

# MESA COUNTY ECONOMIC UPDATE

Second Quarter 2018



Provided by the Business Department  
of Colorado Mesa University

## Economic Summary

- The Mesa County economy is performing well with a 3.8% unemployment rate and high levels of sales tax income.
- The real estate market in Mesa County continues to be in a sellers market, with appreciating home values, falling inventory, and rising new building permit applications.
- Western Colorado drilling permit applications are down from Q1 of 2017. Oil prices moved higher, but natural gas prices are holding steady. Rig count in the Piceance moved from 8 to 7.
- The national economy is strong with a growth rate of 2.3%. Unemployment remains low and industrial production and consumer confidence are high.

The Mesa County Economic Update is provided by the Business Department of Colorado Mesa University and is published quarterly. Please direct all correspondence to Dr. Nathan Perry, Associate Professor of Economics, 970.248.1888, naperry@coloradomesa.edu.

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## LOCAL ECONOMIC INDICATORS

	Q1 2018	Q4 2017	Q1 2017	% change since last quarter	% change since last year (comparable quarters)
<b>Local Labor Market</b>					
Unemployment Rate Mesa County -SA	3.8%	3.9%	4.3%	-0.1%	-0.5%
Unemployment Rate Mesa County -NSA	4.5%	3.7%	4.9%	0.8%	-0.4%
Unemployment Rate Colorado -SA	3.0%	3.0%	2.7%	0.0%	0.3%
Unemployment Rate U.S. -SA	4.1%	4.1%	4.7%	0.0%	-0.6%
Labor Force	74,572	75,242	72,259	-0.9%	3.2%
Employed	71,232	72,465	68,736	-1.7%	3.6%
Unemployed	3,340	2,777	3,523	20.3%	-5.2%
<b>Business Confidence</b>					
Colorado Business Confidence Index	61.3	59.5	63.4	3.0%	-3.3%
<b>Sales/Use Taxes</b>					
City Sales/Use Taxes (Q1 total)	\$13,269,393	\$13,607,768	\$12,214,559	-2.5%	8.6%
City Sales/Use Taxes (Cumulative)	\$13,269,393		\$12,214,559		8.6%
Mesa County Sales/Use Tax (Q1 total)	\$8,382,075	\$8,624,148	\$7,291,225	-2.8%	15.0%
Mesa County Sales/Use Tax (Cumulative)	\$8,382,075		\$7,291,225		15.0%
City Lodging Tax Revenue (Q1 total)	\$211,444	\$378,964	\$202,275	-44.2%	4.5%
City Lodging Tax Revenue (Cumulative)	\$211,444		\$202,275		4.5%

Local Labor Market Yearly Indicators	2016	2015	2014	% change since 2015	% change from 2014
Median Household Income	\$51,449	\$50,106	\$48,108	2.7%	6.9%
	2017	2016	2015	% change since 2016	% change from 2015
Population	151,616	149,794	148,116	1.2%	2.4%

SOURCES IN ORDER OF LISTING: Local Unemployment Rates: Bureau of Labor Statistics (LAUS); National Unemployment Rate: Bureau of Labor Statistics; Labor Force, Employed, and Unemployed: Colorado Department of Labor and Employment; Business Confidence: Leeds Business Confidence Index; Sales/Use/Lodging Taxes: City of Grand Junction, Mesa County; Local labor market yearly indicators: U.S. Bureau of the Census.

## The Local Labor Market

The Mesa County Economy maintains a relatively low unemployment rate and continues its slow but steady increases in employment and labor force numbers. The seasonally adjusted unemployment rate fell from 3.9% in Q4 of 2017 to 3.8% in Q1 of 2018. The non-seasonally adjusted rate is 4.5%, up from 3.7% last quarter. The uptick in the non-seasonally adjusted rate is normal for the 4th and 1st quarters due to seasonal employment swings. The unemployment rate of 3.8% is below the national unemployment rate of 4.1%, but above the Colorado unemployment rate of 3%. Figure 5 on the next page illustrates the unemployment trend since 1990 graphically.

Table 1 illustrates the medium run view of employment changes, a comparison of Q1 to last year (2017), five years ago (2013), and ten years ago (2008). Compared to 10 years ago, the labor force is 5,157 smaller than it was, or 6.5% less. Employment is 5,374 less, or 7.0% less. There has been drastic increase in labor force numbers in Mesa County the last 2 years, with January 2016 labor force numbers at 70,823, and current numbers for Q1 2018 at 74,572.

Figure 1 illustrates the Mesa County GDP estimate. 2008 was the peak of GDP in the last 15 years due to the oil/gas boom. As the energy industry has been forced to scale down as a result of lower natural gas and oil prices, workers, their high wages, and the multiplier effects that come with high wage jobs have drastically retreated, resulting in a negative trend in GDP from 2009-2016.

Figure 2 illustrates the business cycle graph and shows a small rebound in 2014, only to be pushed down by a second wave of low gas prices in 2016. I expect these GDP numbers to be up for 2017 and 2018. Unfortunately, there is a significant lag for county level GDP estimates from the Bureau of Economic Analysis.

It speaks to the resilience of the Mesa County economy that GDP can have this negative trend but recent economic data, including unemployment and sales tax collection, seems to be very positive. Much of this is because energy workers relocate to other areas with energy jobs, which reduces unemployment.

