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CSU Bakersfield

Kern Economic Journal

Winner of the Award for Merit from California Association for Local Economic Development

2017 Third Quarter

Featured Article:

Conducting Economic Impact Studies for Community Special Events

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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 electronic 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!

2017 Third Quarter
by Dr. Richard S. Gearhart III and
Dr. Nyakundi M. Michieka

National Economy [1]

The world's largest economy of nearly $17 trillion, the United States, grew by a substantial 3.1 percent in the third quarter of 2017, maintaining the high growth rates also seen in the previous quarter. The increase in real GDP reflected increases in consumer spending on goods and services, as well as increases in inventory investment, business investments, and exports. Imports, which subtract from GDP, decreased. The increase in consumer spending was largely attributed to motor vehicles, healthcare, financial services and insurance, and food services and accommodations, which all highlight wage growth.

Real disposable personal income, which is adjusted for inflation and taxes, increased by 0.9-percent in the third quarter of 2017, after increasing by only 0.2-percent in the second quarter of 2017. This highlights that we are reaching the natural rate of unemployment, where wage growth is to be expected for a majority of Americans. The increase in personal incomes ranged from 0.2-percent in August to 0.4-percent in September. Real consumer spending increased by a negligible 0.8-percent, up from 0.7-percent in the second quarter of 2017. This highlights that many households may be saving for holiday spending, paying down debt incurred when they have spent more than their income increases, or uncertainty about if the wage and salary increases will be long-term. The real personal savings rate continued to fall, reaching 3.2-percent in September of 2017. This hints that consumers are ramping up consumer spending.

The Conference Board's Index of Leading Economic Indicators – a measure of future economic activity – increased the first two months of the third quarter of 2017, rising by 0.4-percent in July and 0.3-percent in August. It fell in the last month of the third quarter, falling by 0.2-percent in September to 128.6, a net rise of 0.8-percent from the second quarter of 2017. This statistic bears watching as unemployment rates fall and wages and salaries start to increase, indicating that there may be other, less visible stressors in the United States economy. Though part of the decline was attributable to an unduly strong hurricane season, weather is often blamed for decreases in the LEI, but a faulty explanation.

The University of Michigan's Consumer Sentiment Index barely rose, from 95.0 in June of 2017 to 95.1 in September of 2017, with all of the fall in consumer sentiment occurring between August and September of 2017. The quarterly value for the third quarter of 2017 was 95.1, compared to 96.4 in the first quarter of 2017. These hint that although businesses may be anticipating increased growth from lowered regulations and more favorable tax regimes, consumers may be wary about the direction that Washington is taking, as well as the uncertainty being created by the partisan process.

State Economy [2]

In California, the unemployment rate rose slightly in the third quarter of 2017 to 5.0 percent, up from 4.73 percent in the second quarter of 2017. Among counties, San Francisco (2.9 percent), Santa Clara (3.3 percent), San Luis Obispo (3.6 percent), Orange (3.6 percent), San Diego (4.1 percent), Sacramento (4.7 percent), and Los Angeles (4.9 percent) had unemployment rates below the state average. In contrast, Riverside (5.6 percent), San Joaquin (6.6), Kings (7.4 percent), Fresno (7.5 percent), and Kern (8.1 percent) had unemployment rates above the state average.

The state's civilian labor force gained 42,633 members, where 10,933 fewer employees had paying jobs (employed) and 53,567 fewer were left jobless (unemployed). While nonfarm industries hired 101,633 more workers, farming enterprises employed 2,867 fewer workers, meaning that farmworkers in Kern County gained, while other counties saw a significant decrease in farming employment. A wide range of industries added jobs, including construction, retail trade, information, professional and business services, health care and social assistance, and educational services. However, jobs were lost in mining and logging, nondurable goods production, and state government.

Local Economy

The local economy saw a modest increase in the labor force, increasing from 382,800 in the second quarter of 2017 to 290,300 in the third quarter of

[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.

2017. This stopped the multi-quarter decline in the civilian labor force that has occurred recently in Kern County. However, it appears that most of the growth in the labor force was from migrants moving into Kern County from outside the area, meaning that we still do not provide enough domestically-trained and qualified candidates for the job opportunities that can be found in Kern County. In the third quarter of 2017, 7,433 more workers were employed, while only 133 more workers were unemployed, hinting that those who were searching for jobs found them. This may indicate that we are seeing Kern County reaching its natural rate of unemployment, and that employers will not be able to hire workers without wage and income increases. Unfortunately, most of the increase in the civilian labor force was from farmworkers, as farm employment increased by 10,767 workers while non-farm employment fell by 2,367 workers.

In Bakersfield, much of the decrease in nonfarm employment came from a few sectors: service providing (2,600 workers), state and local government (3,400 workers), and professional and business services (967 workers). There was small growth in areas that indicate that spending patterns for consumers are increasing, including food and beverage stores (67 workers), clothing stores (33 workers), and department stores (100 workers). Likewise, there was a significant increase in leisure and hospitality jobs (733 workers), again indicating that sectors which rely on consumer spending patterns are increasing, indicating that there is some modest income growth in the area. While property incomes fell by $12 million in the third quarter of 2017, labor incomes ($115 million) and profit incomes ($216 million) soared, indicating that wage growth may continue into the fourth quarter of 2017 (and beyond).

The rate of unemployment ranged from 5.83 percent in Taft to 18.70 percent in California City. No city in Kern County experienced an increase in the unemployment rate. In Bakersfield, 8.03 percent of persons in the labor force are unemployed. In fact, there were sizable decreases in the unemployment rate in many rural communities in Kern County, hinting that labor conditions may be artificially improving as individuals leave the area for alternative opportunities, reducing the supply of workers and creating less competition for available jobs for those who stay. The median housing price in Kern County decreased slightly to $222,000, indicating that many individuals may still not be purchasing houses even with labor and profit income increases. This is supported by the rather large 237 home decrease in sales in the third quarter of 2017 (compared to the second quarter of 2017). This is a statistic that bears watching, as individuals should be choosing to purchase rather than rent as expectations of wage growth increase, meaning that individuals may be anticipating labor-replacing technological change in the future as profit incomes increase.

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 by a significant 10 percentage points in the third quarter of 2017. Among the winners were Chevron (increase of 12.6-percent quarter-over-quarter), Granite Construction (increase of 20.1-percent quarter-over-quarter), and Sierra Bancorp (increase of 10.6-percent quarter-over-quarter). The losers were Tejon Ranch (decrease of 7.0-percent quarter-over-quarter) and Wells Fargo (decrease of 0.5-percent quarter-over-quarter). This indicates that local companies are benefiting from the recent increases in the stock market seen at the national level.

