

# MESA COUNTY ECONOMIC UPDATE

Second Quarter 2019



Provided by the Business Department of Colorado Mesa University

## Economic Summary

- The number of employed is up significantly from last year, increasing by 2,281 since Q1 of 2018. Construction and healthcare are the big gainers from last year, while oil and gas which was the big contributor in 2017 and early 2018, has slowed since Q4 2018.
- The Mesa County real estate market continues its strong run with a median sales price increase of 10.88% from last year, while average home values increased by 8.68%. The Freddie Mac House Price Index confirms this price change, showing an increase of 8.69%, higher than both the Colorado and National average gains.
- The national economy continues to be strong with the lowest unemployment rate in 50 years. Some cracks are starting to show, with the yield curve inverting in both March and May. Yield curve inversions are strong predictors of coming recessions.

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.

## CONTENTS

|   |          |
|---|----------|
| <b>Local Economic Indicators.....</b>     | <b>1</b> |
| The Local Labor Market .....              | 2        |
| Mesa County Employment Trends .....       | 4        |
| <b>Local Real Estate Indicators .....</b> | <b>5</b> |
| Local/National Real Estate Analysis ...   | 5        |
| <b>Local Energy .....</b>                 | <b>6</b> |
| Oil/Natural Gas/Gasoline Prices .....     | 7        |
| Oil and Gas Industry Report .....         | 8        |
| <b>National Economic Indicators .....</b> | <b>9</b> |
| National Economic Performance .....       | 10       |
| Interest Rates and the Yield Curve.....   | 11       |

## LOCAL ECONOMIC INDICATORS

|  | Q1 2019      | Q4 2018      | Q1 2018      | % change since last quarter | % change since last year (comparable quarters) |
|--|--------------|--------------|--------------|-----------------------------|--|
| <b>Local Labor Market</b>              |              |              |              |                             |  |
| Unemployment Rate Mesa County -SA      | 4.50%        | 4.40%        | 3.80%        | 0.10%                       | 0.70%  |
| Unemployment Rate Mesa County -NSA     | 4.70%        | 4.30%        | 4.40%        | 0.40%                       | 0.30%  |
| Unemployment Rate Colorado -SA         | 3.60%        | 3.60%        | 2.90%        | 0.00%                       | 0.70%  |
| Unemployment Rate U.S. -SA             | 3.90%        | 3.80%        | 4.10%        | 0.10%                       | -0.20%   |
| Labor Force                            | 77,135       | 77,524       | 74,490       | -0.50%                      | 3.55%  |
| Employed                               | 73,480       | 74,198       | 71,198       | -0.97%                      | 3.20%  |
| Unemployed                             | 3,655        | 3,326        | 3,291        | 9.90%                       | 11.06%   |
| <b>Business Confidence</b>             |              |              |              |                             |  |
| Leeds Colorado Business Confidence     | 52.7         | 50.1         | 61.3         | 5.19%                       | -14.03%  |
| <b>Sales/Use Taxes</b>                 |              |              |              |                             |  |
| City Sales/Use Taxes (Q1 total)        | \$14,070,621 | \$14,441,023 | \$13,269,393 | -2.56%                      | 6.04%  |
| City Sales/Use Taxes (Cumulative)      | \$14,070,621 |              | \$13,269,393 |                             | 6.04%  |
| Mesa County Sales/Use Tax (Q1 total)   | \$8,687,554  | \$9,102,141  | \$8,382,075  | -4.55%                      | 3.64%  |
| Mesa County Sales/Use Tax (Cumulative) | \$8,687,554  |              | \$8,382,075  |                             | 3.64%  |
| City Lodging Tax Revenue (Q1 total)    | \$369,510    | \$402,700    | \$211,444    | -8.24%                      | 74.76%   |
| City Lodging Tax Revenue (Cumulative)  | \$369,510    |              | \$211,444    |                             | 74.76%   |

| Grand Junction Regional Airport                  | Q1 2019  | Q4 2018  | Q1 2018  | % change from last quarter | % change from last year |
|--|----------|----------|----------|----------------------------|-------------------------|
| Scheduled Enplanements                           | 57,863   | 62,758   | 50,605   | -7.80%                     | 14.34%                  |
| Yearly Local Indicators                          | 2017     | 2016     | 2015     | % change since 2016        | % change from 2015      |
| Median Household Income                          | \$52,623 | \$49,825 | \$51,449 | 5.62%                      | 2.28%                   |
| Percent of Population Below Poverty Line         | 16.00%   | 16.30%   | 15.60%   | -0.30%                     | 0.40%                   |
| Population                                       | 151,616  | 149,794  | 148,116  | 1.22%                      | 2.36%                   |
| Mesa County Gross Regional Product (in millions) | \$4,842  | \$4,649  | \$4,758  | 4.15%                      | 1.77%                   |

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; Scheduled Enplanements: Grand Junction Regional Airport; Median Household Income, Poverty Rate, and Population: U.S. Bureau of the Census; Gross Regional Product: Bureau of Economic Analysis. Note that in all rows where percentages are presented the % change since last quarter and % change since last year represents the difference between the two percentages, not the actual percentage change.

## Local Labor Market

Quarterly unemployment ticked up slightly in Q1 moving to 4.5% from 3.8% in Q1 of the previous year. This uptick in unemployment was apparent in several Western Slope counties. The high quarterly number was driven by a large spike in January's unemployment. Since January, unemployment has returned to lows, falling to 4.6% in February, 3.8% in March, and a very low 3.3% in April. It seems that the temporary uptick, which was high even when seasonally adjusted, was temporary, and Mesa County is back to extremely low unemployment rates.