Table 1:  
**Medium Run View of Employment (Based on Q1, 2018)**

	Labor Force	Employed	Unemployed
<b>Annual</b>	2,313	2,496	-183
<b>5-Year</b>	1,153	5,268	-4,115
<b>10-Year</b>	-5,157	-5,374	218
<b>Annual %</b>	3.2%	3.6%	-5.2%
<b>5-Year %</b>	1.6%	8.0%	-55.2%
<b>10-Year %</b>	-6.5%	-7.0%	7.0%

Figure 1:  
**Mesa County Real GDP Estimate**

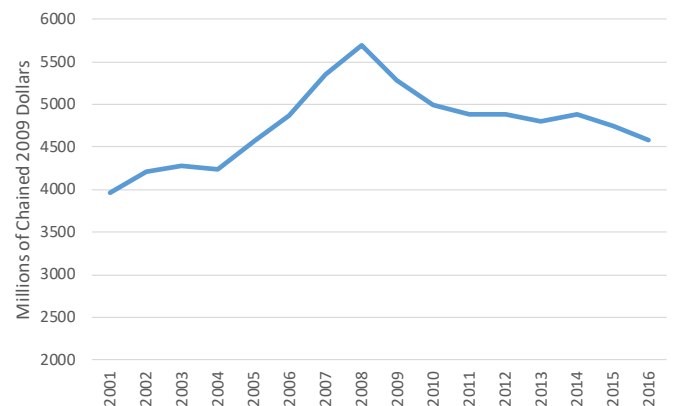
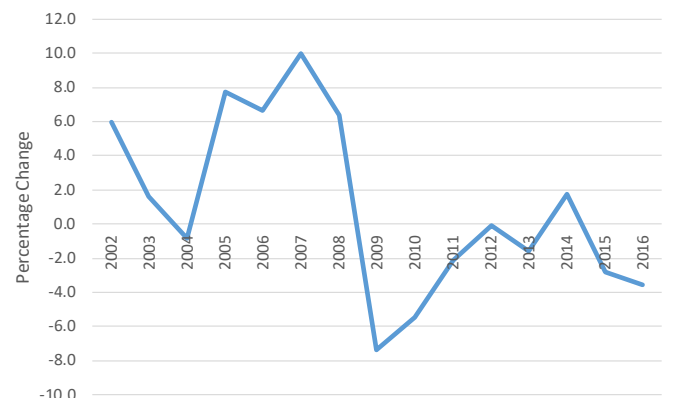


