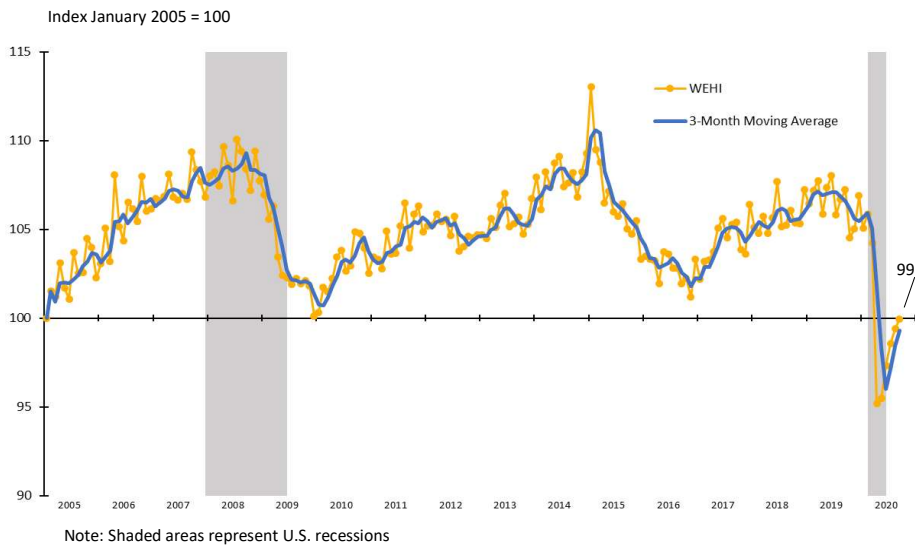


► Figure 1: Wyoming Economic Health Index as of September 2020

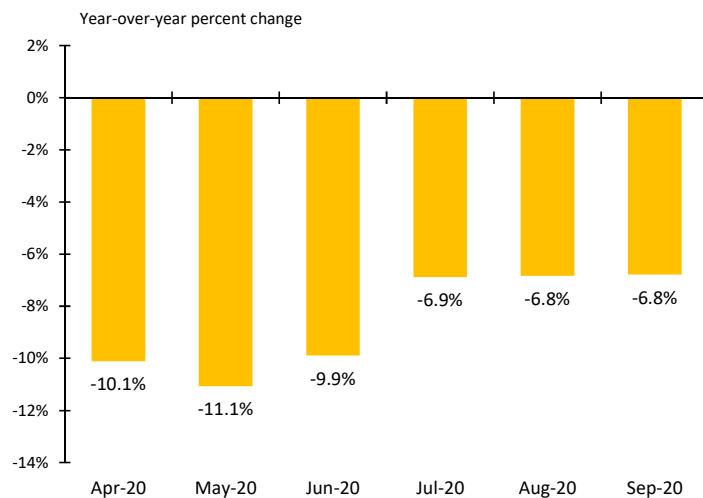


► **SUMMARY:** The Wyoming Economic Health Index (WEHI) reported an index value of 99.9 in September 2020 (see Figure 1). This value was higher than the August 2020 value of 99.4, but significantly lower than the September 2019 value of 107.2. The WEHI saw increases in each of the last five months after a huge drop in April, reflecting the ongoing recovery from the Covid-19 recession.

