of 2015, highlighting substantial real growth in the national economy. This is similar to the large increase in real disposable personal income from the third quarter of 2015 of 3.8 percent. This dramatic continuation in the growth of real personal disposable income led to continued stagnation in real consumer spending, as consumers increased spending in the December of 2015 by only 0.1 percent. This means that most of the real income increases in the fourth quarter of 2015 were not spent. This, however, was met by a sizable increase in the personal savings rate, as consumers are saving about 5.43 percent of their income, an increase since the third quarter of 2015. Though consumers may still be paying down revolving debt, they have likely paid it down to a level where they feel comfortable building up a safety net for unanticipated shocks (such as being fired). This hints that consumers may have learned from the previous recession, and are more willing to delay current consumption to save up the recommended 6 month safety net.

The Conference Board's Index of Leading Economic Indicators – a measure of future economic activity – declined slightly, to 123.7 in December of 2015, after rising 0.5 percent in both October and November. This compares to the indicator being 123.3 at the end of September of 2015. Though the fall in the index in December could hint at the potential of increased recessionary risk, it is unlikely that this is the case. A decline in housing permits at the tail end of 2015 is the likely culprit of the December decline, and most likely reflects a temporary (and natural) random downswing. Conversely, the University of Michigan's Consumer Sentiment Index increased from 90.8 to 91.3, as consumers judged prospects for the national economy to start to improve, likely hinting their reasoning behind increasing consumer savings, rather than further paying down consumer debt.

State Economy[2]

In California, the unemployment rate went down to 5.8 from 6.1 percent. Among counties, San Francisco (3.3 percent), Santa Clara (3.8 percent), Orange (4.2 percent), San Luis Obispo (4.4 percent), San Diego (4.8 percent), and Sacramento (5.6 percent), had unemployment rates below the state average, while Los Angeles (5.8 percent) had the same unemployment rate as the state. In contrast, Riverside (6.3 percent), San Joaquin (8.5), Kern (9.4 percent), Fresno (9.8 percent), and Kings (10.3 percent) had unemployment rates above the state average.

The state's civilian labor force lost 32,167 members, where

1 U.S. economic numbers were obtained from the Bureau of Economic Analysis "U.S. Economy at a Glance". This is found at http://www.bea.gov/newsreleases/glance.htm. The information for the Index of Leading Economic Indicators is found at https://www.conference-board.org/data/bcicountry.cfm?cid=1. The University of Michigan Consumer Sentiment Index is found at http://www.sca.isr.umich.edu/tables.html.

2 The California economic numbers were obtained from the Bureau of Labor Statistics "Local Area Unemployment Statistics Map". This is found at http://data.bls.gov/map/MapToolServlet.

31,033 secured paying jobs (employed) and 63,233 fewer were left jobless (unemployed). While nonfarm industries hired 99,167 more workers, farming enterprises employed only 6,967 more workers. A wide range of industries added jobs, including service producing, construction, educational and health services, leisure and hospitality, and federal, state, and local government. However, jobs were lost in manufacturing, financial activities, and mining and logging.

Local Economy

Even though Kern County's labor force decreased only slightly, the number of employed persons fell, while the number of unemployed persons (as well as the unemployment rate) rose. This hints that although Kern County still continues to benefit from the move away from the recession, the continued low oil prices continue to dominate the economy. Although there were large increases in nonfarm employment (8,300 more workers in the fourth quarter of 2015, compared to the third quarter), declines in farm employment and in oil and gas extraction (8,633 and 233 fewer workers, respectively, in the fourth quarter of 2015 compared to the third quarter of 2015) continue to lead the way. Coupled with the increase in the county unemployment rate was a sizable reduction in personal income, falling by $1.25 billion between the third and fourth quarters of 2015, largely led by decreases in business profit and property income, as oil price shocks continue to reverberate throughout the economy.

Labor market conditions continued to be weak into the fourth quarter of 2015, as oil prices continue to have a sizable impact, with no increase in sight. Though the labor force decreased by 667 persons, the number of people unemployed increased by 767 persons. That fewer workers were hired this quarter in Kern County (1,433 workers) means that secondary sectors, such as manufacturing, may be impacted if oil prices are not going to rise. The rate of unemployment ranged from 4.4 percent in Inyokern to 19.4 percent in California City. Nearly every city in Kern County experienced an increase in its unemployment rate. In Bakersfield, 8.4 percent of persons in the labor force are unemployed, an increase that has been mitigated by an out-migration of workers looking for income elsewhere.

The continued fall in oil prices has started to impact secondary economic sectors, such as the housing market. Kern County's median sales price of houses rose by only $83, from $206,000 in the third quarter of 2015, to $206,083 in the fourth quarter of 2015, meaning that all of the benefits of an economic recovery are being outshadowed by oil prices in Kern County, as young workers may be hesitant to purchase a home. In fact, home sales fell precipitously in Kern County, as 707 fewer units were sold in the fourth quarter of 2015, compared to the third quarter of 2015. Most of the housing market impact was felt in Bakersfield. Housing prices depreciated by $4,500 over the past quarter (or nearly 2.0 percent), and 630 fewer homes were sold. This means that most of the labor market troubles are being experienced in the largest metropolitan area in Kern County: Bakersfield. In fact, the number of new building permits continued to stall, as Kern County issued 72 fewer permits this quarter for new construction. This may hint at future impacts to be felt in the construction and service sectors in Kern County, which have largely not been affected (by employment decreases) from the oil price shocks as of yet. Interestingly, the number of loan default notices sent to homeowners also fell by 15 over the past quarter. This hints at two main possibilities: (1) the oil price stagnation is only hurting individuals who were largely affected by the recession, or (2) homeowners in Kern County have used the recovery from the recession to build up a safety net to forestall foreclosures. The next few quarters will be illuminating.

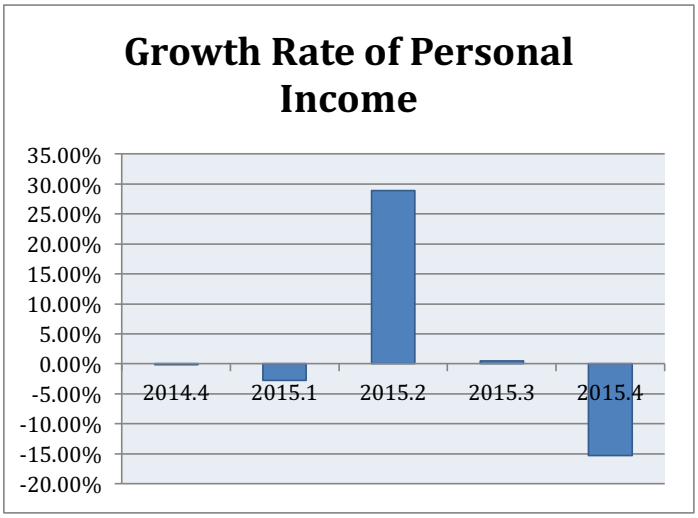
The weighted price index for the five publicly traded companies doing business in Kern County (Sierra Bancorp, Tejon Ranch Company, Chevron Corporation U.S., Granite Construction, and Wells Fargo Company) increased significantly from 90.2 in the third quarter of 2015 to 95.6 in the fourth quarter of 2015, an increase of 5.4 percentage points. This hints that the oil price shock is impacting firms that have a more local presence, as they likely do not have business diversification in other regions to offset regional-level shocks. Chevron (a decline of 1.1 percent) and Tejon Ranch (a decline of 15.0 percent) were the companies to experience declines in their stock prices. Granite Construction (a 30.7 percent increase), Wells Fargo (a 0.5 percent increase), and Sierra Bancorp (an 8.9 percent increase) all gained, largely because banks have a much more regionally diversified portfolio, and the impact on construction companies has not yet been felt.

With the continued stagnation in oil prices, gas prices continued to drop, down $0.35 per gallon since the last quarter, averaging $2.55 a gallon. The unit price of California's Class III milk also decreased, though only marginally, from $16.14 in the third quarter of 2015 to $15.25 in the fourth quarter of 2015. Farmers suffered the most in California, even as they decreased hiring, likely in the hopes of making up money in early 2016. Prices received by farmers plummeted by 9.3 percentage points, from 99.7 in the third quarter of 2015 to 90.3 in the fourth quarter of 2015. Though prices paid by farmers also fell, it fell by only 2.3 percentage points. This means that farmers are paying more out than they take in as revenues, likely hinting that farmers are placing sizable stakes on recouping their outlays during the El Niño event.

