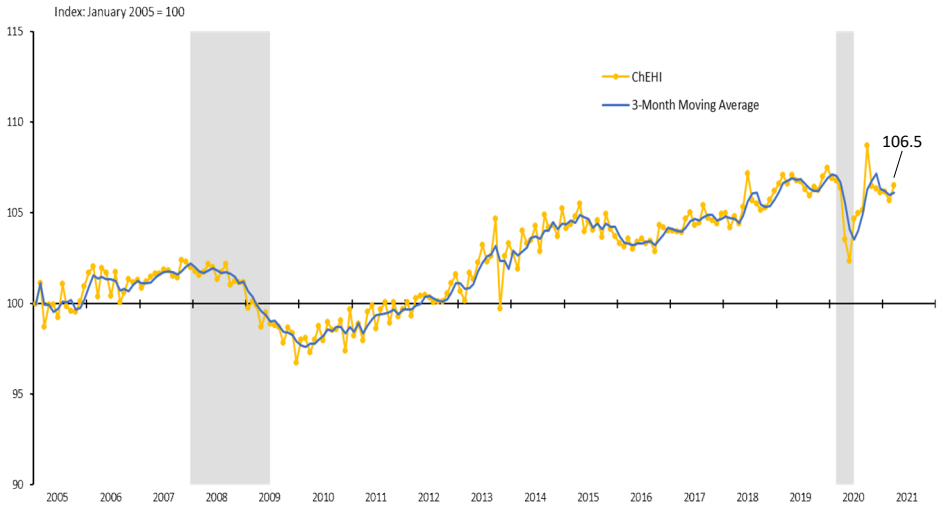
Cheyenne MSA Economic Indicators

WYOGOV

ECONOMIC ANALYSIS DIVISION • MAY 2021

Figure 1: Cheyenne Economic Health Index as of March 2021



Note: Shaded areas represent U.S. recessions

SUMMARY: The Cheyenne Economic Health Index (ChEHI) reported a value of 106.5 in March 2021 (see Figure 1). This value was slightly higher than the February 2021 value of 105.7 and the March 2020 value of 106.4. Because of the relatively small mining sector, the Laramie County economy has recovered faster than the state as a whole.

NOTE: The Cheyenne Economic Health Index combines four county-level economic indicators into one number in order to sum up the current economic conditions in Laramie County. The four economic indicators are (1) the monthly unemployment rate, (2) monthly total non-farm employment, (3) monthly sales and use (s&u) tax collections, and (4) the monthly median home sales price. All data used in the ChEHI are seasonally adjusted. Additionally, sales and use tax collection and home prices are inflation adjusted.

SOURCES: U.S. Bureau of Labor Statistics (1), (2); Wyoming Department of Revenue (3);
Cheyenne Board of REALTORS (4).