The number of employed is up significantly from last year, increasing by 2,281 since Q1 of 2018. As discussed in the last economic update, 2018 was a very strong year for Mesa County employment growth. Table 1 shows that labor force numbers are up 2,645 from Q1 2018, with only an increase of 364 unemployed. Looking at the 5 year data, employment is up 6,203 from Q1 of 2014. Employment fell from Q4 of 2018 but it was likely seasonal. Comparing same quarters eliminates the seasonality. With a strong labor market (in terms of employment), we can expect strong 2018 numbers for both GDP as well as median household income when they are released.

## Other Local Data

Sales and use taxes for both the city and county are up over last year. City sales and use taxes are up 6%, while county sales taxes are up 3.64%. City lodging tax revenues are up 74.8%, a result of the recent increase in the city's lodging tax. Colorado business confidence is down from last year, moving from from 61.3 to 52.7, potentially reflecting business expectation that our economic run may be ready to slow. Airport enplanements are up 14.34% from Q1 last year. Yearly economic indicators are unchanged from the last economic update.

Table 1:  
**10, 5, and 1 Year Employment Comparison (Q1 Comparisons)**

|                  | Labor Force | Employed | Unemployed |
|------------------|-------------|----------|------------|
| <b>Annual</b>    | 2,645       | 2,281    | 364        |
| <b>5-Year</b>    | 3,936       | 6,203    | -2,267     |
| <b>10-Year</b>   | -5,809      | -3,919   | -1,890     |
| <b>Annual %</b>  | 3.55%       | 3.20%    | 11.06%     |
| <b>5-Year %</b>  | 5.38%       | 9.22%    | -38.28%    |
| <b>10-Year %</b> | -7.00%      | -5.06%   | -34.09%    |

