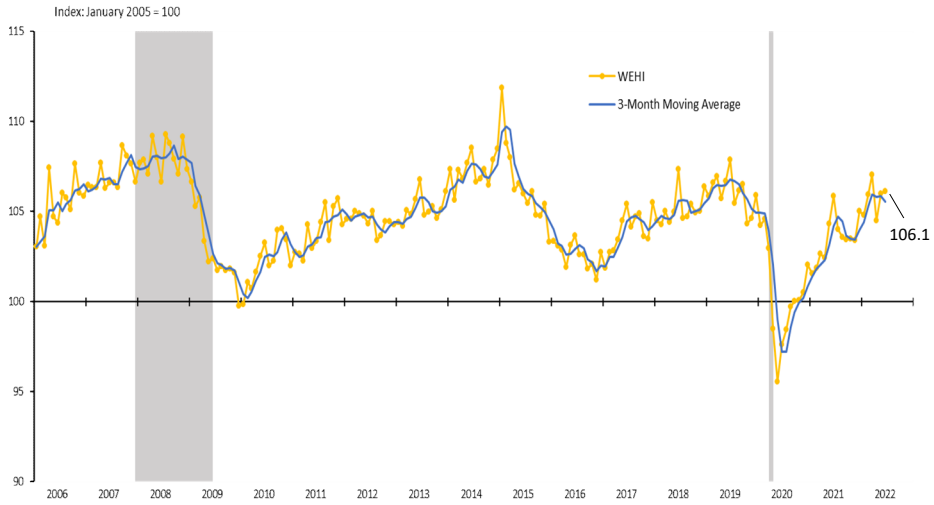
Wyoming Economic Indicators

WYOGOV

ECONOMIC ANALYSIS DIVISION • AUGUST 2022

Figure 1: Wyoming Economic Health Index as of June 2022



Note: Shaded areas represent U.S. recessions

SUMMARY: The Wyoming Economic Health Index (WEHI) reported a value of 106.1 in June 2022 (see Figure 1). This value was higher than the June 2021 value of 104.0 and the June 2020 value of 97.6.

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 (s&u) 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

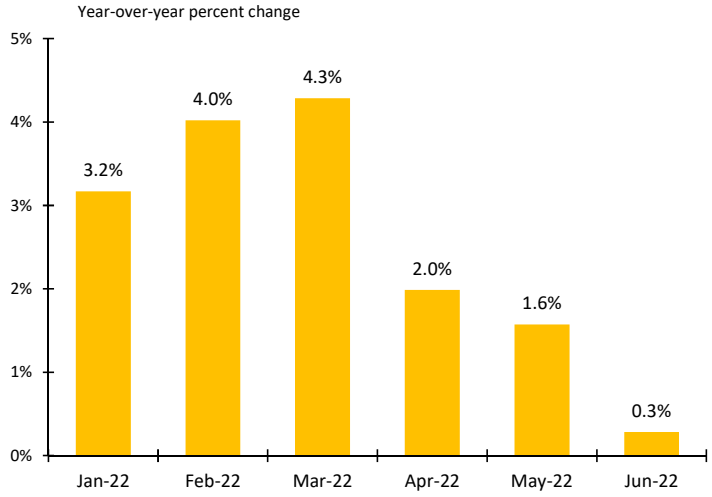
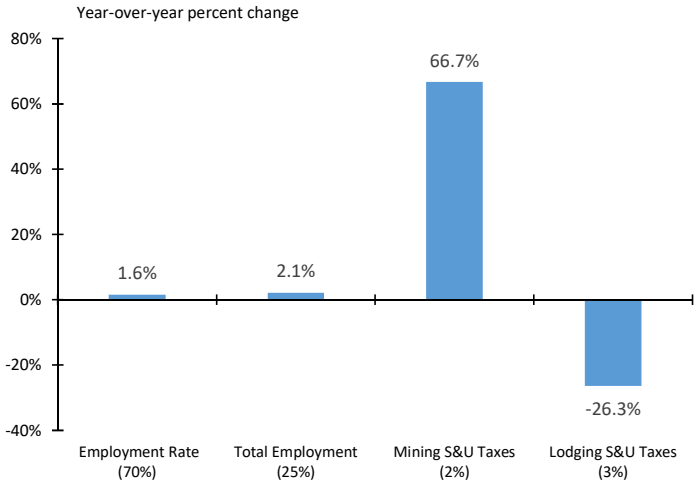
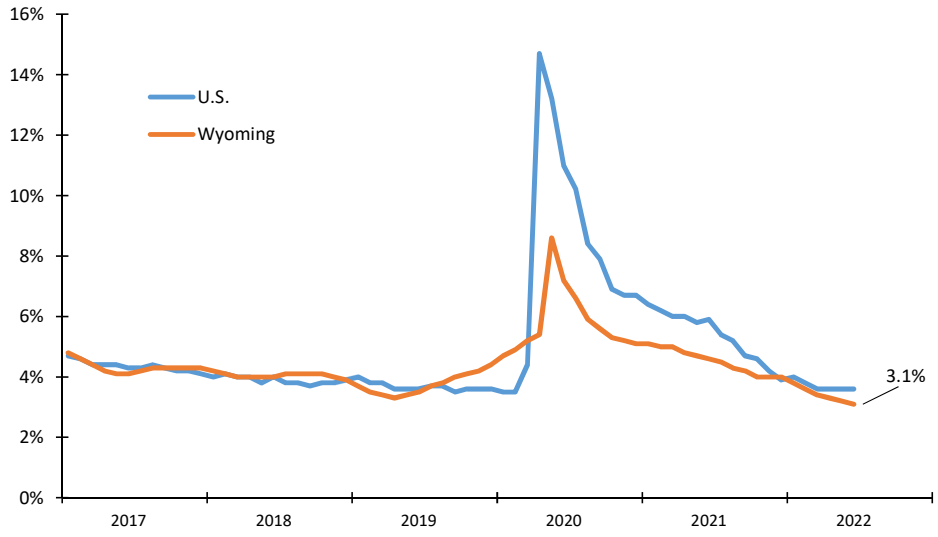


