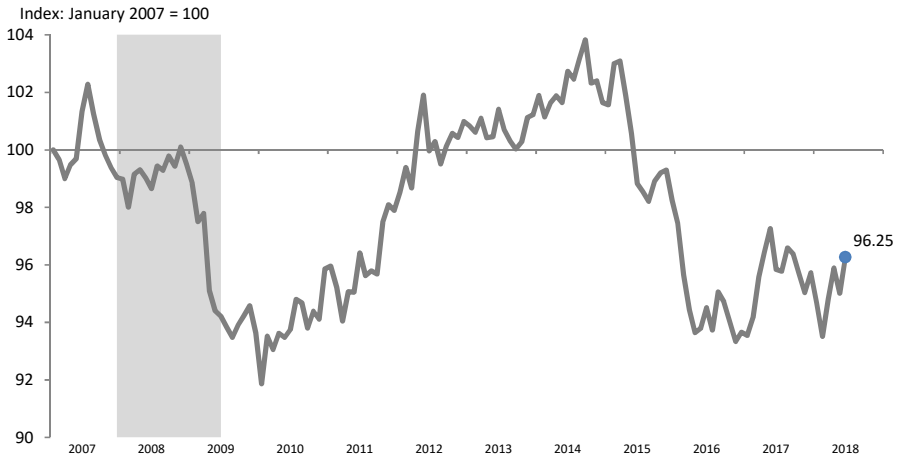
Casper Economic Indicators

WYOGOV

ECONOMIC ANALYSIS DIVISION • AUGUST 2018

Chart 1: Casper Business-Cycle Index as of June 2018



Note: Shaded area represents U.S. recession.

SUMMARY: The Casper Business-Cycle Index (CaBCI) registered an index value of 96.25 in June of 2018 (see Chart 1), an increase compared to the May 2018 value of 95.01 and an increase by comparison to the June 2017 value of 95.84.

For the January through June period, the CaBCI recorded year-over-year increases only in January and June (see Chart 2) while the February, March, April, and May 2018 index values decreased over the previous year. The May 2018 decline of 2.31 percent was due mostly to a drop in home prices.

As Chart 3 demonstrates, three of the four components of the CaBCI were positive in June. The unemployment rate was at 4.6 percent in June, a decrease over the prior year's 4.9 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 clearly negative indicating that the housing sector of the Casper economy was still facing headwinds.

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

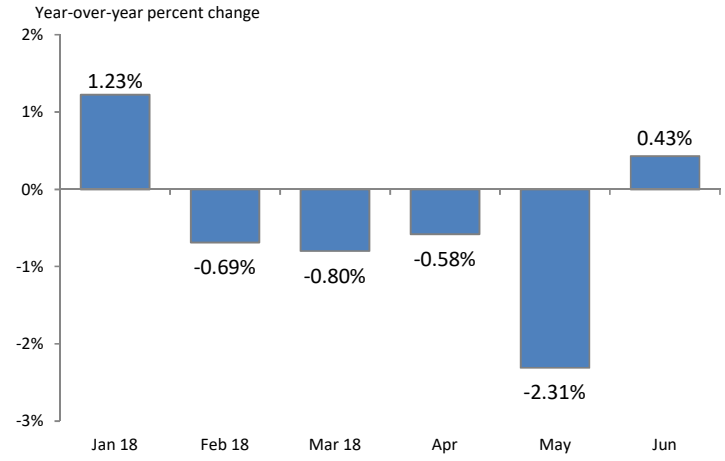
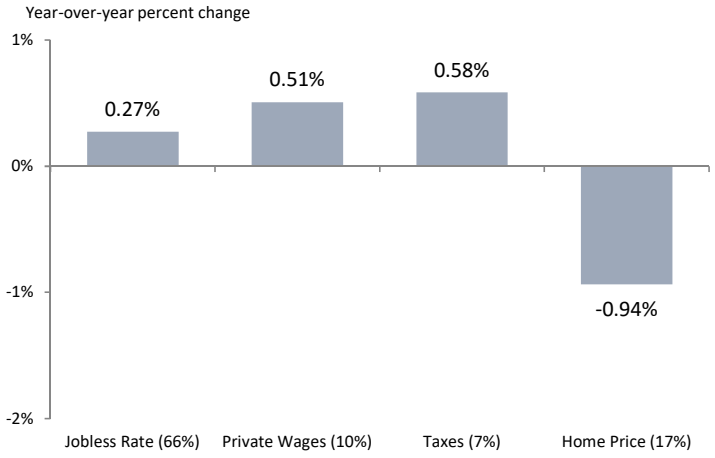
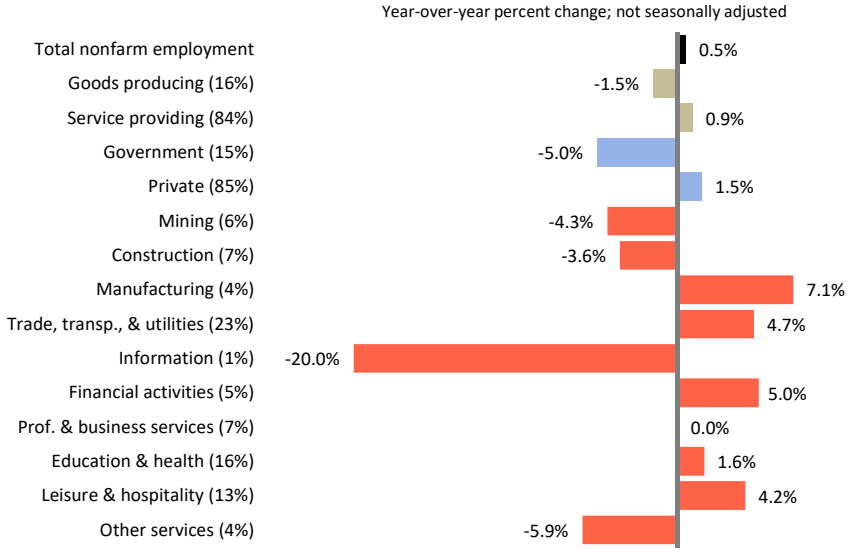