Figure 1:  
**5 Year Employment**

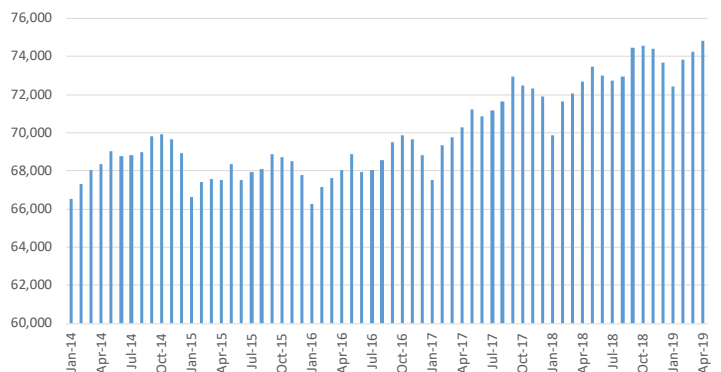


Figure 2:  
**Mesa County Median Household Income**

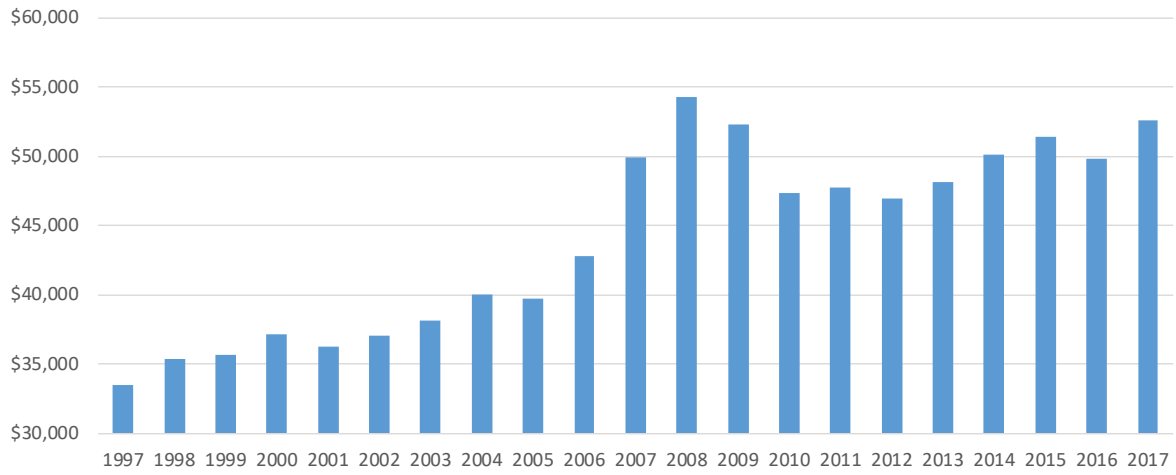


Figure 3:  
**Mesa County Employment with Trend Line**

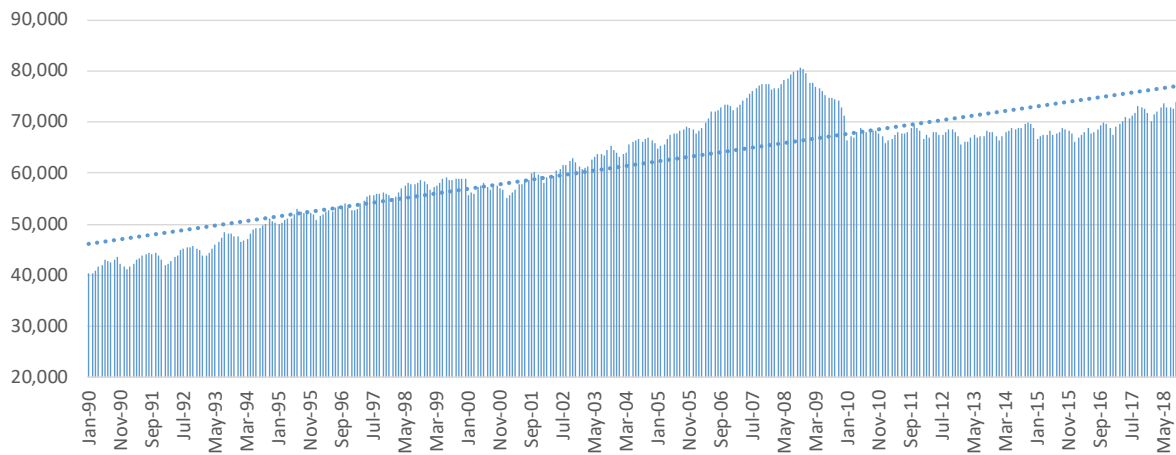
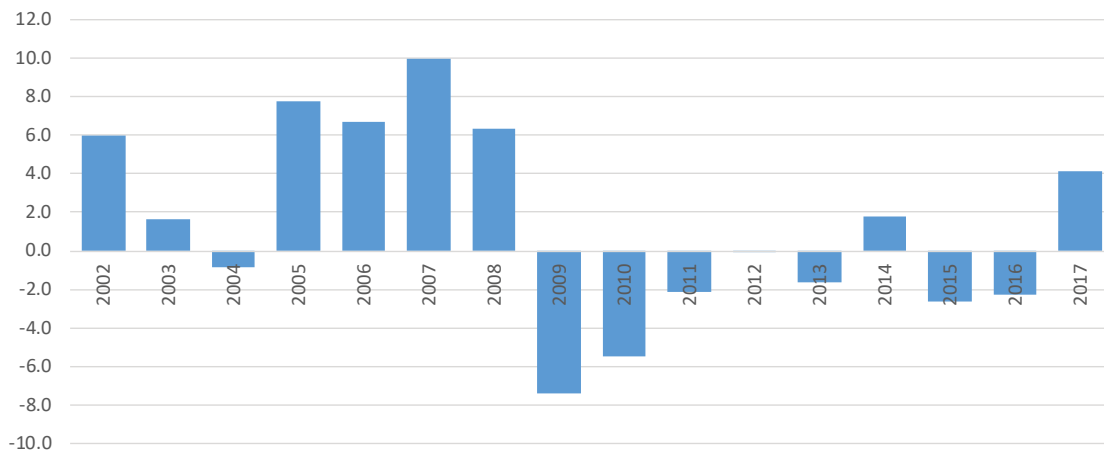


Figure 4:  
**Mesa County GDP Growth Rate**



## Mesa County Employment Trends

Last quarter's economic update compared the stagnant 2016 to the strong years of 2017 and 2018 and found that oil and gas was responsible for much of the wage gains. Those large wage gains mostly took place in a moderate sized run-up in the industry through most of 2017, peaking in Q4 of 2017 at 2,538 jobs. Since Q4 2017 oil and gas employment has held steady, with Q4 2018 showing some slowing. I am expecting the oil and gas employment numbers to fall when we get 2019 QCEW data, as lower rig counts and lower natural gas prices will reduce employment in that industry. Since Q4 of 2017, the biggest employment gains have been in construction and healthcare, with educational services and professional/technical services also with big gains. Notable losses were in administrative and waste services, with some small losses in oil and gas in late 2018. Overall, employment and wages are way up from last year, reflecting the strong Mesa County economy in 2018.

Table 2:  
**Quarterly Census of Employment and Wages Q4 2018 Compared to Q4 2017**

| Sector                                   | Average Employment Q4 2018 | Total Quarterly Wages (Q4 2018) | Average Weekly Wage (Q4 2018) | Total Employment Change (Q4 2017 to Q4 2018) | Total Wage Change (Q4 2017 to Q4 2018) |
|--|----------------------------|---------------------------------|-------------------------------|--|--|
| Total, All Industries                    | 63,537                     | \$739,207,116                   | \$895                         | 1,541  | \$51,161,293                           |
| Health Care and Social Assistance        | 11,903                     | \$156,508,211                   | \$1,011                       | 449  | \$15,097,632                           |
| Construction                             | 5,062                      | \$72,992,552                    | \$1,109                       | 628  | \$11,167,699                           |
| Retail Trade                             | 8,335                      | \$66,219,380                    | \$611                         | -10  | \$4,828,373                            |
| Mining, Oil and Gas                      | 2,391                      | \$54,827,936                    | \$1,764                       | -147   | \$43,441                               |
| Educational Services                     | 4,969                      | \$48,565,011                    | \$752                         | 156  | \$2,201,489                            |
| Public Administration                    | 3,301                      | \$45,612,681                    | \$1,063                       | 84   | \$4,938,417                            |
| Professional and Technical Services      | 2,289                      | \$38,308,228                    | \$1,287                       | 156  | \$4,377,901                            |
| Wholesale Trade                          | 2,462                      | \$38,264,534                    | \$1,196                       | 33   | \$406,386                              |
| Manufacturing                            | 3,161                      | \$36,664,710                    | \$892                         | 103  | \$1,624,604                            |
| Accommodation and Food Services          | 6,878                      | \$35,097,397                    | \$393                         | 52   | \$2,661,750                            |
| Transportation and Warehousing           | 2,609                      | \$35,083,635                    | \$1,034                       | 79   | \$2,407,817                            |
| Finance and Insurance                    | 1,940                      | \$32,638,837                    | \$1,294                       | -57  | -\$1,368,418                           |
| Administrative and Waste Services        | 2,819                      | \$25,003,055                    | \$682                         | -155   | -\$797,226                             |
| Other Services, Ex. Public Admin         | 1,809                      | \$15,103,085                    | \$642                         | 60   | \$1,236,146                            |
| Real Estate and Rental and Leasing       | 1,020                      | \$11,415,807                    | \$861                         | -5   | \$540,342                              |
| Information                              | 696                        | \$8,057,216                     | \$890                         | -45  | -\$33,148                              |
| Utilities                                | 335                        | \$6,273,525                     | \$1,441                       | -5   | \$354,760                              |
| Management of Companies and Enterprises  | 169                        | \$4,545,033                     | \$2,069                       | 2  | -\$117,452                             |
| Arts, Entertainment, and Recreation      | 971                        | \$4,418,301                     | \$350                         | 85   | \$549,368                              |
| Agriculture, Forestry, Fishing & Hunting | 381                        | \$3,340,942                     | \$675                         | 51   | \$859,012                              |