Even with the recent increase in the California gas tax, gas prices did not change, staying at $2.99 a gallon in the third quarter of 2017. This indicates that not all of the tax has been passed through to consumers, or that retailers are choosing to price in the tax increase over time. The unit price of California's Class III milk rose 6.7-percent, from $14.86 in the second quarter of 2017 to $15.85 in the third quarter of 2017. Farmers in Kern County are losing out recently, as the Index of Farm Price Parity fell for the first time in four quarters, decreasing to 84.3-percent in the third quarter of 2017.

for the products that they sell rose by 6.87 percentage points, while prices paid for their inputs rose by over 0.7 percentage points, meaning that net revenues for farmers increased by over 6-percentage points.

[2]The California economic numbers were obtained from the Bureau of Labor Statistics "Local Area Unemployment Statistics Map". This is found at https://data.bls.gov/map/MapToolServlet?survey=la&map=county&seasonal=u.

Tracking Kern's Economy[1]

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

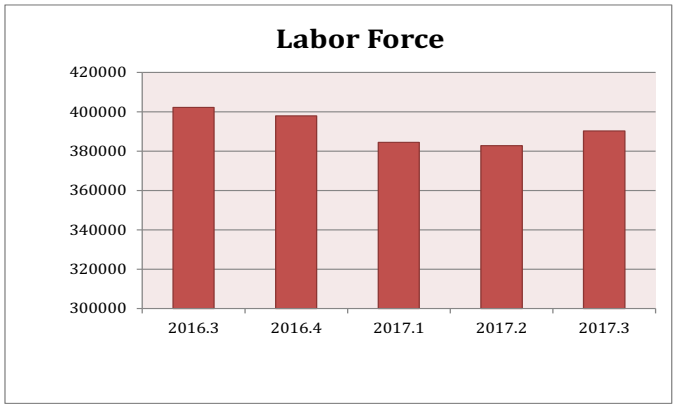
Growth of Personal Income – As we exit the summer and move towards the holidays, we have seen an uptick in personal incomes, largely due to growth in employment and profit income for businesses, even as property incomes are falling. Since the second quarter of 2017, personal incomes have increased by $319 million. During this time, labor incomes have increased by $115 million, profit incomes have increased by $216 million, while property incomes fell by a negligible $12 million. With some clarification on the future of tax reform during the third quarter of 2017, as well as increased employment in the farm and retail sectors in anticipation of a strong purchasing atmosphere for the holidays, this has allowed Kern County to grow for the first time in over a year. On an annual basis, personal incomes increased by 6.7-percent, compared to the second quarter of 2017.

Labor Market

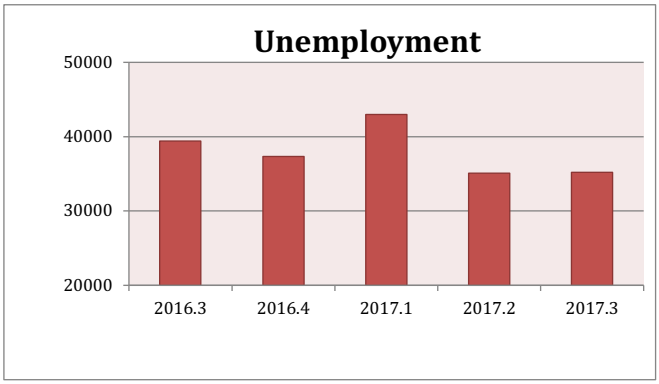
We adjust published data in three ways. Firstly, we averaged monthly data to calculate quarterly data. Secondly, we recalculated quarterly data to take into account workers employed in the "informal" market (i.e., self-employed labor and those who work outside their county of residence). Finally, we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

The biggest takeaway for Kern County's labor market is that we are reaching our natural rate of unemployment, and that we do not have significant labor market distortions. For the private sector, most jobs are being filled by individuals moving from outside the county, indicating that we still cannot provide enough of a domestic workforce to satisfy the employers located in this area. Since we are reaching a natural satiation point for unemployment, this means that we should expect to see upward wage and income pressures, leading to higher levels of personal income in the coming quarters.

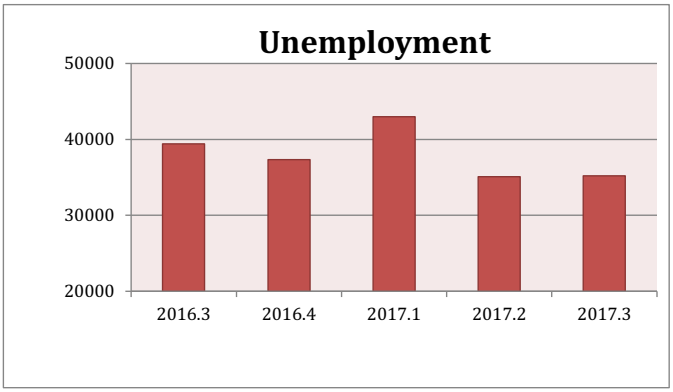
Labor Force - The civilian labor force increased by 7,500 members from 382,800 in the second quarter of 2017 to 390,300 in the third quarter of 2017. This stopped the trend of a decreasing labor force that has occurred over the past year, when the civilian labor force peaked at 402,133 in the third quarter of 2016. This corroborates reports that, for the first time in years, there was a net in-migration of individuals from outside the area, coupled with an increase in the birth rate. Coupled with the growth in labor incomes, this indicates that businesses are ramping up hiring and, with a decrease in the number of individuals available to work recently, firms have started to increase wages or non-wage benefits to entice individuals to move into the area.



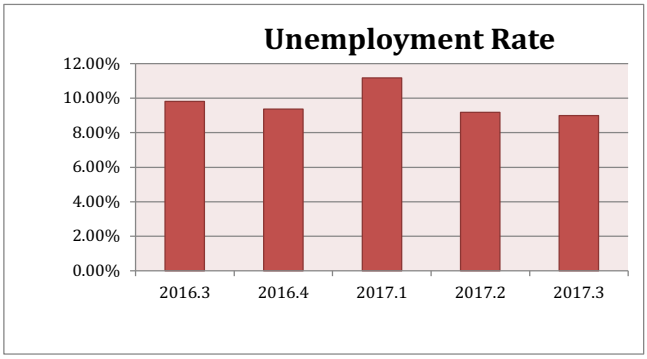
Employment –In the third quarter of 2017, Kern County hired 7,433 more workers as total employment increased from 347,667 in the second quarter of 2017 to 355,100 in the third quarter of 2017. This indicates that nearly all of the increase in the civilian labor force led to employment, again indicating that there is in-migration from outside the area as employers look outside the region to fill vacant positions that the domestic workforce cannot fill.



Unemployment – In the meantime, 133 more workers were unemployed, as the number of jobless workers increased from 35,100 to 35,233. Coupled with the increase in the civilian labor force, this highlights the fact that most of the vacant job positions are going to individuals who, in the previous quarter, resided in areas outside of Kern County. This again indicates that the domestic labor force is either incapable of filling existing jobs, or that we have reached a "natural equilibrium", where we do not have the infrastructure in place to currently place domestically educated workers into industries located in the area.