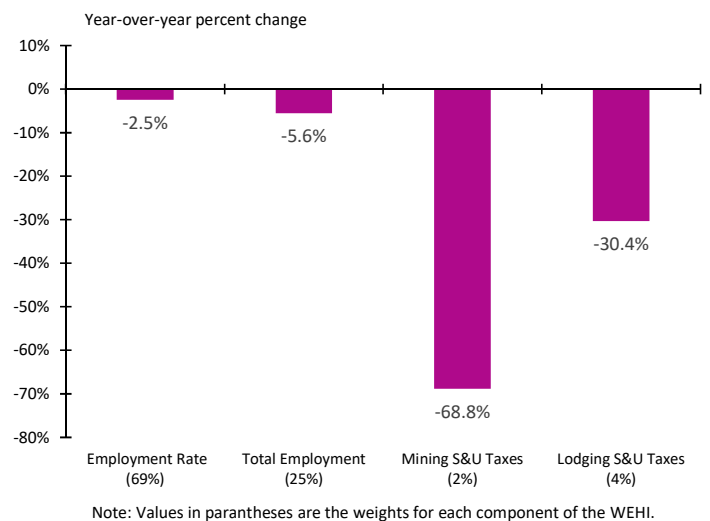
► **NOTE:** The Wyoming Economic Health Index combines four state-level economic indicators into one number in order to sum up the current economic conditions in Wyoming. The four economic indicators are (1) the monthly unemployment rate, (2) monthly total non-farm employment, (3) monthly sales and use tax collections from the mining sector, and (4) monthly sales and use tax collections from lodging. All data used in the WEHI are seasonally adjusted. Additionally, both tax collection indicators are inflation adjusted.

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

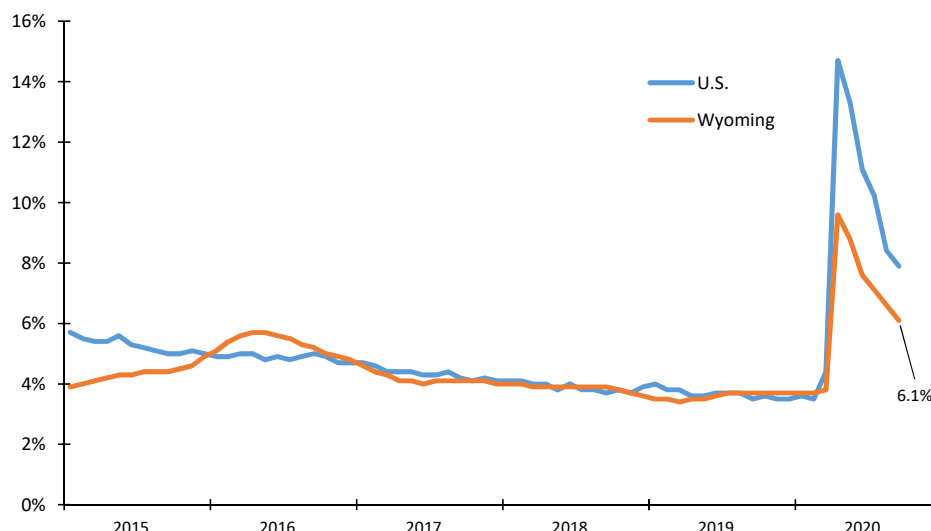
► Figure 2: Change in WEHI - Last 6 Months



► Figure 3: Change in Components of WEHI - September 2020



► Figure 4: Wyoming and United States Unemployment Rate (Seasonally Adjusted)

