



#### Introduction

The University of Wyoming Center for Business and Economic Analysis (UW CBEA) is proud to present our second annual Wyoming Economic Forecast. We believe this information will prove useful to our Cowboy State business and policy decision-making process as you plan for the year ahead.

The sections that follow provide a summary of the economic situation in 2024 to date, a forecast for both the United States and Wyoming economies in 2025, and industry-specific data analysis and insight into the key factors influencing each sector.

### Methodology

For our forecasts, we use a large-scale structural economic forecasting model, Moody's Analytics, which models the large-scale economic interactions of both the U.S. and Wyoming economies. The forecasts also include various scenarios which may play out in the economy, including a "most likely" baseline scenario along with several other scenarios which have varying degrees of upside and downside risks. Current data from a variety of state and federal sources are also included in the report to show the current state of the economy and the economic health of the state. We also had informal conversations with several Wyoming and regional business leaders from a variety of industries to understand what they expect to see as challenges and opportunities for 2025. These conversations informed our forecasts and helped us choose appropriate scenarios based on on-the-ground intelligence.

## Timeline of Wyoming Economic Milestones

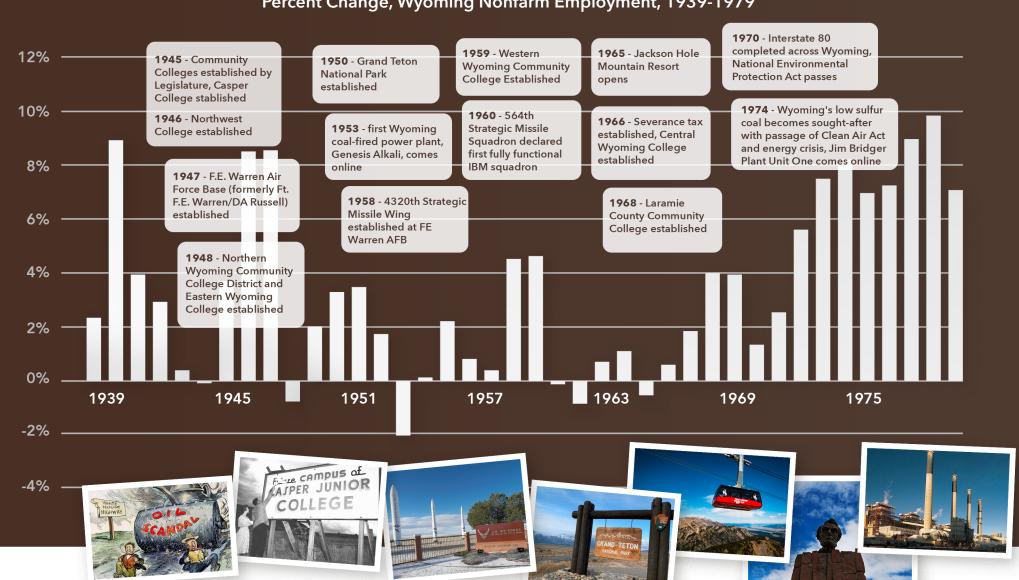
The timeline below provides a glimpse into Wyoming's past, showing major economic milestones in Wyoming's economic history mapped, post-1939, to the annual change in nonfarm employment. Over the past eight and a half decades, Wyoming has experienced numerous booms and busts – the railroad's use of coal-fired steam engines waxed and waned, ranchers and farmers have weathered good times and bad times, natural resources have ebbed and flowed, and population has come and gone. In 1960, there were a little over 120,000 people employed in Wyoming, and per capita nominal personal income was around \$2,300. In 2024, around 286,000 people (about half the population of Wyoming) were employed with a per capita nominal income close to \$82,000. The economic basis of Wyoming has changed, too – from primarily a railroad and ranching economy to a state with robust tourism, construction, manufacturing, and services sectors along with our strongholds of natural resources. We hope this timeline puts into perspective the unrelenting changes experienced by Wyoming over nearly a century.