Unemployment Rate – Encouragingly, Kern County's unemployment rate fell again, reaching a point not seen since the 3rd quarter of 2008. A large fraction of the unemployment decrease is that the unhireable domestic employees have left the area, and individuals are being attracted to the area with firm job offers in hand. Importantly, the unemployment rate fell by a minimal 0.2-percentage points compared to the second quarter of 2017.



The rate of unemployment varied considerably across cities. Among cities shown below, the unemployment rate varied between 5.83 percent in Taft to 18.70 percent in California City. All cities in Kern County showed a decrease in the unemployment rate, with the biggest decreases occurring in Mojave and California City, highlighting potential impacts that marijuana cultivation may have in East Kern. In Bakersfield, the rate of unemployment was 8.03 percent, a decrease of 0.17-percentage points from the second quarter of 2017.

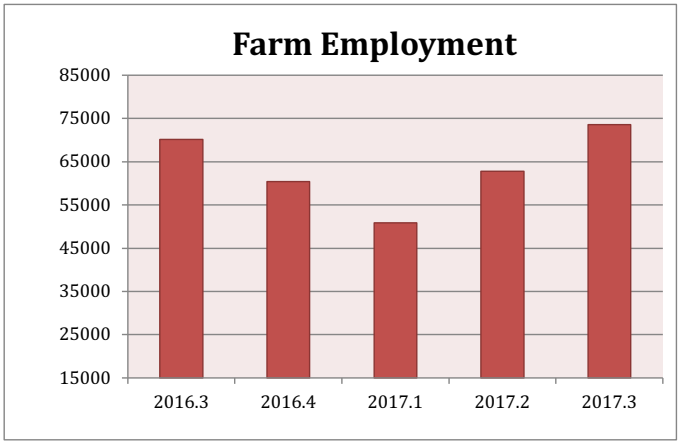
Unemployment Rate of Cities

Location	Unemployment Rate (%)	Location	Unemployment Rate (%)
KERN COUNTY	9.00	Edwards	9.40
Taft	5.83	Rosamond	10.00
Ridgecrest	6.07	Oildale	10.33
Tehachapi	6.87	Arvin	10.53
Lamont	7.53	Delano	10.83
Frazier Park	7.67	Wasco	12.00
Shafter	7.73	McFarland	14.07
Bakersfield	8.03	Mojave	15.03
Lake Isabella	8.17	California City	18.70

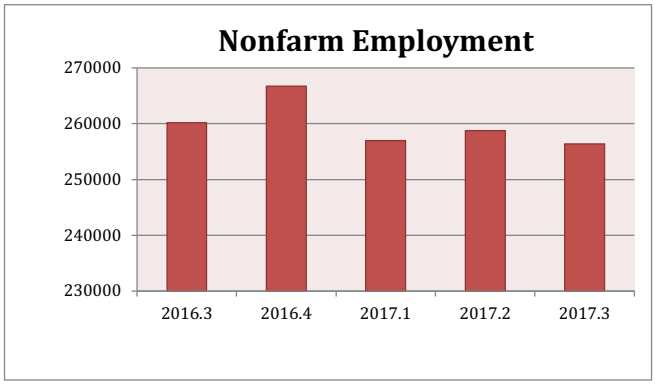
Note: City-level data are not adjusted for seasonality and "informal" market workers.

Farm Employment –In the third quarter of 2017, Kern County hired 10,767 more farm workers. As a result, farm employment increased from 62,767 to 73,533. Though this is the cyclical nature of farm employment, this accounts for all of the increase in the numbers of individuals employed in the third quarter of 2017. This indicates that nearly all of the workers relocating into the area for employment are either farm workers, or are heavily reliant on the agriculture sector. This again indicates that, regardless of statements made by

leading policymakers in Kern County, we are far from diversified away from oil and agriculture, and will still be subject to the quite significant seasonal swings and shocks these sectors experience.

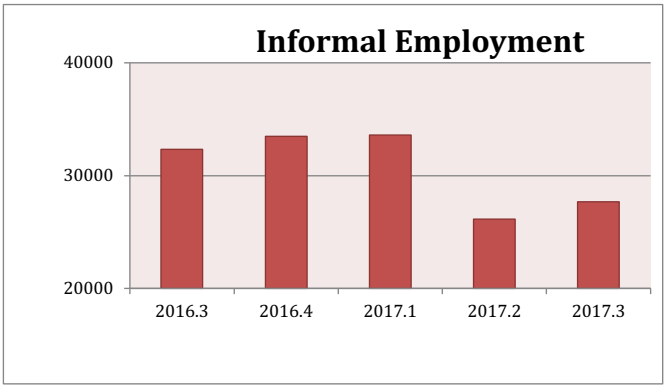


Nonfarm Employment –Local nonfarm industries employed 2,367 fewer workers this quarter. Hence, the number of nonfarm workers decreased from 258,767 to 256,400. Similarly, nonfarm industries hired 3,767 fewer workers than four quarters ago. This again indicates that we have perhaps reached the "natural rate of unemployment" for the nonfarm sector in Kern County, indicating that much of the employment growth (or unemployment rate changes) will be due to the seasonal nature of our resource-abundant industries (agriculture and oil).

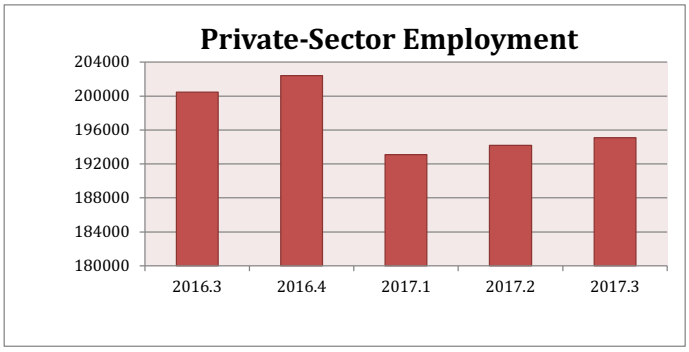


In Bakersfield, much of the decrease in nonfarm employment came from a few sectors: service providing (2,600 workers), state and local government (3,400 workers), and professional and business services (967 workers). There was small growth in areas that indicate that spending patterns for consumers are increasing, including food and beverage stores (67 workers), clothing stores (33 workers), and department stores (100 workers). Likewise, there was a significant increase in leisure and hospitality jobs (733 workers), again indicating that sectors which rely on consumer spending patterns are increasing, indicating that there is some modest income growth in the area.

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 2017, the number of informal workers increased by 1,534 from 26,133 to 27,667. Conversely, there are 4,666 fewer informal workers compared to the third quarter of 2016. Since much of the employment growth this quarter was in the farm sector, and since much of the informal workforce tends to work in the farm sector, this is a natural increase that should be expected. What is surprising, however, is the fact that this is the largest number of farm sector workers that Kern County has seen ever, and there is only a small increase in informal workers, indicating that laws from Sacramento are encouraging businesses and workers to come out from the shadows.