Figure 2: Change in ChEHI - Last 6 Months

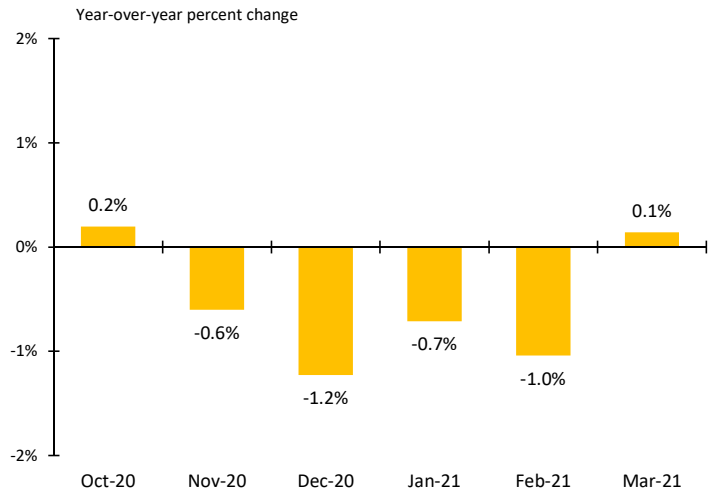
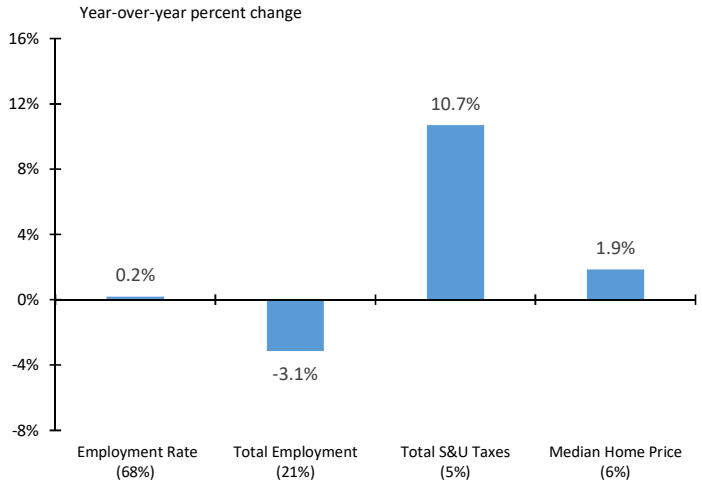
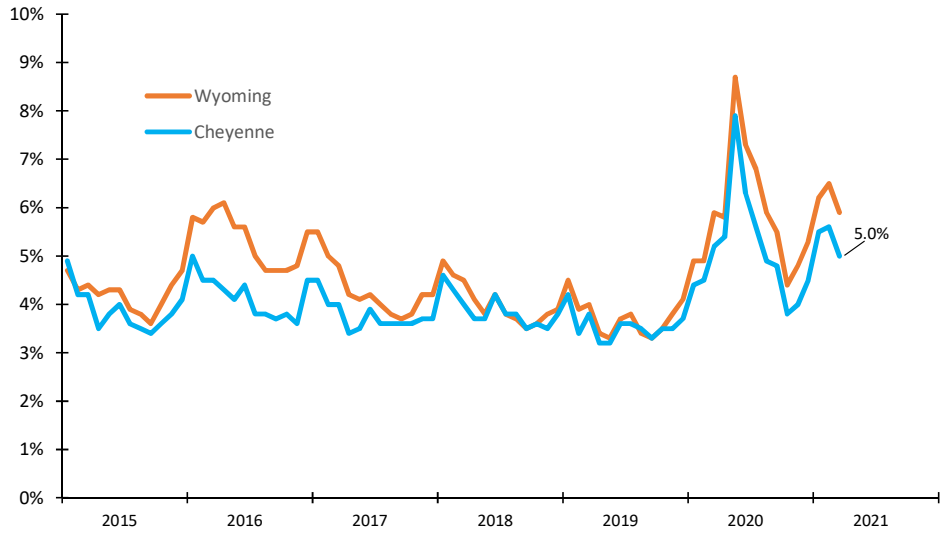


Figure 3: Change in Components of ChEHI - March 2021



Note: Values in parantheses are the weights for each component of the ChEHI.

Figure 4: Laramie County and Wyoming Unemployment Rate (Not Seasonally Adjusted)



As seen in Figure 2, for each of the last six months the, ChEHI has not changed much year-over-year. December 2020 is the only month that changed year-over-year by more than 1% (-1.2%).

Three of the four components of the ChEHI increased in March 2021 compared to March 2020, with sales & use tax collections increasing the most, up 10.7% (see Figure 3).

The unemployment rate for Laramie County in March 2021 was 5.0%, lower than the March 2020 unemployment rate of 5.2% and the state-wide March 2021 unemployment rate of 5.9% (see Figure 4).

Note: Both unemployment rates in Figure 4 are not seasonally adjusted.

