Volume 17, Issue 3

CSU Bakersfield

Kern Economic Journal

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2015 Third Quarter

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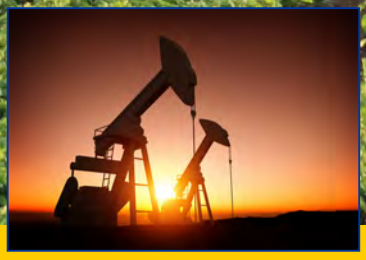
The Impact of Water on Crop Planting and Prices



Oil Prices and Employment in Various Sectors of Kern County

A Glance of Dual-Class Companies in the U.S.

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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.

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Kern Economic Journal

Inside this Issue:

Economy at a Glance!

by Richard S. Gearhart III and
Nyakundi M. Michieka

National Economy[1]

The world's largest economy of more than $16.5 trillion, the United States, grew by 1.5 percent, but at a much slower rate than the real Gross Domestic Product (GDP) growth rate from the second quarter of 2015, where real GDP grew by an incredibly large 3.9 percent. Real GDP increased largely because of increases in consumer spending, durable goods (mostly vehicles and parts), 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.

Real disposable personal income, which is adjusted for inflation and taxes, increased by 0.3 percent in the third quarter of 2015, highlighting no real growth in the national economy. This is the same real disposable personal income growth rate found in the second quarter of 2015. This continued stagnation in growth of real personal disposable income led to continued stagnation in real consumer spending, as consumers increased spending in the third quarter of 2015 by only 0.25 percent. Even more worryingly, the personal savings rate continued to drop, falling from 5.25 percent in the second quarter of 2015 to 4.7 percent in the third quarter of 2015. This hints that consumers, since they did not increase real consumer spending in the third quarter, are paying down long-term debts that they accrued during the recession, or are accruing more revolving debt (short-term loans) that are tying up more of their incomes. However, it also means that they have less of a safety net, depending on developments in the national economy.

The Conference Board's Index of Leading Economic Indicators – a measure of future economic activity – declined slightly from 123.6 in the second quarter of 2015 to 123.3 in September of 2015, after not having changed in July and August. This indicates that business sentiments may have reached their peak during a time of continued economic recovery. Conversely, the University of Michigan's Consumer Sentiment Index declined from 94.2 to 87.2, as consumers judged prospects for the national economy to continue to worsen, matching their stagnation in consumer spending. This index declined in each month of the third quarter, a worrying sign when consumer savings is falling.

State Economy[2]

In California, the unemployment rate went down to 6.1 from 6.3 percent. Among counties, San Francisco (3.2 percent), Santa Clara (3.7 percent), Orange (4.0 percent), San Luis Obispo (4.1 percent), San Diego (4.6 percent), and Sacramento (5.4 percent), had unemployment rates below the state average. In contrast, Los Angeles (6.2 percent), Riverside (6.3 percent), San Joaquin (7.5), Fresno (8.1 percent), Kern (9.2 percent), and Kings (10.2 percent) had unemployment rates above the state average.

The state's civilian labor force added 18,767 members, where 67,233 secured paying jobs (employed) and 48,467 fewer were left jobless (unemployed). While nonfarm industries hired 139,367 more workers, farming enterprises employed only 2,767 more workers. A wide range of industries added jobs, including service producing, construction, financial activities, educational and health services, and state and local government. However, jobs were lost in manufacturing, mining and logging, and federal government employment.

Local Economy

The sizable decrease in the unemployment rates, coupled with significant increases in employment (7,333 more workers, compared to the second quarter of 2015), mainly due to large increases in farm employment to offset decreases in non-farm and public employment, helped to mitigate stagnation in personal wages and declines in business income. There was a modest increase in personal income, increasing by only $41 million (0.5% on an annual basis), as Kern County did not

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

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.

improve on the dramatic increase in personal income that occurred in the second quarter of 2015.

Labor market conditions were unexpectedly weak in the third quarter of 2015, as increases in farm employment helped offset declines in employment in many other large sectors. Though the labor force increased by 4,267 persons, the number of people unemployed decreased by 3,067 persons. This means that there were tremendous increases in the number of persons employed in the area, increasing by 7,333 people. It appears that much of this is related to continued stagnation in oil prices, as energy prices are a sizable component of farm prices, and the anticipated El Niño event in the winter of 2015, as farmers may have hired additional farmhands to plant crops to take advantage of a water uptick. Because of this, 12,633 more farm workers were hired this quarter, even during a drought with massive water restrictions. The rate of unemployment ranged from 4.3 percent in Inyokern to 27.9 percent in McFarland. McFarland was one of the few cities in Kern County to experience an increase in the city unemployment rate. In Bakersfield, 8.2 percent of persons in the labor force are unemployed, about 1 in every 12 persons in the labor force.

As the median sales price of houses continued to rise in Kern County to $206,000, a level not reached since 2008, 139 more homes were sold in Kern County, compared to the second quarter of 2015. Thus, total sales increased from 3,325 to 3,464 homes. In Bakersfield, the median home price increased by $3,833 as home sales increased from 2,335 in the second quarter of 2015 to 2,468 in the third quarter of 2015. This hid the fact that continued oil price stagnation reduced the growth rate of building permits, as only 573 new permits were issued this quarter (compared to 615 in the second quarter of 2015). The number of loan default notices sent to homeowners continued to fall, declining by almost 14 in the third quarter of 2015 compared to the second quarter of 2015.

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) decreased significantly from 96.7 in the second quarter of 2015 to 90.2 in the third quarter of 2015, a decline of 6.5 percentage points. This supports the decline in business profits, as firms continue to struggle with county-specific shocks that impact industries relevant to Kern County. Chevron (a decline of 12.4 percent), Wells Fargo (a decline of 3.8 percent), Sierra Bancorp (a decline of 6.4 percent), Granite Construction (a decline of 7.6 percent) and Tejon Ranch (a decline of 7.6 percent) all saw a decline in their stock prices. As oil impacts a wide range of county-specific industries (construction, housing, services), continued low oil prices hurt a wide variety of businesses.

With the continued stagnation in oil prices, gas prices finally dropped, down $0.62 per gallon since the last quarter, averaging $2.90 a gallon. The unit price of California's Class III milk also decreased, though only marginally, from $16.24 in the second quarter of 2015 to $16.14 in the third quarter of 2015. Farmers suffered the most in California, even as they increased hiring substantially, likely in the hopes of making up money in early 2016. Prices received by farmers plummeted by 8 percentage points, from 107.7 in the second quarter of 2015 to 97.7 in the third quarter of 2015. Though prices paid by farmers also fell, it fell by only 1.3 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]

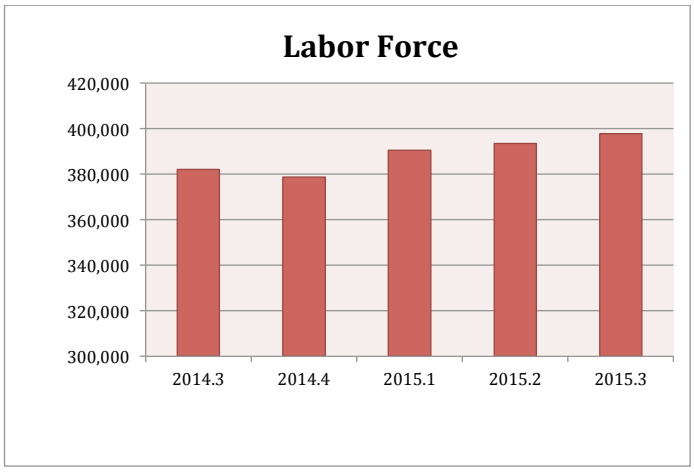
by Richard S. Gearhart III and
Nyakundi M. Michieka

Growth of Personal Income – With continued stagnation of oil prices and layoffs starting to affect regional oil companies, there was a minimal increase in personal income, increasing by 0.51%, on an annual basis, compared to the second quarter of 2015. This amounted to an increase, in total income, of only $41 million. This increase was largely driven by increases in property income from the third quarter of 2015, helping to offset stagnation in personal income and a decrease in profit income by firms.

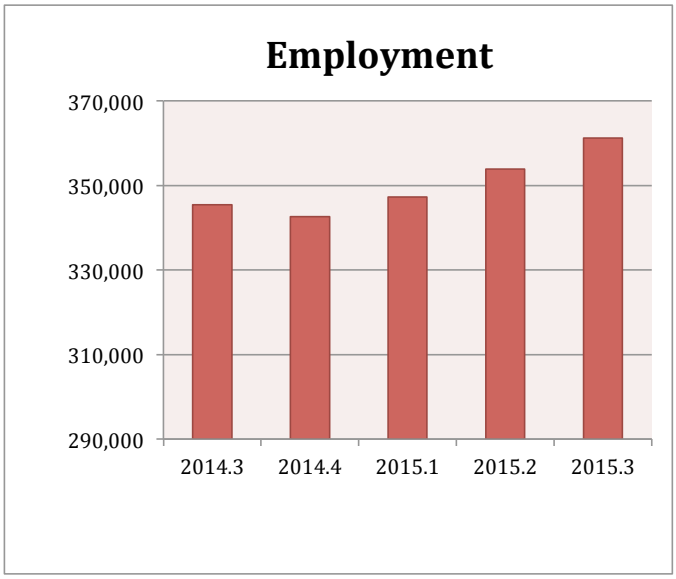
Labor Market

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.