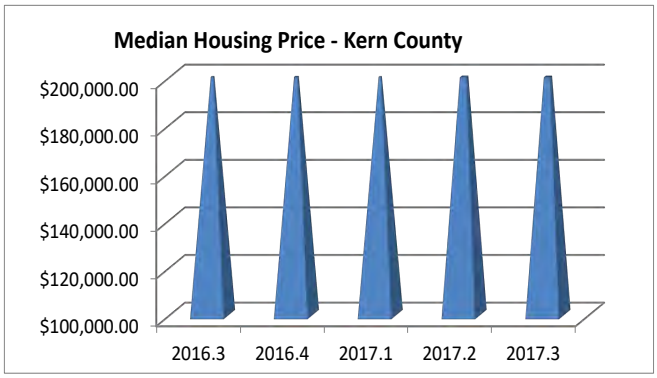
Private-Sector Employment - Nonfarm employment is comprised of private-sector employment and public-sector employment. In the third quarter of 2017, private companies hired 900 more workers as their employment increased from 194,200 to 195,100. Conversely, the private sector employed 5,367 fewer workers this quarter than four quarters ago. This again hints that we are reaching a natural peak of private sector employment in Kern County, without significant growth in the number of new employers locating in the area.



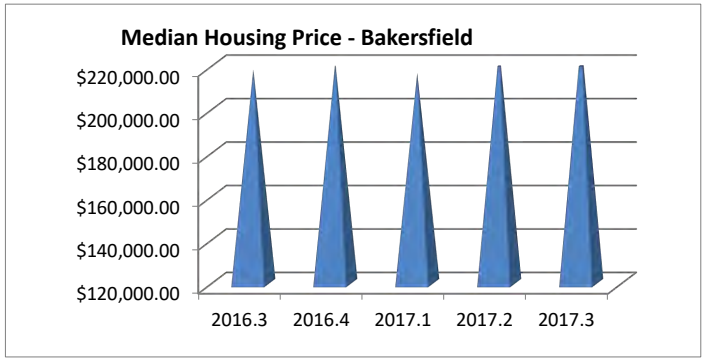
Public-Sector Employment – The public sector consists of federal, state, and local government agencies. The local government labor market includes county and city agencies and public education. In the third quarter of 2017, government agencies hired 3,267 fewer workers as their employment decreased from 64,567 to 61,300. This follows the natural trend of public sector employment losses in the third quarter of each year. However, there are still 1,600 more public sector workers this quarter, compared to four quarters ago (and 1,800 more public sector workers compared to eight quarters ago), indicating that California is still hiring public-sector workers to fill what it likely perceives as measures being adopted by the federal government that are antithetical to their preferred outcomes.

Housing Market

Housing Price -In the third quarter of 2017, Kern County's housing prices fell slightly, by $1,000, hinting that the labor market income increases have not yet culminated in purchases of real estate property. This is likely as consumers save in anticipation of holiday spending. The median sales price for all residential units decreased from $223,000 in the second quarter of 2017 to $222,000 in the third quarter of 2017. Prices are $13,416 higher than they were four quarters ago. In fact, housing prices are still at recent highs in Kern County. This likely hints that there are supply limitations in terms of existing housing stock.



In Bakersfield, the median housing price increased in price by $4,000 (or 1.75 percent) from the second quarter of 2017, which again hints that there is a shortage of existing home stock for individuals with now higher wages and incomes to purchase, pushing up prices (as housing demand increases). The city's median sales price has appreciated $13,667 (or 6.3 percent) since the third quarter of 2016.

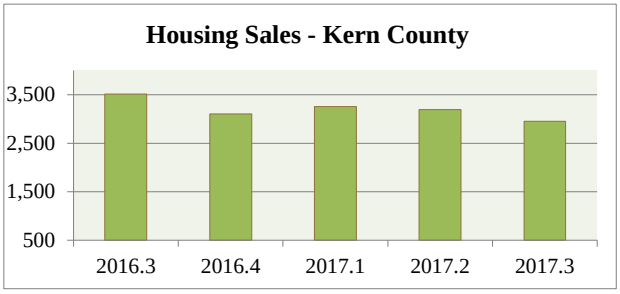


Housing prices varied across the county. Within the previous four quarters (2016 third quarter to 2017 third quarter), the median sales price increased in most of the major cities of Kern County, except Ridgecrest, Rosamond, and Tehachapi. In dollar value, Taft had the largest price increase of $18,250.

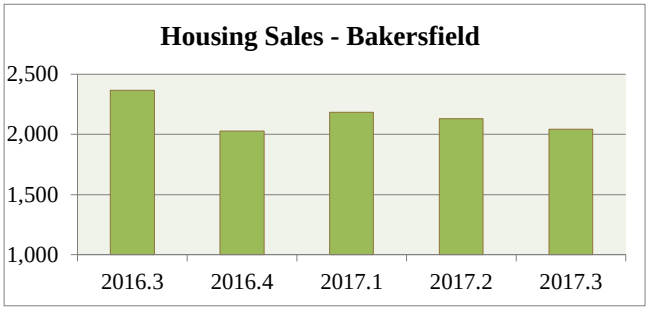
Location	Median Price 2017.3	Median Price 2016.3	Price Change 2016.3 to 2017.3	% Price Change 2016.3 to 2017.3
Kern County	222,000	208,583	13,417	6.43%
Bakersfield	232,000	218,333	13,667	6.26%
California City	125,000	115,900	9,100	7.85%
Delano	173,000	164,400	8,600	5.23%
Ridgecrest	181,500	188,750	-7,250	-3.84%
Rosamond	230,000	233,750	-3,750	-1.60%
Taft	120,000	101,750	18,250	17.94%
Tehachapi	240,500	242,500	-2500	-1.03%

Housing Sales – In the third quarter of 2017, prices stagnating in Kern County from the prior quarter

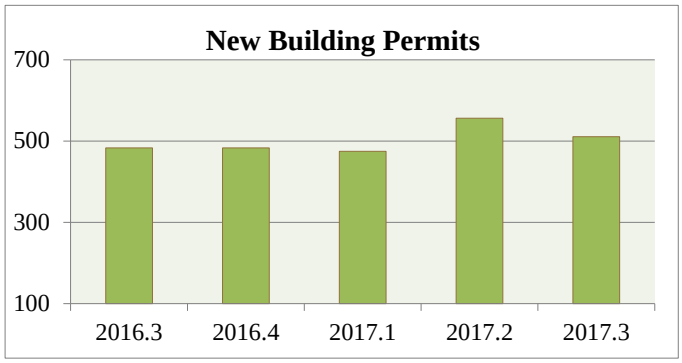
was accompanied by a large decrease in sales, perhaps hinting that housing demand increases are being met by expectations of future housing supply increases. In Kern County, 237 fewer homes were sold as total sales decreased from 3,189 to 2,952. Compared to four quarters ago, there are 560 fewer units being sold. Coupled with the labor market information, this means that either individuals moving to the area are renting temporarily, or that the labor income increase are being saved to be spent during the holiday season.



