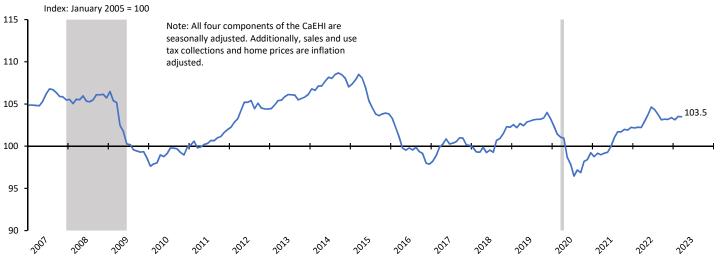
# **ECONOMIC ANALYSIS DIVISION** • MAY 2023

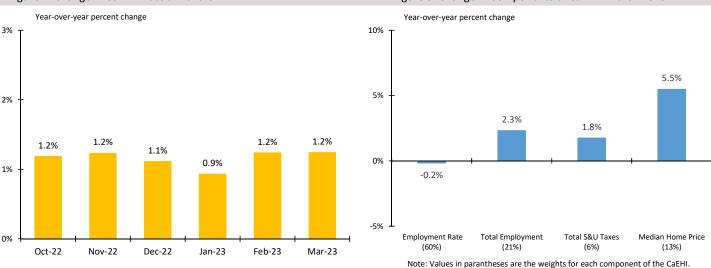
# ▶ Figure 1: Casper Economic Health Index as of March 2023



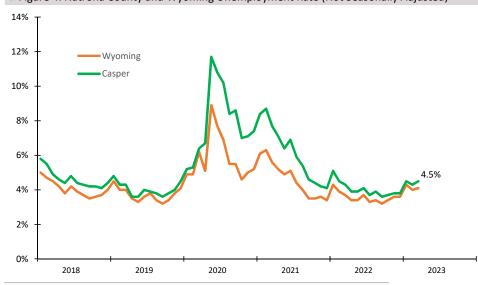
Note: Shaded areas represent U.S. recessions

# ▶ Figure 2: Change in CaEHI - Last 6 Months

#### ▶ Figure 3: Change in Components of CaEHI - March 2023



# ▶ Figure 4: Natrona County and Wyoming Unemployment Rate (Not Seasonally Adjusted)

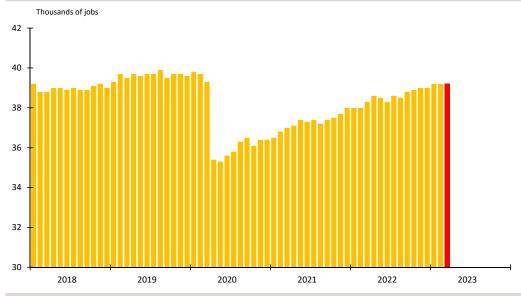


- → SUMMARY: The Casper Economic Health Index (CaEHI) reported a value of 103.5 in March 2023 (see Figure 1). This value is higher than the March 2022 value of 102.2.
- → As seen in Figure 2, in each of the past six months (October 2022 March 2023), the CaEHI reported year-over-year increases of around 1%.
- ➤ Three of the four CaEHI components improved in March 2023 compared to March 2022. (see Figure 3). Median home price saw the largest increase, up 5.5%, while employment rate was the only component that declined, down 0.2%.
- ➤ The unemployment rate for Natrona County in March 2023 was 4.5%, higher than the March 2022 rate of 4.3% and the state-wide March 2023 rate of 4.1% (see Figure 4).

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

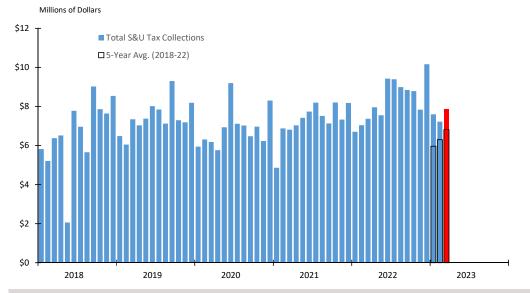


# ▶ Figure 5. Natrona County Total Nonfarm Employment (Seasonally Adjusted)



- >> The total number of nonfarm payroll jobs in March 2023 was 39,200, higher than the March 2022 number by 900 (+2.3%) (see Figure 5). By March 2023, Natrona County recovered about 88% of the 4,300 jobs lost during the worst parts of the pandemic (March 2020-April 2020).
- >> NOTE: MSA stands for Metropolitan Statistical Area. The Casper MSA covers all of Natrona County.

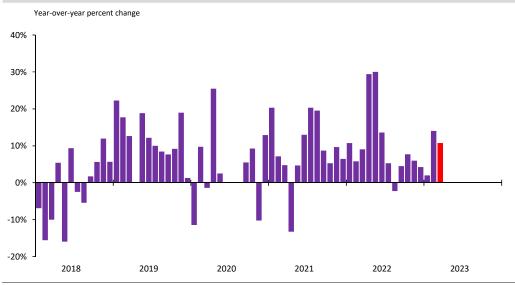
# ▶ Figure 6. Natrona County 4% Sales and Use Tax Collections (1-Month Lag)



▶ Natrona County's collection of the 4% sales and use tax was \$7.9 million in March 2023, \$0.5 million more than March 2022 (see Figure 6). This value is also \$1.1 million more (+15.5%) than the March 5-year average.

Note: The value for March 2023 in Figure 6 is actually collections from April 2023 because there is approximately a 1-month lag between collections and sales activity.

#### ▶ Figure 7. Change in Natrona County Median Home Sales Price



>> Natrona County's median home sales price was \$265,800 in March 2023, 10.8% higher than March 2022 (see Figure 7). This is the 22nd time in the last 23 months that median home sales prices have increased year-overyear.



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# Casper Economic Health Index Addendum

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

Unemployment Rate: The first component of the CaEHI is the unemployment rate. This statistic measures the percentage of people in Natrona County actively looking for work but do not have jobs. In the CaEHI 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 CaEHI is total nonfarm employment. This statistic measures the number of people who have wage or salary jobs in Natrona 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 CaEHI is the sales and use tax collected from the state's 4 percent tax rate. Because sales and use tax collections the county receives for a given month represent transactions that took place 4 to 6 weeks prior, the data is lagged one month in the CaEHI 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 CaEHI is the median home sales price. This statistic is available monthly from the Casper 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 CaEHI. As each component changes from month to month, the CaEHI 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 CaEHI to put a larger weight on the more stable components so that if they do experience a large shift, the CaEHI's value will be affected more to represent the change in the county's economic conditions. Lastly, a 3-month moving average is used in order to smooth out the index. This helps eliminate large "spikes" that may occur due to a certain component recording an unusually high or low value in a given month.