Tracking Kern's Economy[1]

by Dr. Richard S. Gearhart III and
Dr. Nyakundi M. Michieka

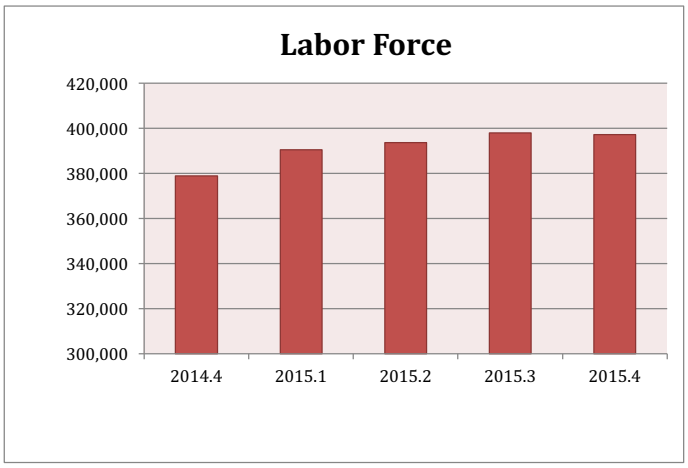
Growth of Personal Income – With further declines of oil prices and layoffs continuing to affect regional oil companies (along with proposed decreases in oil employment for 2016), there was a sizable decrease in personal income, increasing by 15.32%, on an annual basis, compared to the third quarter of 2015. This amounted to a decrease, in total income, of over $1.25 billion. This decrease was largely driven by sizable decreases in firm profit income (falling by $750 million) and property income (falling by nearly $150 million) during the fourth quarter of 2015. This means that the long-term oil price affects are starting to impact a variety of sectors in Kern County.



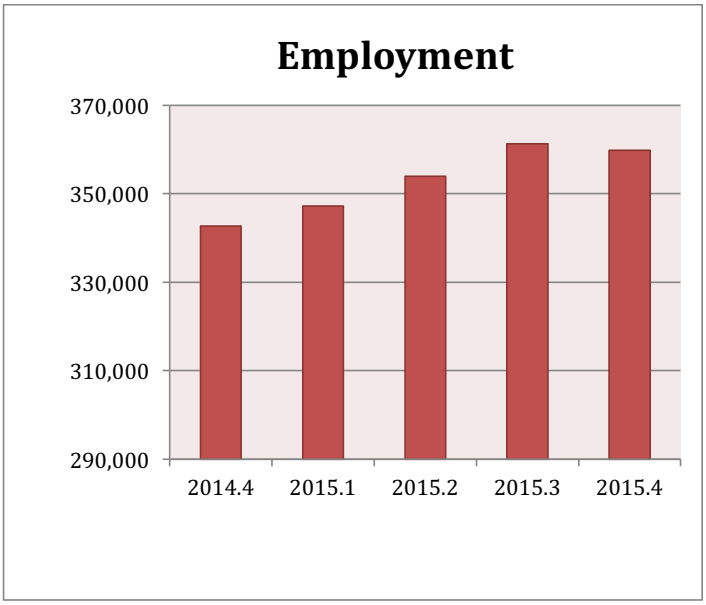
Labor Market

We adjust published data in three ways. Firstly, we averaged monthly data to calculate quarterly data. Secondly, we recalculated quarterly data to take into account workers employed in the "informal" market (i.e., self-employed labor and those who work outside their county of residence). Finally, we adjusted quarterly data for the effects of seasonal variations.

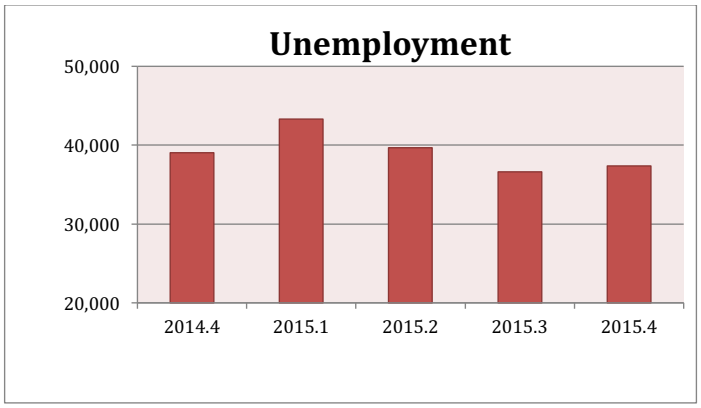
Labor Force - The civilian labor force decreased by 667 members from 397,867 in the third quarter of 2015 to 397,200 in the fourth quarter of 2015. In addition, 18,410 more workers were available for work this quarter relative to the fourth quarter of 2014. Even while the general economy continues to recover from the recent recession, Kern County has felt the oil price shocks that have mitigated, and even reversed, the gains made moving out of the recession.



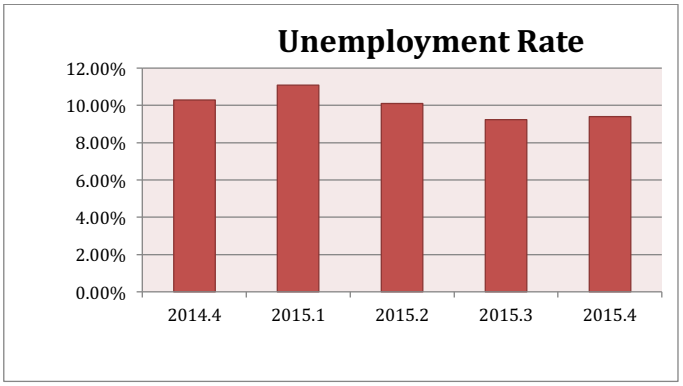
Employment – In the fourth quarter of 2015, Kern County hired 1,433 fewer workers as total employment decreased from 361,233 in the third quarter of 2015 to 359,800 in the fourth quarter of 2015. As noted before, overall the county continues to benefit from the country moving out of the recession, as Kern County employed 17,120 more workers this quarter than four quarters ago.



Unemployment – In the meantime, 767 more workers were unemployed as the number of jobless workers increased from 36,600 to 37,366. Again, the continued shocks in the oil field continue to be balanced against a general recovery from the recession, as 1,653 fewer workers are employed in the fourth quarter of 2015, compared to four quarters ago.



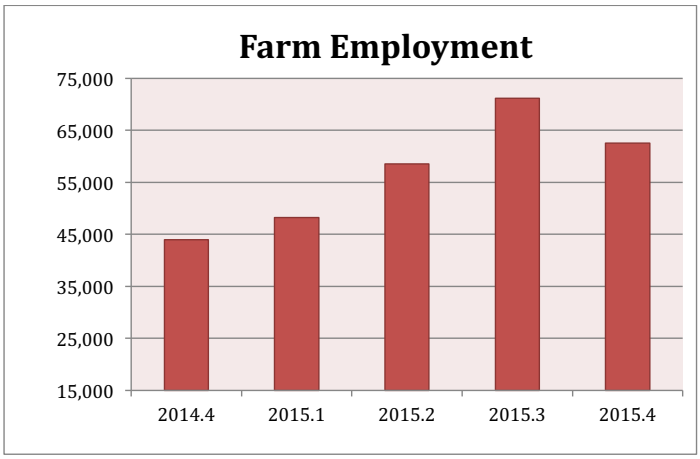
Unemployment Rate – Kern County's unemployment rate increased 0.17 percentage points to 9.40 percent. The county's unemployment rate was 10.3 percent four quarters ago.



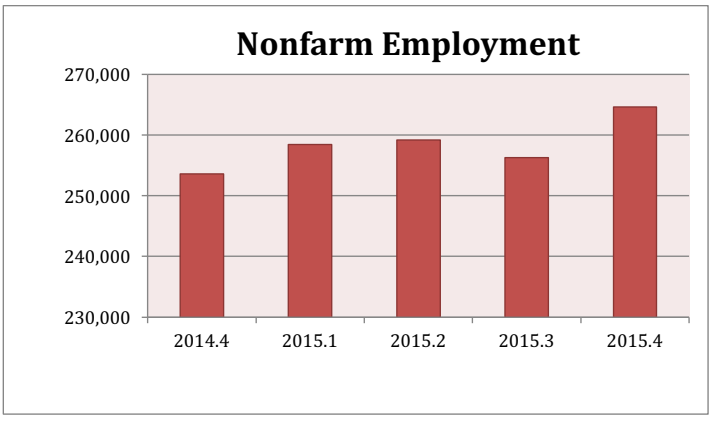
The rate of unemployment varied considerably across cities. Among cities shown below, the unemployment rate varied between 4.4 percent in Inyokern to 19.4 percent in McFarland. Every city in Kern County, with the exception of McKittrick, experienced an increase in the unemployment rate. The largest increase was experienced by Maricopa, which saw a 1.1-percentage point increase in the unemployment rate. In Bakersfield, the rate of unemployment was 8.2 percent.

Unemployment Rate of Cities			
Location	Unemployment Rate (%)	Location	Unemployment Rate (%)
Inyokern	4.4	Bakersfield	8.4
Taft	6.1	Arvin	11.0
Lamont	6.3	Delano	11.3
Ridgecrest	6.3	Oildale	12.1
Tehachapi	7.2	Wasco	12.5
Frazier Park	7.3	McFarland	14.7
Rosamond	7.8	Edwards	16.3
Shafter	8.0	Mojave	17.1
Lake Isabella	8.1	California City	19.4
Note: City-level data are not adjusted for seasonality and "informal" market workers.			

Farm Employment – In the fourth quarter of 2015, Kern County hired 8,633 fewer farm workers. As a result, farm employment decreased from 71,113 to 62,500. Conversely, the farming industry hired 18,550 more workers this quarter than four quarters ago. This hints at an interesting dynamic, as lower oil prices may not have started to impact farm prices if they have long-term price contracts with suppliers.