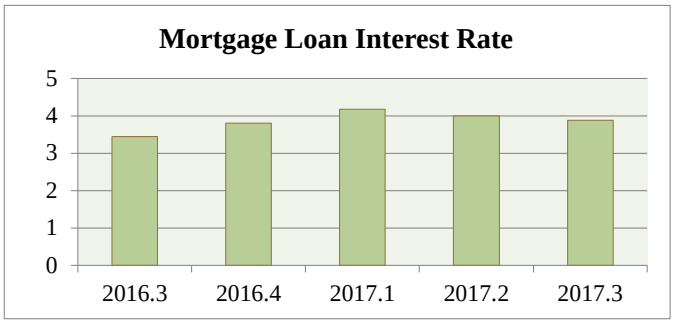
In Bakersfield, sales of residential units decreased by 87 units, from 2,130 in the second quarter of 2017 to 2,043 in the third quarter of 2017. Thus, a majority of the housing sale decrease was located outside of the major city in Kern County, indicating that much of the new labor force participants are locating themselves in Bakersfield itself, which is experiencing a resurgence of commercial development, both short- and long-term.



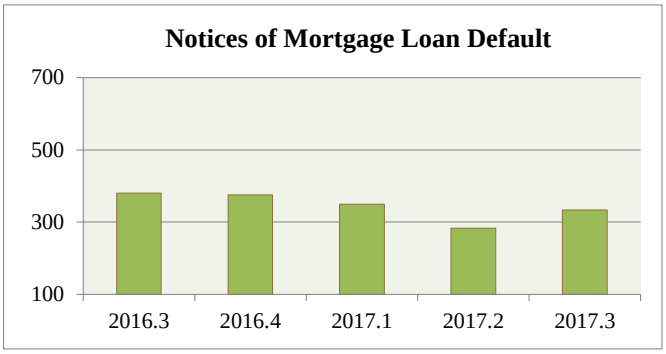
New Building Permits – In the third quarter of 2017, Kern County issued 45 fewer permits for construction of new privately-owned dwelling units compared to the second quarter of 2017, issuing 511 total permits (where there were 556 permits issued in the second quarter of 2017). The county issued 483 four quarters ago, showing that expectations for future housing growth is high, and that current housing on the market may not be sufficient, though most of the new development may have already started during an unseasonably warm summer.



Mortgage Interest Rate – In the third quarter of 2017, the interest rate on thirty-year conventional mortgage loans decreased from 3.99 percent to 3.87 percent. This again indicates tremendous uncertainty in the national housing market as to whether the housing price appreciation in larger cities is forming a bubble, and to what extent the Federal Reserve will begin easing their monetary policy, which may conflict with fiscal policy at the federal level.

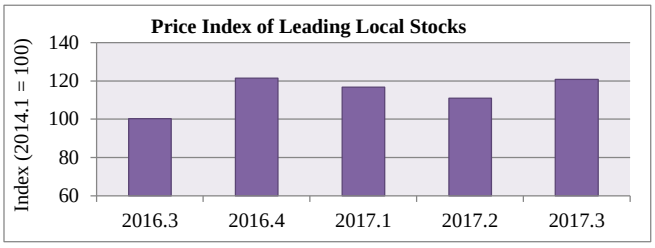


Housing Foreclosure Activity – Kern County saw a slight uptick in foreclosure activity, as the number of new foreclosures increased from the second quarter of 2017, to 333 new foreclosures in the third quarter of 2017. This number, however, is still 47 units lower than four quarters ago. This perhaps hints that some houses may have started to overextend themselves with slight income increases, entering into housing contracts that they may not have been able to afford. This metric bears watching.

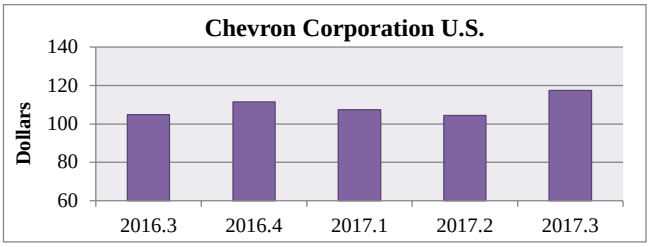


Stock Market

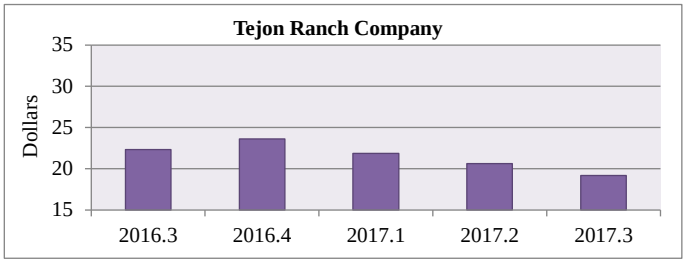
In the third quarter of 2017, the composite price index (2014.1=100) of the five publically traded companies doing business in Kern County increased significantly after two consecutive quarters of decrease, increasing by 10.0 percentage points from the previous quarter, from 110.9 to 120.9. The index is also 20.5 percentage points higher 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.



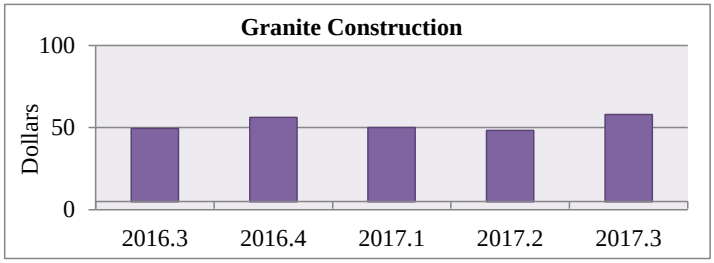
Chevron Corporation U.S.:CVX gained $13.17 (or 12.6 percent) per share as its price increased from $104.33 to $117.50. Relative to the third quarter of 2016, CVX was up $12.74 (or 12.2 percent).



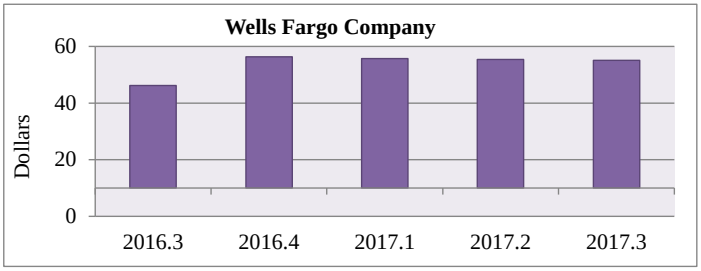
Tejon Ranch Company: TRC lost $1.44 (or 7.0 percent) per share as its stock price decreased from $20.64 to $19.20. Similarly, TRC was down $3.15 (or 14.1 percent) relative to the third quarter of 2016.