Figure 2:  
**Mesa County Business Cycle (% Change in Real GDP)**



SOURCE: FIGURES 1 AND 2: Bureau of Economic Analysis

Figure 3:  
**Mesa County Labor Force**

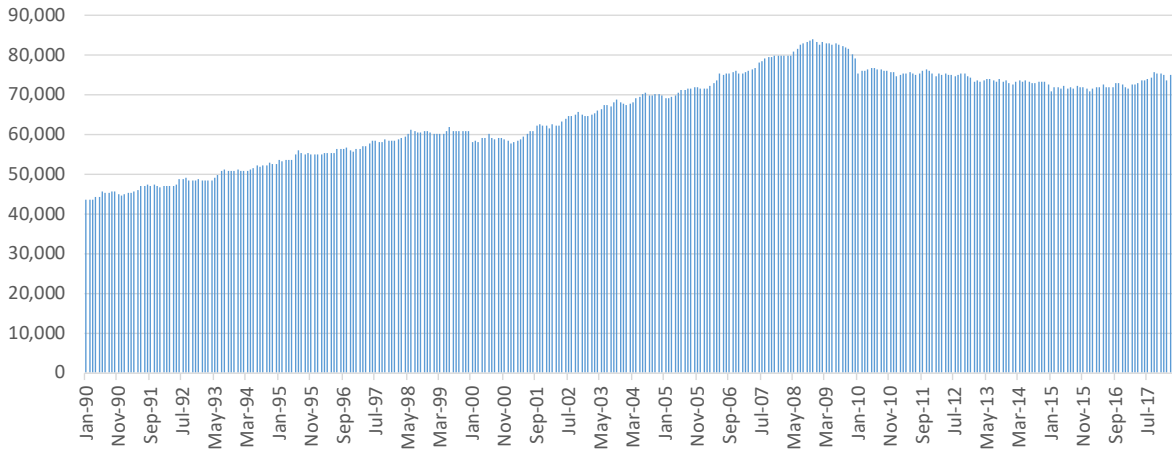


Figure 4:  
**Mesa County Unemployment**

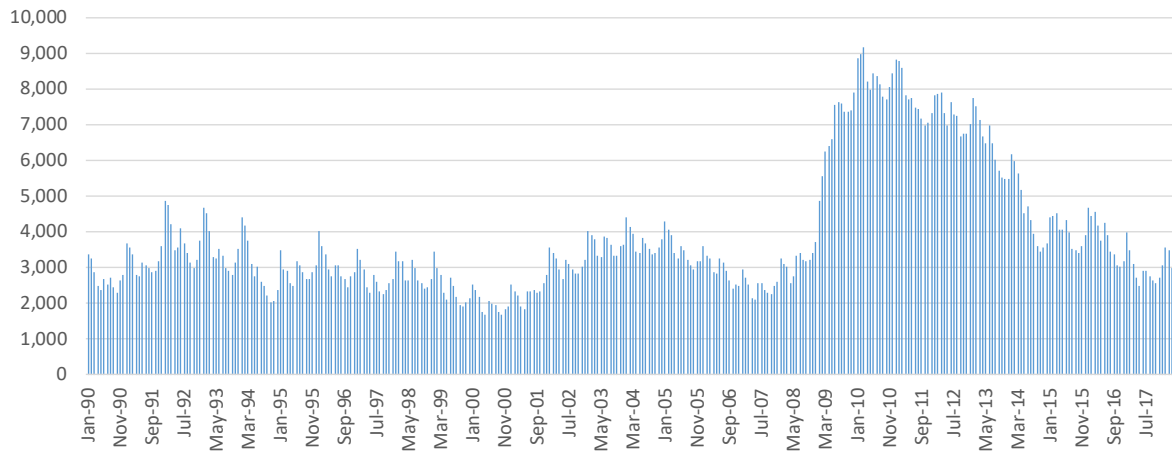
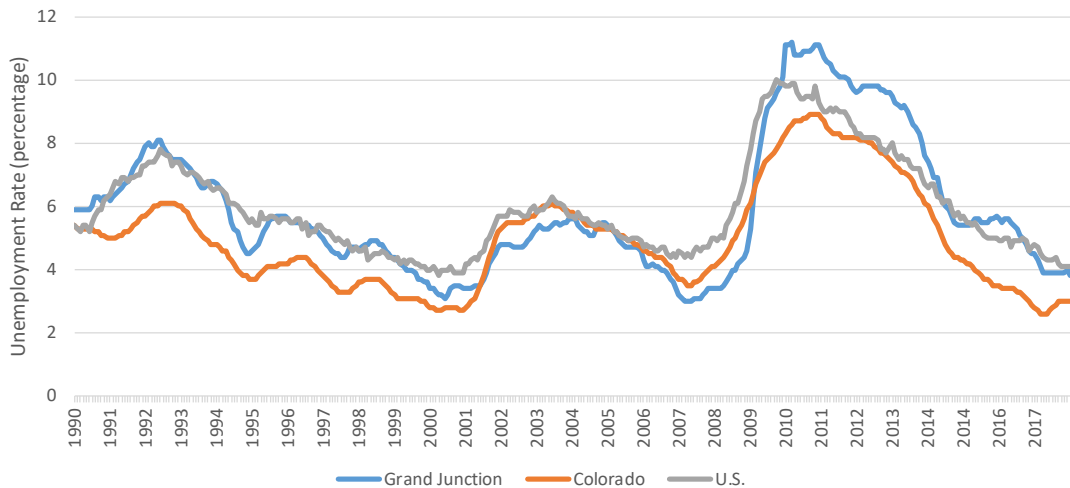


Figure 5:  
**Unemployment Rates**



SOURCE: Figures 2 and 3: Colorado Department of Labor and Employment. Figure 4: U.S. Bureau of Labor Statistics

## Mesa County Employment Trends

Table 2 illustrates average employment, total quarterly wages, and average weekly wage for all major industries in Mesa County. The natural gas industry (mining, quarrying, and oil and gas extraction) continues its huge employment surge from the employment lows of 2016. Since quarter 4 of 2016, employment in the gas/oil/mining industry is up by 925 jobs, increasing employment numbers by 57.3% (see figure 9 in the Regional Energy section). The energy industry had an increase in wages of 6.5% and pays one of the highest weekly wages at \$1,660 per week. Management of companies and enterprises saw a 9.2% increase in employment, while arts, entertainment, and recreation is up 6.9%. Construction (5.5%), manufacturing (6.3%), and transportation and warehousing (6.2%) saw large increases in employment year over year. There were large wage gains for almost all industries, with management of companies and enterprises (14.4%) and administrative and waste services (13.6%) leading the way.

Table 2:  
**Quarterly Census of Employment and Wages for Q4 2017**

Sector	Average Employment 4th Quarter 2017	Total Quarterly Wages	Average Weekly Wage	Annual Percent Change in Employment (Compared to Q4 2016)	Annual Percent Change in Average Weekly Wages (Compared to Q4 2016)
<b>Total</b>	61,996	\$688,045,823	\$854	3.3%	4.5%
<b>Total Government</b>	9,534	\$115,526,279	\$932	-0.2%	1.9%
<b>Total Private</b>	52,463	\$572,519,544	\$839	4.0%	5.1%
Health Care and Social Assistance	10,454	\$122,864,787	\$904	3.5%	-2.5%
Retail Trade	8,345	\$61,391,007	\$566	-1.1%	6.6%
Construction	4,263	\$59,360,875	\$1,071	5.5%	4.8%
Mining, Oil, and Gas Extraction	2,538	\$54,784,495	\$1,660	57.3%	6.5%
Wholesale Trade	2,429	\$37,858,148	\$1,199	5.3%	6.4%
Manufacturing	3,058	\$35,040,106	\$881	6.3%	2.9%
Finance and Insurance	1,997	\$34,007,255	\$1,310	0.3%	4.5%
Professional and Technical Services	2,094	\$33,145,212	\$1,218	0.3%	-3.6%
Accommodation and Food Services	6,826	\$32,435,647	\$366	3.0%	7.3%
Transportation and Warehousing	2,201	\$27,477,988	\$960	6.2%	4.5%
Administrative and Waste Services	2,963	\$25,706,077	\$667	-3.9%	13.6%
Other Services, Ex. Public Admin	1,743	\$13,833,863	\$611	5.2%	1.0%
Real Estate and Rental and Leasing	1,025	\$10,875,465	\$816	0.6%	7.7%
Information	647	\$7,390,419	\$879	-5.4%	-4.1%
Management of Companies and Enterprises	167	\$4,662,485	\$2,148	9.2%	14.4%
Utilities	189	\$3,692,311	\$1,503	-4.5%	4.2%
Arts, Entertainment, and Recreation	853	\$3,465,209	\$312	6.9%	-3.7%
Agriculture, Forestry, Fishing & Hunting	330	\$2,481,930	\$579	-6.0%	6.4%
Educational Services	330	\$1,961,625	\$457	-0.6%	-1.1%

SOURCE: Colorado Department of Labor and Employment (QCEW). The most recent quarterly data available is reported.