Chart 3: Component Changes in the Index — June 2018



Note: Values in parentheses are the respective weights of each component.

Chart 4: June 2018 Employment Growth



Note: Values in parentheses represent share of total employment.

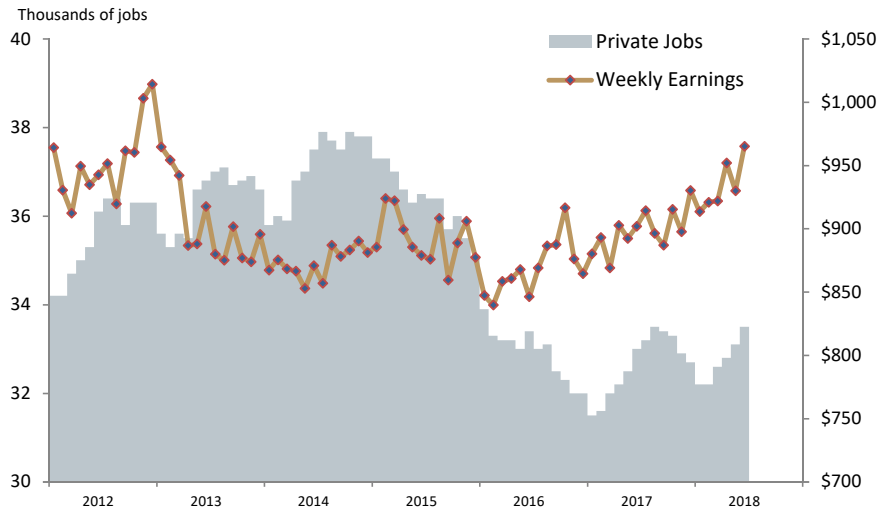
The total number of nonfarm payroll jobs in Casper increased at a 0.5 percent pace in June in a year ago comparison as seen in Chart 4. The June job count was 39,200, higher than the June 2017 level by 200 jobs. The government sector lost 300 jobs compared to a year ago.

In the private sector, the trade, transportation, & utilities (+400) and the leisure & hospitality sectors (+200) added the most jobs in June when compared to the previous year. Mining, construction, information, and other services each lost 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**

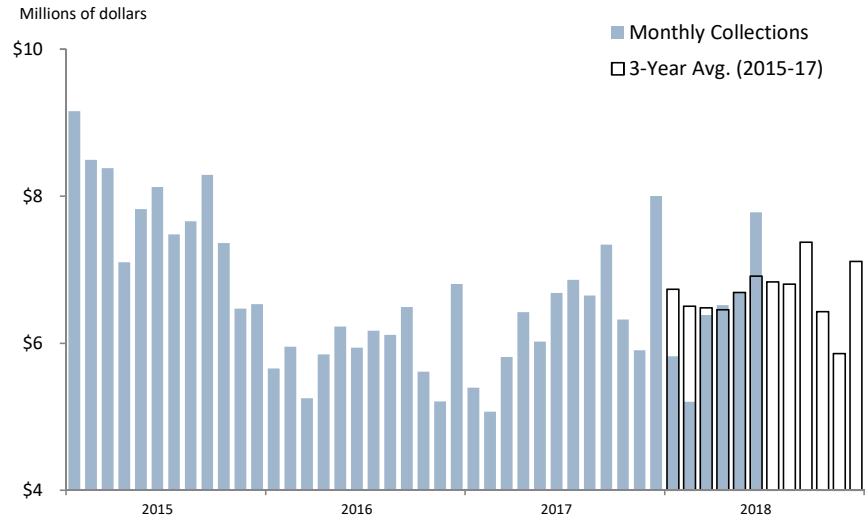
Chart 5: Casper Labor Market as of June 2018