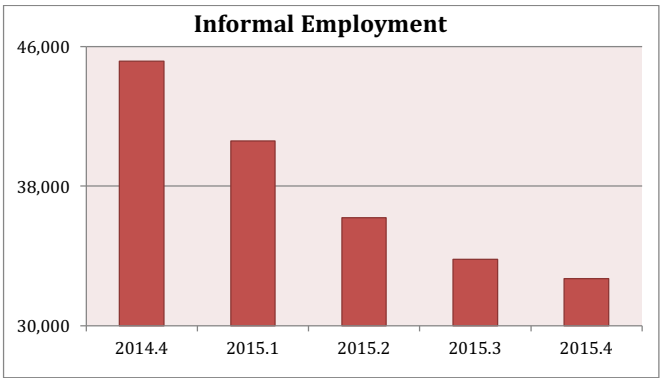


Nonfarm Employment – Local nonfarm industries employed 8,300 more workers this quarter. Hence, the number of nonfarm workers increased from 256,300 to 264,600. Similarly, nonfarm industries hired 11,030 more workers than four quarters ago.

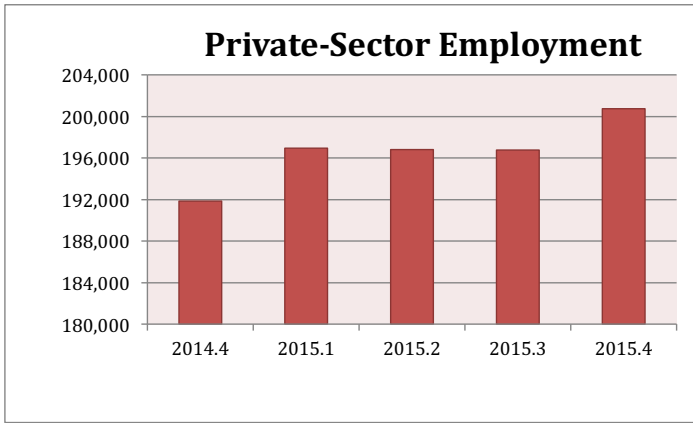


In Bakersfield, however, many nonfarm industries gained jobs: construction, service providing, educational and health services, and government. This hints that the economy of Bakersfield continues to diversify in a number of ways that will make the city less responsive to oil price shocks in the future. However, due to the continued declines in oil prices, jobs were lost in farming, oil and gas extraction, manufacturing, and financial activities.

Informal Employment - Informal employment is the difference between total employment and industry employment. It accounts for self-employed workers and workers employed outside their county of residence. In the fourth quarter of 2015, the number of informal workers decreased by 1,100 from 33,800 to 32,700. Likewise, the informal labor sector hired 12,460 fewer workers this quarter relative to the fourth quarter of last year.



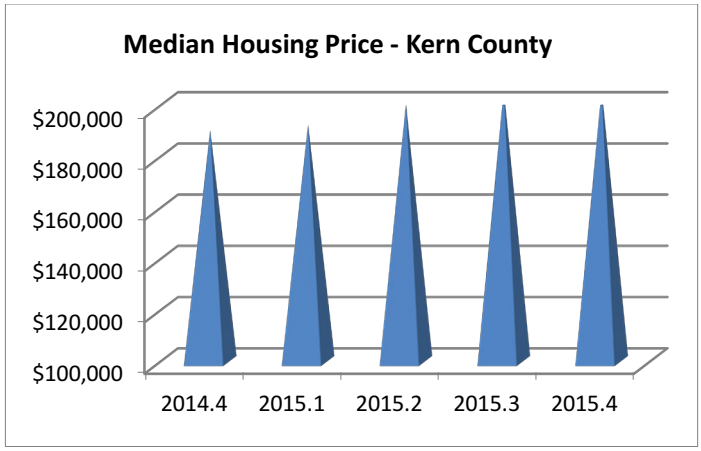
Private-Sector Employment - Nonfarm employment is comprised of private-sector employment and public-sector employment. In the fourth quarter of 2015, private companies hired 3,967 more workers as their employment increased from 196,767 to 200,733. Similarly, the private sector employed 8,863 more workers this quarter than four quarters ago.



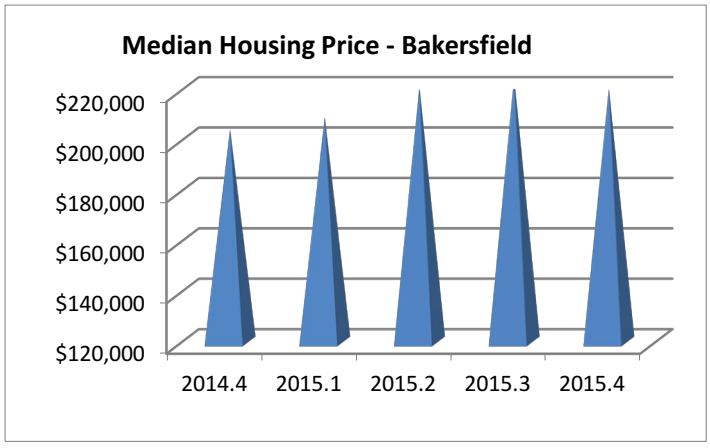
Public-Sector Employment – The public sector consists of federal, state, and local government agencies. The local government labor market includes county and city agencies and public education. In the fourth quarter of 2015, government agencies hired 4,333 more workers as their employment decreased from 59,533 to 63,866, spurred by massive increases in local government hiring; an increase in 4,133 workers. This one quarter increase continues the general trend in Kern County, where public sector has been increasing. In fact, year-on-year, there has been an increase of 2,527 workers since the fourth quarter of 2014.

Housing Market

Housing Price - In the fourth quarter of 2015, Kern County's housing prices increased, but only slightly, largely hinting that oil price shocks are inhibiting general recovery momentum away from the recession. The median sales price for all residential units increased $83 (or 0.04 percent) from $206,000 in the third quarter of 2015 to $206,083 in the fourth quarter of 2015. Impressively, the county's median sales price appreciated $15,883 (or 8.4 percent) between the fourth quarter of 2014 and the fourth quarter of 2015.



In Bakersfield, the median housing price depreciated $4,500 (or -2.0 percent) from the third quarter of 2015, as many oil field workers call Bakersfield home. Conversely, the city's median sales price has appreciated $16,033 (or 7.8 percent) since the fourth quarter of 2014.

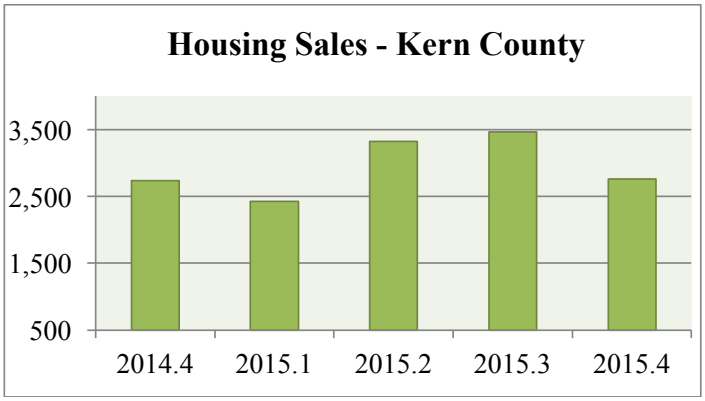


Housing price varied across the county. Within previous four quarters (2014 fourth quarter to 2015 fourth quarter), the median sales price appreciated in all the major cities of Kern County except Rosamond. In dollar value, California City had the largest

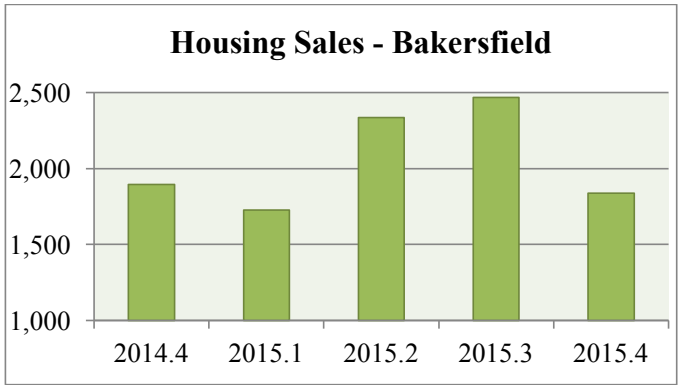
appreciation of $20,083. The largest decrease, in dollar value, was found in Rosamond, where median housing prices fell by $4,133.

Location	Median Price 2015.4	Median Price 2014.4	Price Change 2014.4 to 2015.4	% Price Change 2014.4 to 2015.4
Kern County	$206,083	$190,200	$15,883	8.35
Bakersfield	$220,333	$204,300	$16,033	7.85
California City	$102,583	$82,500	$20,083	24.34
Delano	$180,000	$160,800	$19,200	11.94
Ridgecrest	$155,167	$145,500	$9,667	6.64
Rosamond	$167,167	$171,300	-$4,133	-2.41
Taft	$100,167	$94,600	$5,567	5.88
Tehachapi	$236,667	$221,200	$15,467	6.99

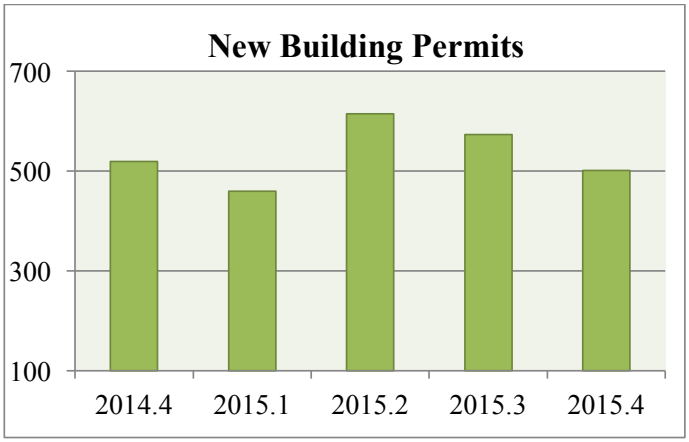
Housing Sales – In the fourth quarter of 2015, price depreciation was accompanied by a sizable decrease in sales. In Kern County, 707 fewer homes were sold as total sales decreased from 3,464 to 2,757, as Kern County's largest metro area, Bakersfield, continues to struggle from oil price shocks. Compared to four quarters ago, however, 22 more units were sold.