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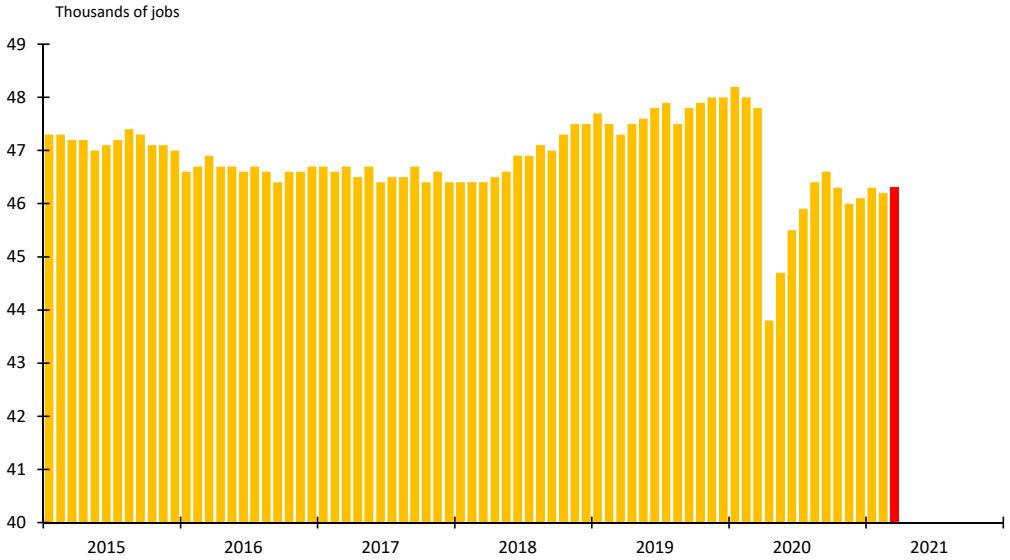
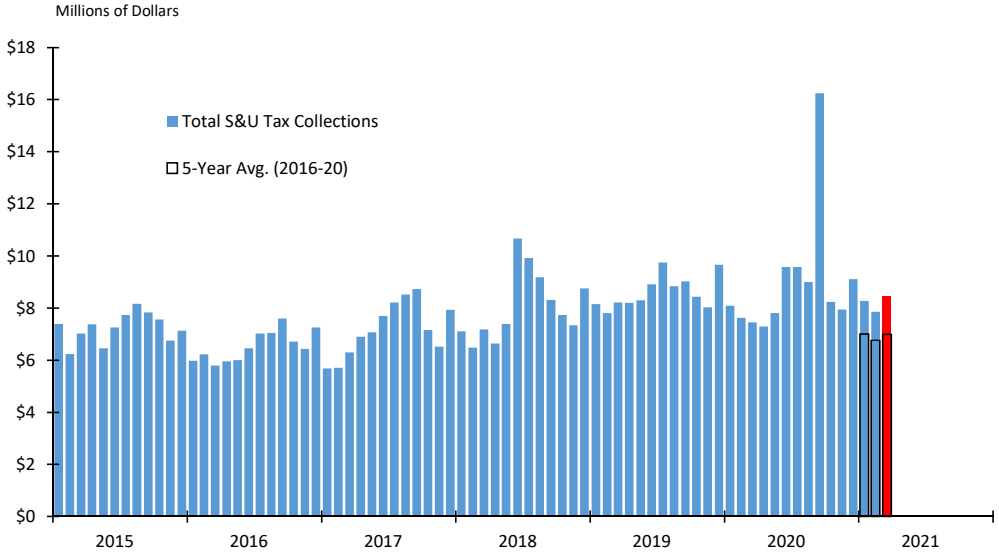
Figure 5. Laramie County Total Nonfarm Employment (Seasonally Adjusted)



The total number of nonfarm payroll jobs in March 2021 was 46,300, higher than the February 2021 number by 100 (+0.2%), but still lower than the March 2020 number by 1,500 (-3.1%) (see Figure 5). By March 2021, Laramie County recovered about 63% of the 4,000 jobs lost during the worst parts of the pandemic (March 2020-April 2020).

NOTE: MSA stands for Metropolitan Statistical Area. The Cheyenne MSA covers all of Laramie County.

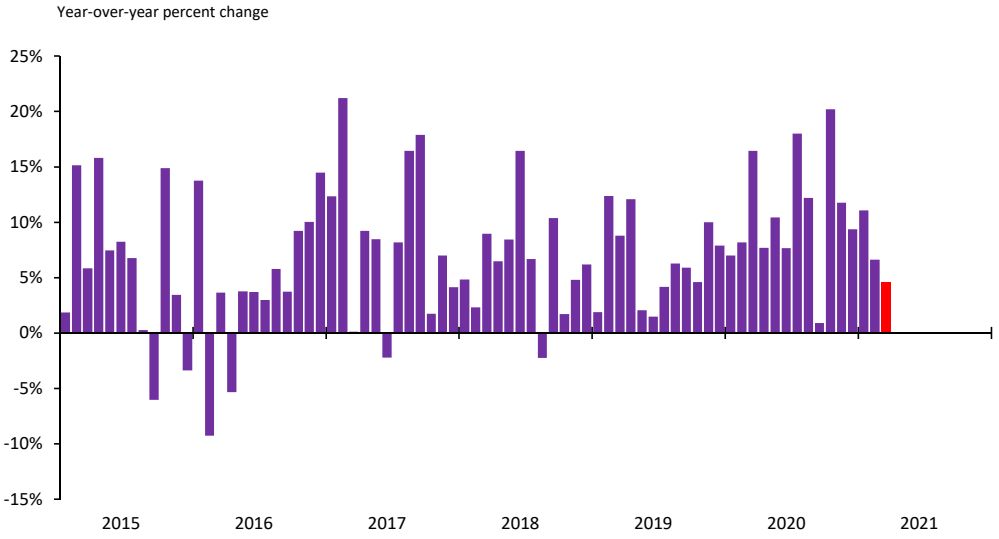
Figure 6. Laramie County 4% Sales and Use Tax Collections (1-Month Lag)