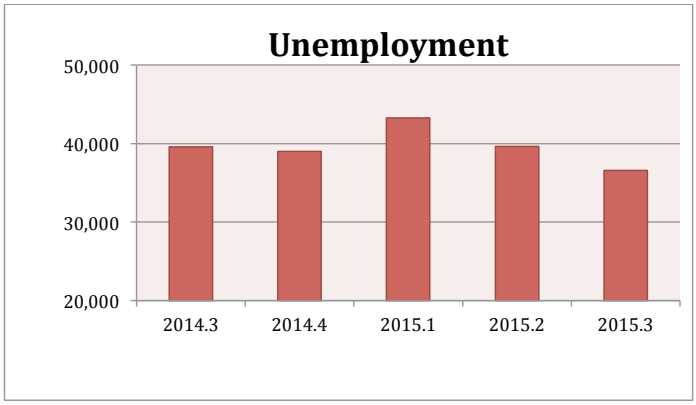
Labor Force - The civilian labor force increased by 4.267 members from 393,600 in the second quarter of 2015 to 397867 in the third quarter of 2015. In addition, 15,707 more workers were available for work this quarter relative to the third quarter of 2014.



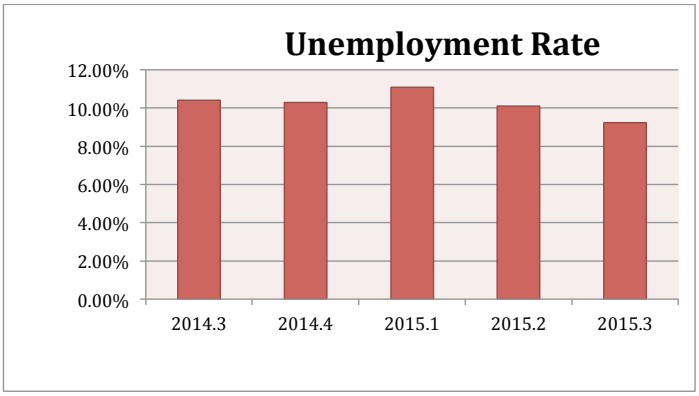
Employment – In the third quarter of 2015, Kern County hired 7,333 more workers as total employment increased from 353,900 in the second quarter of 2015 to 361,233 in the third quarter of 2015. Even better, the county employed 15,753 more workers this quarter than four quarters ago.



Unemployment – In the meantime, 3,067 fewer workers were unemployed as the number of jobless workers decreased from 39,667 to 36,600. Likewise, 2,990 fewer workers were unemployed this quarter than the third quarter of last year.



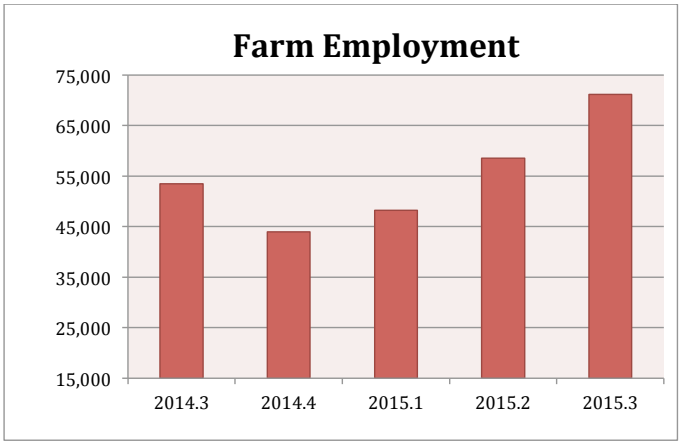
Unemployment Rate – Kern County's unemployment rate decreased 0.87 percentage points to 9.23 percent. The county's unemployment rate was 10.4 percent four quarters ago.



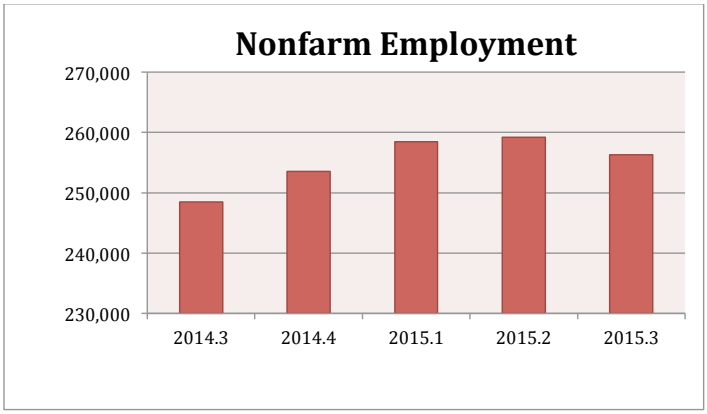
The rate of unemployment varied considerably across cities. Among cities shown below, the unemployment rate varied between 4.3 percent in Inyokern to 27.9 percent in McFarland, which was one of the few cities in Kern County to have an increase in the unemployment rate, which was the second continuous quarter of rising unemployment rates in this city. In Bakersfield, the rate of unemployment was 9.2 percent.

Unemployment Rate of Cities			
Location	Unemployment Rate (%)	Location	Unemployment Rate (%)
Inyokern	4.3	Bakersfield	8.2
Taft	6.0	Arvin	10.7
Lamont	6.1	Delano	11.0
Ridgecrest	6.2	Oildale	11.9
Tehachapi	7.0	Wasco	12.2
Frazier Park	7.1	Edwards	16.0
Rosamond	7.6	Mojave	16.7
Shafter	7.8	California City	19.0
Lake Isabella	7.9	McFarland	27.9
Note: City-level data are not adjusted for seasonality and "informal" market workers.			

Farm Employment – In the third quarter of 2015, Kern County hired 12,633 more farm workers. As a result, farm employment increased from 58,500 to 71,113. Similarly, the farming industry hired 17,653 more workers this quarter than four quarters ago.

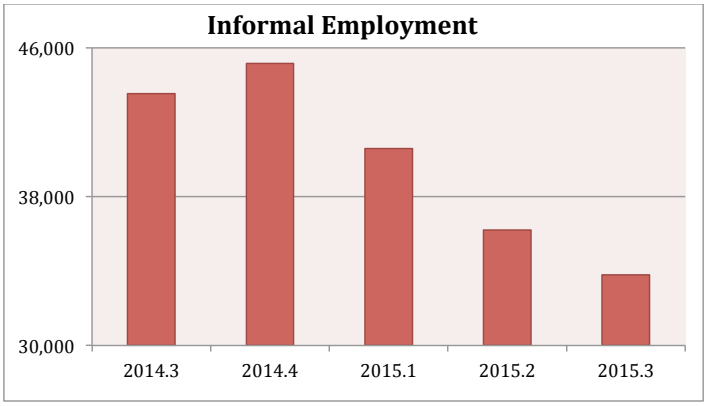


Nonfarm Employment – Local nonfarm industries employed 2,900 fewer workers this quarter. Hence, the number of nonfarm workers decreased from 259,200 to 256,300, hinting that much of the employment gain in Kern County was from farming. Fortunately, nonfarm industries have still hired 7,830 more workers than four quarters ago.

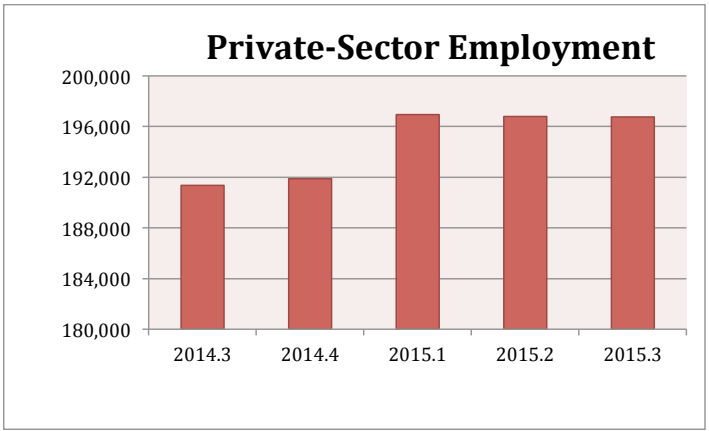


In Bakersfield, however, many nonfarm industries lost jobs: oil and gas extraction, service providing, educational and health services, leisure and hospitality, and state and local governments. However, jobs were added farming, manufacturing, retail trade, and federal government.

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 third quarter of 2015, the number of informal workers decreased by 2,400 from 36,200 to 33,800. Likewise, the informal labor sector hired 9,730 fewer workers this quarter relative to the third quarter of last year.