## Sales/Use/Lodging Taxes and Business Confidence

Sales tax collections are up 8.6% for the city and 15% for the county year over year. Local consumers are feeling the wealth effect of high asset valuations, low unemployment, and rising wages, while local governments reap the benefits. City lodging tax revenue is up 4.5%, showing a strong increase in tourism. Colorado business confidence is up 3.3% from last quarter, but down 3% from last year. The Mesa County population grew 2.4% from last year, which is a good sign considering that population growth has stagnated since the oil/gas boom.

## LOCAL REAL ESTATE

	Q1 2018	Q1 2017	% change since last year
<b>Real Estate</b>			
Current Residential Listings (3 month avg)	698	850	-17.8%
Sold Residential Listings	772	628	22.9%
Days on Market	65	85	-23.5%
Median Sales Price	\$230,000	\$208,953	10.1%
Single Family Home Sales	785	681	15.3%
Total Building Permits	994	828	20.0%
Single Family Permits Mesa County	203	121	67.8%
<b>Foreclosures</b>			
Foreclosure Filings	74	118	-37.3%
Foreclosure Sales	56	65	-13.8%
<b>Freddie Mac House Price Index</b>			
Grand Junction	183	163	12.3%
Colorado	197	178	10.3%
National	182	170	7.5%
<b>Mortgage Rates</b>			
30 Year Mortgage Rate	3.9%	3.8%	0.1%
15 year Mortgage Rate	4.3%	4.2%	0.1%

SOURCES IN ORDER OF LISTING: Current and Sold Residential Listings, Days on Market: Bray Real Estate (from MLS); Median Sales Price, Single Family Home Sales, Permits: Mesa County Assessor's Office; Foreclosure Filings and Sales: Mesa County Public Trustee Office; Freddie Mac House Price Index and Mortgage rates: Freddie Mac.

## Local Real Estate Indicators

The Mesa County real estate market is extremely hot, with prices increasing 10.1% since Q1 of 2017. Sold listings have risen, and current residential listings have fallen, which means that there is less inventory, pushing prices higher. Single family home sales are up 15.3%, while a strong economy and low housing inventory have encouraged many buyers to choose to build. Single family home permits have risen 67.8% since last year, while total building permits are up 20%. According to the Freddie Mac house price index, Grand Junction homes are appreciating higher than both the Colorado average as well as the national average. An important economic issue for builders is the huge increase in lumber prices, brought on both by high demand and trade disputes with Canada. This combined with higher interest rates could push new home prices higher than in the past.

## Mortgage Rates

30-year mortgage rates are generally based on the 10-year treasury bond, with an average markup depending on risk factors (figure 7). As the Federal Reserve increases the federal funds rate, it will put upward pressure on the 10-year treasury bond, pushing mortgage rates higher. However, historically there is not a one-to-one relationship between the federal funds rate and the 10-year treasury bond. Figure 6 illustrates that there have been many instances in history where the Federal Reserve increased the federal funds rate and the 10-year treasury bond did not follow. Although we can expect higher mortgage rates, it is not clear how high mortgage rates will climb even if the Federal Reserve is committed to raising them. The Federal Reserve has stopped purchasing treasury bonds, but world demand for treasury bonds remains strong, keeping long term interest rates relatively low.

