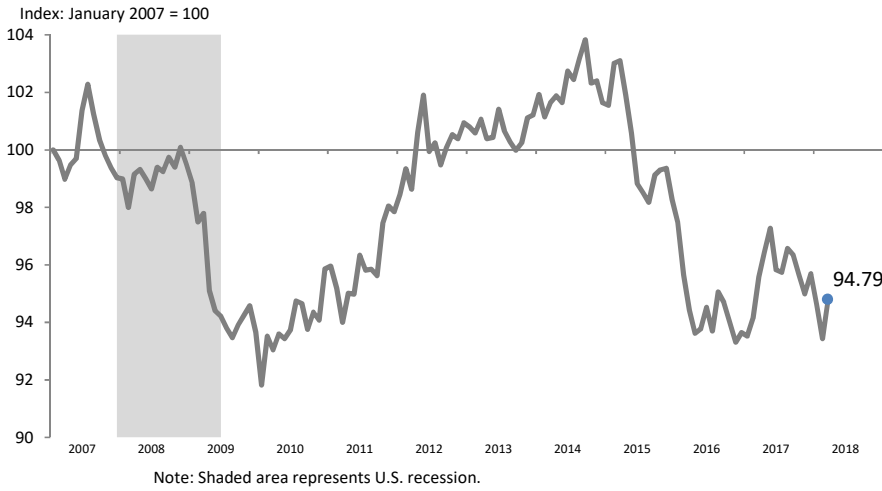


► Chart 1: Casper Business-Cycle Index as of March 2018

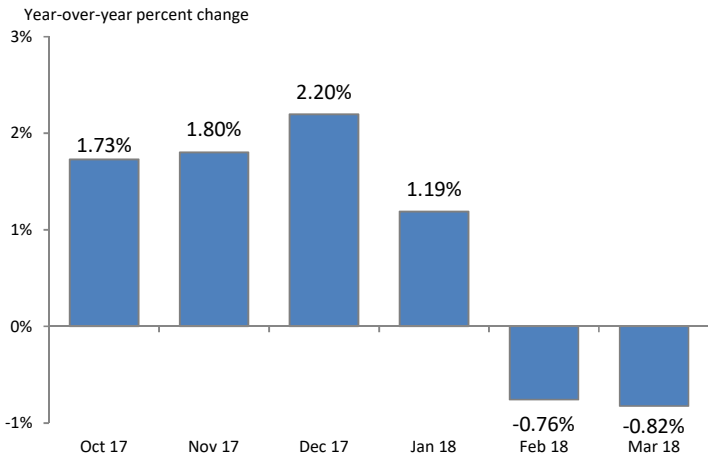


►► **SUMMARY:** The Casper Business-Cycle Index (CaBCI) registered an index value of 94.79 in March of 2018 (see Chart 1), an increase compared to the February 2018 value of 93.43 but a slight decrease by comparison to the March 2017 value of 95.58.

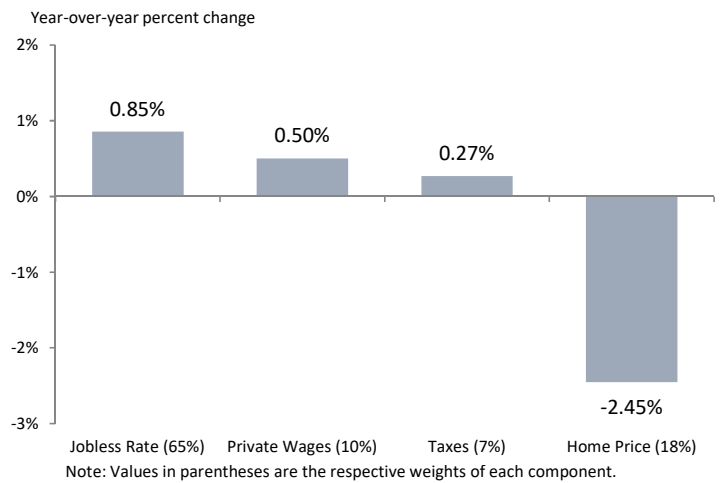
For the October through January period, the CaBCI recorded year-over-year increases every month (see Chart 2) yet the February and March 2018 index values decreased by 0.76 and 0.82 percent over the previous year, respectively.

As Chart 3 demonstrates, three of the four components of the CaBCI were positive in March. The unemployment rate was at 4.4 percent in March, a significant decrease over the prior year's 5.6 percent. Private wages and the collection of the 4 percent sales and use tax attributed to taxable sales in Natrona County also improved compared to a year ago. The remaining component, the median price of homes, was decidedly negative indicating that the housing sector of the Casper economy continued to be under duress.