⏩ Jobs associated with Casper's private sector increased in June by 400 compared to May (see Chart 5). The June 2018 private job count was 33,500, higher than the June 2017 level by 500 jobs.

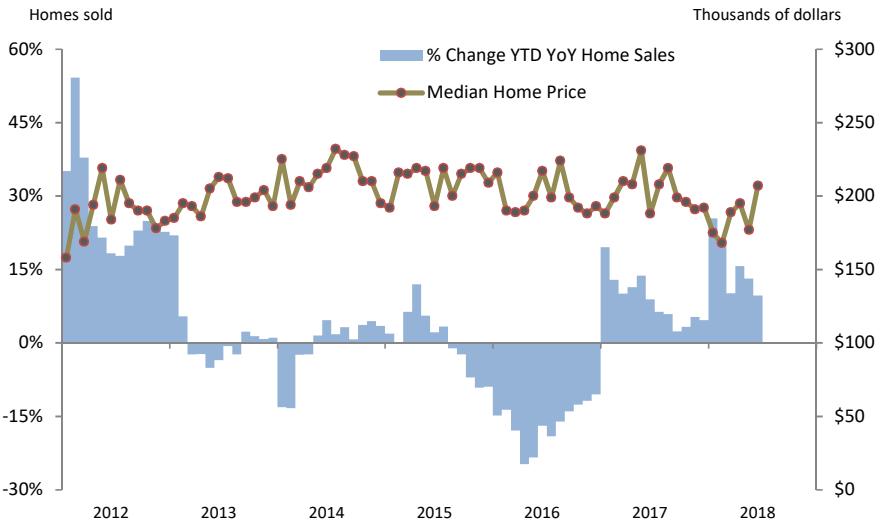
Casper's weekly earnings rose in June to $965.20 compared to May's $930.10 and was higher than the level attained in June 2017 of $902.06. The weekly earnings indicator is a product of average weekly hours multiplied by average hourly earnings. Weekly hours rose to 38.5 in June 2018 from 37.0 in a year ago comparison. In addition, hourly earnings also improved, rising to $25.07 from a level of $24.38 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 $7.8 million in June of 2018 (these are actually July 2018 collections that mostly represent sales that took place in June), $1.1 million higher than June collections from a year ago (see Chart 6). After six months of calendar year 2018, total collections were lagging the 3-year average over the same number of months by $1.4 million or 3.5 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, despite some declines in the first six months, rebounded in June 2018.

The number of homes sold fell slightly to 109 in June 2018 compared to sales of 111 a year ago while total sales of homes for the first six months of calendar year 2018 were 9.7 percent ahead of last year's sales for the same number of months.

The median home price was $206,900 in June of 2018, an improvement over May's price of $176,500 and higher than the $187,500 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.