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

## LOCAL REAL ESTATE

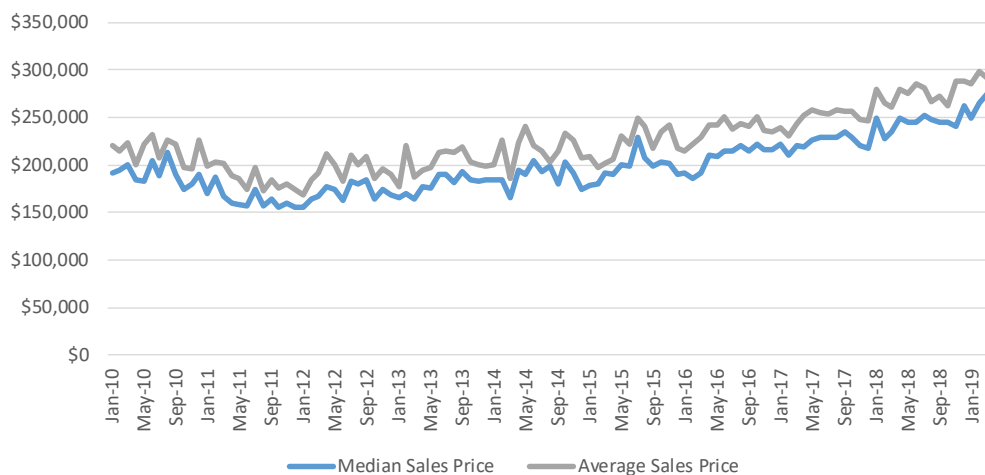
|   | Q1 2019   | Q1 2018   | % change since last year |
|---|-----------|-----------|--------------------------|
| <b>Real Estate</b>                        |           |           |                          |
| Inventory of Homes for Sale (3 month avg) | 617       | 619       | -0.27%                   |
| New Residential listings (3 month total)  | 907       | 1,062     | -14.60%                  |
| Sold Residential Listings (3 month total) | 621       | 719       | -13.63%                  |
| Median Sales Price                        | \$263,333 | \$237,483 | 10.88%                   |
| Average Sales Price                       | \$291,902 | \$268,586 | 8.68%                    |
| Days on Market                            | 95.00     | 90.87     | 4.54%                    |
| Months Supply of Inventory                | 2.13      | 2.11      | 1.23%                    |
| Total Building Permits                    | 950       | 994       | -4.43%                   |
| Single Family Permits                     | 152       | 203       | -25.12%                  |
| <b>Foreclosures</b>                       |           |           |                          |
| Foreclosure Filings                       | 60        | 74        | -18.9%                   |
| Foreclosure Sales                         | 27        | 56        | -51.8%                   |
| <b>Freddie Mac House Price Index</b>      |           |           |                          |
| Grand Junction                            | 195.7     | 180.1     | 8.69%                    |
| Colorado                                  | 207.2     | 195.3     | 6.07%                    |
| National                                  | 189.3     | 182.0     | 4.05%                    |
| <b>Mortgage Rates</b>                     |           |           |                          |
| 15 Year Mortgage Rate                     | 3.82%     | 3.74%     | 0.08%                    |
| 30 year Mortgage Rate                     | 4.37%     | 4.28%     | 0.09%                    |

SOURCES: Real Estate: Colorado Association of Realtors Market Trends Program through ShowingTime. Note that real estate data is just single family homes; Permit data: Mesa County; 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 continues its strong run with median sales prices increases by 10.88% from last year, while average home values increased by 8.68%. The Freddie Mac House Price Index confirms this price change, showing an increase of 8.69%, higher than both the Colorado and National averages. Days on market is up slightly, while months supply of inventory remains at all time lows. Single family permits are down from last year, an interesting data point in a real estate market that is short of inventory.

Figure 5:  
**Mesa County Average and Median Home Values**



## REGIONAL ENERGY

|  | Q1 2019 | Q4 2018 | Q1 2018 | % change since last quarter | % change since last year (comparable quarters) |
|--|---------|---------|---------|-----------------------------|--|
|--|---------|---------|---------|-----------------------------|--|

### Energy Prices

|                       |         |         |         |         |         |
|-----------------------|---------|---------|---------|---------|---------|
| WTI Crude Oil         | \$54.82 | \$59.97 | \$62.91 | -8.59%  | -12.86% |
| Henry Hub Natural gas | \$2.92  | \$3.80  | \$3.08  | -23.16% | -5.19%  |
| Retail Gasoline Price | \$2.27  | \$2.54  | \$2.48  | -10.49% | -8.50%  |