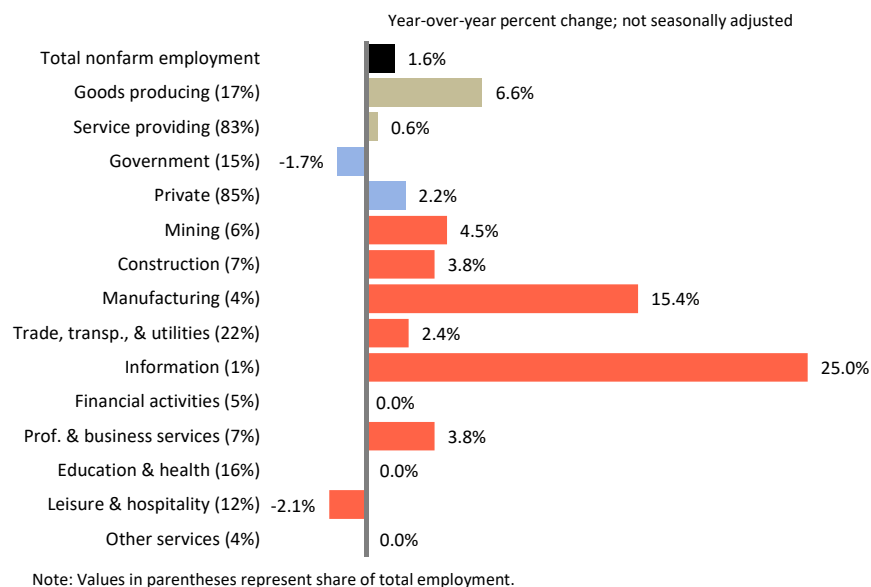
► Chart 2: Change in Business-Cycle Index — Last 6 Months



► Chart 3: Component Changes in the Index — March 2018



► Chart 4: March 2018 Employment Growth



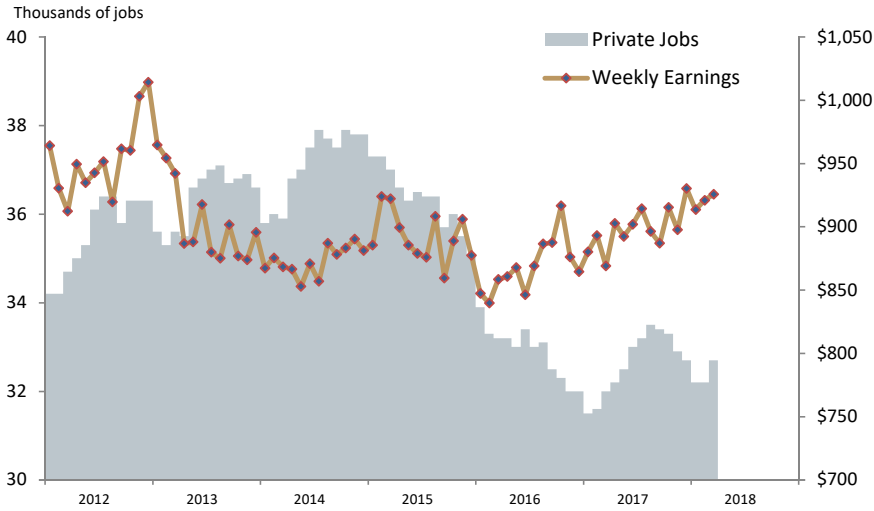
►► The total number of nonfarm payroll jobs in Casper increased at a 1.6 percent pace in March in a year ago comparison as seen in Chart 4. The March job count was 38,600, higher than the March 2017 level by 600 jobs.

The manufacturing (+200) and trade, transportation, & utilities sectors (+200) added the most jobs in March when compared to the previous year. Leisure & hospitality was the only private sector to incur job losses, losing 100 jobs compared to a year ago.

►► **NOTE:** The Casper Business-Cycle Index unites four city/county-level indicators to sum up current economic conditions in a single number. The indicators consist of (1) **Natrona County's monthly unemployment rate**, (2) **private sector wages**, estimated by multiplying the total number of private sector jobs in Casper each month by the average hours worked per week and by the average hourly wage, (3) **monthly sales and use tax collections which reflect taxable sales in Natrona County**, and (4) **monthly median sold price for Casper single family homes**. All data used in the determination of the CaBCI are seasonally adjusted; all dollar amounts are inflation adjusted.