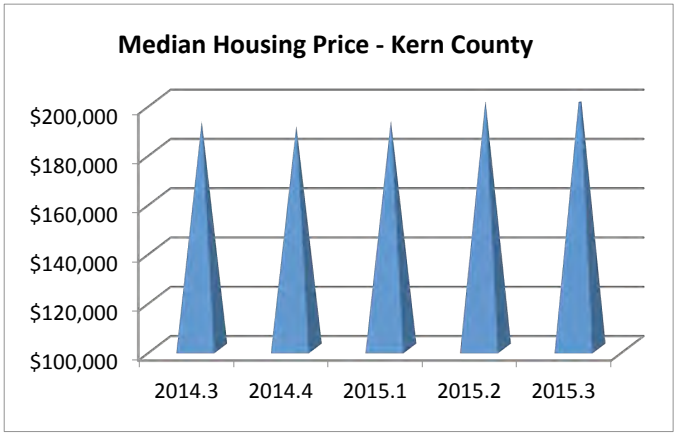
Private-Sector Employment - Nonfarm employment is comprised of private-sector employment and public-sector employment. In the third quarter of 2015, private companies hired 33 fewer workers as their employment decreased from 196,800 to 196,767. Conversely, the private sector employed 5,397 more workers this quarter than four quarters ago.



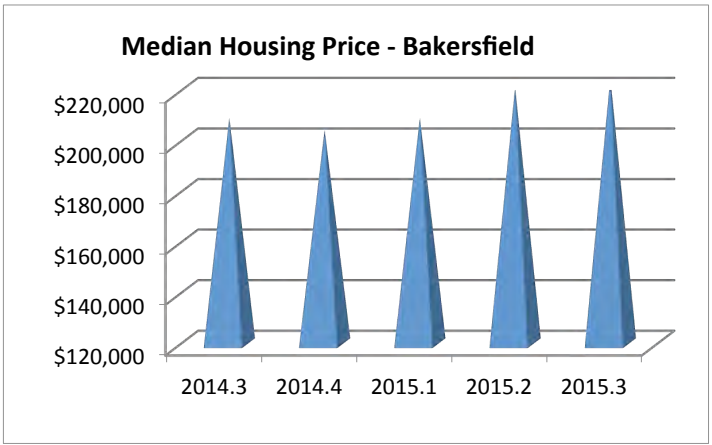
Public-Sector Employment – The public sector consists of federal, state, and local government agencies. The local government labor market includes county and city agencies and public education. In the third quarter of 2015, government agencies hired 2,867 fewer workers as their employment decreased from 62,400 to 59533, spurred by large reductions in state and local government employment. This is opposite of the annual trend, as the public sector employed 2,793 more workers this quarter than four quarters ago.

Housing Market

Housing Price - In the third quarter of 2015, Kern County's housing prices continued to strongly increase, reaching a level not seen since the second quarter of 2008. The median sales price for all residential units increased $5,500 (or 2.7 percent) from $200,500 in the second quarter of 2015 to $206,000 in the third quarter of 2015. Similarly, the county's median sales price appreciated $14,000 (or 7.3 percent) between the third quarter of 2014 and the third quarter of 2015.



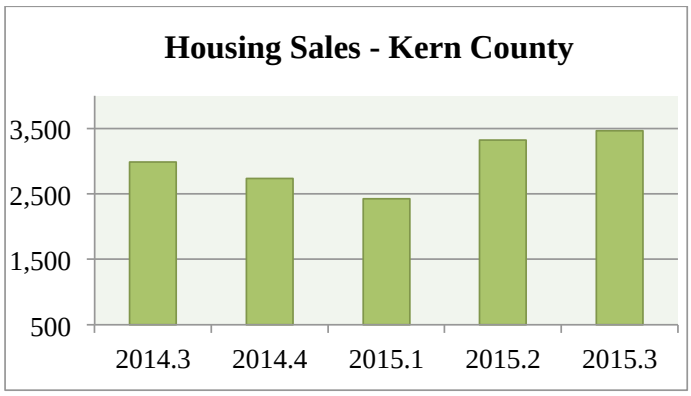
In Bakersfield, the median housing price appreciated $3,833 (or 1.7 percent) from the second quarter of 2015, to reach a similar level not seen since the first quarter of 2008: $224,833. Similarly, the city's median sales price has appreciated $15,833 (or 7.6 percent) since the third quarter of 2014.



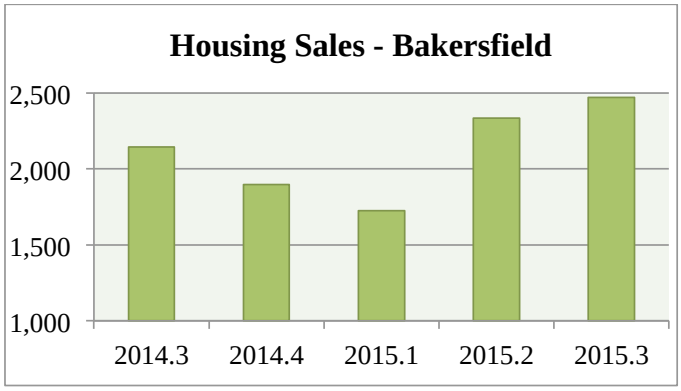
Housing price varied across the county. Within previous four quarters (2014 third quarter to 2015 third quarter), the median sales price appreciated in all the major cities of Kern County except California City, Ridgecrest, and Taft. In dollar value, Delano had the largest appreciation of $16,167. The largest decrease, in dollar value, was found in Taft, where median housing prices fell by $14,083.

Location	Median Price 2015.3	Median Price 2014.3	Price Change 2014.3 to 2015.3	% Price Change 2014.3 to 2015.3
Kern County	$206,000	$192,000	14,000	7.3
Bakersfield	$224,833	$209,000	15,833	7.6
California City	$87,917	$93,500	-5,583	-6.0
Delano	$176,167	$160,000	16,167	10.1
Ridgecrest	$150,417	$153,000	-2,583	-1.7
Rosamond	$188,667	$178,800	9,867	5.5
Taft	$99,017	$113,100	-14,083	-12.5
Tehachapi	$223,333	$219,500	3,833	1.7

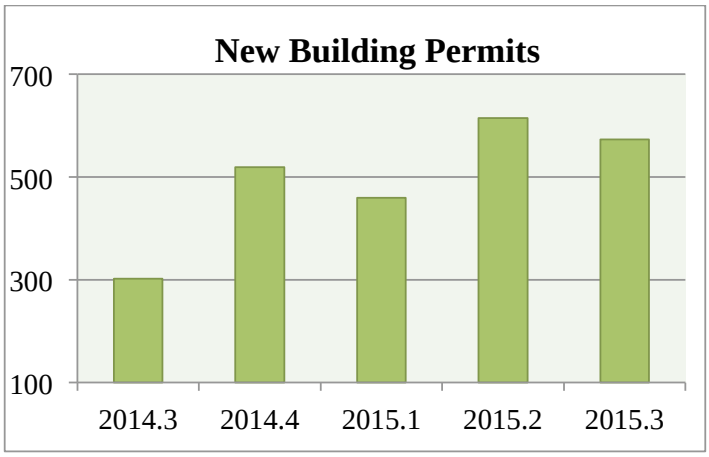
Housing Sales – In the second quarter of 2015, price appreciation was accompanied by modest sales increases. In Kern County, 139 more homes were sold as total sales increased from 3,325 to 3,464. Compared to four quarters ago, 474 more units were sold.



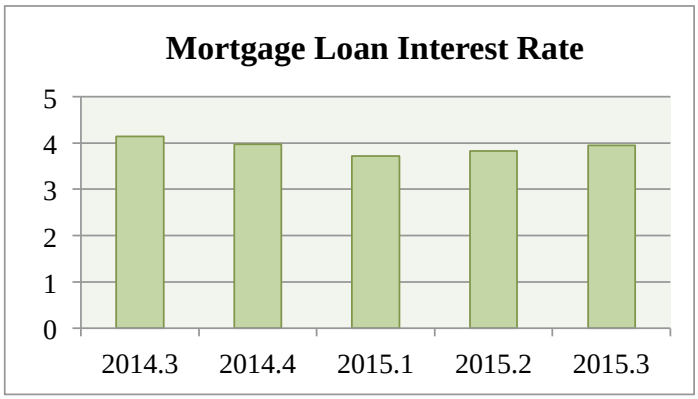
In Bakersfield, sales of residential units increased, at almost the same rate as in Kern County as a whole, as 133 more homes were sold. Total sales increased from 2,335 to 2,468. Sales were up by 326 units this quarter relative to the third quarter of last year.



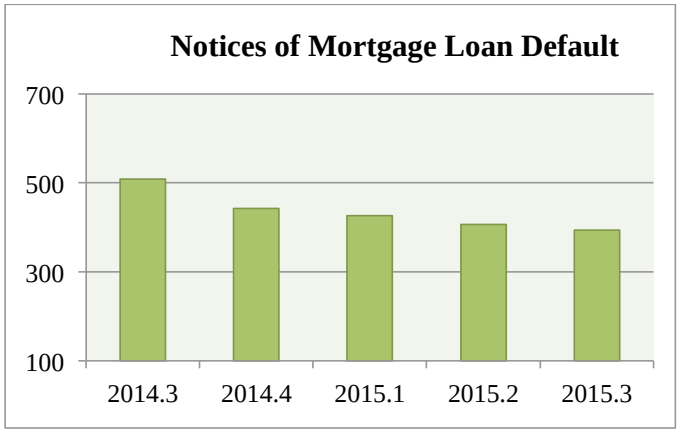
New Building Permits – In the third quarter of 2015, Kern County issued 573 permits for construction of new privately-owned dwelling units. The county issued 615 new building permits last quarter and 302 four quarters ago, showing a modest decline in new building permits that likely reflects continued stagnation in oil prices, though activity is much higher than it was just four quarters ago.