Figure 6:  
**Federal Funds and the 10 Year Treasury**

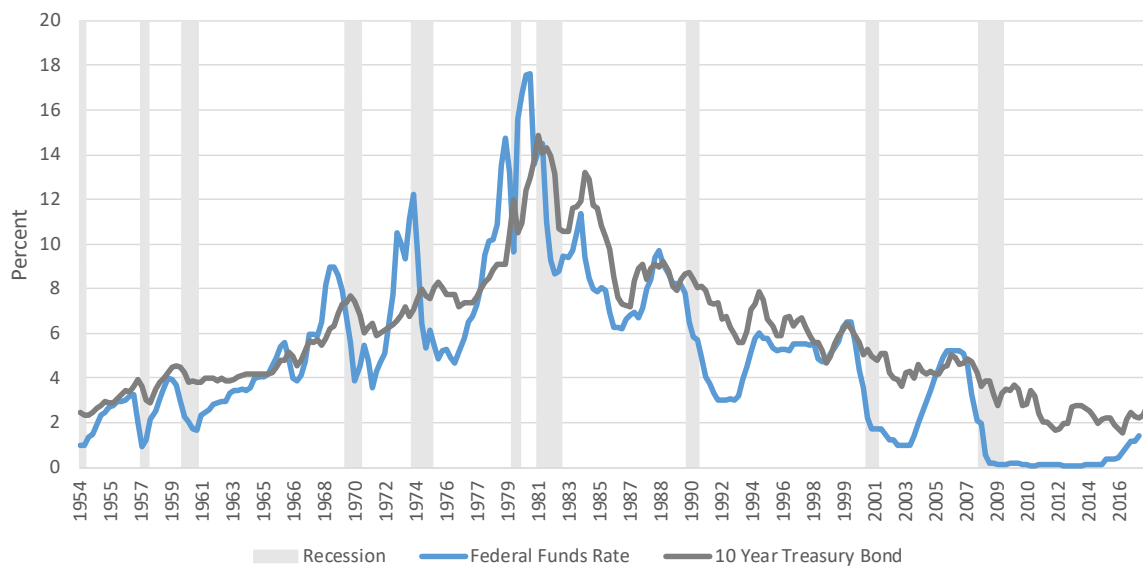
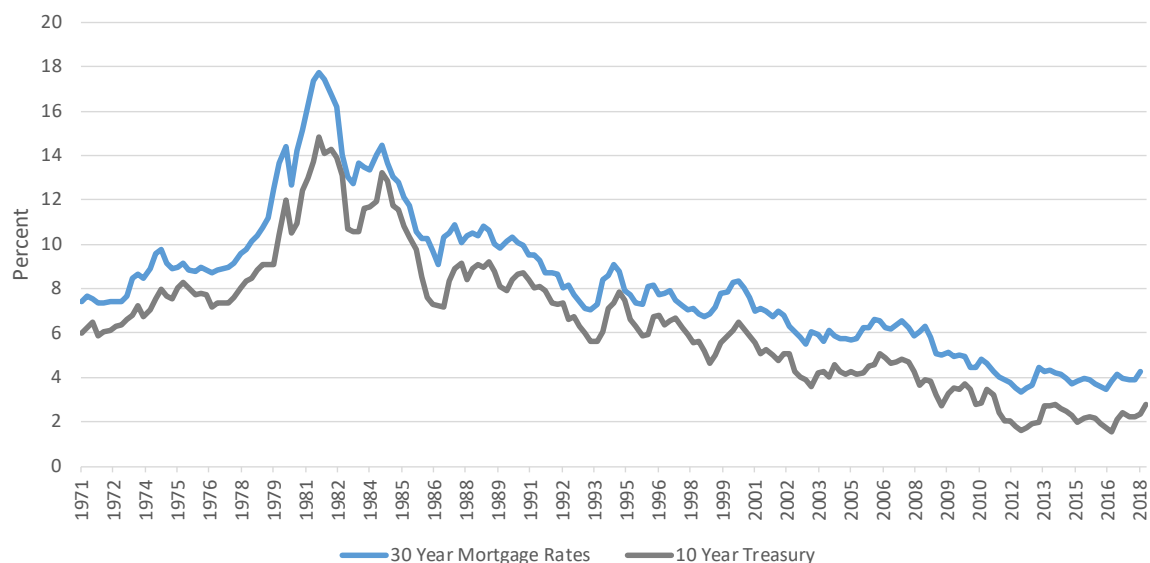


Figure 7:  
**10 Year Treasury and the 30 Year Mortgage Rate**



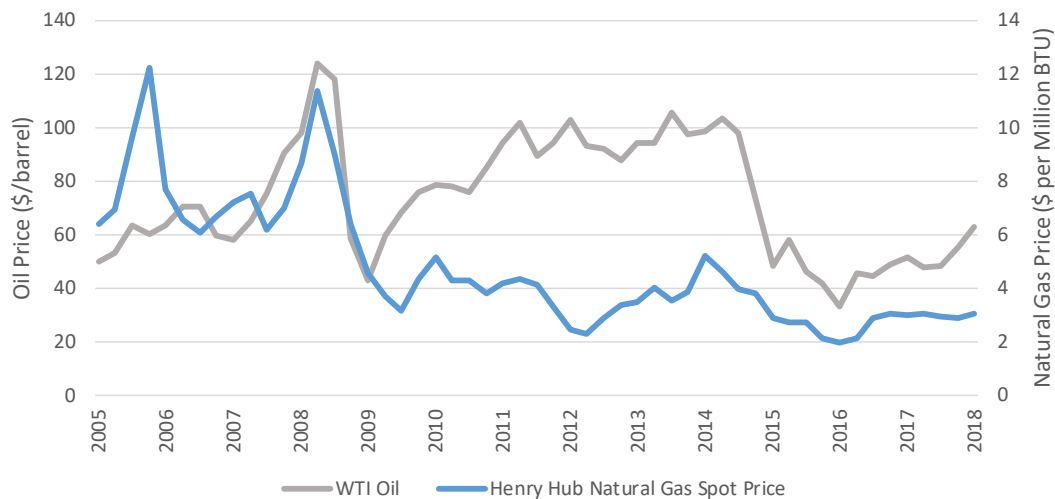
SOURCE: Figures 6 and 7: Federal Reserve Board

## REGIONAL ENERGY

	Q1 2018	Q4 2017	Q1 2017	% change since last quarter	% change since last year (comparable quarters)
<b>Energy Prices</b>					
WTI Crude Oil	\$62.9	\$55.3	\$51.6	13.8%	21.9%
Brent Crude Oil	\$66.9	\$61.4	\$53.6	8.9%	24.8%
Henry Hub Natural gas	\$3.1	\$2.9	\$3.0	6.2%	2.3%
Retail Gasoline Price	\$2.5	\$2.4	\$2.3	2.1%	10.2%
<b>Drilling Permits</b>					
	2018 YTD (as of March 1st)	2017 YTD (as of March 2nd)	% change since last year		
Drilling Permits (Mesa County)	3	30	-90.0%		
Drilling Permits (Rio Blanco County)	51	71	-28.2%		
Drilling Permits (Garfield County)	16	79	-79.7%		
Drilling Permits (Moffat County)	0	1	-100.0%		
Total Permits (Mesa, Rio Blanco, Garfield, Moffat)	70	181	-61.3%		
Total Permits (Colorado)	419	478	-12.3%		
<b>Local Rig Count</b>					
	May-18	Feb-18			
Rig Count (Western Colorado, Mesa, Rio Blanco, Garfield, Moffat)	7	8			

SOURCES IN ORDER OF LISTING: All energy prices: Energy Information Agency; All permit data from Colorado Oil and Gas Conservation Commission (COGCC); Local Rig Count: Baker Hughes Rig Count as of February 25th, 2018.