Figure 3: Change in Components of WEHI - June 2022



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

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

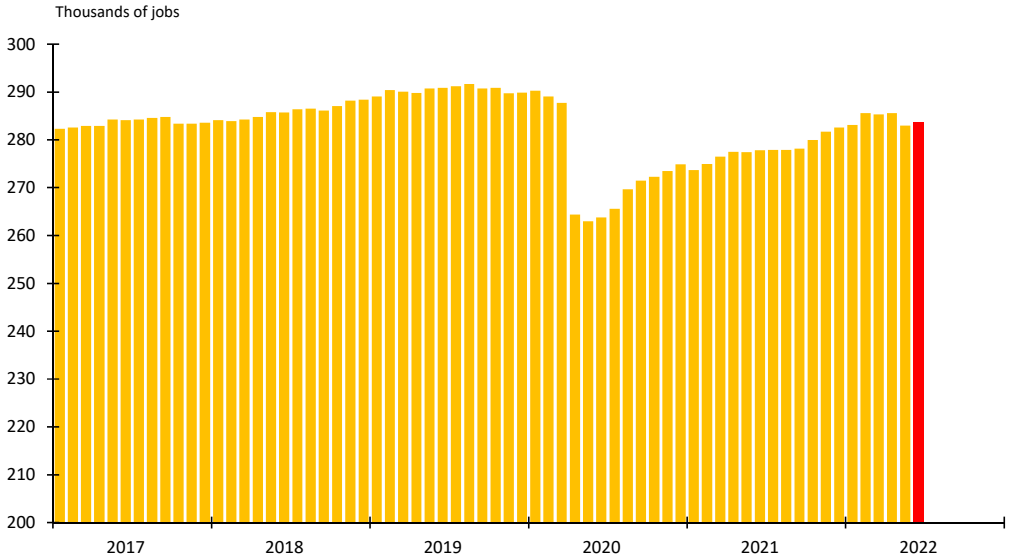


As seen in Figure 2, in each of the past six months (January 2022 - June 2022), the WEHI reported year-over-year increases, with the largest increase occurring in March (+4.3%).

Three of the four WEHI components improved in June 2022 compared to June 2021 (see Figure 3). Mining sales & use taxes saw the largest year-over-year increase in June, up 66.7%, while lodging sales & use taxes was the only component that declined, down 26.3%.