### Drilling Permits

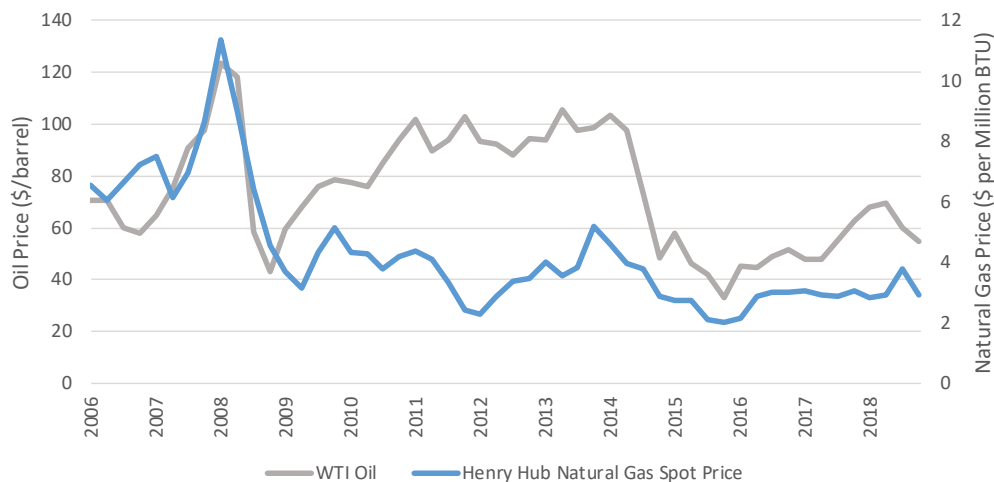
|  | 2019 YTD | 2018 YTD | 2018 total | % Change since same time last year |
|--|----------|----------|------------|------------------------------------|
| Drilling Permits (Mesa County)                     | 0        | 3        | 215        | -100.00%                           |
| Drilling Permits (Rio Blanco County)               | 27       | 52       | 118        | -48.08%                            |
| Drilling Permits (Garfield County)                 | 67       | 161      | 612        | -58.39%                            |
| Drilling Permits (Moffat County)                   | 0        | 0        | 5          | N/A                                |
| Total Permits (Mesa, Rio Blanco, Garfield, Moffat) | 94       | 216      | 950        | -56.48%                            |
| Total Permits (Colorado)                           | 1,103    | 898      | 3,909      | 22.83%                             |

### Local Rig Count

|  | May-19 | Jan-19 |
|--|--------|--------|
| Rig Count (Western Colorado, Mesa, Rio Blanco, Garfield, Moffat) | 4      | 7      |

SOURCES: 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 May 27th, 2019

Figure 6:  
Oil and Natural Gas Prices



## Natural Gas Prices

The Henry Hub price of natural gas fell to \$2.64/MMBtu in April, down significantly from the short term high of \$4.09 in November. EIA notes that continued high natural gas output and higher than normal temperatures have led to high levels of natural gas inventory. Strong growth in natural gas production is expected to keep downward pressure on the price of natural gas. EIA estimates that the price of natural gas will average 2.79/MMBtu in 2019, down \$0.36 from 2018. The average price for Q1 of 2019 was \$2.92/MMBtu.

Source: <https://www.eia.gov/outlooks/steo/report/natgas.php>

## Oil and Gasoline Prices

Crude oil prices rose for the fourth straight month, reaching \$63.86 in April from recent lows in December. Oil prices are rising based on perceived international risks in Venezuela and Iran. Venezuela's political situation is tenuous and Iran and U.S. tensions are rising. OPEC is expected to offset the loss of Iranian crude oil but perceived market risks are still pushing oil prices higher.

April through September is peak travel and driving season and the EIA expects gasoline prices to hover around \$2.92, slightly higher from last year due to high gasoline refining margins. Gasbuddy.com shows that gas prices in Mesa County range from \$2.82 to \$3.21 as of late May.

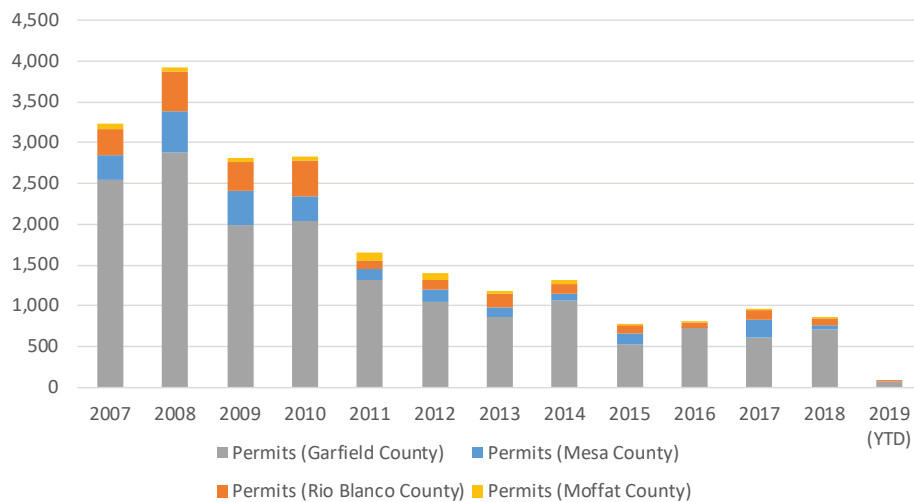
Source: <https://www.eia.gov/outlooks/steo/>

## Western Slope Drilling Activity

Drilling activity is lower in 2019, with 4 active rigs compared to the 7 rigs that have been in use the last several quarters. Lower rig count reflects industry expectations of lower prices due to the current natural gas supply glut. Drilling permits are also down from the same time last year, although permits for the State of Colorado are up significantly from last year. Although the lower drilling permit numbers do not look good, it is important to note that drilling permit activity is very volatile and can catch up quickly. However, with lower rig counts and downward pressure on natural gas prices it is unlikely.