Figure 8:  
**Oil and Natural Gas Prices**



SOURCE: Energy Information Agency



## Natural Gas Prices

Natural gas prices rose in Q1 2018 to \$3.1/MMBtu from \$2.9/MMBtu. Much of this increase was due to an extremely cold January that pushed natural gas prices to 3.87/MMBtu, but a warmer February and March pushed prices to 2.67/MMBtu and 2.69/MMBtu, respectively. Prices are expected to average 3.01/MMBtu for 2018, with EIA forecasting higher natural gas prices in 2019 at 3.11/MMBtu.

Natural gas production continues its record setting output. In 2017, natural gas production averaged 73.6 cubic feet per day (Bcf/d). For 2018, the EIA forecasts the largest production of natural gas ever, with a forecast of 80.5 Bcf/d. Preliminary forecasts for natural gas production in 2019 show production at 83.3 Bcf/d. These forecasts include the estimation of the continued increase in U.S. natural gas exports. Natural gas exports in 2017 were 0.4 Bcf/d, the 2018 forecast is 2.0 Bcf/d, and 4.6 Bcf/d in 2019.

Figure 9 illustrates a distinct trend between natural gas prices and employment in the oil/gas industry in Mesa County. As gas prices have moderately recovered from 2016 lows employment in that industry has risen.

## Oil Prices

Oil prices have been rising sharply, increasing 13.8% from last quarter and 21.9% from last year. Oil prices averaged \$62.9 for Q1, and have been increasing consistently. Several factors are pushing crude oil prices higher: 1) A robust U.S. economy. 2) A reasonably strong world economy. 3) OPEC and Russia's commitment to raising oil prices by cutting production. 4) World tensions that increase oil supply risk, including the withdrawal from the Iran nuclear deal. This withdrawal has increased the risk that both Israel and Saudi Arabia go to war with Iran. In addition to this, the collapsing government and economy of Venezuela continues to keep their production low. An actual conflict with Iran would drastically increase oil prices. As of May 26th, OPEC is now concerned about higher prices and is discussing how to increase output, which could lower prices for the summer.

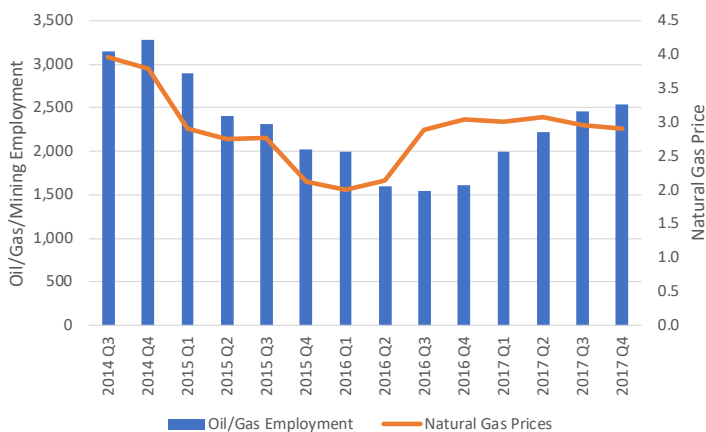
These high crude oil prices have led to high gasoline prices. Gas prices are up 10% from last year at \$2.5/gallon. Note that as of May 2018, Gasbuddy.com finds the average gas prices in Mesa County to be between \$2.96 and \$3.10.

## Western Slope Drilling Activity

Western slope drilling activity in Q1 of 2018 is down by one rig, changing from 8 to 7. All rigs in the Piceance are currently engaged in natural gas drilling. Drilling permits for the first quarter are down across the board. However, it is important to note that drilling permits have a very high variance, meaning that they may be low this quarter but they could drastically increase in the next. Next quarter's cumulative total will give a clearer picture of the drilling permit situation in the Piceance.

Figure 9:

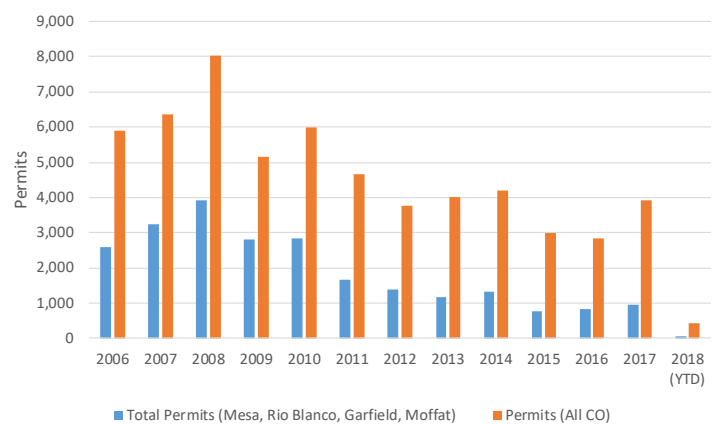
### Oil/Gas/Mining Employment for Mesa County



SOURCE: Bureau of Labor Statistics and the Energy Information Agency

Figure 10:

### Total Drilling Permits: Western Colorado vs. Colorado



SOURCE: Colorado Oil and Gas Conservation Commission

Sources: <https://www.eia.gov/outlooks/steo/report/natgas.php>. Retrieved May 25th, 2018.  
<https://www.gasbuddy.com/GasPriceMap>. Retrieved May 25th, 2018.