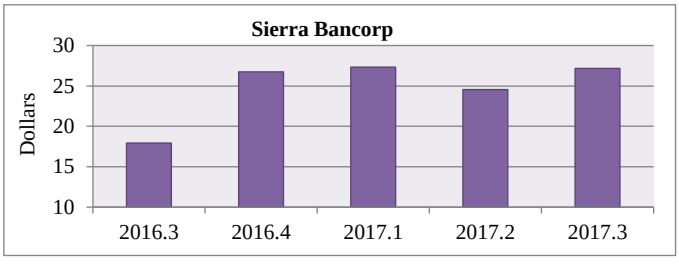
Granite Construction: GVA gained $9.71 (or 20.1 percent) per share as its stock price increased from $48.24 to $57.95. Similarly, GVA has gained $8.63 (or 17.5 percent) since the third quarter of 2016.



Wells Fargo Company: WFC lost $0.26 (or 0.5 percent) per share as its stock price decreased from $55.41 to $55.15. Relative to one year ago, WFC is up $9.00 (or 19.5 percent).

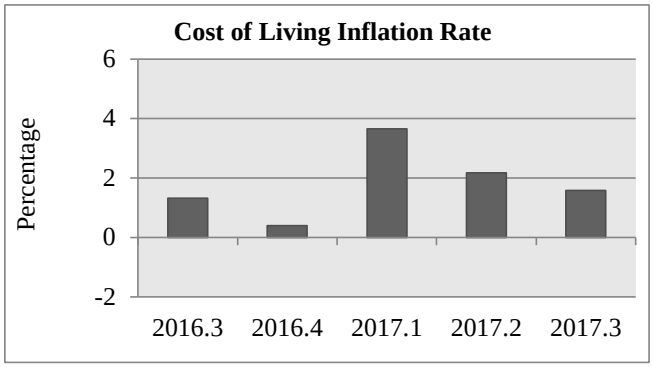


Sierra Bancorp: BSRR gained $2.60 (or 10.6 percent) per share as its price increased from $24.55 to $27.15. Similarly, BSRR has gained $9.23 (or 51.5 percent) since the third quarter of 2016.

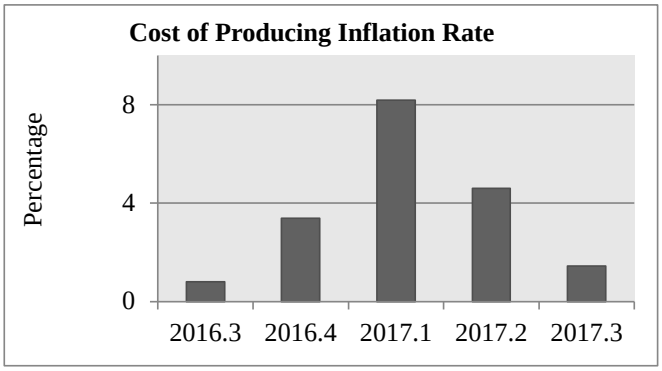


Inflation

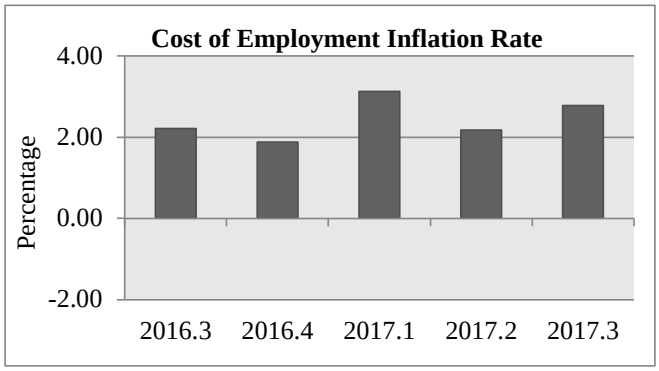
Cost of Living –In the third quarter of 2017, the Consumer Price Index for all urban areas (1982-84 = 100) increased slightly from 244.74 to 245.71. As a result, inflation for the cost of living increased at an annual rate of 1.59 percent. The cost of living inflation rate was 2.18 percent last quarter and 1.32 percent a year ago.



Cost of Production – The Producer Price Index for all commodities (1982 =100) increased from 193.2 to 193.9. As a result, the cost of production increased at an annual rate of 1.45 percent. The cost of production inflation rate was 4.61 percent last quarter and 0.80 percent four quarters ago.

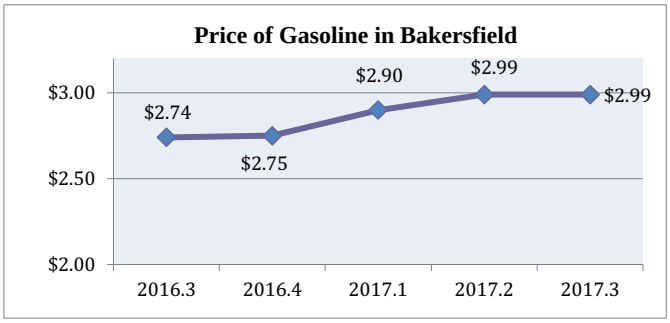


Cost of Employment - The Employment Cost Index (December 2005 = 100) for all civilian workers increased from 129.7 to 130.6. As a result, the cost of employment grew at an annual rate of 2.78 percent. The cost of employment inflation rate was 2.17 percent last quarter and 2.21 percent four quarters ago.

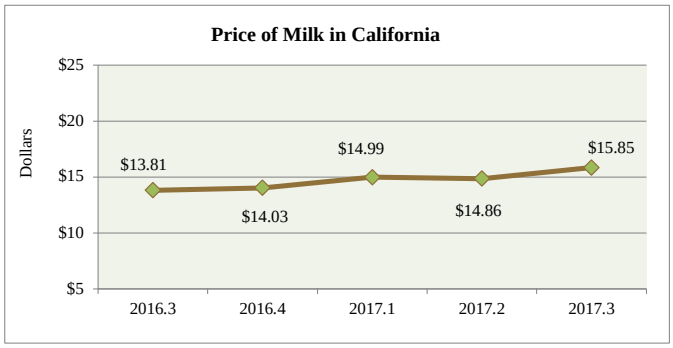


Commodity Prices

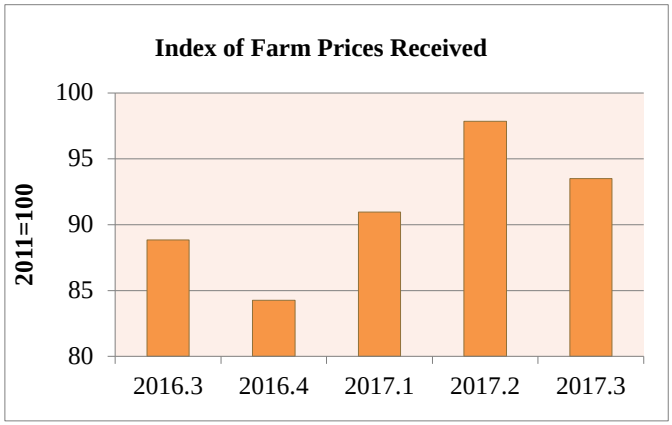
Price of Gasoline - In the Bakersfield metropolitan area, the average retail price did not change, remaining at 2.99. This is likely a business response to the new gasoline tax, with stores unwilling to pass further costs onto consumers, for fear of altering fuel consumption patterns further. Compared with the third quarter of last year, the average gasoline price is up $0.25.