Mortgage Interest Rate – In the third quarter of 2015, the interest rate on thirty-year conventional mortgage loans increased from 3.83 to 3.95 percent. Four quarters ago, the mortgage loan interest rate was 4.14 percent.

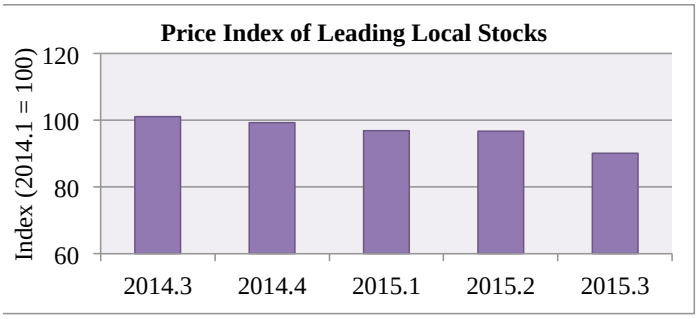


Housing Foreclosure Activity – Kern County's foreclosure activity continued to slow in the third quarter of 2015. The number of homeowners receiving notices of loan default from their mortgage bankers declined from 407 to 393.33. Similarly, the number of default notices has gone down by 115 since the third 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.

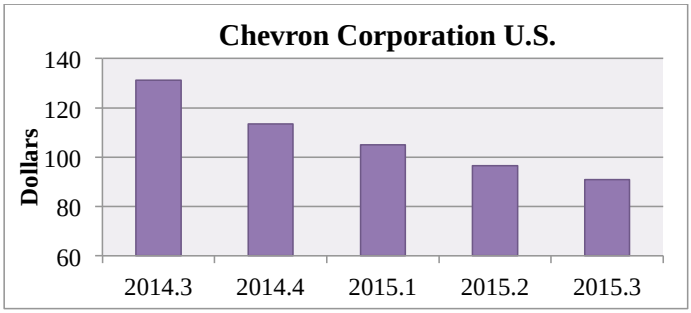


Stock Market

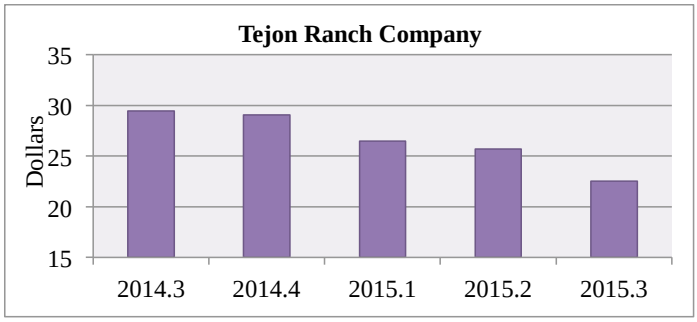
In the first quarter of 2015, the composite price index (2014.1=100) of the five publically traded companies doing business in Kern County decreased 6.6 percentage points from the previous quarter, from 96.7 to 90.2. The index was also 10.9 percentage points lower than that of four quarters ago. Average "close" prices were measured for five local market-movers: Chevron Corporation U.S., Tejon Ranch Company, Granite Construction, Wells Fargo Company, and Sierra Bancorp.



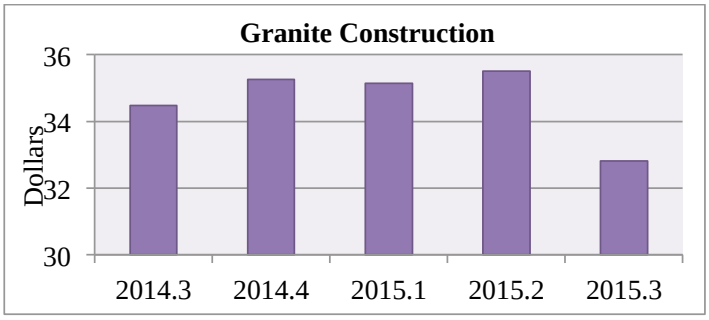
Chevron Corporation U.S.: CVX lost $5.55 (or 5.8 percent) per share as its price decreased from $96.47 to $90.92. Relative to the third quarter of 2014, CVX was down $40.27 (or 30.7 percent).



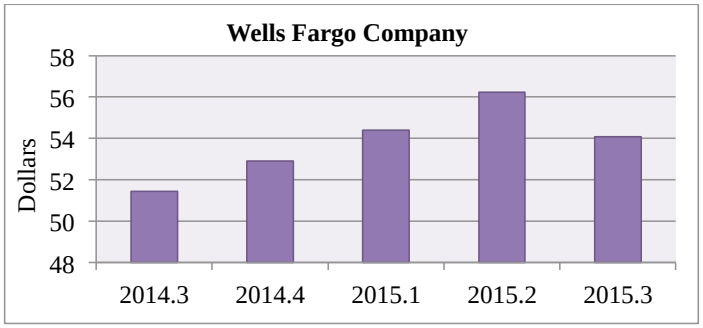
Tejon Ranch Company: TRC lost $3.18 (or 12.4 percent) per share as its stock price dropped from $25.71 to $22.53. Likewise, TRC was down $6.92 (or 23.5 percent) relative to the third quarter of 2014.



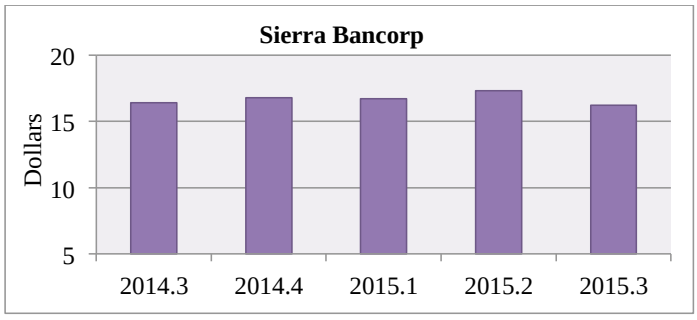
Granite Construction: GVA lost $2.69 (or 7.6 percent) per share as its stock price decreased from $35.51 to $32.82. Likewise, GVA has declined $1.65 (or 4.8 percent) since the third quarter of 2014.



Wells Fargo Company: WFC lost $2.16 (or 3.8 percent) per share as its stock price fell from $56.24 to $54.08. Relative to one year ago, WFC was up $2.64 (or 5.1 percent).

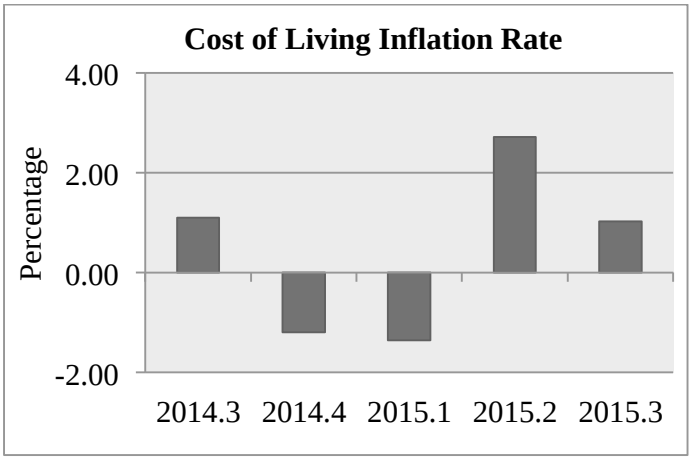


Sierra Bancorp: BSRR lost $1.10 (or 6.4 percent) per share as its price decreased from $17.31 to $16.21. Similarly, BSRR has lost $0.19 (or 1.2 percent) since the third quarter of 2014.

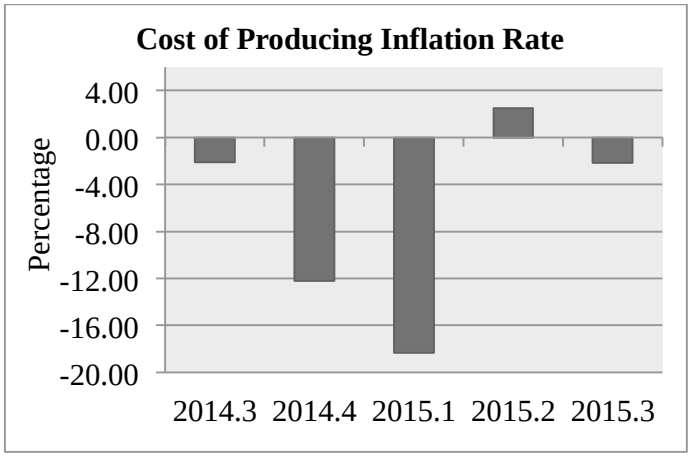


Inflation

Cost of Living – In the third quarter of 2015, the Consumer Price Index for all urban areas (1982-84 = 100) increased from 237.7 to 238.31. As a result, inflation for the cost of living accelerated at an annual rate of 1.02 percent. The cost of living inflation rate was 2.71 percent last quarter and 1.1 percent a year ago.