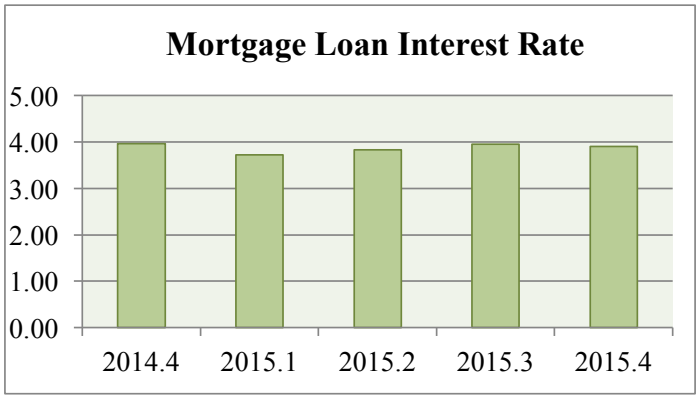
In Bakersfield, sales of residential units decreased by 630 units, from 2,468 in the third quarter of 2015 to 1,838 in the fourth quarter of 2015. This means that nearly all of the decrease in housing sales in Kern County was located in Bakersfield. In fact, the oil price shock in Bakersfield has eliminated all of the housing market recovery over the past year, as 57 fewer homes were sold in the fourth quarter of 2015, compared to a year ago.



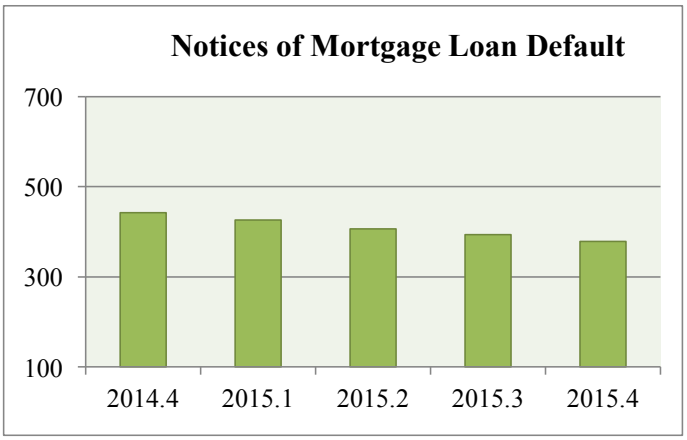
New Building Permits – In the fourth quarter of 2015, Kern County issued 501 permits for construction of new privately-owned dwelling units. The county issued 573 new building permits last quarter and 519 four quarters ago, showing a modest decline in new building permits that likely reflects continued stagnation in oil prices. This means that the oil price shock is starting to be felt in secondary sectors in the economy, as household disposable income falls and potential home-buyers are more aware of the possibility of unemployment in the near future.



Mortgage Interest Rate – In the fourth quarter of 2015, the interest rate on thirty-year conventional mortgage loans decreased from 3.95 percent to 3.9 percent, highlighting continued uncertainty as to how quickly the Federal Reserve will raise rates. Four quarters ago, the mortgage loan interest rate was 3.97 percent.

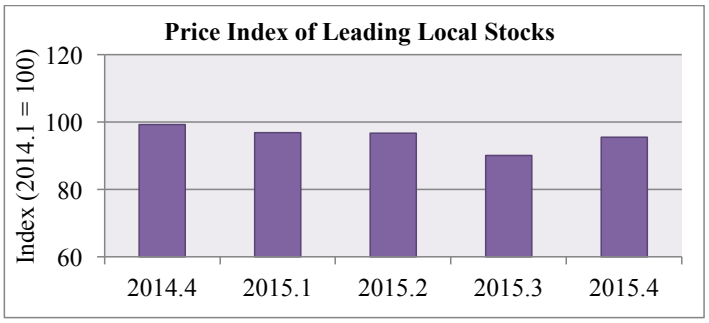


Housing Foreclosure Activity – Interestingly, Kern County's foreclosure activity continued to slow in the fourth quarter of 2015. This likely means that those impacted by the oil price stagnation are less established workers who have not yet purchased homes and are living in apartments. The number of homeowners receiving notices of loan default from their mortgage bankers declined from 393 to 378. Similarly, the number of default notices has gone down by 64 since the fourth quarter of last year. This is especially good news as the depressed oil prices had a chance to push homeowners in Kern County into economic distress, and it has not. This can be caused either by the fact that the oil price stagnation is affecting workers who are less likely to own homes, or by the fact that existing homeowners have built up enough of a safety net to weather the storm (which is a much more encouraging local trend).

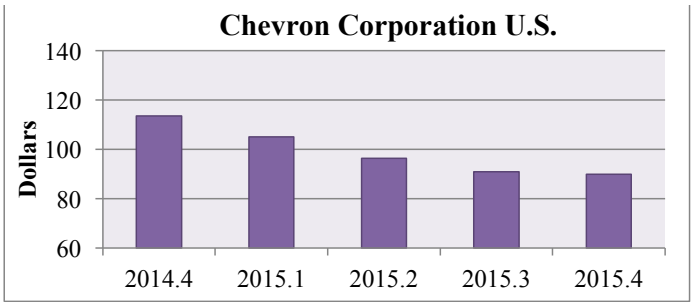


Stock Market

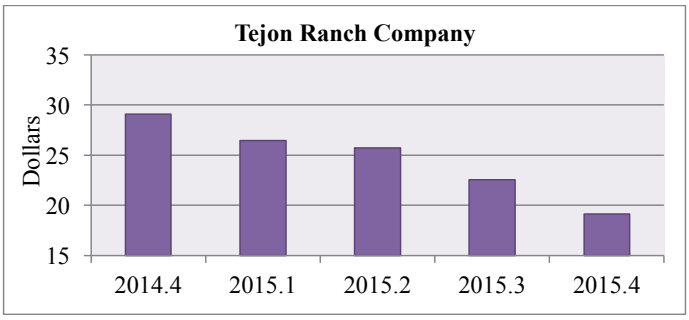
In the fourth quarter of 2015, the composite price index (2014.1=100) of the five publically traded companies doing business in Kern County increased 5.4 percentage points from the previous quarter, from 90.2 to 95.6. The index was 3.7 percentage points lower than that of four quarters ago, likely hinting that the immediate stock price impact of lower oil prices has already been factored into long-term expectations of several local companies. Average "close" prices were measured for five local *market-movers*: Chevron Corporation U.S., Tejon Ranch Company, Granite Construction, Wells Fargo Company, and Sierra Bancorp.



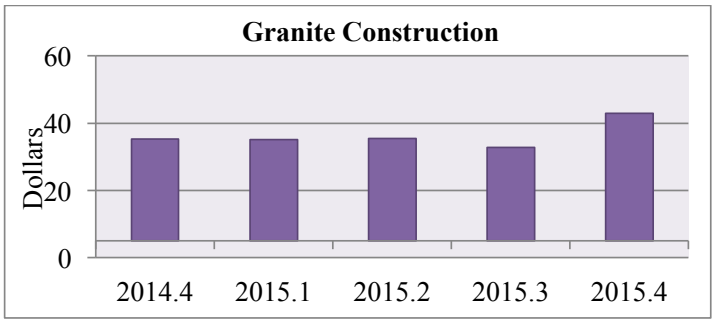
Chevron Corporation U.S.: CVX lost $0.96 (or 1.1 percent) per share as its price decreased from $90.92 to $89.96. Relative to the fourth quarter of 2014, CVX was down $23.58 (or 20.8 percent).



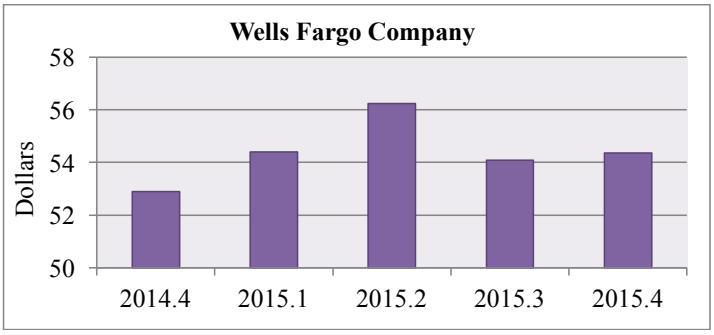
Tejon Ranch Company: TRC lost $3.38 (or 15.0 percent) per share as its stock price dropped from $22.53 to $19.15. Likewise, TRC was down $9.91 (or 34.1 percent) relative to the fourth quarter of 2014.