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Casper Business-Cycle Index Values			
			YOY
Year	Month	Index	Change
2007	Jan	100.00	
2007	Feb	99.66	
2007	Mar	98.99	
2007	Apr	99.48	
2007	May	99.69	
2007	Jun	101.33	
2007	Jul	102.27	
2007	Aug	101.25	
2007	Sep	100.34	
2007	Oct	99.80	
2007	Nov	99.37	
2007	Dec	99.04	
2008	Jan	98.99	-1.01%
2008	Feb	98.01	-1.66%
2008	Mar	99.14	0.16%
2008	Apr	99.31	-0.17%
2008	May	99.01	-0.68%
2008	Jun	98.65	-2.65%
2008	Jul	99.44	-2.77%
2008	Aug	99.28	-1.94%
2008	Sep	99.79	-0.56%
2008	Oct	99.43	-0.38%
2008	Nov	100.10	0.74%
2008	Dec	99.51	0.48%
2009	Jan	98.83	-0.16%
2009	Feb	97.50	-0.51%
2009	Mar	97.79	-1.37%
2009	Apr	95.10	-4.24%
2009	May	94.40	-4.66%
2009	Jun	94.21	-4.50%
2009	Jul	93.83	-5.64%
2009	Aug	93.48	-5.84%
2009	Sep	93.91	-5.89%
2009	Oct	94.23	-5.22%
2009	Nov	94.57	-5.52%
2009	Dec	93.63	-5.91%
2010	Jan	91.86	-7.06%
2010	Feb	93.52	-4.09%
2010	Mar	93.06	-4.84%
2010	Apr	93.61	-1.57%
2010	May	93.47	-0.98%
2010	Jun	93.75	-0.49%
2010	Jul	94.80	1.03%
2010	Aug	94.68	1.28%
2010	Sep	93.80	-0.12%
2010	Oct	94.39	0.17%
2010	Nov	94.10	-0.49%
2010	Dec	95.86	2.38%
2011	Jan	95.96	4.47%
2011	Feb	95.21	1.81%
2011	Mar	94.04	1.06%
2011	Apr	95.07	1.55%
2011	May	95.04	1.68%
2011	Jun	96.41	2.84%
2011	Jul	95.63	0.88%
2011	Aug	95.79	1.17%
2011	Sep	95.68	2.00%
2011	Oct	97.48	3.27%
2011	Nov	98.09	4.23%
2011	Dec	97.89	2.12%
2012	Jan	98.52	2.67%
2012	Feb	99.38	4.38%
2012	Mar	98.67	4.93%
2012	Apr	100.64	5.86%
2012	May	101.89	7.21%
2012	Jun	99.97	3.68%
2012	Jul	100.28	4.87%
2012	Aug	99.50	3.88%
2012	Sep	100.13	4.65%
2012	Oct	100.57	3.17%
2012	Nov	100.43	2.39%
2012	Dec	100.98	3.16%

Casper Business-Cycle Index Values			
			YOY
Year	Month	Index	Change
2013	Jan	100.83	2.34%
2013	Feb	100.61	1.24%
2013	Mar	101.09	2.45%
2013	Apr	100.42	-0.22%
2013	May	100.45	-1.42%
2013	Jun	101.41	1.44%
2013	Jul	100.68	0.40%
2013	Aug	100.31	0.81%
2013	Sep	100.03	-0.10%
2013	Oct	100.27	-0.30%
2013	Nov	101.12	0.68%
2013	Dec	101.22	0.24%
2014	Jan	101.89	1.05%
2014	Feb	101.14	0.53%
2014	Mar	101.63	0.53%
2014	Apr	101.87	1.45%
2014	May	101.64	1.18%
2014	Jun	102.73	1.30%
2014	Jul	102.45	1.75%
2014	Aug	103.17	2.85%
2014	Sep	103.82	3.79%
2014	Oct	102.32	2.04%
2014	Nov	102.40	1.26%
2014	Dec	101.65	0.42%
2015	Jan	101.56	-0.32%
2015	Feb	103.00	1.84%
2015	Mar	103.09	1.43%
2015	Apr	101.89	0.02%
2015	May	100.56	-1.06%
2015	Jun	98.84	-3.79%
2015	Jul	98.55	-3.81%
2015	Aug	98.20	-4.81%
2015	Sep	98.92	-4.72%
2015	Oct	99.19	-3.06%
2015	Nov	99.30	-3.03%
2015	Dec	98.25	-3.34%
2016	Jan	97.45	-4.05%
2016	Feb	95.64	-7.15%
2016	Mar	94.43	-8.39%
2016	Apr	93.64	-8.10%
2016	May	93.79	-6.73%
2016	Jun	94.51	-4.38%
2016	Jul	93.73	-4.89%
2016	Aug	95.06	-3.20%
2016	Sep	94.71	-4.26%
2016	Oct	94.05	-5.19%
2016	Nov	93.34	-6.00%
2016	Dec	93.65	-4.68%
2017	Jan	93.54	-4.01%
2017	Feb	94.16	-1.55%
2017	Mar	95.57	1.21%
2017	Apr	96.45	3.00%
2017	May	97.26	3.69%
2017	Jun	95.84	1.41%
2017	Jul	95.78	2.19%
2017	Aug	96.59	1.61%
2017	Sep	96.37	1.75%
2017	Oct	95.68	1.74%
2017	Nov	95.03	1.81%
2017	Dec	95.73	2.21%
2018	Jan	94.69	1.23%
2018	Feb	93.51	-0.69%
2018	Mar	94.81	-0.80%
2018	Apr	95.89	-0.58%
2018	May	95.01	-2.31%
2018	Jun	96.25	0.43%
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.