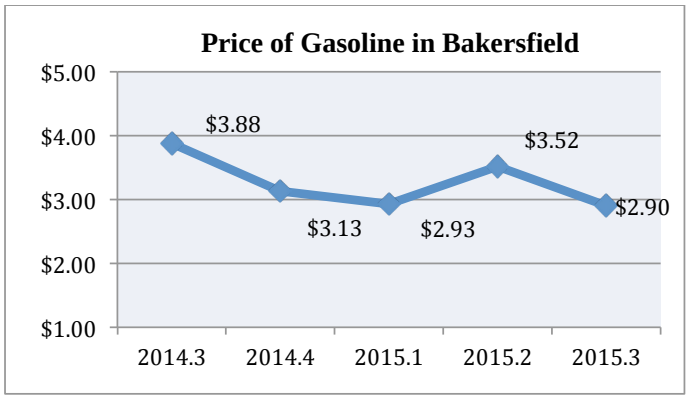
Cost of Production – The Producer Price Index for all commodities (1982 =100) decreased from 192.8 to 191.8. As a result, the cost of production fell at an annual rate of 2.14 percent. The cost of production inflation rate was 2.51 percent last quarter and -2.10 percent four quarters ago.



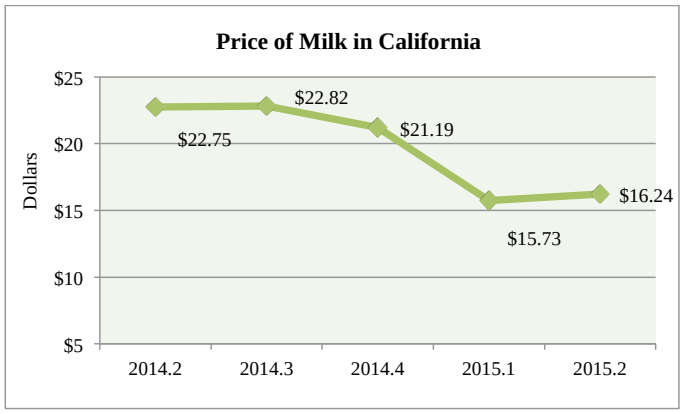
Cost of Employment - The Employment Cost Index (December 2005 = 100) for all civilian workers increased from 123.8 to 124.5. As a result, the cost of employment grew at an annual rate of 2.26 percent. The cost of employment inflation rate was 0.65 percent last quarter and 2.64 percent four quarters ago.

Commodity Prices

Price of Gasoline - In the Bakersfield metropolitan area, the average retail price of regular gasoline decreased $0.62 per gallon from $3.52 to $2.90. Compared with the third quarter of last year, the average gasoline price was down $0.98.



Price of Milk – The unit price of California's Class III milk decreased $0.10 (or 0.6 percent) from $16.24 to $16.14. Noticeably, the price fell in each month of the second quarter of 2015. Even more noticeably, the price is down sizably since the third quarter of last year, falling by $6.68 (or 29.3 percent).



Farm Prices – In the third quarter of 2015, the national Index of Prices Received by Farmers for all farm products (2011 = 100) decreased 8.0 points from 107.7 to 99.7. The index was 108 four quarters ago.

Meanwhile, the national Index of Prices Paid by Farmers for commodities, services, interest, taxes, wages, and rents fell slightly by 1.3 point to reach 108. The index was 112 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 third quarter of 2015, the gap between prices paid and prices received fell substantially as the Index of Farm Price Parity decreased from 97 percent to 92.3 percent, mainly from a large decrease in the index of prices received. Four quarters ago, the price ratio was 96 percent, meaning that conditions for farmers are the worst that they have been since the end of 2013.

(Endnotes)

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

The Impact of Water on Crop Planting and Prices

by Richard Gearheart
Assistant Professor of Economics at CSUB

California is entering the fourth year of what many consider a historic drought. According to the U.S. Department of Agriculture (USDA), in October of 2015, 46-percent of California is in an exceptional drought (though this has decreased from 58-percent of California a year ago). Currently, only 0.14-percent of California is not experiencing any drought conditions.

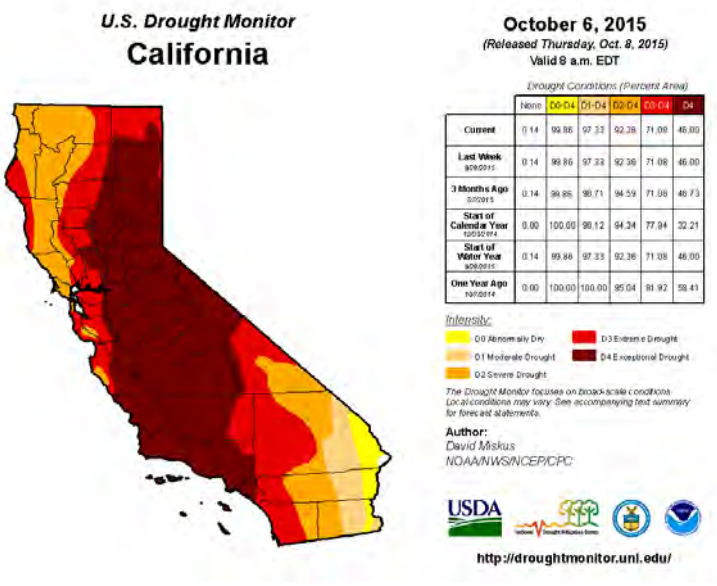


Figure 1. U.S. Drought Monitor
Source: The National Drought Mitigation Center

This has massive implications for the farm sector. According

to the California Department of Food and Agriculture, California contains nearly half of the total acreage of U.S.-grown fruits, nuts, and vegetables (including producing virtually all almonds, walnuts, and pistachios); California agricultural exports amount to $21.24 billion in value, which would be a larger value than the gross domestic product (GDP) of many African and Latin American countries.

The San Joaquin Valley is one of the most fertile areas in all of California; it accounts for more than 65-percent of total fruit and nut crop production value, and produces nearly 33-percent of California's vegetables. But, because much of the land is irrigated, water scarcity (and rising water prices) are leading to changes in acreage planted and in the prices of the products being produced, squeezing both farmers and consumers during a time of stagnant national wage growth.

Production volume of most crops grown in California has decreased, dramatically. As shown in the table below, as the drought has progressed, crop production (in 1,000 tons) has fallen, from the average from 2011 to 2013, to 2014.

Table 1. California Production Volume of Selected Crops

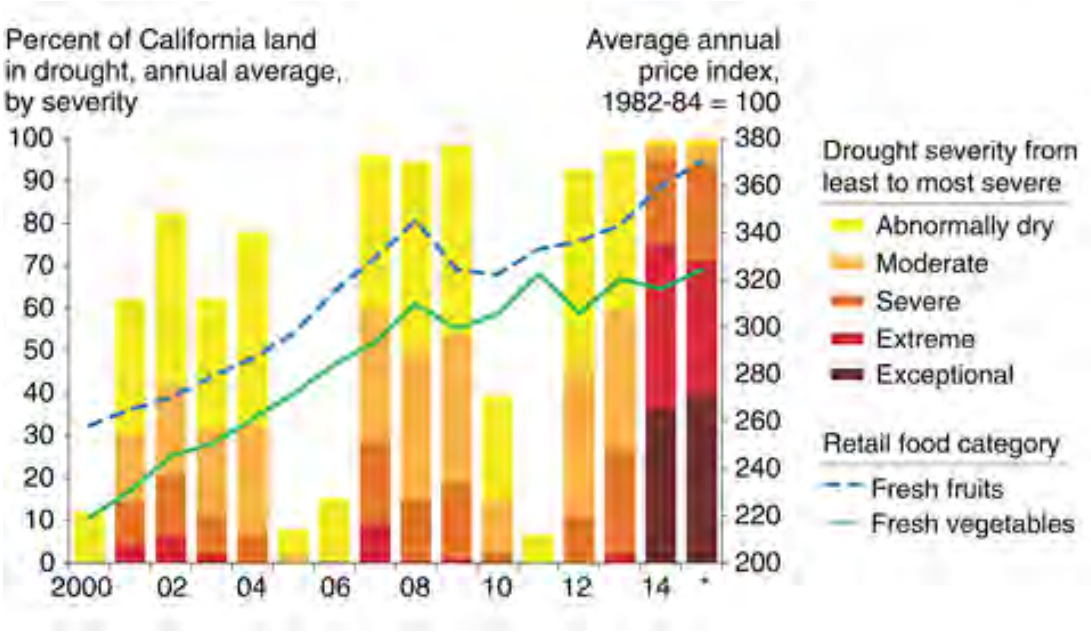
Crop	*2011 – 2013 Average (1,000 tons)*	*2014 (1,000 tons)*	*Percent Change*	*California Production (Fraction of Total U.S. Production)*	*Gallons of Water per LB of Food*
Oranges	2,333	2,000	-14.3	.29	74
Lemons	827	760	-8.1	.91	85
Grapes	7,079	6,819	-3.7	.88	80
Peaches	711	616	-13.4	.73	120
Strawberries	1,351	1,379	2.1	.91	46
Almonds	1,697	1,546	-8.9	1	2,126
Pistachios	244	257	5.3	1	-
Walnuts	483	565	16.9	1	1,226
	2011 – 2013 Average (Million lb.)	*2014 (Million lb.)*	*Percent Change*	*California Production (Fraction of Total U.S. Production)*	
Broccoli	1,904	2,013	5.7	.96	38
Carrots	1,927	2,096	8.8	.83	26
Dry Summer Onions	1,623	1,986	22.4	.31	-
Tomatoes	25,610	29,038	13.4	.91	28

Source: USDA Economic Research Service; http://www.ers.usda.gov/topics/in-the-news/california-drought-farm-and-food-impacts/california-drought-crop-sectors.aspx.