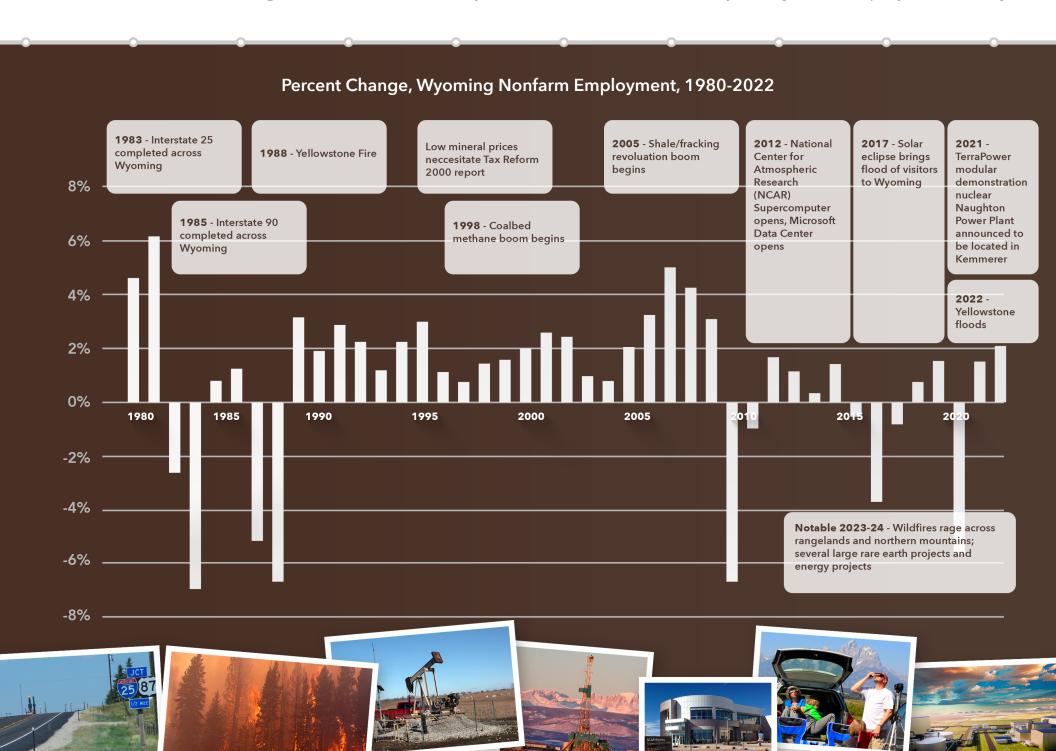
"THEN AND NOW" Timeline of major economic milestones in Wyoming, total employment changes

Union Pacific Railroad crosses Wyoming (1869) - Yellowstone National Park established (1872) - Wyoming achieves statehood (1890) - University of Wyoming founded (1886) - Nation's first National Forest, Yellowstone Park Timber Land Reserve, established in Wyoming (1891) - First oil refinery, Pennsylvania Refinery, built in Casper (1895) - Cheyenne Frontier Days starts (1897) - Salt Creek oil field (1889) -Devil's Tower National Monument established (1906) - Teapot Dome scandal (1921) - Trona discovered near Rock Springs (1938)

#### Percent Change, Wyoming Nonfarm Employment, 1939-1979



"THEN AND NOW" Timeline of major economic milestones in Wyoming, total employment changes