**SOURCES:** Casper business-cycle index: Economic Analysis Division; private sector wages and unemployment rate: U.S. Bureau of Labor Statistics; sales and use taxes: WY Dept. of Revenue; median home price: Casper Board of REALTORS.

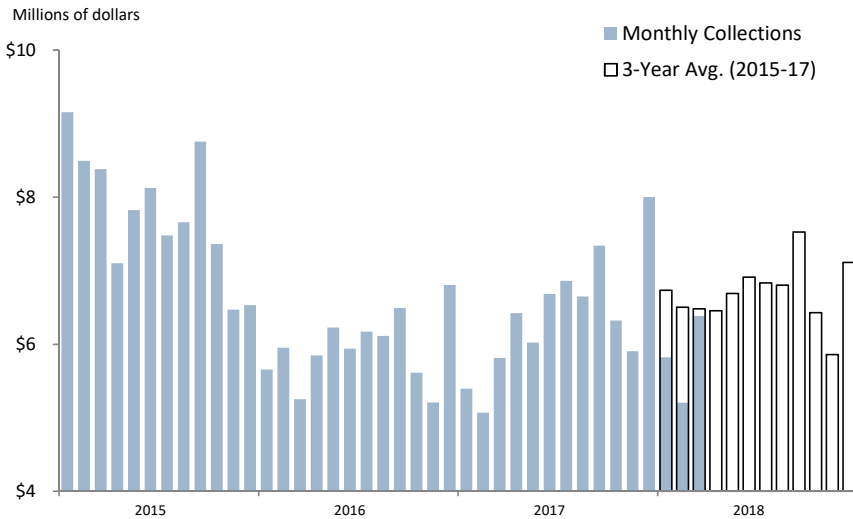
▶ Chart 5: Casper Labor Market as of March 2018



▶▶ Jobs associated with Casper's private sector increased in March by 500 compared to February (see Chart 5). The March 2018 private job count was 32,700, higher than the March 2017 level by 700 jobs.

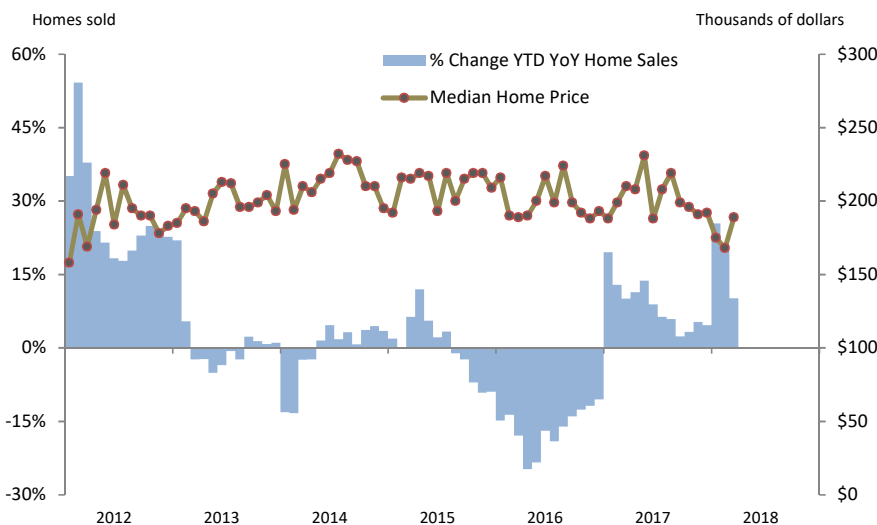
Casper's weekly earnings rose in March to \$925.65 compared to February's \$921.02 and was higher than the level attained in March 2017 of \$869.14. The weekly earnings indicator is a product of average weekly hours multiplied by average hourly earnings. Weekly hours rose to 37.4 in March 2018 from 35.9 in a year ago comparison. In addition, hourly earnings also improved, rising to \$24.75 from a level of \$24.21 reached one year ago.

▶ Chart 6: Natrona County 4% Sales and Use Tax Collections



▶▶ Natrona County's collection of the 4 percent sales and use tax increased to \$6.4 million in March of 2018 (these are actually April 2018 collections that mostly represent sales that took place in March), \$0.6 million higher than March collections from a year ago (see Chart 6). After three months of calendar year 2018, total collections were lagging the 3-year average over the same number of months by \$2.3 million or 11.8 percent.