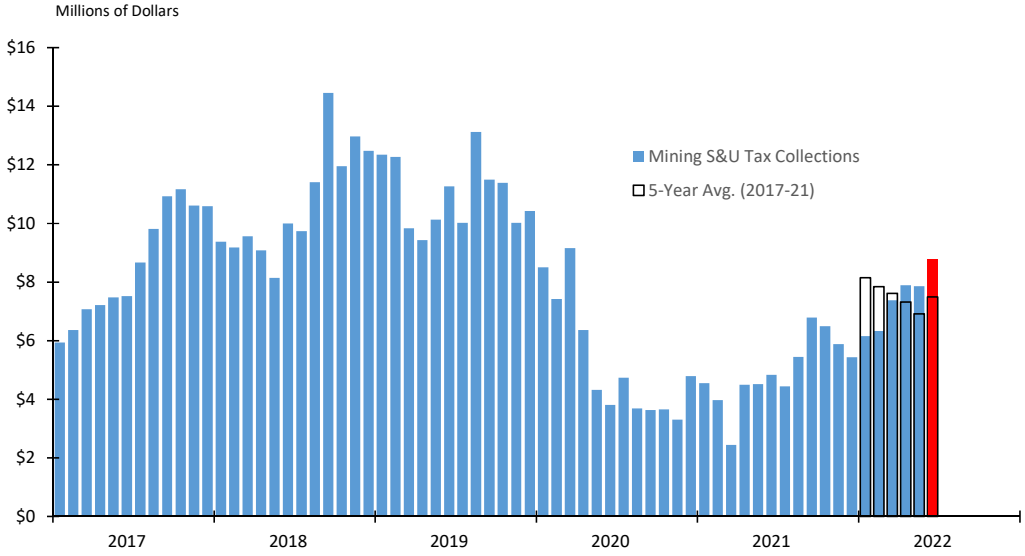
The unemployment rate for Wyoming in June was 3.1%, lower than the May 2022 rate of 3.2% and the June 2021 rate of 4.6% (see Figure 4). Because the labor force has continued to decline, the unemployment rate has returned to pre-covid levels, but total nonfarm employment has not.

Figure 5. Wyoming Total Nonfarm Employment (Seasonally Adjusted)



The total number of nonfarm payroll jobs in June 2022 was 283,700, higher than the May 2022 number by 700 and the June 2021 number by 5,900 (see Figure 5).
By June 2022, Wyoming recovered about 74 percent of the 26,000 jobs lost during the worst parts of the pandemic (March 2020-April 2020). The mining industry is the main reason total employment has not fully recovered, still down around 3,000 jobs relative to pre-covid levels. State & local government employment is also down 1,700 jobs.

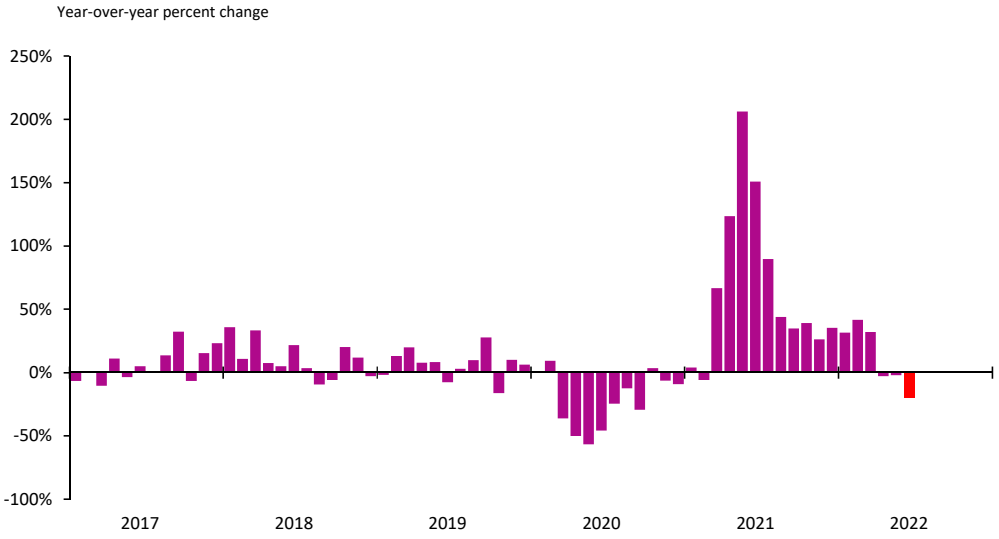
Figure 6. Wyoming 4% Sales and Use Tax Collections - Mining Sector (1-Month Lag)



Wyoming's collection of the 4% sales and use tax from the mining sector was $8.8 million in June 2022, $4.0 million more than June 2021 (see Figure 6). Through June 2022, total collections from the mining sector summed to $44.4 million, $0.9 million less (-2.0%) than the 5-year average sum through June.

Note: The value for June 2022 in Figure 6 is actually collections from July 2022 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 $3.5 million in June 2022, 19.7% less than June 2021 (see Figure 7). This year-over-year decline can primarily be attributed to the flooding that occurred in Yellowstone National Park in June this year.

Note: The value for June 2022 in Figure 7 is actually based on collections from July 2022 because there is approximately a 1-month lag between collections and sales activity.

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Wyoming Economic Health Index Addendum

The Wyoming Economic Health Index (WEHI) is a coincident economic indicator 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 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 the sales and use tax collected from the mining sector (including oil and gas extraction). Because sales and use tax collections the state receives 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.