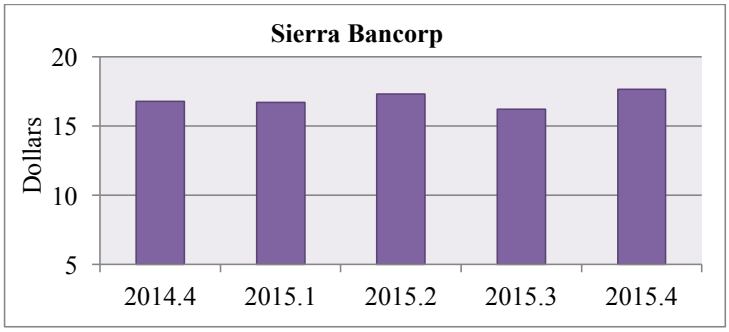
Granite Construction: GVA gained $10.09 (or 30.7 percent) per share as its stock price increased from $32.82 to $42.91. Likewise, GVA has increased $7.66 (or 21.7 percent) since the fourth quarter of 2014.



Wells Fargo Company: WFC gained $0.28 (or 0.5 percent) per share as its stock price increased from $54.08 to $54.36. Relative to one year ago, WFC was up $1.46 (or 2.8 percent).

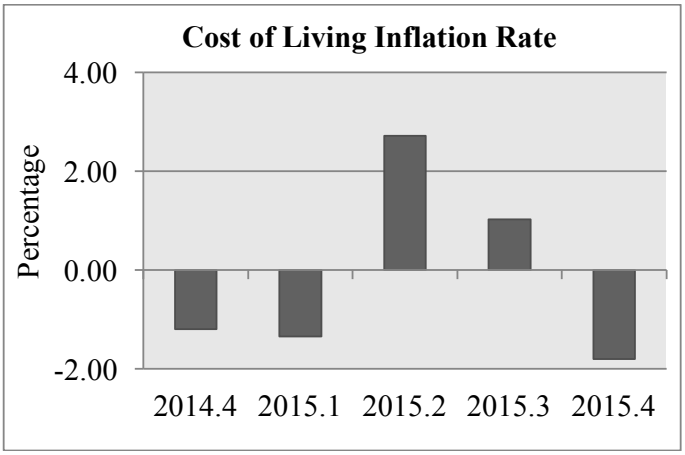


Sierra Bancorp: BSRR gained $1.44 (or 8.9 percent) per share as its price increased from $16.21 to $17.65. Similarly, BSRR has gained $0.88 (or 5.2 percent) since the fourth quarter of 2014.

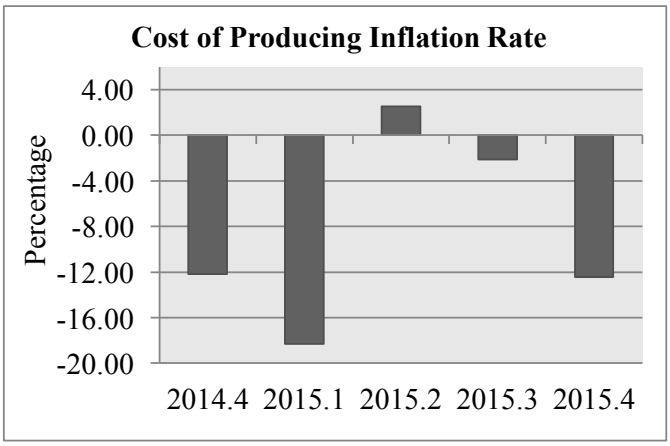


Inflation

Cost of Living – In the fourth quarter of 2015, the Consumer Price Index for all urban areas (1982-84 = 100) decreased from 238.31 to 237.24. As a result, inflation for the cost of living fell at an annual rate of 1.8 percent. The cost of living inflation rate was 1.02 percent last quarter and -1.20 percent a year ago.



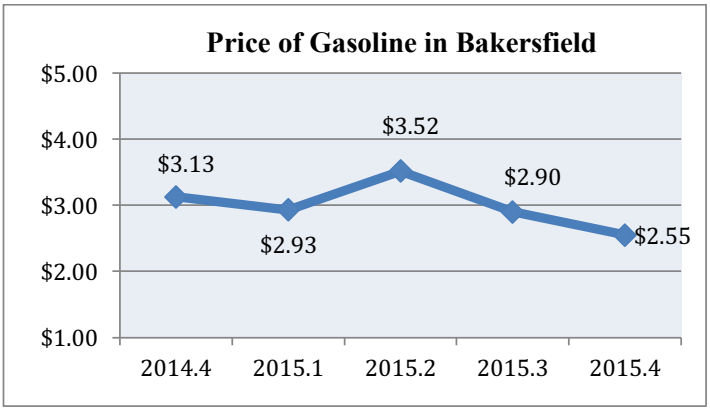
Cost of Production – The Producer Price Index for all commodities (1982 =100) decreased from 191.8 to 185.8. As a result, the cost of production fell at an annual rate of 12.45 percent. The cost of production inflation rate was -2.13 percent last quarter and -12.2 percent four quarters ago.



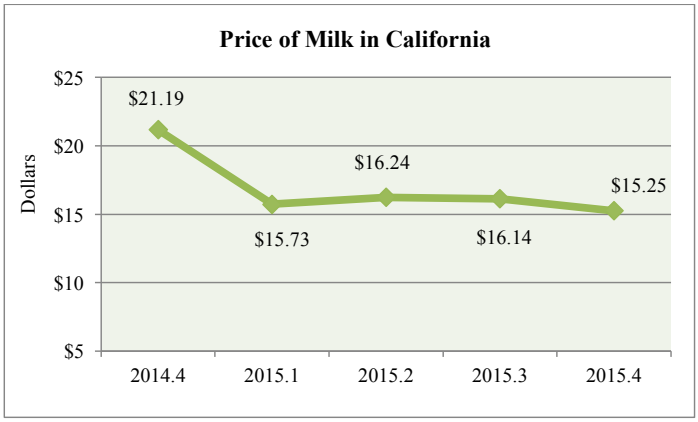
Cost of Employment - The Employment Cost Index (December 2005 = 100) for all civilian workers increased from 124.5 to 125.2. As a result, the cost of employment grew at an annual rate of 2.25 percent. The cost of employment inflation rate was 2.26 percent last quarter and 2.29 percent four quarters ago.

Commodity Prices

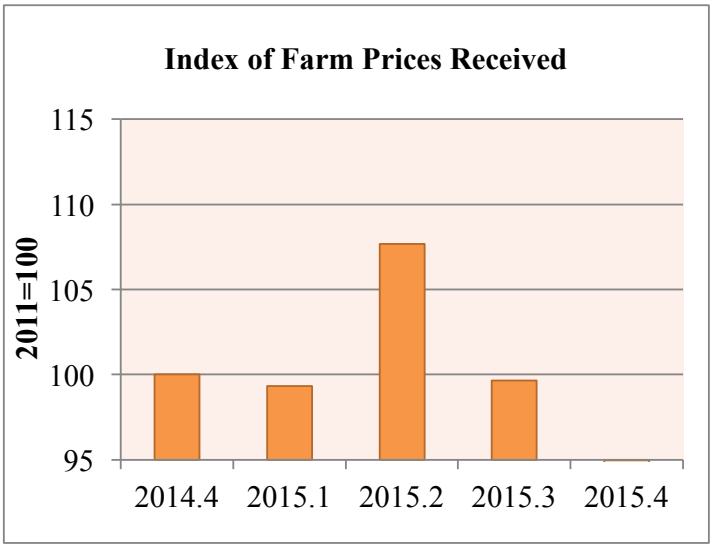
Price of Gasoline - In the Bakersfield metropolitan area, the average retail price of regular gasoline decreased $0.35 per gallon from $2.90 to $2.55. Compared with the fourth quarter of last year, the average gasoline price was down $0.58.



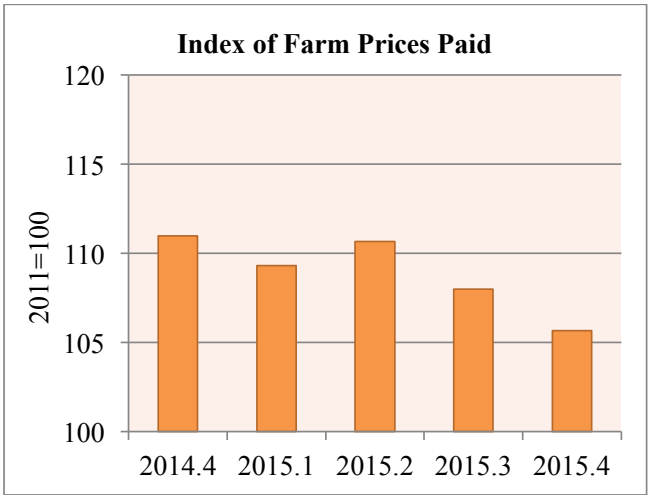
Price of Milk – The unit price of California's Class III milk decreased $0.89 (or 5.5 percent) from $16.14 to $15.25. Noticeably, the price fell to a low of $14.62 in October and November, but increased to a price of $16.52 in December. Even more noticeably, the price is down sizably since the fourth quarter of last year, falling by $5.94 (or 28.0 percent).