▶ Chart 7: Casper Home Sales and Median Home Prices



▶▶ In the Casper housing market, year-to-date home sales volume continued to out-pace 2017 while home prices were trending lower at the start of 2018 compared to a year ago.

The number of homes sold fell to 79 in March 2018 compared to sales of 83 a year ago yet total sales of homes for the first three months of calendar year 2018 were 10.2 percent ahead of last year's sales for the same number of months.

The median home price was \$189,000 in March of 2018, an improvement over February's price of \$168,000 but considerably lower than the \$210,000 price from one year ago.

▶▶ NOTE: The data used in the construction of charts 5, 6, and 7 are not seasonally adjusted and all dollar amounts are not inflation adjusted.

| Casper Business-Cycle Index Values |       |        |            |
|------------------------------------|-------|--------|------------|
| Year                               | Month | Index  | YOY Change |
| 2007                               | Jan   | 100.00 |            |
| 2007                               | Feb   | 99.64  |            |
| 2007                               | Mar   | 98.98  |            |
| 2007                               | Apr   | 99.48  |            |
| 2007                               | May   | 99.70  |            |
| 2007                               | Jun   | 101.36 |            |
| 2007                               | Jul   | 102.27 |            |
| 2007                               | Aug   | 101.25 |            |
| 2007                               | Sep   | 100.32 |            |
| 2007                               | Oct   | 99.80  |            |
| 2007                               | Nov   | 99.37  |            |
| 2007                               | Dec   | 99.03  |            |
| 2008                               | Jan   | 98.99  | -1.01%     |
| 2008                               | Feb   | 97.99  | -1.65%     |
| 2008                               | Mar   | 99.15  | 0.17%      |
| 2008                               | Apr   | 99.31  | -0.16%     |
| 2008                               | May   | 98.99  | -0.70%     |
| 2008                               | Jun   | 98.63  | -2.69%     |
| 2008                               | Jul   | 99.39  | -2.82%     |
| 2008                               | Aug   | 99.24  | -1.98%     |
| 2008                               | Sep   | 99.74  | -0.58%     |
| 2008                               | Oct   | 99.40  | -0.40%     |
| 2008                               | Nov   | 100.08 | 0.72%      |
| 2008                               | Dec   | 99.50  | 0.48%      |
| 2009                               | Jan   | 98.83  | -0.15%     |
| 2009                               | Feb   | 97.49  | -0.51%     |
| 2009                               | Mar   | 97.79  | -1.36%     |
| 2009                               | Apr   | 95.10  | -4.24%     |
| 2009                               | May   | 94.40  | -4.65%     |
| 2009                               | Jun   | 94.21  | -4.49%     |
| 2009                               | Jul   | 93.80  | -5.63%     |
| 2009                               | Aug   | 93.46  | -5.83%     |
| 2009                               | Sep   | 93.91  | -5.85%     |
| 2009                               | Oct   | 94.24  | -5.19%     |
| 2009                               | Nov   | 94.58  | -5.50%     |
| 2009                               | Dec   | 93.65  | -5.88%     |
| 2010                               | Jan   | 91.82  | -7.10%     |
| 2010                               | Feb   | 93.52  | -4.08%     |
| 2010                               | Mar   | 93.04  | -4.86%     |
| 2010                               | Apr   | 93.60  | -1.57%     |
| 2010                               | May   | 93.44  | -1.02%     |
| 2010                               | Jun   | 93.73  | -0.51%     |
| 2010                               | Jul   | 94.75  | 1.01%      |
| 2010                               | Aug   | 94.66  | 1.28%      |
| 2010                               | Sep   | 93.75  | -0.17%     |
| 2010                               | Oct   | 94.36  | 0.12%      |
| 2010                               | Nov   | 94.08  | -0.53%     |
| 2010                               | Dec   | 95.86  | 2.36%      |
| 2011                               | Jan   | 95.96  | 4.51%      |
| 2011                               | Feb   | 95.18  | 1.78%      |
| 2011                               | Mar   | 94.00  | 1.03%      |
| 2011                               | Apr   | 95.01  | 1.51%      |
| 2011                               | May   | 94.98  | 1.65%      |
| 2011                               | Jun   | 96.34  | 2.78%      |
| 2011                               | Jul   | 95.81  | 1.12%      |
| 2011                               | Aug   | 95.85  | 1.26%      |
| 2011                               | Sep   | 95.63  | 2.00%      |
| 2011                               | Oct   | 97.43  | 3.26%      |
| 2011                               | Nov   | 98.05  | 4.22%      |
| 2011                               | Dec   | 97.84  | 2.07%      |
| 2012                               | Jan   | 98.45  | 2.60%      |
| 2012                               | Feb   | 99.34  | 4.37%      |
| 2012                               | Mar   | 98.62  | 4.92%      |
| 2012                               | Apr   | 100.61 | 5.89%      |
| 2012                               | May   | 101.89 | 7.28%      |
| 2012                               | Jun   | 99.94  | 3.74%      |
| 2012                               | Jul   | 100.24 | 4.62%      |
| 2012                               | Aug   | 99.47  | 3.78%      |
| 2012                               | Sep   | 100.08 | 4.65%      |
| 2012                               | Oct   | 100.53 | 3.18%      |
| 2012                               | Nov   | 100.38 | 2.37%      |
| 2012                               | Dec   | 100.93 | 3.16%      |