#### **US Economic Outlook in 2025**

The U.S. economy has shown incredible resilience in 2024. Prices are higher than before the recent inflationary episode; however, the inflation rate has fallen to near healthy levels. The unemployment rate is remarkably low. However, there are several complex and challenging emerging indicators that temper our enthusiasm for the U.S. economy's growth in 2025. The Federal Reserve's actions intended to bring inflation under control and glide the U.S. economy towards a "soft landing" appear to have been successful; however, there are also potential headwinds we see emerging in the last quarter of 2024. There remains the distinct possibility that the Federal Reserve has "overshot" its target in bringing the economy into a soft landing and may tip the U.S. economy into a mild recession. There is evidence of deterioration in some pockets of consumer credit, along with commercial lending. Retail spending trends show early signs of decelerating. Consumer confidence, as measured by both the Conference Board and the University of Michigan Index of Consumer Sentiment, has declined in recent months, at least up through September. Consumer savings levels have risen slightly from a year ago due to higher interest rates; however, we expect that trend to reverse with the Federal Reserve's reduction in interest rates. High interest rate levels for sustained periods over the past three years have made firms' capital expansion decisions much more challenging and complex. Commercial leasing and occupancy rates are down in many cities; in September of 2024, the estimated national vacancy rate for office space was over 19%. According to the Kansas City Federal Reserve's Small Business Lending Survey, small business lending shrank by 9% year on year from 2023 to 2024, and outstanding balances rose by 4.3%. While supply chain issues have mostly resolved, supply chains will remain fragile in the near term due to global conflicts and potential labor actions impacting transportation. Labor markets have loosened, but union actions continue to result in wages growing at rates most businesses would not have foreseen in making their 2024 plans. There will likely be a push back among businesses in 2025 to moderate wage growth, and retention and recruiting pressures have eased, with many firms no longer hiring entry level positions or increasing required experience and skills. Unemployment rates have remained exceptionally low even as wages have risen, and the labor force participation rate has remained lower than pre-pandemic levels; however, there is evidence that this trend may be reversing slightly, and we expect that this will continue into 2025. The number of unemployed persons per job opening, seasonally adjusted, has remained historically low since the pandemic-induced recession, but this trend turned as the labor market loosened in 2024. Pre-pandemic, this number was 0.8 unemployed persons per job opening; as of August 2024, the number was 0.9 unemployed persons per job opening.

The continuing volatility in the national political and international geopolitical environment will likely present a significant challenge to the economy in the final quarter of 2024 and 2025. In addition, we continue to have concerns about the size of the federal deficit and the federal debt, which stands at around \$36 trillion (as of October 2024) and nearly 121% of GDP.

An imbalance between housing supply and demand will continue to be a headwind to the economy. The inadequate stock of housing and the very slow decline in mortgage rates indicates that the housing market will take some time to equilibrate. Rental prices continue to rise. The hurdles to homeownership and affordable rentals represent a broader challenge to U.S. growth as the workforce necessary for new and expanding businesses struggles to find a sufficient supply of affordable housing.

International trade and the international environment continue to be red flags in 2025's forecast. The war in Ukraine, the conflict in the Middle East and Houthi attacks on merchant vessels transiting the Red Sea and Gulf of Aden, continued tensions between the U.S. and China, the slowdown in China's economy, and volatile political situations across many parts of the world will contribute to a reduced outlook for economic growth in the U.S. in 2025.

Overall, we expect that growth will be moderate in the U.S. in 2025. However, there are enough signs of fragility that we temper our enthusiasm considerably in this forecast.





# Summary of Wyoming Outlook for 2025 and Analysis of Barriers to Growth

Wyoming's challenges, including housing stock and affordability, lack of agglomeration economies due to low population numbers, and challenges in connectivity (air, road, and internet), among others, will persist into 2025. However, there are several important positive opportunities for Wyoming in 2025, especially in technology, R&D, and business formation. Wyoming ranks #2 nationally in science and engineering degrees (biological and agricultural sciences, engineering, physical sciences, social sciences, computer sciences, mathematics and statistics, and psychology) as a percentage of higher education degrees conferred, at 45.8% compared to the U.S. average of 35.7%. Patents awarded, 15.18 per 1,000 individuals in science and engineering occupations, have significantly increased - our historical range is 4-12 patents per 1000 individual in science and engineering professions. Venture capital disbursed per \$1 million in gross state product in 2022 was \$16,149.76 versus the U.S. average of \$9,898.93; millions of venture capital dollars disbursed per venture capital deal was \$11.49 million, ranking Wyoming #5 nationally versus the U.S. average of \$10.14 million per deal<sup>1</sup>. After a banner year in 2020 for business-performed R&D as a percentage of private industry output (#8 ranking at 3.48%), Wyoming's ranking declined in 2021 to 49th at 0.26%. Wyoming's R&D overall expenditures were 0.56% of GDP in 2021.