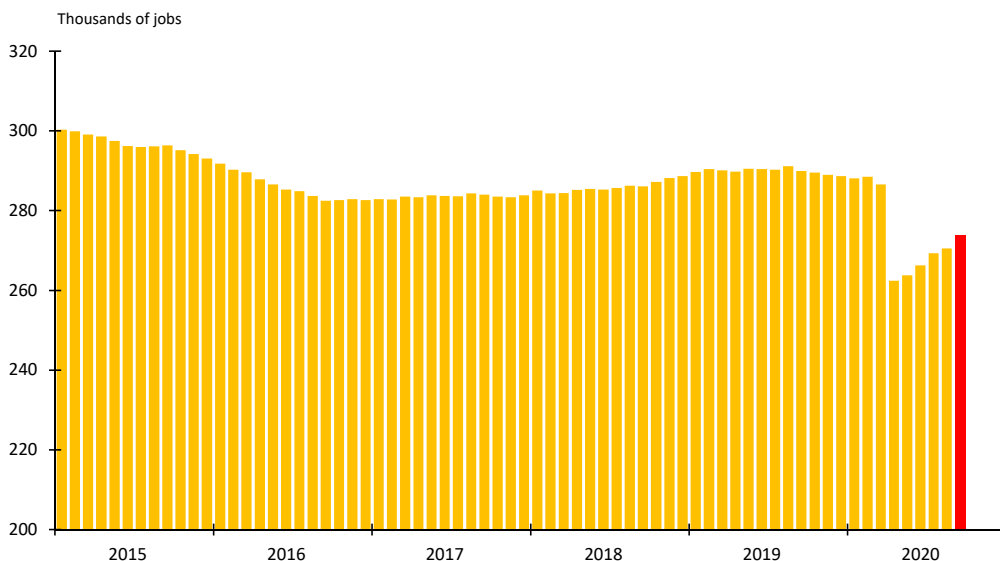


► As seen in Figure 2, for each of the last six months (April 2020 - September 2020), the WEHI reported year-over-year decreases, with the largest decline occurring in May at -11.1% compared to May 2019.

All four components of the WEHI were worse in September 2020 compared to September last year (see Figure 3). Sales and use tax collections for the state reported large year-over-year declines in September, with collections from the mining and lodging sectors falling by 68.8% and 30.4% respectively.

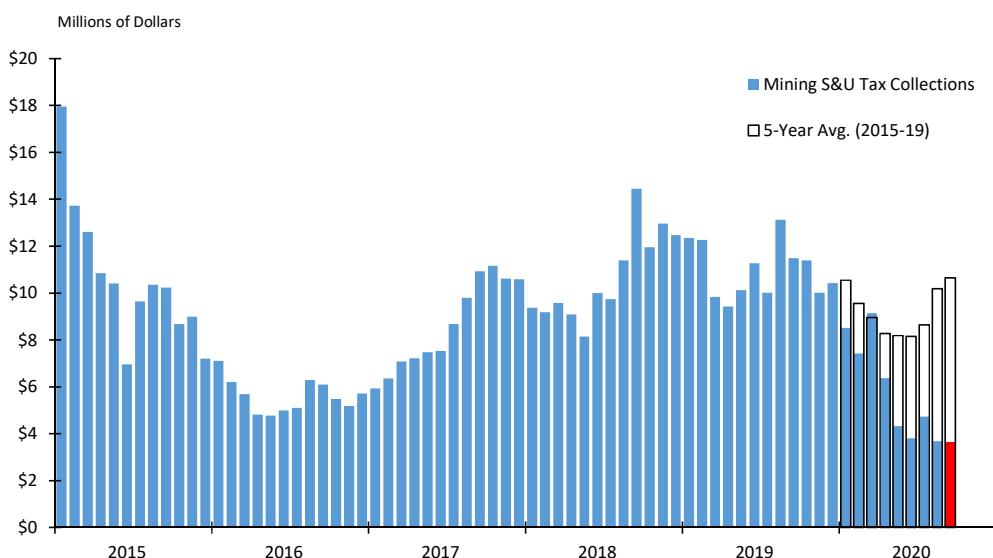
The unemployment rate for Wyoming in September was 6.1%, lower than August 2020 (6.6%) and July 2020 (7.1%), but higher than the September 2019 unemployment rate of 3.7% (see Figure 4). These improved unemployment rates over the last several months are a bright sign that the recovery from the Covid-19 business shutdowns is continuing.

► Figure 5. Wyoming Total Nonfarm Employment (Seasonally Adjusted)



► The total number of nonfarm payroll jobs in September 2020 was 273,900, higher than the August 2020 number by 3,400, but lower than the September 2019 number by 16,100 (see Figure 5). September marks the fifth consecutive month that total employment has increased.