Farm Prices – In the fourth quarter of 2015, the national Index of Prices Received by Farmers for all farm products (2011 = 100) decreased 9.34 points from 99.7 to 90.3. The index was 100 four quarters ago.



Meanwhile, the national Index of Prices Paid by Farmers for commodities, services, interest, taxes, wages, and rents fell slightly by 2.3 point to reach 105.7. The index was 111 four quarters ago.



We measure the Index of Farm Price Parity as the ratio Index of Prices Received to the Index of Prices Paid. In the fourth quarter of 2015, the gap between prices paid and prices received fell for the third consecutive quarter, as the Index of Farm Price Parity decreased from 92.3 percent to 85.7 percent, mainly from a large decrease in the index of prices received. Four quarters ago, the price ratio was 90 percent, meaning that conditions for farmers continue to worsen, as the amount of money they receive for their products falls faster than the decline in what they pay for services.

(Endnotes)

1 Source - Online databases: labormarketinfo.edd.ca.gov, bakersfield-gasprices.com, dqnews.com, economagic.com, bea.gov, bls.com, gpoaccess.gov, dairy.nu, msn.com, census.gov, kerndata.com, and bry.com

Featured Article: Economic and Fiscal Impacts of Kern County Hospitals

Dr. Abbas P. Grammy
Professor of Economics, CSUB

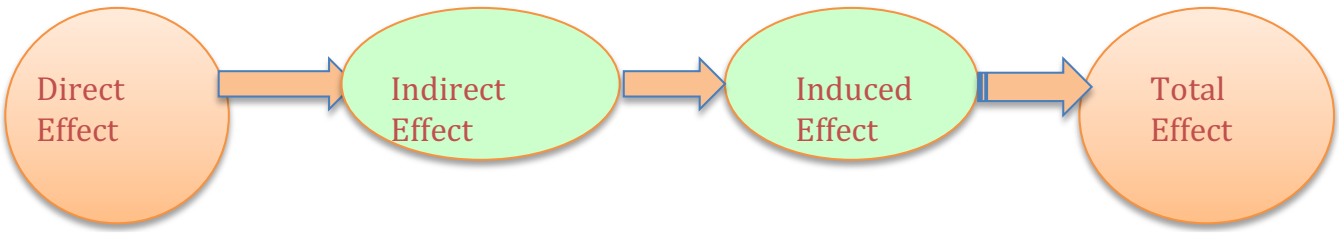
The Hospital Council of Northern and Central California has commissioned an economic and fiscal impact analysis of hospitals operating in Kern County. In doing so, we collected and analyzed financial data from the *State of California Office of Statewide Health Planning and Development* (OSHPD) depository for the most recent year, 2013. The IMPLAN software uploaded with Kern County Input-Output Multipliers is utilized to measure economic and fiscal impacts of hospital spending and construction outlays on the economy of Kern County.

Economic and fiscal effects stem from the notion that each dollar spent in the economy creates new jobs and additional dollars of income and taxes, igniting three multipliers:

- **Output Multiplier** of industry X measures the requirements from all other industries to deliver a dollar change of output in industry X to the final demand.
- **Income Multiplier** measures the total change in income throughout the economy from a dollar change in the final demand initiated by industry X.
- **Employment Multiplier** measures the total change in employment due to a one-unit change in employment initiated by industry X.

Each multiplier exerts three effects:

- **Direct Effect** measures the initial change in income and employment of spending in the local economy.
- **Indirect Effect** measures the impact on local industries receiving the initial change of spending.
- **Induced Effect** measures the impact on local households as a result of re-spending of income generated by the initial change.

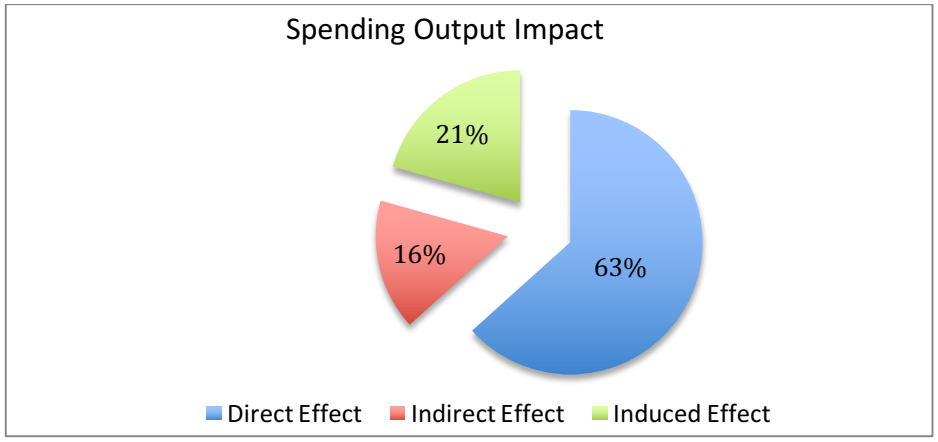


Using the OSHPD database for Kern County, we measured contributions of ten major hospitals: Bakersfield Memorial Hospital, Delano Regional Medical Center, Good Samaritan Hospital, HealthSouth Bakersfield Rehabilitation Hospital, Kern Medical Center, Kern Valley Healthcare District, Mercy Hospitals of Bakersfield, Ridgecrest Regional Health Care District, San Joaquin Community Hospital, and Tehachapi Valley Healthcare District.

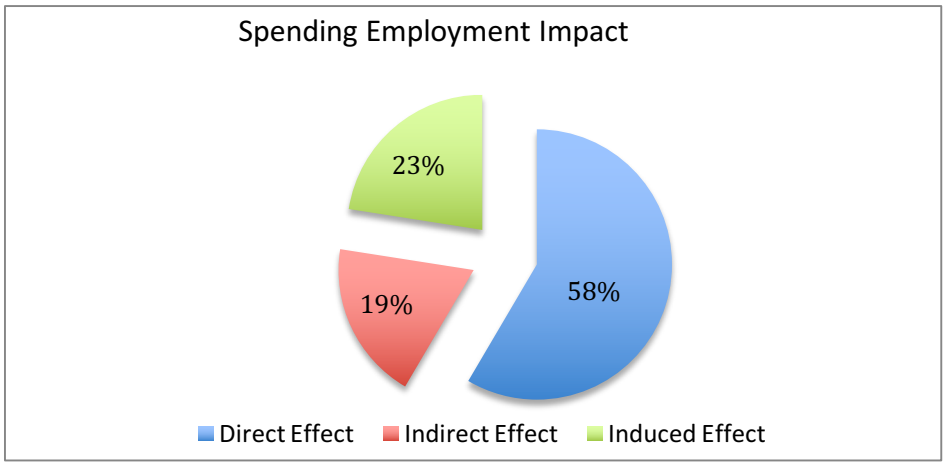
These hospitals operate with 1,716 licensed beds at an occupancy rate of 57 percent. However, 1,686 beds are available at an occupancy rate of 58 percent. With an average length of stay of 5 days, these hospitals have provided 359,261 patient days and 71,347 discharges (both excluding nursery). A total of 341,897 patients visited emergency rooms; 336,151 patients were treated in clinics; and 47,742 received healthcare services at home. The hospitals served 153,185 referred outpatients and performed 22,469 outpatient surgeries and 15,804 inpatient surgeries.

Results of this study indicate that Kern County hospitals make sizable economic, employment, and fiscal contributions to the local economy.

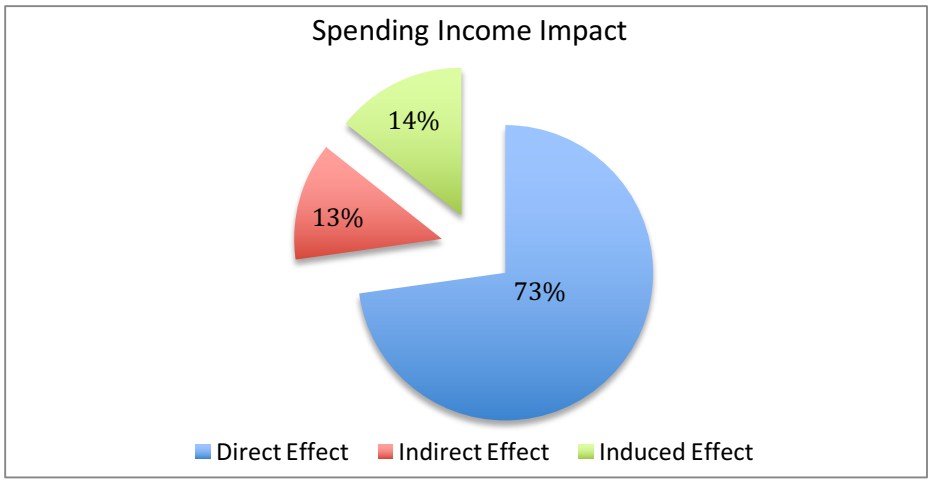
Hospital spending totals $5.0 billion. This direct spending multiplies to a total output impact of $7.9 billion. The additional $2.9 billion of this impact include $1.3 billion of indirect output and $1.6 billion of induced output.