As we see in Table 1 above, with the exception of several nut crops and strawberries, crop production has fallen. However, this production hides the substitution towards less water intensive crops (per pound of food). Whereas nuts, peaches, oranges, lemons, and grapes are all high- to moderate-intensive foods, in terms of water usage (according to Mekonnen and Hoekstra, 2011), strawberries, broccoli, tomatoes, and carrots are some of the least water intensive foodstuffs to produce. This means that, regardless of price changes in the crops produced, the drought has already altered crop-planting patterns, beyond leaving cropland fallowed.

These patterns in crop production have also altered the prices of these commodities on the market. According to the USDA Economic Research Service, about $0.40 of every $1.00 in cost for fresh fruits is due to the farm sector. This means that changes in farm costs will affect the price of fresh fruits quite significantly. With the drought increasing the price of water and increasing the price of many inputs used in the production process for farming, it is likely that the retail price of foodstuffs will increase as well. Figure 2 shows the correlation between the fraction of California that is exhibiting at least moderate drought conditions and the consumer price index (CPI). We see that there is a sizable positive correlation between the two. More recently, since 2012, the price of fresh fruits and vegetables has increased as more and more of California enters an unprecedented drought. We also notice that there is a lag between experiencing a drought and price changes; typically, it may take almost a year for prices to respond.

Figure 2. California Drought Severity and Change in Consumer Price Index (CPI)



Source: USDA Economic Research Service

These price increases of fresh fruit and vegetables have two impacts: the first is that they put a tighter squeeze on the average budget of the consumer. Since 2012, the price of fresh fruits has increased by 12-percent. The price of vegetables has increased by half that, a little over 6-percent. As Social Security has calculated, since 2012, wages have increased (on average) by less than 3-percent per year (in 2013, increased by only 1-percent), meaning that food price increases have largely outpaced income increases.

The second (and often most pernicious impact) is that as people face higher prices of fresh fruits and vegetables, they substitute towards less nutritious (and relatively more inexpensive) fast foods, processed foods, or pre-made meals. Though this often eases the immediate pressure on the budgets of individuals, it ultimately leads to higher costs for families in the long-run, largely because of more ill health and higher healthcare expenditures.

This brings us to the potential impact of the potential (and large scale) El Nino event that is anticipated to start this year, and continue into next year. Though this event may help to alleviate immediate drought conditions, if enough snowpack is not accumulated in the Sierra Nevada Mountains, the potential to mitigate the effects of the long-term drought are limited. This means that it may be unlikely that, if farmers do not anticipate the conditions remaining, they will switch back to more water dependent crops. But, another outcome may occur; food prices may actually continue to rise. Analysts are worried about the impact of higher precipitation totals on crops that are ruined by large-scale rainfalls; maize, corn, wheat, etc. Because of the switch towards crops that consume less water, farmers may set themselves up to lose more of their crops from this large-scale rain event. This could potentially increase food prices again, again straining the budgets of the typical middle-class American.

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http://www.ers.usda.gov/topics/in-the-news/california-drought-farm-and-food-impacts/california-drought-food-prices-and-consumers.aspx

http://www.ers.usda.gov/topics/in-the-news/california-drought-farm-and-food-impacts.aspx

U.S. Social Security Administration Average Wage Index:

http://www.ssa.gov/oact/cola/awidevelop.html

A Glance of Dual-Class Companies in the U.S.

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Introduction of a Dual-Class Company

Recently, the topic of dual-class companies has been popular with the media, academia, and professionals. A dual-class company is a type of company that issues two classes of common stocks. One is a publicly traded inferior stock with one voting right per share, and the other is a non-publicly traded superior stock with multiple voting rights per share. Therefore, in a dual-class firm, shareholders of superior stocks have more voting power than cash flow power. A dual-class company has a stock structure that allows shareholders of superior stocks to have disproportionally higher voting power than the financial risk. As a result, firm insiders such as board members and executives maintain the decision-making power in the company.

Accordingly, shareholders have grown increasingly wary of firms with a dual-class stock structure for their investment. Particularly, Institutional investors have been concerned about multiple classes of stock with disparate voting rights, and complained that dual-class stock companies may limit their ability to press boards and executives to institute real changes (Byrd 2012). For example, California Public Employees' Retirement System (CalPERS), one of the largest and most influential institutional investors in the United States, began the campaign and call for removal of dual-class companies from stock-market listing and to reevaluate whether to invest in initial public offerings (IPOs) that use them (Basar 2012).

Despite investor concerns, many companies seem to enjoy a dual-class stock structure, as evidenced by the fact that one in eight new IPOs in 2012 were listed with a dual-class structure (Dow Jones Newswires August 20, 2012). At the same time, dual-class shares are claimed to be founders' best friend and allow them to more effectively focus on long-term shareholder appreciation (Kupor 2013). In recent years, numerous high-profile companies have chosen a dual-class stock structure—underscoring the importance of the issue in practice. Facebook, Google, Zillow, Groupon and Yelp have all chosen a dual-class stock structure. Dual-class stock structures have been popular among high-tech and social media companies, due to its flexibility and being recognized as a means of attracting talent. In such industries, company founders or other insiders own inside information and specific expertise in terms of product innovation and exploiting long-run product cycles for the benefit of shareholders. The outside shareholders face information asymmetry about the firm and are unable to make informed choices about strategic initiatives. Given this scenario, company founders or other insiders claim to need more voting power to maintain control so that they can better exploit their private information for the benefit of all shareholders. The top management team thus has the decision-making power and maintains control of the company. In September, 2014, Alibaba, a giant Chinese e-commerce company, started its listing on the New York Stock Exchange (NYSE), which is also one of the largest IPOs in history, using a dual-class stock. Alibaba's general shareholders hence have little control over how the company is run.

Prior Literature Review

Although a dual-class structure has received a lot of attention in both press media and industries, there has been an ongoing debate about a dual-class structure's role and effectiveness in practice. Some prior studies have compared the value and performance of dual-class firms with those of single-class firms. Some findings show that the disproportional relationship of ownership and control inherent in dual-class structures leads to lower firm value and poor performance. For instance, DeAngelo and DeAngelo (1985) first studied managerial ownership in dual-class stock structures and found that the difference between ownership and voting rights leads to poor firm performance and lower firm value. Gompers, Ishii and Metrick (2009) find that between 1994 to 2002, dual-class firms performed worse than comparable firms where all shares confer equal voting rights. They also report that dual-class firms' value is increasing insiders' cash-flow rights and decreasing insider voting rights. However, there is also evidence suggesting that dual-class structures enhance firm value (Dimitrov and Jain 2006). Claessens et al. (2000) find that the negative association between issuance of dual-class shares and corporate valuation reported in prior studies is not statistically significant, and do not find evidence that the issuance of dual-class shares separating ownership and control is associated with the valuation discount.

Moreover, several prior studies have investigated the effects of dual-class ownership structures on executive compensation. These studies examined whether executives of dual-class firms receive a greater amount of incentive-based compensation as compared to executives of single-class firms. Masulis et al. (2009) find that dual-class executives receive higher total compensation than single-class executives, consistent with the managerial power theory. The managerial power theory holds that dual-class structures misalign economic incentives and voting power and thus disadvantage outside shareholders (Bebchuk, Fried, and Walker 2002). However, optimal contract theory discussed in Gomez-Mejia and Wiseman (1997), Grabke-Rundell and Gomez-Mejia (2002) and Core and Larker (2002) indicates that executives are given incentive-based compensation to align their interests with those of outside shareholders. The higher executive compensation in dual-class firms compared to single-class firms is given to prevent dual-class executives from taking advantage of their higher voting leverage.

It has always been arguable whether a dual-class structure is an inherently poor governance characteristic. Gompers, Ishii, and Metrick (2009) develop a governance index to proxy for 1990-1999 shareholder rights where a dual-class structure is treated as weak governance characteristic, and find higher annual stock returns for firms with better governance index than firms with weaker governance index. However, they find no significant difference in return on equity measure between dual-class and single-class firms. The possible relation that weak corporate governance via a dual-class structure leads to poor stock performance is not supported (Core, Guay and Rusticus 2006). Also, Lehn, Netter, and Poulsen (1990) find that firms with greater growth opportunities are more likely to undertake a dual-class recapitalization to retain control of the firm when raising money through equity investors. In dual-class firms, management controls the majority of the votes, because of which the governance characteristics may be a representation of the management's orientation. Also, governance characteristics may be infected by external financiers due to financing needs. One opinion holds that a firm can choose different ownership structure for itself, indicating that in certain scenarios, a dual-class structure may be optimal and is not an inherently poor governance characteristic (Demsetz and Lehn 1985). Therefore, the above literature suggests that there is no consensus on whether a dual-class structure constitutes weak governance or not.