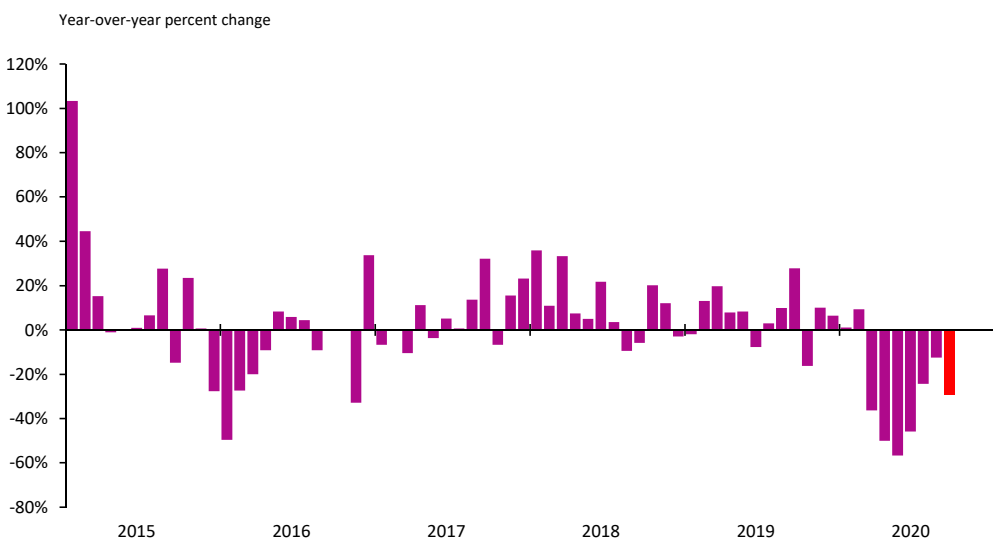
► Figure 6. Wyoming 4% Sales and Use Tax Collections - Mining Sector (1-Month Lag)



► Wyoming's collection of the 4% sales and use tax from the mining sector was \$3.6 million in September 2020, \$0.1 million less than August 2020 and \$7.9 million less than September last year (see Figure 6). After nine months of calendar year 2020 (January-September), total collections from the mining sector summed to \$51.6 million, \$31.5 million less (-37.9%) than the 5-year average sum over the same nine months.

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

► Figure 7. Change in Wyoming 4% Sales and Use Tax Collections - Lodging (1-Month Lag)



► Wyoming's collection of the 4% sales and use tax from lodging was \$3.2 million in September 2020, 29% less than September last year (see Figure 7). This is the seventh consecutive month of year-over-year declines. These decreases in collections from lodging are not surprising because of the stay at home orders at the beginning of the Covid-19 pandemic and lack of travel due to virus concerns.

Note: The value for September in Figure 7 is actually collections from October because there is approximately a 1-month lag between collections and sales activity.

## Wyoming Economic Health Index Addendum

The Wyoming Economic Health Index (WEHI) is a coincident economic indicator that is designed to provide a current assessment of the state's economy. There are four components of the WEHI. The first two components, unemployment rate and total nonfarm employment, are included to capture overall labor market activity for Wyoming. The third component, sales and use tax collections related to the mining sector, captures economic activity related to mineral production in the state. The fourth component, sales and use tax collections related to lodging, serves as a proxy for tourism activity in the state.

**Unemployment Rate:** The first component of the WEHI is the unemployment rate. This statistic measures the percentage of people in Wyoming who are actively looking for work, but do not have jobs. In the WEHI 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, mining activity, and tourism activity, is considered to be a positive for the state's economy. The unemployment rate is available monthly, seasonally adjusted, from the U.S. Bureau of Labor Statistics.

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

**Mining Sales & Use Tax:** The third component of the WEHI is sales and use tax collections related to the mining sector (including oil and gas extraction). Because sales and use tax collections received by the state for a given month represent transactions that took place 4 to 6 weeks prior, the data is lagged one month in the WEHI 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.

**Lodging Sales & Use Tax:** The fourth component of the WEHI is sales and use tax collections from lodging. Again, because sales and use tax collections received by the state for a given month of transactions represent transactions that took place 4 to 6 weeks prior, the data is lagged one month in the WEHI 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.

**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 WEHI. As each component changes from month to month, the WEHI 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 WEHI to put a larger weight on the more stable components so that if they do experience a large shift, the WEHI's value will be affected more to represent the change in the state's economic conditions.