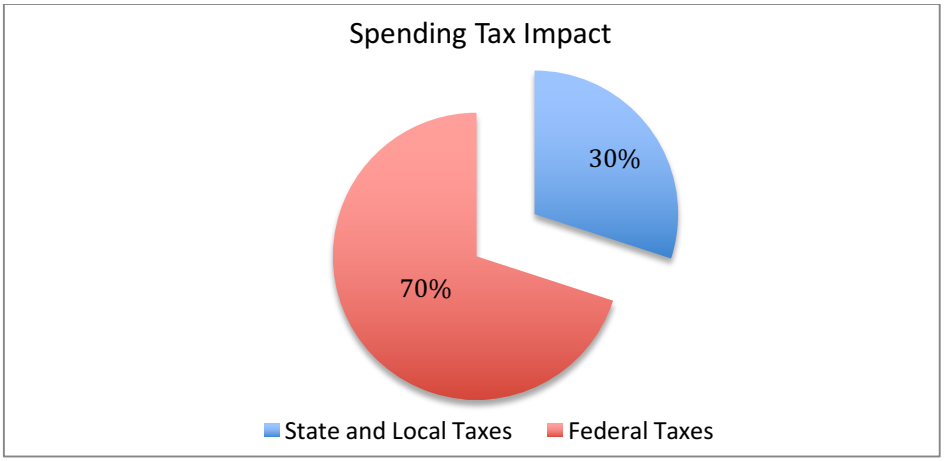
Hospital spending supports 32,296 jobs. This direct employment effect grows to 55,235 when 10,497 indirect jobs and 12,445 induced jobs are added.



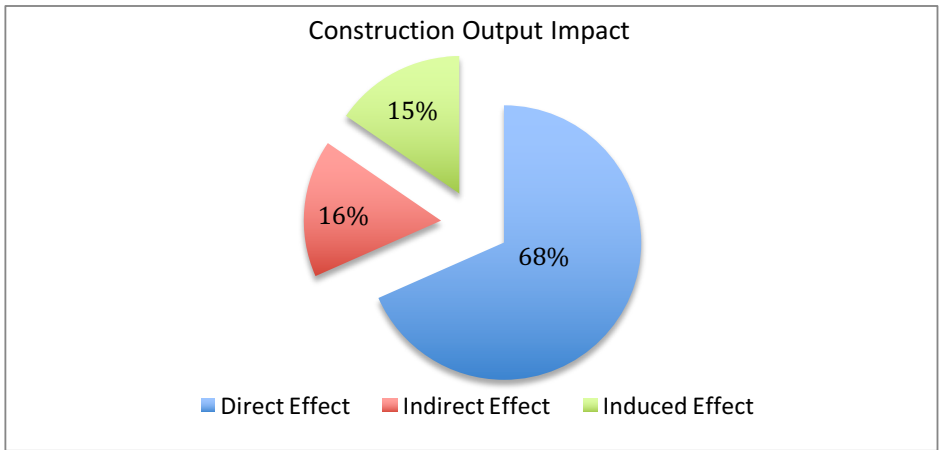
Hospital spending generates $2.4 billion in labor income. This direct income effect expands to $3.3 billion when $430 million of indirect income and $480 million of induced income are added.



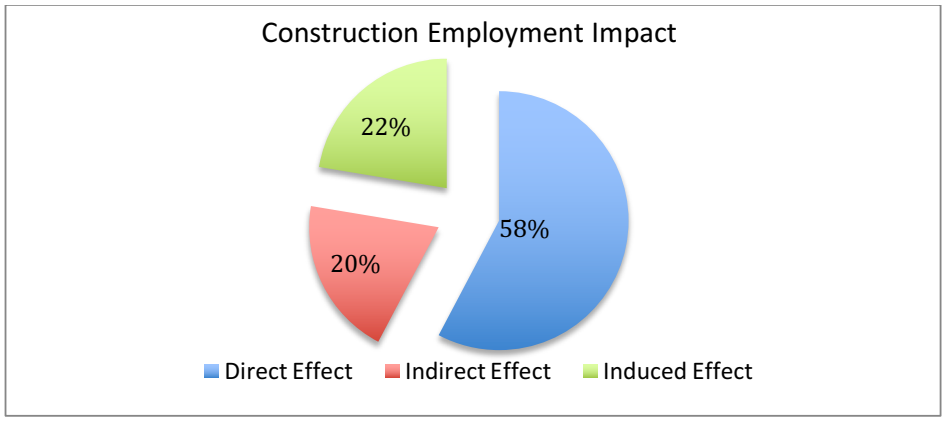
Hospital spending produces $1.1 billion in tax revenues, including $327 million for state and local governments and $759 million for the federal government.



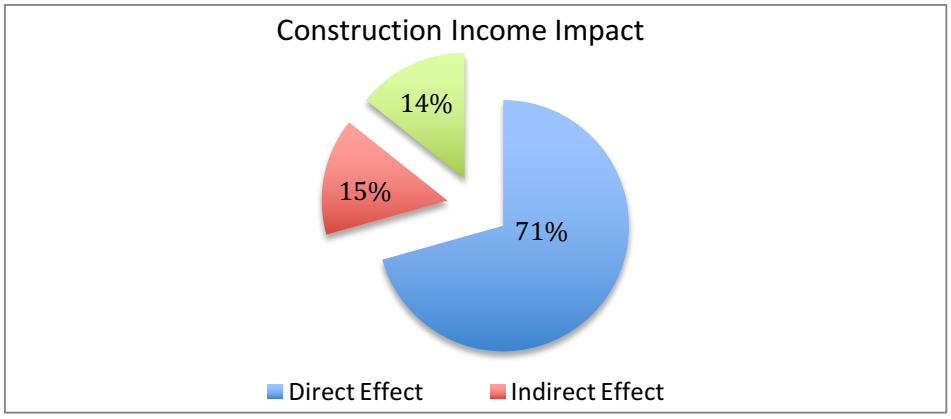
Hospital spending creates jobs and incomes in a wide-range of industries namely hospitals, employment services, real estate, full- and limited-services restaurants, insurance carriers, offices of physicians, individual and family services, wholesale trade, and other ambulatory healthcare services.



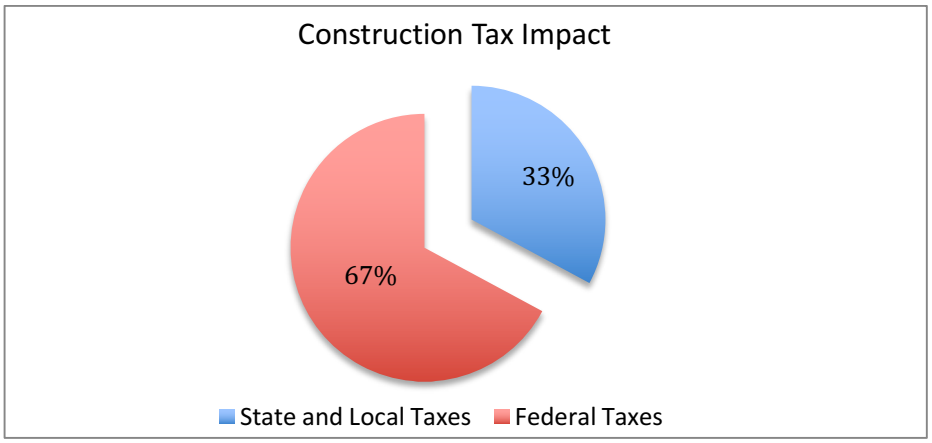
Hospital construction outlays total $73.4 million. This direct expenditure multiplies to a total output impact of $107.3 million. The additional $33.9 million include $17.3 million of indirect output and $16.6 million of induced output.



Hospital construction outlays pay for 325 jobs. This direct employment effect grows to 563 when 112 indirect jobs and 126 induced jobs are added.



Hospital construction outlays generate $25.3 million in labor income. This direct income effect expands to $35.8 billion when $5.4 million of indirect income and $5.1 million of induced income are added.



Hospital construction outlays produce $11.9 million in tax revenues. State and local governments collect $3.9 million and the federal government takes $8.0 million.

Hospital construction outlays create jobs in a wide-range of industries namely construction of new healthcare structures, wholesale trade, real estate, employment services, architectural, engineering, and related services, truck transportation, full- and limited-service restaurants, hospitals, and offices of physicians.

Four hospitals account for 88 percent of output and employment impacts of hospital spending. They are San Joaquin Community Hospital, Bakersfield Memorial Hospital, Mercy Hospitals of Bakersfield, and Kern Medical Center. These hospitals spend $4.4 billion and employ 28,366 workers.

Four hospitals account for 93 percent of output and employment effect of hospital construction. They are San Joaquin Community Hospital, Kern Medical Center, Bakersfield Memorial Hospital, and Tehachapi Valley Healthcare District. These hospitals invest $68.4 million employ 302 workers.