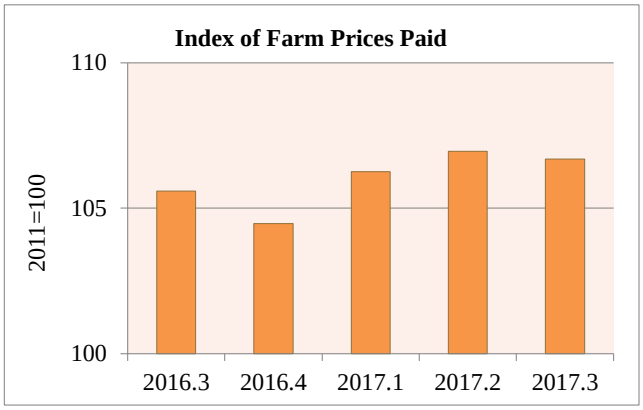
Price of Milk – The unit price of California's Class III milk increased noticeably, rising $0.99 (or 6.7 percent) from $14.86 to $15.85. Noticeably, the price increased significantly between July and August, rising from $14.46 to $16.54, and remaining there in September. Even more noticeably, the price is still up since the third quarter of last year, increasing by $2.04 (or 14.8 percent).



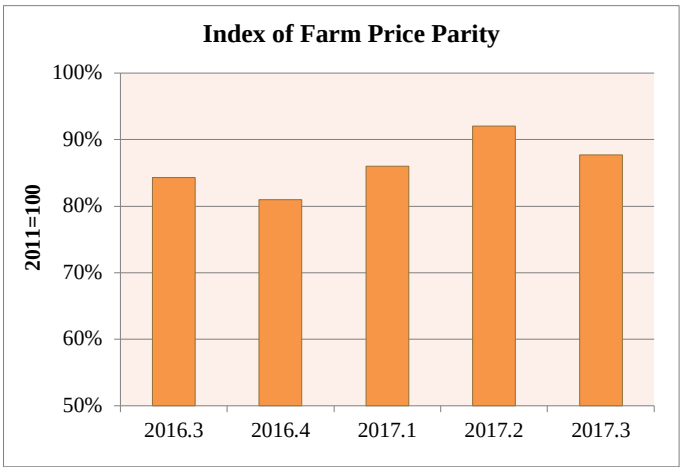
Farm Prices – In the third quarter of 2017, the national Index of Prices Received by Farmers for all farm products (2011 = 100) fell substantially, falling by 4.33 points from 97.83 to 93.5. The index was 88.8 four quarters ago.



Meanwhile, the national Index of Prices Paid by Farmers for commodities, services, interest, taxes, wages, and rents rose slightly by 0.7 points to reach 106.97, rising slower than the increase in revenues for farmers. The index was 107.1 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 2017, the gap between prices paid and prices received increased substantially, as the Index of Farm Price Parity decreased to 87.7 percent. This hints that costs for farmers are starting to outpace revenue growth, indicating that farmers may not be anticipating the water allotments they may have expected, or that farmworker labor bills are incredibly costly for the average farmer. Four quarters ago, the price ratio was 84.3 percent, meaning that conditions for farmers are still slightly better than they have been in the past few quarters.



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

Conducting Economic Impact Studies for Community Special Events

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In a recent issue of the Kern Economic Journal [2017] I shared an article concerning 'Special Event Economic Development' where details were offered on how a civic, business or community agency could create a local large scale special fund raising event with the intent of generating dollars for local or national community charities. Industry experts estimate that billions of dollars are created each year using local efforts for these fund raising purposes.

A planning model was presented that detailed all of the needed steps and tools required to make such an effort a fun, interesting and yet financially dynamic operation. The purpose of this article is to serve as a follow up and to suggest how the economic impact of this local special event can be accounted for.

What is an Economic Impact Study?

The following non-technical definition highlights a few key words that are helpful in understanding this type of review. An economic impact study is the assessment of the economic change that occurs in a community that provides the special event in which specific spending occurs that can be directly traced to that event. The economic change may be attributed to the event entry fees, site specific souvenir purchases, new or increased tax revenues, retail sales that impact support vendors such as hotels, restaurants, car rental agencies, airlines or other local retail outlets.

Depending on the size of the community and the range of the event, a phenomenon known as economic multiplication may also occur. This is the process of portions of the new dollars being re-spent in the local community as necessary to support and supply the desired goods and services that impact the event.

What are the Purposes of an Economic Impact Study?

The question may be asked; why should the event organizers measure the economic influence that the special event has on the community? After all, is not the organizers concern the generation of new dollars coming from the event that can be shared with local or national concerns? The fund raising impact of the event on the community will in fact go beyond just the event itself and will positively influence many other business aspects of the community. Here are some values to collecting this financial impact data:

1. The study can detail in rather precise ways the amount of new economy generated by the event and what businesses and vendors also received financial benefits from the event. This information may include amounts, percentages, type of expenditures and the timing of spending.
2. The assessment, if carefully prepared can also serve as a patron market profile assisting the sponsors of the event with detailed information on participants, spectators, associated visitors, and local and on-local vendors. Improved future marketing can be enhanced.
3. If the event in fact generates significant and new local and state tax revenues, then evidence can be documented that might garner future public agency support, elected and appointed official's confidence and commitment to future endeavors.v
4. As the need to attract local, regional and national co-sponsors for the special event occurs the appropriate support groups can be approached with confidence in which detailed economic impact measures can be shared.
5. With this information a more positive community feeling can occur demonstrating that the event contributes to the overall community's economic well- being as well as the donations to the selected charity.

There may be other purposes for conducting such a study but economic impact assessment, market profiles, documented tax impact, co-sponsor allegiance

and community well- being are the primary values. The rest of this article details the process for conducting a local special event economic impact study using a recent southern California senior games as a case study. The event provided twelve sport venues during a three-day period, which attracted 891 patrons. There were multiple venue registrations by seniors, bringing the total entry count to 1,358. About half of those participants were non-locals to the area and spent dollars at hotels, restaurants, and purchased other goods and services directly tied to their involvement in the games.