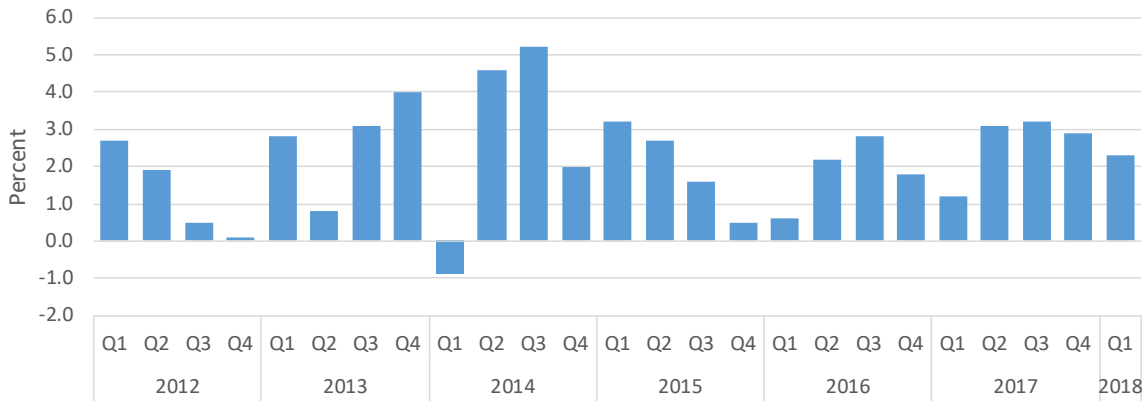


## NATIONAL ECONOMIC INDICATORS

	Q1 2018	Q4 2017	Q1 2017	% change since last period	% change since last year (comparable quarters)
<b>Business Cycle Indicators</b>					
Real GDP	2.3%	2.9%	1.2%	-0.6%	1.1%
Personal Consumption Expenditures (PCE)	1.1%	4.0%	1.9%	-2.9%	-0.8%
Business Fixed Investment	6.1%	6.8%	4.7%	-0.7%	1.4%
National Consumer Confidence	98.4	95.10	93.1	3.5%	5.7%
Industrial Production Index	105.9	105.3	102.5	0.6%	3.3%
Initial Weekly Unemployment Claims (4 week MA)	230,096	239,673	246,604	-4.0%	-6.7%
Non Farm Payroll Change (in thousands)	2,208	2,177	2,408	1.5%	-8.3%
<b>Unemployment</b>					
Unemployment Rate-U3-SA	4.1%	4.1%	4.7%	0.0%	-0.6%
Unemployment Rate-U6-SA	8.1%	8.0%	9.1%	0.1%	-1.0%
<b>Interest Rates</b>					
10 Year U.S. Treasury	2.8%	2.4%	2.4%	0.4%	0.4%
30 Year U.S. Treasury	3.0%	2.8%	3.1%	0.2%	-0.1%
Federal Funds Rate	1.4%	1.2%	0.7%	0.2%	0.7%
<b>Inflation Measures</b>					
Inflation Rate (CPI)	2.3%	2.1%	2.6%	0.2%	-0.3%
Core Inflation Rate (All Items Less Food and Energy)	1.9%	1.7%	2.1%	0.2%	-0.2%
Inflation Rate (Shelter)	3.2%	3.2%	3.5%	0.0%	-0.3%
Producer Price Index (PPI)	3.9%	4.6%	5.1%	-0.7%	-1.2%
Employment Cost Index	2.7%	2.7%	2.4%	0.0%	0.3%
<b>Stock Prices</b>					
S&P 500	2,733	2,603	2,326	5.0%	17.5%
Dow Jones Industrial Average	25,127	23,689	20,406	6.1%	23.1%

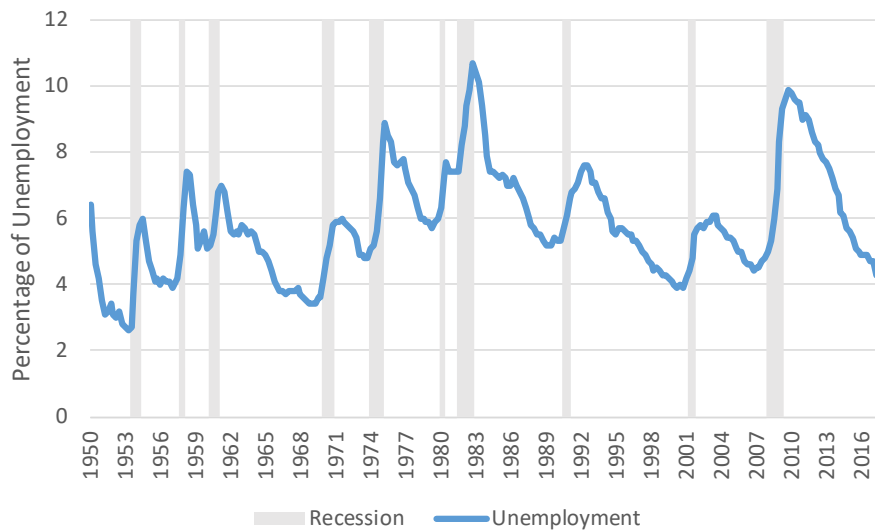
SOURCES IN ORDER OF LISTING: GDP, Consumption, and Investment: Bureau of Economic Analysis; Industrial Production: Board of Governors of the Federal Reserve System; Consumer Expectations: University of Michigan; Weekly Unemployment Claims: U.S. Employment and Training Administration. Non-Farm Payroll, Unemployment Rates, Inflation Measures: Bureau of Labor Statistics; Stock Prices: S&P Dow Jones Indices, LLC.