Figure 7:

### Drilling Permits: Western Colorado





## Economic Contribution of the Oil and Gas Industry in the Western Slope

I recently concluded a study that determined the economic contribution of the oil and gas industry in the Piceance Basin. The study was conducted through the Unconventional Energy Center at Colorado Mesa University. The goal of the research was twofold: 1) To determine the impact on employment resulting from changes in rigs and the price of natural gas, and 2) To determine the total economic contribution to regional GDP that the oil and gas industry contributes. The study can be downloaded from the Colorado Mesa University Unconventional Energy Center here: <https://www.coloradomesa.edu/energy/index.html>. Below are some highlights from the two part study.

We know from above that rig counts have fallen from 7 to 4, and that the price of natural gas has fallen from the 2018 average of \$3.20 to \$2.64, with the EIA expecting prices to average \$2.79. For simplicity purposes, let's suppose natural gas prices will be \$0.50 less than 2018. Based on this potential change in natural gas prices, the model I developed predicts a change of approximately 707 jobs in the Western Slope, most of which are in Mesa and Garfield County. Using the same predictive method, except using rigs instead of natural gas shows that moving from 7 to 4 rigs would create an employment loss of 624, which again would mostly fall in Mesa and Garfield Counties. For this reason Mesa county should expect some job losses in this industry, and expect job losses due to the negative multiplier effects those job losses and their high wages will bring. The hope is that growth in other industries will offset these potential losses.

### Executive Summary Part 1: The Relationship Between Rigs, Natural Gas Price, and Employment

- Part 1 of this report studies the relationship between rigs, natural gas price, and employment in the Piceance Basin using both a panel and aggregated autoregressive distributed lag (ADL) regression model.
- Each change in rig count changes employment by 208 people within the five county area of Mesa, Garfield, Rio Blanco, Delta, and Moffat Counties.
- At the county level, Mesa County experiences a change in employment of 122 per rig, while Garfield County experiences a change of 70 per rig. Rio Blanco (16), Delta (15), and Moffat (18) have much smaller effects per rig.
- From 1999-2009, the effect of rigs on employment is much more pronounced, changing employment by 373 per rig. From 2010-2017 the effect on employment is 91 per rig, reflecting changing technology in drilling.
- For every change in \$1.00 of natural gas price as measured by the Rocky Mountain Opal Hub, employment changes by 1,183. For the three county area (Mesa, Garfield, and Rio Blanco), a \$1.00 change in the price of natural gas changes employment by 1,415. Conducting the same analysis with Henry Hub gas prices for the five county area shows a change of employment of 1,289.
- At the individual county level, changes in the price of natural gas effect Garfield County the most, changing employment by 828, while the effect in Mesa County is 646.
- Every dollar change in the price of natural gas changes rig count by 8.8.

### Executive Summary Part 2: The Economic Contribution of the Oil and Gas Industry in the Piceance Basin

- This section studies the economic contribution of the oil and gas industry in a six county area that represents the Piceance Basin (Mesa, Garfield, Rio Blanco, Delta, Gunnison, and Moffat Counties).
- The economic contribution analysis takes into account employment and wages, severance and Federal Mineral Lease royalties, ad valorem taxes, sales taxes, and royalties that are spent or distributed in this region.
- This economic contribution report uses multipliers to estimate the supply-chain and household spending effects associated with an industry, while adjusting for leakages to imports, commuting, taxes, profits, and savings, to determine the total economic contribution of the oil and gas industry in the Piceance.
- The regional GDP contribution of the oil and gas industry in the Piceance Basin is \$1,083,361,743. For scale purposes, the total GDP of the study region is \$11,819,208,415, equating to 9.2% of total regional GDP.
- The total contribution in terms of labor income (which is a part of the overall total) as a result of the oil and gas industry is \$737,240,560.
- The total number of jobs supported by direct employment in the industry, supply chain effects, and induced (multiplier) effects is 10,959. For scale purposes, there are 164,956 total jobs estimated by IMPLAN equating to 6.6% of total jobs.