Examining the governance details of dual-class companies also exhibits the similarities and differences between dual-class and single-class companies. Li and Wu (2015) examine the size of the board of directors and find that both dual-class and single-class firms have eight board members, indicating the two types show no difference in terms of board size and have balanced boards. They examine whether one executive serves as a director during the current fiscal year. The results present a similar situation for both dual-class and single-class firms. For nearly all firms, executives serve as directors and are actively involved in the board of directors. The separation of the CEO and Chairman of the Board positions is an important characteristic of corporate governance because one of the board's roles is to monitor management (Jensen 1993). They also find that dual-class firms are less likely to have the same individual to act as the CEO and board chairman. Their findings include that dual-class firms have six independent board members on average, whereas single-class firms have seven independent board members.

Trends in Dual-Class Companies

Over the years, the number of dual-class firms has ranged from 87 to 101 (See Table 1). On average, there are about 93 dual-class firms among S&P 1500 firms. In 2007, there were more than 100 dual-class firms, but the number of such firms decreased a little bit due to mergers, acquisitions and bankruptcy during the economic crisis of 2008. Starting from 2012, the number of dual-class firms bounced back.

Table 1:
The Number of Dual-Class Companies from 2007 to 2013

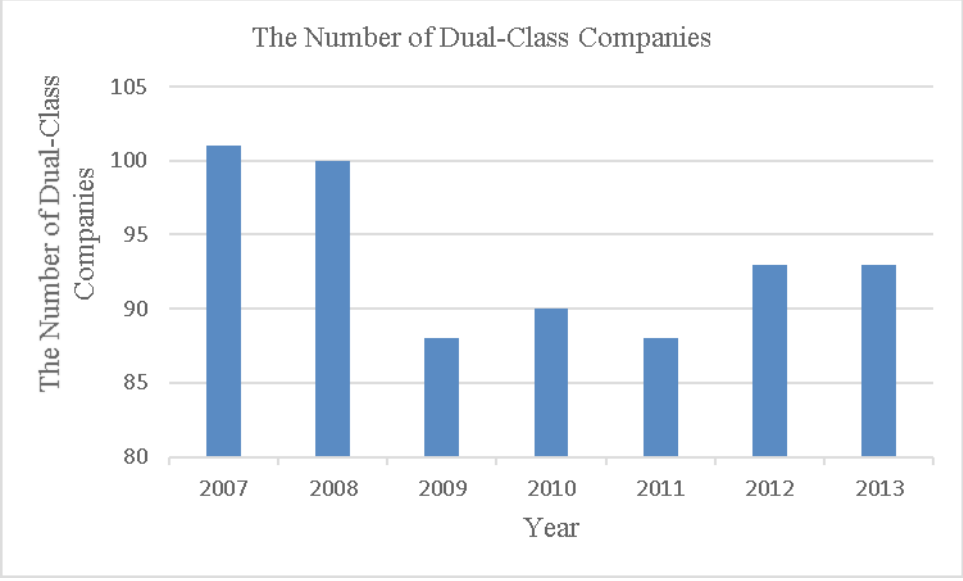
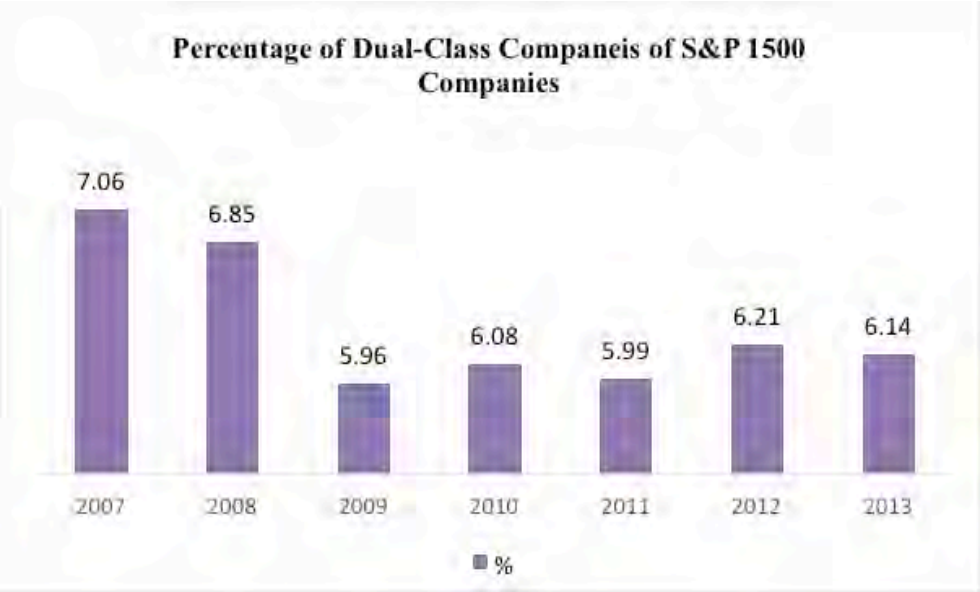


Table 2 shows that on average, 6.3% of all S&P 1500 are dual-class companies. Again, due to the economic crisis in 2008, more dual-class companies were affected by the 2008 economic crisis than single-class companies were.

Table 2:
Percentage of Dual-Class Companies of S&P 1500 Companies



A dual-class structure has the advantage of maintaining decision making powers and this provision has been adopted by certain industries. The pie chart in Table 3 presents dual-class companies in five industries which account for 48% of all S&P 1500 companies. Thus, dual-class ownership is concentrated in certain industries. The industry where the most dual-class companies are prevalent is the communication industry which includes radio and television broadcasting, telephone communication, and cable and other communications services. Printing and publishing industry has the second largest number of dual-class firms. These two industries account for 22% of all dual-class companies.

Dual-class companies are also concentrated in business services and electronic and other electrical equipment industries, which account for 16% of all dual-class companies. These two industries are called high-tech industries.

Table 3:
Industry Composition of Dual-Class Companies

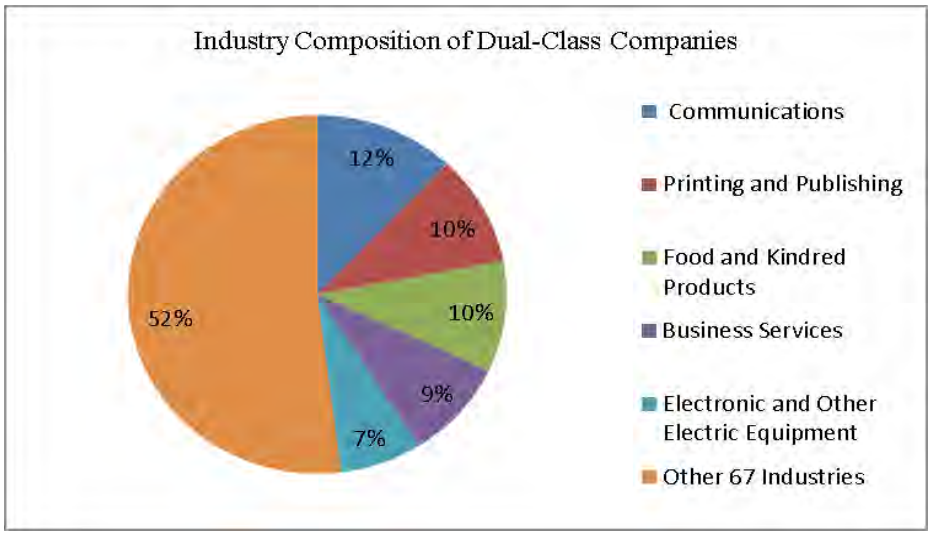


Table 4 reports descriptive statistics of dual-class and S&P 1500 firms.

Table 4:
Descriptive Statistics for Dual-Class Firms and S&P 1500 Firms

	Type	N	Mean	S.D.	P25	P50	P75
SIZE	Dual-class	419	7.857	1.624	6.719	7.541	8.700
	S&P1500	7500	7.987	1.669	6.763	7.856	9.010
LEVERAGE	Dual-class	419	0.168	0.177	0.016	0.126	0.260
	S&P1500	7500	0.184	0.170	0.027	0.155	0.291
ROE	Dual-class	419	-0.015	0.844	0.023	0.086	0.151
	S&P1500	7500	0.091	2.569	0.047	0.109	0.177
MTB	Dual-class	419	1.752	9.815	1.083	1.641	2.825
	S&P1500	7500	2.555	19.518	1.252	1.892	3.011
SALEGROW	Dual-class	419	5.215	18.129	-2.652	4.590	13.002
	S&P1500	7500	7.353	28.509	-3.129	5.963	14.889
MV	Dual-class	419	9374	26740	642	1574	4836
	S&P1500	7500	10025	28954	725	1874	7026
OWN	Dual-class	419	5.612	11.206	0.097	0.659	4.785
	S&P1500	7500	1.790	5.064	0.108	0.323	1.013
CAPXS	Dual-class	419	0.045	0.048	0.016	0.032	0.053
	S&P1500	7500	0.049	0.078	0.014	0.025	0.039

SIZE is defined as the natural log of total assets. *ROE* is annual return on equity for the sample company. LEVERAGE is the debt-to-equity ratio. MTB is the market-to-book ratio, calculated as the market capitalization four months after fiscal year end divided by common equity. SALEGROW captures the firm's annual sales growth rate. MV is market value, calculated as the number of common shares outstanding multiplied by the closing price at fiscal yearend. *OWN* refers to CEO equity ownership, and measures the percentage of firm equity owned by the CEO. It is calculated as the number of shares owned by the CEO (with options excluded) divided by the number of common shares outstanding at the end of the fiscal year. *CAPXS* is equal to capital expenditures scaled by sales.
It indicates that dual-class firms tend to have lower sales growth, lower market value, less leverage, and lower profitability (Return of Equity) compared to S&P 1500 firms, but are similar in terms of size. However, dual-class firms have higher capital expenditures than S&P 1500 firms.