| Casper Business-Cycle Index Values |       |        |            |
|------------------------------------|-------|--------|------------|
| Year                               | Month | Index  | YOY Change |
| 2013                               | Jan   | 100.79 | 2.38%      |
| 2013                               | Feb   | 100.58 | 1.25%      |
| 2013                               | Mar   | 101.07 | 2.48%      |
| 2013                               | Apr   | 100.39 | -0.22%     |
| 2013                               | May   | 100.43 | -1.44%     |
| 2013                               | Jun   | 101.41 | 1.47%      |
| 2013                               | Jul   | 100.65 | 0.42%      |
| 2013                               | Aug   | 100.28 | 0.81%      |
| 2013                               | Sep   | 99.98  | -0.10%     |
| 2013                               | Oct   | 100.24 | -0.28%     |
| 2013                               | Nov   | 101.11 | 0.73%      |
| 2013                               | Dec   | 101.21 | 0.28%      |
| 2014                               | Jan   | 101.92 | 1.12%      |
| 2014                               | Feb   | 101.14 | 0.56%      |
| 2014                               | Mar   | 101.64 | 0.56%      |
| 2014                               | Apr   | 101.87 | 1.48%      |
| 2014                               | May   | 101.64 | 1.20%      |
| 2014                               | Jun   | 102.74 | 1.32%      |
| 2014                               | Jul   | 102.44 | 1.78%      |
| 2014                               | Aug   | 103.18 | 2.89%      |
| 2014                               | Sep   | 103.83 | 3.85%      |
| 2014                               | Oct   | 102.32 | 2.07%      |
| 2014                               | Nov   | 102.40 | 1.27%      |
| 2014                               | Dec   | 101.64 | 0.42%      |
| 2015                               | Jan   | 101.54 | -0.37%     |
| 2015                               | Feb   | 103.01 | 1.84%      |
| 2015                               | Mar   | 103.10 | 1.44%      |
| 2015                               | Apr   | 101.91 | 0.04%      |
| 2015                               | May   | 100.57 | -1.05%     |
| 2015                               | Jun   | 98.82  | -3.82%     |
| 2015                               | Jul   | 98.52  | -3.83%     |
| 2015                               | Aug   | 98.17  | -4.86%     |
| 2015                               | Sep   | 99.12  | -4.53%     |
| 2015                               | Oct   | 99.30  | -2.94%     |
| 2015                               | Nov   | 99.36  | -2.97%     |
| 2015                               | Dec   | 98.27  | -3.31%     |
| 2016                               | Jan   | 97.48  | -4.00%     |
| 2016                               | Feb   | 95.65  | -7.14%     |
| 2016                               | Mar   | 94.42  | -8.42%     |
| 2016                               | Apr   | 93.62  | -8.13%     |
| 2016                               | May   | 93.77  | -6.76%     |
| 2016                               | Jun   | 94.52  | -4.36%     |
| 2016                               | Jul   | 93.70  | -4.89%     |
| 2016                               | Aug   | 95.06  | -3.17%     |
| 2016                               | Sep   | 94.69  | -4.47%     |
| 2016                               | Oct   | 94.02  | -5.32%     |
| 2016                               | Nov   | 93.31  | -6.09%     |
| 2016                               | Dec   | 93.64  | -4.72%     |
| 2017                               | Jan   | 93.52  | -4.06%     |
| 2017                               | Feb   | 94.15  | -1.57%     |
| 2017                               | Mar   | 95.58  | 1.22%      |
| 2017                               | Apr   | 96.45  | 3.02%      |
| 2017                               | May   | 97.27  | 3.73%      |
| 2017                               | Jun   | 95.82  | 1.38%      |
| 2017                               | Jul   | 95.73  | 2.17%      |
| 2017                               | Aug   | 96.57  | 1.59%      |
| 2017                               | Sep   | 96.33  | 1.73%      |
| 2017                               | Oct   | 95.65  | 1.73%      |
| 2017                               | Nov   | 94.99  | 1.80%      |
| 2017                               | Dec   | 95.69  | 2.20%      |
| 2018                               | Jan   | 94.63  | 1.19%      |
| 2018                               | Feb   | 93.43  | -0.76%     |
| 2018                               | Mar   | 94.79  | -0.82%     |
| 2018                               | Apr   |        |            |
| 2018                               | May   |        |            |
| 2018                               | Jun   |        |            |
| 2018                               | Jul   |        |            |
| 2018                               | Aug   |        |            |
| 2018                               | Sep   |        |            |
| 2018                               | Oct   |        |            |
| 2018                               | Nov   |        |            |
| 2018                               | Dec   |        |            |