## NATIONAL ECONOMIC INDICATORS

|  | Q1 2018  | Q4 2018  | Q1 2018  | % change since last period | % change since last year (comparable quarters) |
|--|----------|----------|----------|----------------------------|--|
| <b>Business Cycle Indicators</b>                     |          |          |          |                            |  |
| Real GDP   | 3.20%    | 2.20%    | 2.20%    | 1.00%                      | 1.00%  |
| Personal Consumption Expenditures                    | 1.20%    | 2.50%    | 0.50%    | -1.30%                     | 0.70%  |
| Gross Private Domestic Investment                    | 5.10%    | 3.70%    | 9.60%    | 1.40%                      | -4.50%   |
| National Consumer Confidence                         | 94.5     | 98.1     | 98.9     | -3.67%                     | -4.45%   |
| Industrial Production Index                          | 109.8    | 110.3    | 106.7    | -0.48%                     | 2.88%  |
| Initial Weekly Unemployment Claims (4 week MA)       | 222,442  | 220,058  | 228,077  | 1.08%                      | -2.47%   |
| Non Farm Payroll Change (in thousands)               | 629,000  | 649,333  | 641,000  | -3.13%                     | -1.87%   |
| <b>Unemployment</b>                                  |          |          |          |                            |  |
| Unemployment Rate-U3-SA                              | 3.90%    | 3.80%    | 4.10%    | 0.10%                      | -0.20%   |
| Unemployment Rate-U6-SA                              | 7.60%    | 7.60%    | 8.10%    | 0.00%                      | -0.50%   |
| <b>Interest Rates</b>                                |          |          |          |                            |  |
| Federal Funds Rate                                   | 2.40%    | 2.21%    | 1.44%    | 0.19%                      | 0.96%  |
| 10 Year U.S. Treasury                                | 2.65%    | 3.03%    | 2.76%    | -0.38%                     | -0.11%   |
| 30 Year U.S. Treasury                                | 3.01%    | 3.27%    | 3.03%    | -0.26%                     | -0.02%   |
| <b>Inflation Measures</b>                            |          |          |          |                            |  |
| Inflation Rate (CPI)                                 | 1.63%    | 2.22%    | 2.22%    | -0.59%                     | -0.59%   |
| Core Inflation Rate (All Items Less Food and Energy) | 2.09%    | 2.21%    | 1.92%    | -0.12%                     | 0.17%  |
| Inflation Rate (Shelter)                             | 3.32%    | 3.21%    | 3.22%    | 0.11%                      | 0.10%  |
| Producer Price Index (PPI)                           | 0.32%    | 3.54%    | 3.96%    | -3.22%                     | -3.64%   |
| Employment Cost Index                                | 2.79%    | 2.89%    | 2.71%    | -0.10%                     | 0.08%  |
| <b>Stock Prices</b>                                  |          |          |          |                            |  |
| S&P 500  | 2,721    | 2,699    | 2,733    | 0.82%                      | -0.46%   |
| Dow Jones Industrial Average                         | 25,147   | 24,916   | 25,127   | 0.93%                      | 0.08%  |
| <b>Trade Balance and Debt</b>                        |          |          |          |                            |  |
| USD Exchange Rate (trade weighted)                   | 127      | 128      | 118      | -0.64%                     | 7.89%  |
| Trade Balance (% of GDP)                             | -603.362 | -658.947 | -639.161 | -8.44%                     | -5.60%   |
| Federal Debt (% of GDP)*                             | 105.3%   | 104.2%   | 103.3%   | 1.2%                       | 2.0%   |

SOURCES: GDP, Consumption, Investment, and Trade Balance: Bureau of Economic Analysis; Consumer Confidence: University of Michigan; Industrial Production, Interest Rates and USD Exchange Rate: Board of Governors of the Federal Reserve System; 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.; USD Exchange Rate: Board of Governors of the Federal Reserve; Trade Balance: BEA; Federal Debt: U.S. Office of Management and Budget. \* indicates data is lagged by one quarter.

Figure 8:  
Real GDP

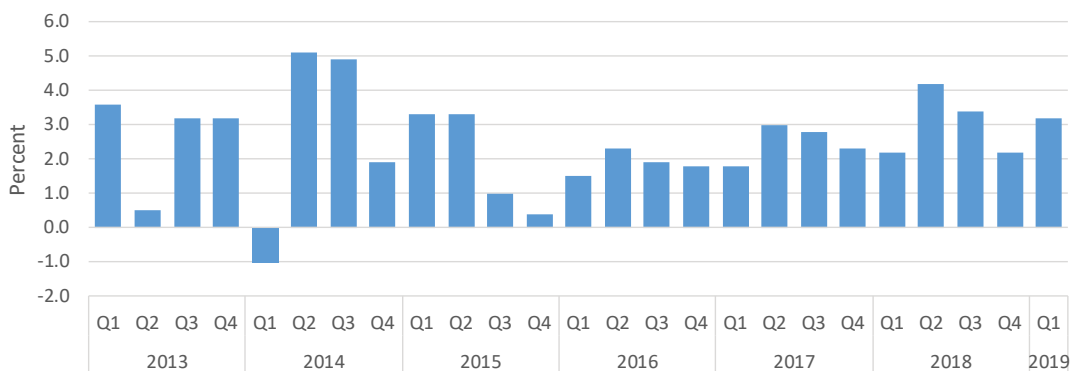
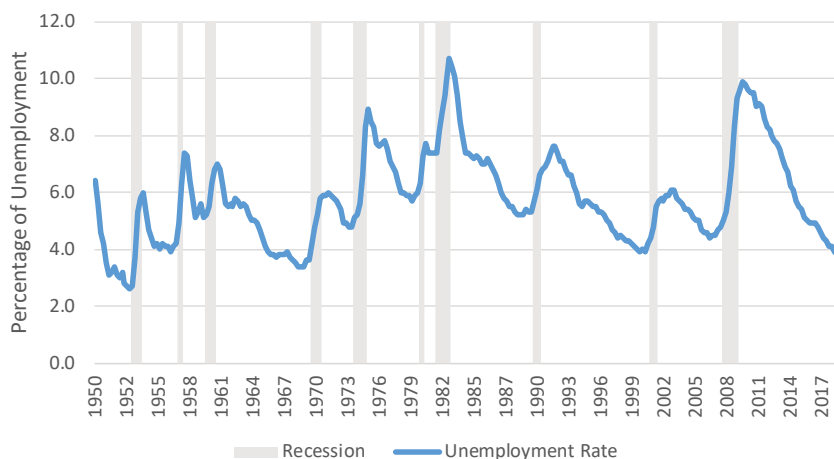


Figure 9:  
U.S. Unemployment: 1950-Q1 2019



### National Economic Performance

The Q1 GDP estimate came in at a strong 3.2%, surprising many who thought growth would slow. The national unemployment rate hit a 50 year low falling to 3.6% for the month of April (which is not in the Q1 numbers). The Q1 unemployment rate is at 3.9%. Industrial production is holding steady, while initial weekly unemployment claims are down since the same time last year. Non-farm payrolls (figure 11) continue to be strong. A drop in non-farm payrolls can be a leading indicator for the labor market weakening. National consumer confidence dropped from last quarter and from last year.