Conclusion

The literature on dual-class structure does not provide consistent evidence whether dual-class structures either benefit or harm ordinary shareholders - just as there is no consensus about single-class companies. All in all, a dual-class stock structure continues to be adopted by innovative and young companies and preserved by companies in media and high-tech industries.

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Oil Prices and Employment in Various Sectors of Kern County

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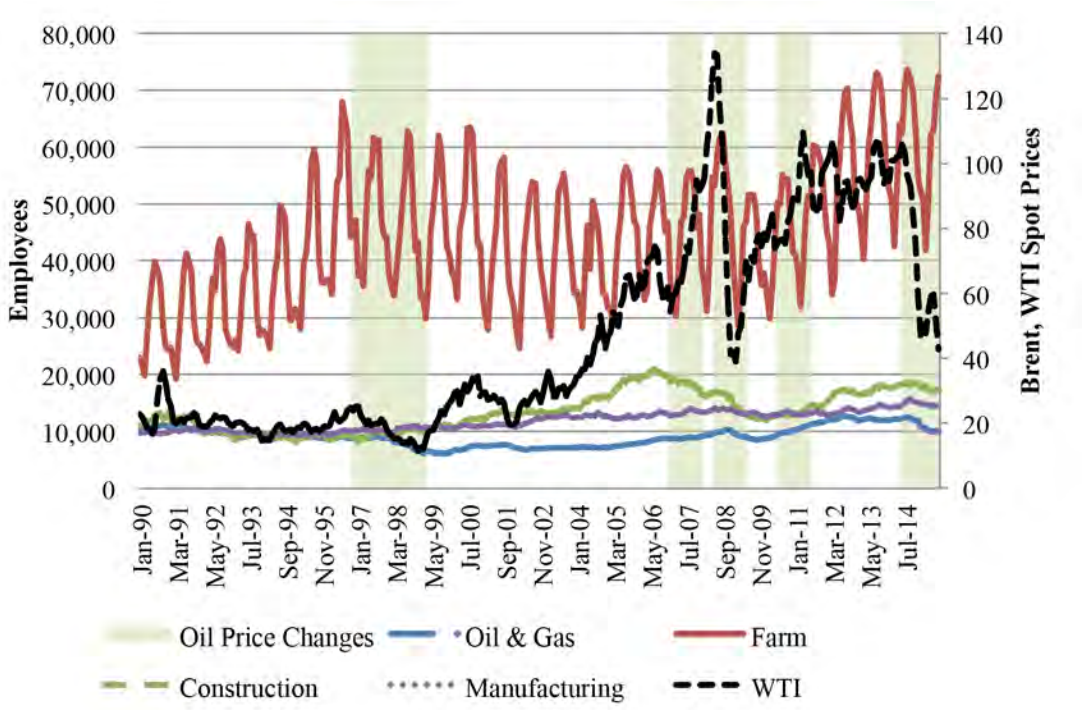
This article investigates whether low oil prices cause unemployment in various industries of Kern County. Reduced oil prices are often cited as a reason for unemployment. In this study, the average employment growth rate in various industries of Kern County is calculated following a period of reduced oil prices. The analysis covers 25 years and looks at the top five industries which employ 90% of Kern County's employable population. The industries include oil, agriculture, construction, service and manufacturing. Low oil prices deter exploratory activities which mean fewer rigs and fewer workers. Modern agriculture uses oil products to manufacture chemicals and fuel machinery used in farming. It is also used to transport inputs to the farm and outputs to the consumer. Thus, lower oil prices decrease the costs of inputs and lower costs of production allowing farmers to expand output by hiring more workers (Gilbert 2010).

The effect of lower oil prices on employment in the construction industry is not clear. A dip in oil prices lowers consumer confidence which reduces demand for long term investment such as housing. Construction of new homes may slow down due to decreased demand and construction companies may lay off workers to stay in business. On the flipside, lower oil prices reduce costs of building materials and transportation which may coerce the same companies to hire more workers. Lower oil prices increase disposable income which may stimulate consumer spending in other sectors such as restaurant meals, entertainment, retail and transportation. This boosts the service industry which may witness growth in employment to cope with increased demand. In Kern County, the manufacturing sector is tied to agriculture and petroleum refining (Holsonbake and Evans 2012). Because of this natural link, we expect a reduction in jobs in this sector as a result of lower oil prices.

The objective of this study is to explore whether employment growth in the above sectors has been affected by the low oil prices. Also explored is the effect of an oil price increase on employment growth over the last 25 years. Figure 1 traces movements in West Texas Intermediate (WTI) and employment in four sectors of Kern County's economy while Table 1 presents the average employment growth rate of each sector in the 12 months following the change in prices.

Figure 1: WTI and Kern County Employment by Sector



Source: California Employment Development Department and the U.S. Energy Information Administration

Table 1: Kern County Descriptive Statistics[1]

	Oil Price Decrease	Oil Price Decrease	Oil Price Increase[2]	Oil Price Increase	Oil Price Decrease
	Nov 1996 - Mar 1999	June 2008 - June 2009	Jan 2007 - Jan 2008	June 2010 - June 2011	June 2014 - August 2015
WTI (at start period)	$23.71	$133.88	$54.51	$76.32	$105.79
WTI (at end period)	$14.68	$69.64	$92.97	$92.96	$42.87
Average_Oil and Gas EmploymentGrowth Rate	-1.00%	-0.22%	0.35%	1.48%	-1.23%
Average Farm Employment Growth Rate	-0.44%	-0.26%	**-0.41%**	2.06%	**1.43%**
Average Construction Growth Rate	**0.45%**	-1.77%	**-1.33%**	0.88%	-0.33%
Average Manufacturing Growth Rate	**0.25%**	-0.39%	0.19%	0.25%	**0.20%**
Average Service Growth Rate[3]	**0.25%**	-0.16%	0.00%	0.05%	**0.07%**
Average Employment Growth Rate – Kern	-8.36%	-0.27%	-0.10%	0.28%	**0.12%**

[1]Unexpected signs appear in red
[2]Recession period
[3]The service industry is not included in the graph because changes are negligible.

Oil and Gas

Over the last 25 years, employment growth in the oil and gas industry increased when oil prices went up and decreased when prices dropped.

Agriculture[4]

In the agriculture industry, decreasing oil prices have been accompanied by reduced employment while rising oil prices have witnessed growth. The oil price increase occurring between June 2010 and June 2011 saw the largest growth in employment (2.06%). Today, the oil price decrease that has occurred over the last 14 months has seen a 1.43% growth in average employment.

Construction

In the construction industry, average employment growth rises with high oil prices while lower prices are accompanied by reduced employment. This pattern is common over the last 25 years except the period between November 1996 and March 1999 where employment in the construction industry grew despite the drop in oil prices. In July 2014, the construction industry employed 18,400 persons and in August 2015, employed 17,300. The low oil prices have been accompanied by a drop in average employment.

Manufacturing

In August 2015, the manufacturing industry employed roughly 14,800 persons or 4.09% of the total employment in Kern County. Table 1 reveals that average employment in the manufacturing sector continues to grow despite changes in oil prices.

Service

The service industry employs the largest proportion of workers in Kern County, employing roughly 213,500 persons or 58.98% of total employees. Changes in oil prices do not have a significant effect on employment in the service sector. The recent drop in oil prices did not change average employment growth, which witnessed a 0.07% growth in employment over the last 12 months.

Total Employment

Kern County currently employs 362,000 people out of a labor force of 399,100 implying that 91% of the labor force is employed. Over the years, changes in average employment growth rate closely follow changes in oil prices. Decreased oil prices are marked with reduced employment while average employment growth increases with rising oil prices. Nonetheless, the period between June 2014 and August 2015 witnessed an increase in average employment of 0.12%.

Conclusion

An analysis of the data from 1990 to 2015 show that employment in oil and gas, farm and construction industries, closely follow oil prices, where low oil prices cause low employment and higher prices witness employment growth. Employment in the manufacturing industry continues to grow despite swings in oil prices while the service industry is somewhat immune to changes in oil prices. Following the recent drop in prices, employment growth in oil and construction has declined while employment in the farm, manufacturing and service industries has increased. The industry experiencing largest growth is agriculture which grew by 1.43%. Overall employment grew by 0.12% during this period.

The weakness of this analysis stems from the fact that some sectors may take a longer time to respond to changes in oil prices and this may not be captured in the time period selected for the study. The article also uses data from the California Employment Development Department, which reports estimates that may not be entirely accurate. For example, the number of undocumented workers whose statistics are not listed in official government documents may lead to underestimation of figures. Finally, there are other factors in the economy that affect employment and these need to be incorporated in the analysis to provide a more comprehensive picture of what is happening in relation to changes in oil prices.

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[4] In August 2015, the farm sector employed 72,400 persons which was 20% of total employment in Kern County.

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