## Casper Business-Cycle Index Addendum

The Casper Business-Cycle Index (CaBCI) is a coincident economic indicator and is designed to provide a current assessment of Casper's economy. There are four main components of the CaBCI. Two of these components, unemployment rate and private sector weekly wages, are included to capture labor market activity for Casper. The third component, sales and use tax collections, gauges economic activity related to taxable sales in the Natrona County while the fourth component, median home prices, serves as a proxy for the housing market.

**Unemployment Rate:** The first component of the CaBCI is the unemployment rate. This statistic measures the percentage of people in Natrona County who want to work but don't have jobs. Within the CaBCI model, the employment rate statistic (1.00 or 100% minus the unemployment rate) is indexed rather than the unemployment rate because an increase in the employment rate, similar to increases in private wages, sales and use tax collections, and median home prices, is considered to be a positive impact on the economy. This statistic is available monthly from the U.S. Bureau of Labor Statistics (not seasonally adjusted). The data are then seasonally adjusted. It is included as a component because it provides an assessment of the Natrona County's labor market.

**Private Sector Weekly Wages:** The second component of the CaBCI is total private sector weekly wages. This component is estimated by multiplying the number of private sector jobs in Casper each month by the average weekly hours and then multiplying this product by the average hourly earnings to achieve a dollar value of private sector jobs in Casper. These statistics are available monthly from the U.S. Bureau of Labor Statistics (not seasonally adjusted). All dollar amounts have been converted to constant dollars using the Consumer Price Index – All Urban Consumers database and then the data are seasonally adjusted. This indicator is included because it is another measure of the Natrona County's labor market health.

**Sales and Use Taxes:** The third component of the CaBCI is Natrona County's sales and use tax collections associated with the state's 4 percent tax rate. Because sales and use tax collections received by the county for a given month represent transactions that took place 4 to 6 weeks prior, the data is lagged one month for use in the CaBCI model. This statistic is available monthly from the State of Wyoming's Department of Revenue (not seasonally adjusted). All dollar amounts have been converted to constant dollars using the Consumer Price Index – All Urban Consumers database and then the data are seasonally adjusted. This indicator is included because it represents taxable sales activity in Natrona County.

**Median Home Prices:** The fourth component of the CaBCI is the Casper median home price. This statistic is compiled by the Casper Board of REALTORS and is available monthly (not seasonally adjusted). The home price statistic is defined as the median sales price for a single family, non-rural residence. All dollar amounts have been converted to constant dollars using the Consumer Price Index – All Urban Consumers database and then the data are seasonally adjusted. Median home prices are included because they capture another critical part of Casper's economy – housing.

**Methodology:** After the data for each component have been adjusted as noted above, each series is then standardized starting in January 2007 resulting in a value of 100.00 for each component and the CaBCI in that month. As the components change from month to month, so does the value of the CaBCI. Monthly index values for each of the components not including the unemployment rate are then smoothed using a weighted moving average. The unemployment rate is excluded from this treatment because the data are relatively stable to begin with. Next, the standard deviation of each component's monthly standardized values is determined followed by the calculation of the inverse of each component's standard deviation. Finally, the individual inverse standard deviations are standardized resulting in weights that sum to 1.00. The rationale for this weighting approach is the same used by the U.S. Conference Board implying that those components that are more stable over time will generate a smaller standard deviation but a larger inverse standard deviation, and thus, a larger weight. A substantial shift in a traditionally stable data series would provide a more compelling signal of economic change than a large shift in a series that commonly has large shifts.