CPI inflation continues to stay low at 1.63%, while core inflation (the rate the Federal Reserve focuses on and subtracts energy and food) also remains low at 2.09%. The producer price index (PPI) fell from last year, falling to 0.32%. The PPI can be a leading indicator of the CPI. The employment costs index, which is used as a proxy for employee wage compensation, is holding steady right below 3%. Wage growth is still low for how well the economy is performing and where we are at in the business cycle. Although employment keeps gaining, wages are not gaining at

the rate seen through most of post WWII history. This is bad for workers, but good news for inflation as wage inflation is a large contributor to actual inflation.

As expected stock prices have cooled in 2019, with both indices holding steady from 2018. The U.S. dollar exchange rate has increased since last year, making imports cheaper and exports more expensive. Despite this, the trade balance has fallen from last quarter and from last year. Federal debt as a percentage of GDP is currently at 105%.

### Interest Rates and the Inverted Yield Curve

The Federal Reserve is expected to keep interest rates the same. If we start to see inflation in the next year we could see a rate increase, however there are still no signs of inflation, so there is a higher probability that as growth slows over the next year we would see an interest rate decrease. As stock markets slow and global growth slows, investors will see the end of the business cycle coming and move into bonds. This will push the price of bonds up and their interest rate (yield) down.

Figure 10:  
**Inflation Rate and 10 Year Treasury Yield**

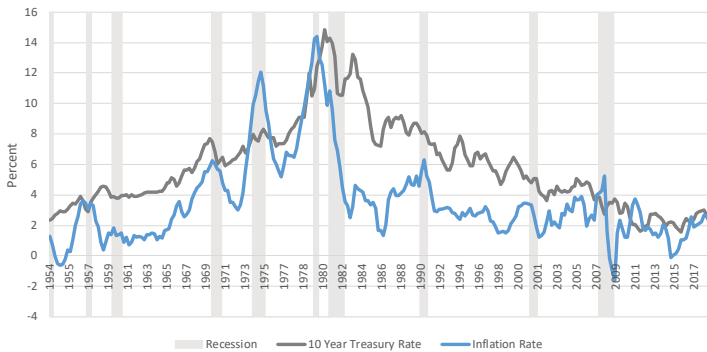
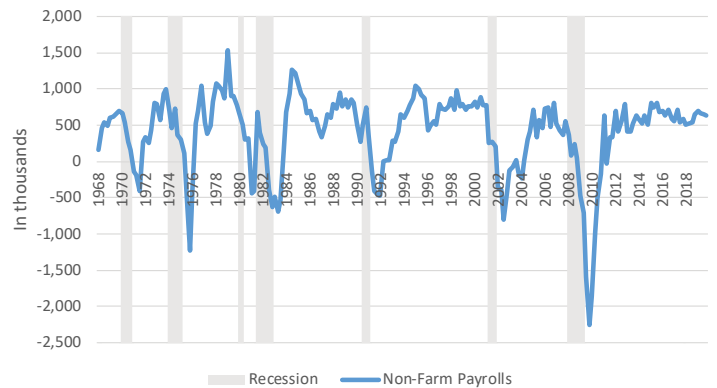


Figure 11:  
**Change in Non-Farm Payrolls**



This is typical near the end of business cycles. As long as inflation stays low, the intermediate outlook for interest rates is for them to stay low. Current threats to low inflation include wage growth and a trade war causing prices to jump.

The more important point for interest rates is the inverted yield curve. This was discussed several economic updates ago. When long term interest rates (say the 10 year treasury) fall below the yield of a shorter term bond (say the 3 month t-bill or the 2 year bond) it indicates that financial markets see recession coming, and people are moving into long term treasuries. An inverted yield curve on average signals the end of unemployment lows by 9 months, and signals recession by 16 months (see “Recession Signals: The Yield Curve vs. Unemployment Rate Troughs” by K. Kliesen). An inverted yield curve has correctly signaled all nine recessions since 1955, although there has been a false positive. The 10 year bond and 3 month t-bill inverted shortly in March, recovered, and in May have inverted to a higher degree, which is a sign that financial markets predict slower growth in the near future.

### What Could Turn the Economy?

The consensus among economists is that the economy is in late stage business cycle. What this means is that growth is expected to slow, with the implication that recession may follow at some point. This has been the case historically (see figure 9). Some recessions have been preceded by high inflation creating stagnation (for example the 1970’s). In other recessions there have been financial bubbles that popped that facilitated economic downturn (2001 tech bubble, 2008 housing bubble). International turmoil can affect economic conditions as well (1991 Iraq war and recession). The current threats to our economy include international turmoil in the form of conflict with Iran and trade disputes with China. Although the U.S. is more insulated than in the past from middle east conflict and the impact on oil prices, any conflict itself would cause a high degree of financial risk and could facilitate a downturn. A continued or escalated trade war with China could throw off supply chains, hurt farmers, and slow growth (although China would likely be hurt more). The stock market seems to have taken a pause, not rising, not falling, indicating that perhaps investors are being careful not to overvalue stocks. Housing continues to rise, but many housing economists believe it is fueled by healthy demand. The economy so far seems very healthy, but signs like the inverted yield curve show that some cracks are starting to show.



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

970.248.1888  
 naperry@coloradomesa.edu



1100 North Avenue  
 Grand Junction, Colorado 81501-3122  
 970.248.1778 • 970.248.1138 (f)  
 coloradomesa.edu