Creating the Economic Impact Measuring Instrument

There are a number of measuring devices that can be used to collect the desired economic impact data. The most accurate but difficult to use is the patron expenditure diary. In this approach a properly selected number of participants, spectators and visitors track their spending associated with their attendance at the special event. The least effective is a post event mail survey asking those that attended to remember their past expenditures while attending the event. The most common method is the on-site interview. Here trained individuals approach pre-selected people and ask them a series of unobtrusive expenditure questions. Other interesting information can also be gathered using this approach.

In this case study the on- site interview model was used. The data gathering team interviewed key patrons discovering critical data that was then expanded to represent the total patron profile. Questions included patron geographic origin, days of attendance, travel methods, housing accommodations, specific business sector spending patterns as well as event registration costs. Figure one details the averaged expenditures per patron over the three-day event.

Category	Dollars	Percent
Hotel	$ 250.54	43%
Restaurant	$ 126.96	22%
Retail Sales	$ 65.17	11%
Entertainment	$ 55.62	10%
Gasoline	$ 64.59	11%
Groceries	$ 18.09	3%
Total	$ 580.97	100%

Figure one: Averaged expenditures per patron, per category by non-locals over the three- day event period.Conducting the Interviews

A method was selected to interview patrons that had some level of representation of all those in attendance. There are a number of patron interview selection models and the one chosen for this study was the stratified sample. In order to use this method, the data gathering group needs to know how many patrons are involved in the event as participants, as spectators or as a visitor. They also need to know the time frame in which each group will be at the event site.

If for example, 20% of the participants are at the event on Monday from 7 p.m. until 10 p.m., then 20% of the total participants interviewed should come from that time frame. If 50% of the spectators are on site on Saturday from 9 a.m. until 3 p.m., then 50% of the spectators should be interviewed during that time period. This model was followed throughout the three-day time frame of the special event. Now the number of patrons to be interviewed during each time frame is a function of the total number of patrons at the event. Statistical tables indicate how many patrons are needed for interview to assure proper accuracy. Figure two details the events, the number of entries, the percent and therefore the number of patrons interviewed.

Event	Number of Entries	Percent of Total	Number Surveyed
Golf	94	7	20
Track and Field	290	21	50
Softball	155	11	25
Swimming	151	11	25
Volleyball	154	11	30
Tennis	127	10	25
Soccer	41	3	10
Race - Walk	69	5	15
Bowling	68	5	15
Basketball	138	10	25
Racquetball	38	3	10
5K – 10K	33	3	10
Total	1,358	100 %	260

Figure two: Number of patrons surveyed based on the number and percent of entries per athletic event venue.

The Use of Secondary Sources

A vital tool for calculating accurate data is to have access to some business and vendor sources. For example, if a few hotels will share the number of program participants who stayed at their hotel, length of stay and rate per room then this information can be compared to the figures discovered in the direct patron interviews. This internal audit check is helpful in determining the general and specific accuracy of the study. Not all vendors will be inclined to share some of the information that might be helpful. In this case study example cooperation was high.

Calculation of Direct Economic Impact

To determine the direct participant, spectator and visitor impact the data gathered from the interviews needs to be summated by category (entry fees, hotel charges, ground transportation, retail sales, etc). The research team can then calculate the sample size average expenditure and apply those figures to the total patron attendance. The total direct economic impact for this event was $334, 528. Some patrons, spectators and visitors were local and a certain portion of non-locals shared expenditure expenses such as hotel and car rental charges. A variety of sub-calculations can also be made to detail various aspects of the event. Such data sets as average expenditure by distance travelled, by party size, by length of stay and by various demographic characteristics of the population are possible and helpful.

From these figures local and state tax revenues can be calculated and separated out, as well as return on investment if the organizers of the special event are interested. Figure three shows the local and state taxes generated by this special event.

Source	Tax Rate	Dollars
Hotel	9.00	$ 8,640.00
Retail	7.75	$ 12, 595.00
Total	-	$ 21, 235.00

Figure three: Local and state taxes generated by the local special event.

Calculation of Indirect Economic Impact

As mentioned earlier, some portion of dollars spent at the special event will be re-spent in the community for support goods and services. The amount depends on a number of factors that are connected to the highly localized economic flow. A number of local businesses will be the recipient of the new dollars expended and these businesses will then spend a portion of these new dollars to properly provide the needed goods and services. For example, the local car rental agency will have increased sales and overtime will need the rented cars maintained and repaired by a local auto shop. The local auto shop will take some of those new dollars from the maintenance work and purchase needed parts from the local auto parts store. This process continues for a period of time and is known as the economic multiplier effect. The amount of re-circulated dollars is different for each community and type of business impacted. Here is the determined economic impact for the case study community.

Direct Spending	$ 334, 528
X Multiplier amount	1.6
Direct Total	$ 551, 244
In-direct (DT – DS)	$ 206,716

Figure four: the calculation of the indirect (multiplier) effect or recirculation of spent dollars in the local community.

What we learn from this case study is that this three-day local athletic event generated $ 334,528 and after event expenses a certain amount was then given to the local charity that had been pre-selected. Also additional tax revenues were generated for the community as well as local businesses being the recipient of the economic impact of this community event. There are some cautions that should be known when calculating economic impact data.

Cautions

There are at least five possible warnings that one should be aware of if an economic impact study seems appropriate. Some of these cautions are very subtle but can still create errors if not careful.

1. Over-estimated multiplier effect: When calculating the indirect economic impact one should not use a factor that is aggressive and perhaps inflates the real re-circulation of expenditures phenomenon. There are a number of multiplier models and one should select that model that is most accurate for the community.
2. Leakage: This term refers to the amount of newly generated dollars that leak out of the community. For example, one of the vendors at the special event is from out of town. The vendor captures a certain amount of the spend dollars but then leaves the area without spending any of those dollars back into the community. Local vendors would leave their dollars in the community. It is helpful to know how many vendors are non-local and then calculation figures can be properly adjusted.
3. Recall and projection bias: It might occur that individuals who are interviewed are unable to accurately recall their past expenditures or to project what they think they will spend while at the event. There are a couple of possible solutions to this. The use of expenditure diaries so the dollar amounts are recorded at the moment of expenditure, the use of secondary sources so if the patron knows the name of the hotel that they are staying at but not the room rate that can be captured by the interviewer consulting the hotel directly, or increase the number of patrons interviewed assuming that a certain percent of attendees will either not participate in the interview or will struggle with detail.
4. Switching: When local community members come to the special event and spend money, it is possible that those dollars would have been spent in the community anyway but was switched from what they would have done to the special event. The expenditures of non-locals would be new to the community and not switched. Asking locals during the interview if they would be spending this money at some other place in the community is one way to capture some sense of the switching.

Conclusions

Holding a fund raising special event in the local community to benefit local or national charities is a fun and interesting experience but of course it is also hard work. The intent is to make a beneficial contribution working to generate dollars for the charity. Not to be missed, however is to capture any information that one can that helps to better explain other valuable economic contributions being made such as new tax revenues, new and additional local business and vendor opportunities and the re-circulation of some of those dollars. An economic impact study is one way to note these types of contributions.


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