Figure 11:  
**Real GDP**



Source: Bureau of Economic Analysis

Figure 12:  
**U.S. Unemployment: 1950-2017**



Source: Bureau of Labor Statistics

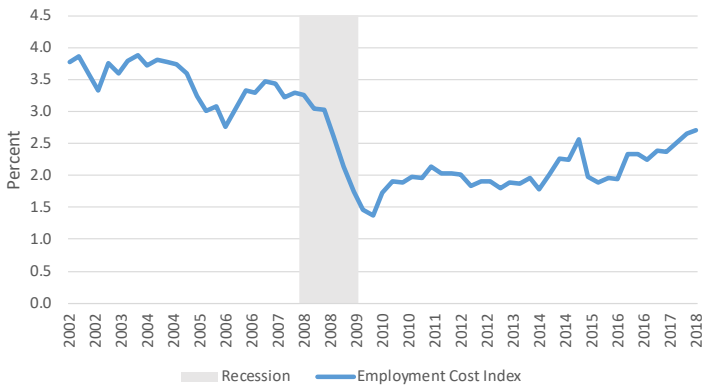
## National Economic Performance

The national economy continues its strong growth pace with 2.3% growth in Q1 of 2018, up from 1.2% the previous year (figure 11). The Atlanta Federal Reserve forecasts that GDP growth will come in at 4% in Q2 2018. Personal consumption has slipped, in a slightly worrying trend, but national consumer confidence remains high. Investment remains strong at 6.8%, while industrial production is up 3.3% from last year. Weekly unemployment claims continue to fall as the economy continues to add jobs. Non-farm payrolls are still positive, however there is a trend graphically that shows employment gains are starting to slow, which is typical of a low unemployment economy. Unemployment remains low at a seasonally adjusted rate of 4.1%, while the U6 measure of unemployment which counts discouraged workers, has fallen to 8.1%. Figure 12 illustrates

historical unemployment numbers.

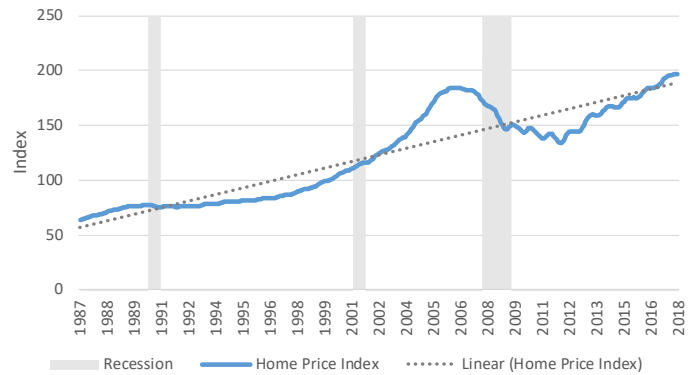
Inflation remains within the Federal Reserve's target range of 2-3%, coming in at 2.3%. The Federal Reserve uses the CPI that omits volatile food and energy prices (known as core inflation) as their target inflation measure. The Federal Reserve has a target of 2% for core inflation, and it currently sits at 1.9%. The producer price index (PPI), which measures the price of input costs to businesses fell to 3.9% from 4.6% last quarter. Oftentimes the PPI will increase before the CPI does, and can be a leading indicator for the CPI, but the PPI remains relatively low. The employment costs index remains steady at 2.7%. The employment cost index is a measure of wages, and this low number is perplexing in an economy with 4.1% unemployment.

Figure 13:  
**Employment Cost Index**



Source: Bureau of Labor Statistics

Figure 14:  
**S&P/Case Schiller National Home Price Index**



Source: S&P Dow Jones Indices LLC

### National Economic Performance Continued

Most economists expect wage gains to be higher in an economy that is as robust as our current one. This is bad news for workers since wage gains seem hard to come by, but good news for low inflation since wages have a strong impact on inflation. Many economists believe that there is still slack in the labor force which is preventing wages from rising. This theory would explain the continued increase in non-farm payrolls despite such low unemployment numbers. In May, the Federal Reserve voted to not increase interest rates, keeping the Federal Funds rate steady at its range of 1.5% to 1.75%. Most economists believe the Federal Reserve will increase interest rates in the coming months. As long as inflation stays low, large interest rate increases may not be as necessary. There is also some international pressure to not raise rates too high because it puts upward pressure on the dollar, causing problems in countries such as Turkey and Argentina in the form of higher debt payments. Ultimately, the national economy is in good shape. Unemployment is low, inflation is low, consumer and business confidence are high, spending is high, industrial production is high; all signs point to a robust economy.

There are a few negative signs, including potential asset price bubbles, in the stock market, bond market, and housing market. Many economists, including ex-Federal Reserve chairman Alan Greenspan, believe that there is both a stock market and bond market bubble, but there is definitely not a consensus among economists on this issue. A bond market bubble pop would result in rising interest rates. Whether the housing market is overvalued is also up for debate. Housing is moving up briskly and is now more expensive than during the 2008 bubble. Another troubling sign is the low labor productivity numbers since the recession. From 1988 to 2008 labor productivity growth averaged 2.2%, while 2009 to 2017 labor productivity averaged 1.2%.



The Mesa County Economic Update is compiled and written by Dr. Nathan Perry, Associate Professor of Economics at Colorado Mesa University.

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