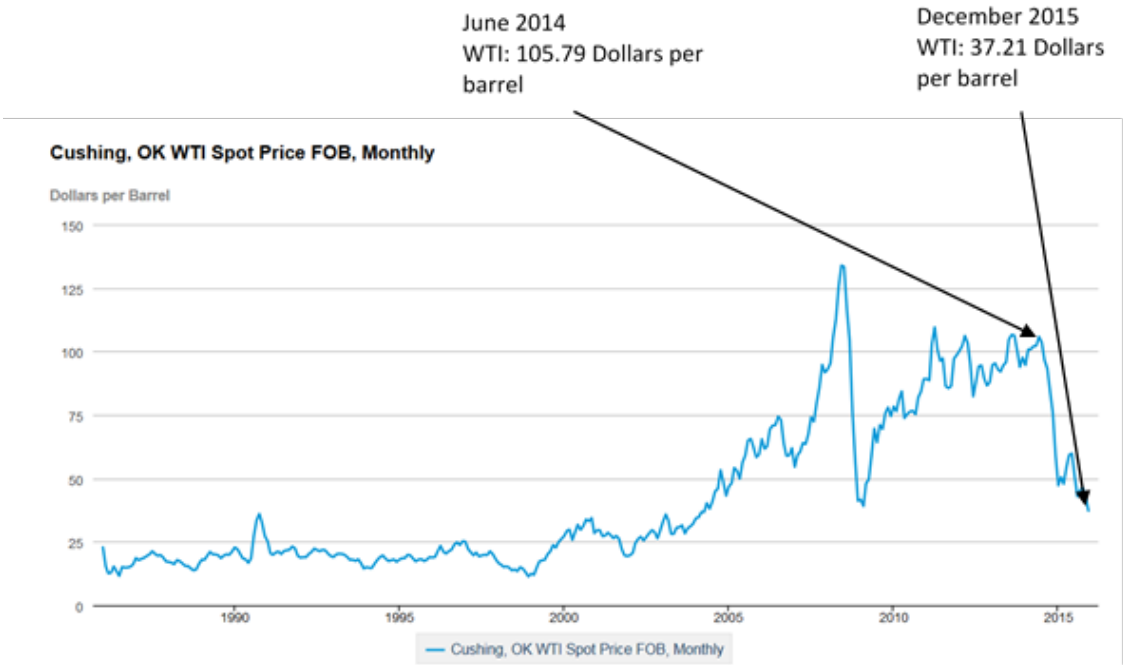
Oil Prices: Why? So? Then What?

Dr. Nyakundi M. Michieka
Assistant Professor in Economics at CSUB

Introduction

In this article, the effect of oil prices on various economies is outlined. In June 2014, the spot price of West Texas Intermediate (WTI) was $105.79; by December 2015, the price was $37.21 (*Figure 1*). (U.S. Energy Information Administration 2016). This 70 percent drop in oil prices over 18 months has implications for regional and global economies. Oil importing countries, such as U.S., Japan, China, and India, are set to gain; exporting countries, like Saudi Arabia, Russia, Canada and United Arab Emirates, are set to lose (Brown and Yücel 2013, CIA 2016, U.S. Energy Information Administration 2016).

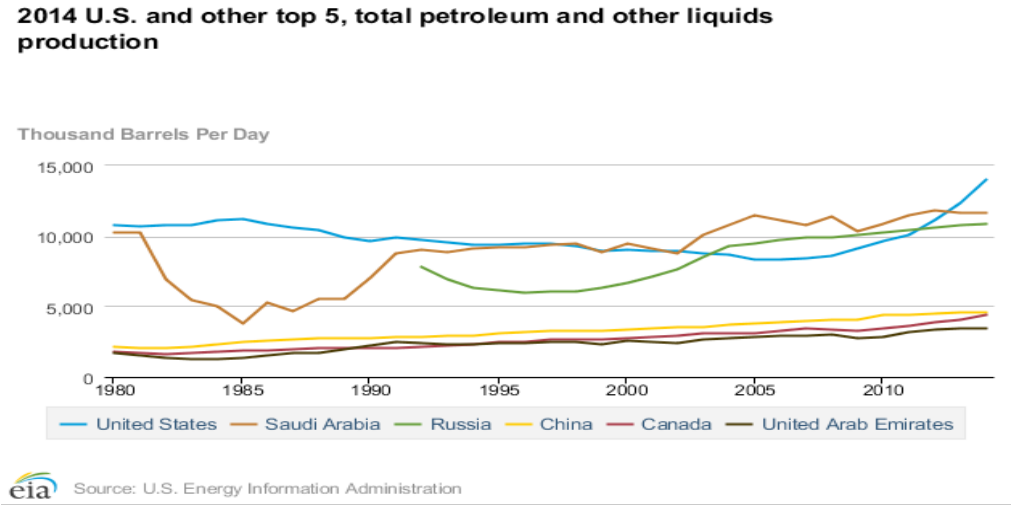
Figure 1: Monthly Spot Prices for WTI



Why are oil prices low?

There are many answers to this complex question. Supply: when the supply of oil increases, oil prices decrease. There are a number of reasons why oil supply has gone up. The increase of U.S. shale oil production catapulted the U.S. to become the world's largest oil producer (Figure 2). Subsequently, Saudi Arabian, Nigerian, and Algerian oil that was once sold to the U.S. needed to find another home, forcing producers to cut prices to reduce inventory. In addition, Canadian oil production and exports increased, while Libya and Iraq maintained higher than anticipated production levels, despite their ongoing conflicts. At the same time, demand for oil has declined due to the appreciation of the dollar and increasing energy efficiency, putting additional downward pressure on the price of oil (Krauss 2016).

Figure 2: 2014 U.S. and other top 5, total petroleum and other liquids production



Effect on Economies

According to Murphy et al. (2015), a 50 percent decline in oil prices causes a 0.3 to 1 percent increase in U.S. GDP, depending on which economic model is used. With low oil prices, overall economic activity in the U.S. is set to gain, although oil producing states will be negatively affected. Today, Alaska, Louisiana and New Mexico are facing distressed budget situations due to the low oil prices, according to a report by Standard & Poor's Ratings Services (Petek and Perry 2016). Outside the U.S., the Russian, Venezuelan and Nigerian economies are facing similarly strained budgets (Tuzova and Qayum 2016).

What about employment?

The drop in oil prices have had a significant effect on employment, regionally and worldwide. Royal Dutch Shell cut 7,500 jobs in 2015, while BP will eliminate 4,000 jobs in addition to the 4,000 it cut in 2015 (Reed 2016). Chevron's CEO announced plans to cut 6,000 to 7,000 of its employees (Scheyder 2016), while Schlumberger, Baker Hughes and Halliburton slashed 46,000 U.S. jobs (Egan 2015). Overall, an estimated 250,000 jobs have been lost globally since the beginning of the long price decline (Reed 2016). At the state level, a study by Brown and Yucel (2013) reported that a 50 percent drop in oil prices reduces employment in Wyoming, Oklahoma and North Dakota by 4.3, 2.3 and 2.0 percent, respectively. Here in Kern County, the last 18 months have been accompanied by increased farm employment while the oil and gas industry cut jobs. Overall employment, however, increased during this period (Michieka and Gearhart 2016).

Looking ahead

On January 25th, 2016, the spot price of WTI was $30.31. Predicting the direction in which oil prices are headed is a complicated affair, as many factors are involved. Nonetheless, it is important to note the following events set to take place in the short, medium, and long term: (1) There are reports that Russia is willing to work with Saudi Arabia on the possibility of cutting production of crude oil, which may reduce supply and raise prices; (2) On January 16, 2016, sanctions were lifted on Iran meaning that the country with the fourth largest reserves of crude oil is set to increase oil exports; and (3) A number of African countries have discovered large amounts of crude oil reserves and could start production in the long run and possibly export much more oil, further depressing prices (Essandoh-Yeddu and Yalamova 2016).

References

Brown, S. P. A. and M. K. Yücel (2013). The Shale Gas and Tight Oil Boom: U.S. States' Economic Gains and Vulnerabilities. Energy Brief. C. o. F. Relations. Council on Foreign Relations.

CIA (2016). "Country Comparison: Crude Oil-Exports." Retrieved January 2016, 2016, from https://www.cia.gov/library/publications/the-world-factbook/rankorder/2242rank.html.

Egan, M. (2015). Oil crash cut my pay and killed over 86,000 jobs. CNN Money. CNN Money.

Essandoh-Yeddu, J. and R. Yalamova (2016). Current Drop in Oil Prices: Impact on Africa. IAEE Energy Forum International Association for Energy Economics. Fourth Quarter 2015.

Krauss, C. (2016). Oil Prices Decline More Than 5 Percent as Stockpiles Increase The New York Times, The New York Times.

Michieka, N. M. and R. S. Gearhart (2016). An Empirical Investigation of the Effects of Changes in Oil Prices on Employment in Various Sectors of Kern County. C. S. U. Bakersfield. Working Paper.

Murphy, A., et al. (2015). Plunging Oil Prices: A Boost for the U.S. Economy, a Jolt for Texas. Economic Letter. Dallas, Texas, Federal Reserve Bank of Dallas. 10: 4.

Petek, G. J. and E. P. Perry (2016). Collapsing Oil Prices Seep Into State Credit Profiles. S. P. s. R. Services. Standard & Poor's Ratings Services, S&P CApiral IQ.

Reed, S. (2016). Stung by Low Oil Prices, BP Will Cut 4,000 Jobs. The New York Times. The New York Times.

Scheyder, E. (2016). Chevron slashes jobs and spending to weather low oil prices. Reuters. Reuters.

Tuzova, Y. and F. Qayum (2016). "Global oil glut and sanctions: The impact on Putin's Russia." Energy Policy 90: 140-151.

U.S. Energy Information Administration (2016). Spot Prices (Crude Oil in Dollars per Barrel, Products in Dollars per Gallon). U.S. Energy Information Administration.

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