Laramie County's collection of the 4% sales and use tax was $8.5 million in March 2021, $0.6 million more than February 2021 and $1.0 million more than March 2020 (see Figure 6). Through the first three months of 2021 (January-March), total collections summed to $24.6 million, $3.8 million more (+18.5%) than the 5-year average sum from January to March.

Note: The value for March 2021 in Figure 6 is actually collections from April 2021 because there is approximately a 1-month lag between collections and sales activity.

Figure 7. Change in Laramie County Median Home Sales Price



Laramie County's median home sales price was $298,000 in March 2021, 4.6% higher than March 2020 (see Figure 7). This is the 31st consecutive month of year-over-year increases in median home sales prices, reflecting the strong housing market in Laramie County.

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Cheyenne Economic Health Index Addendum

The Cheyenne Economic Health Index (ChEHI) is a coincident economic indicator that is designed to provide a current assessment of Laramie County's economy. There are four components of the ChEHI. The first two components, unemployment rate and total nonfarm employment, are included to capture overall labor market activity for Laramie County. The third component, sales and use tax collections, captures economic activity related to taxable sales in Laramie County. The fourth component, median home sales price, serves as a proxy for the housing market.

Unemployment Rate: The first component of the ChEHI is the unemployment rate. This statistic measures the percentage of people in Laramie County who are actively looking for work, but do not have jobs. In the ChEHI model, the employment rate (100% minus the unemployment rate) is indexed rather than the unemployment rate because an increase in the employment rate, similar to an increase in total employment, sales and use tax collections, and home prices, is considered to be a positive for the county's economy. The unemployment rate is available monthly, not seasonally adjusted, from the U.S. Bureau of Labor Statistics. The data is then seasonally adjusted.

Total Nonfarm Employment: The second component of the ChEHI is total nonfarm employment. This statistic measures the number of people who have wage or salary jobs in Laramie County. The total nonfarm employment is available monthly, seasonally adjusted, from the U.S. Bureau of Labor Statistics.

Sales & Use Tax: The third component of the ChEHI is 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 in the ChEHI model. This statistic is available monthly from the State of Wyoming's Department of Revenue. The data is adjusted for inflation using the Consumer Price Index for All Urban Consumers from the U.S. Bureau of Labor Statistics. The data is also seasonally adjusted.

Median Home Sales Price: The fourth component of the ChEHI is the median home sales price. This statistic is available monthly from the Cheyenne Board of REALTORS. This variable is defined as the median sales price for a single family, non-rural residential home. The data is adjusted for inflation using the Consumer Price Index for All Urban Consumers from the U.S. Bureau of Labor Statistics. The data is also seasonally adjusted.

Methodology: Each series for the components discussed above are standardized starting in January 2005, resulting in a value of 100 for each component and the ChEHI. As each component changes from month to month, the ChEHI value changes. Next, the standard deviation of each component's standardized series values is calculated, followed by the calculation of the inverse of each component's standard deviation. Lastly, the individual inverse standard deviations are standardized, resulting in weights that sum to 1. The rationale for this weighting approach is that the components that are more stable over time will have a smaller standard deviation and thus, a larger inverse standard deviation and weight. A large shift in a typically stable data series would provide a better signal of a change in the economy than a large shift in a data series that typically has large fluctuations. Therefore, this weighting approach allows the ChEHI to put a larger weight on the more stable components so that if they do experience a large shift, the ChEHI's value will be affected more to represent the change in the county's economic conditions.

Prepared by: Economic Analysis Division, Dept. of Administration and Information, WY State Government