Wyoming continues to experience a large outmigration of college-educated youth², with around 37% of UW alumni still living in Wyoming among our graduates between 2007-2024. A little over 45% of native Wyomingites still lived in Wyoming in 2022³. This makes solving the issue of a critical mass of population to yield agglomeration economies more challenging. Coupled with a 50% college-going rate, this barrier to growth will persist. The Wyoming Business Council's recent event "Shaping Wyoming's Future: A UW Student Panel" may yield some excellent insights into providing solutions to these challenges. Wyoming is joining the talent wars later than most states, but Wyoming employers are now in the thick of them, and they will be the new normal.

<sup>&</sup>lt;sup>1</sup> National Science Foundation Science and Engineering State Indicators

<sup>&</sup>lt;sup>2</sup> Lightcast Alumni Pathways

<sup>&</sup>lt;sup>3</sup> U.S. Census Bureau, State of Residence by Place of Birth Flows (census.gov)

Annualized rental vacancy rates in Wyoming since 2020 have ranged from 7-9%4. Trends for 2023 indicated a vacancy rate closer to 4%, with forecasts for future years between 6-7%. According to Statistica Research, the average hourly wages required to rent a two-bedroom apartment in Wyoming in 2024 is \$\$20.98 per hour. As was reported in last year's forecast, the Housing Affordability Index<sup>5</sup> indicates that housing affordability in Wyoming turned negative in 2022 statewide – that is, on average, housing became relatively unaffordable<sup>6</sup> in mid-2022. For the metropolitan areas of Wyoming, housing became more unaffordable in 2021in the Casper metropolitan area, while in the Cheyenne MSA the same occurred in early-2022.

Based on statewide averages, Wyoming residential property tax rates are still among the lowest in the nation. Based on property taxes paid as a percentage of owner-occupied housing value, Wyoming ranked #37 in 2022, the most recent year for which data was available<sup>7</sup>. The rapid rise in housing values in many Wyoming counties since 2020 has led to higher assessed valuations and higher residential property tax bills in the past year. The resulting strain on long-time residents has led to action by the Wyoming Legislature to provide property tax relief.

Road closures contribute to challenging connectivity in Wyoming; however, the most recent season saw an improvement in road closure rates. During over 10% of the month of January 2023, I-80 was closed to passenger vehicles during commuter hours, and during over 14% of the month it was closed to commercial vehicles during commuter hours. However, only 1.62% of the month of January 2024 saw I-80 closed to passenger vehicles during commuter hours, and 6.12% of commuter hours was it closed to commercial vehicles. Similar trends held for I-80 during commuter hours in February, March, and April 2024. This is likely due in part to the milder winter in the 2023-2024 season than in the 2022-2023 season; in addition, WYDOT made a strong, concerted effort to staff up its plow driver ranks. In the winter season months, the Wyoming Department of Transportation reported that for the 5 winter seasons between 2017 and 2022, I-80 was closed on average 50 times, I-25 was closed 15 times, and I-90 was closed 10 times. Airline reductions in service, have largely been reversed; however, Casper/ Natrona County International Airport will lose Delta flights to Salt Lake City beginning in 2025, and reliability of service continues to contribute to the lack of mobility for business travelers. Finally, while there are shining examples of cities, towns, and other locations in Wyoming with good, reliable internet connectivity, according to the Wyoming Broadband Availability Map, 18.5% of Wyoming locations are currently unserved by any broadband provider. While there is little we can do about weather closures on Wyoming's roads, generating policy solutions to address air and internet connectivity issues should continue to be a priority if we want more businesses, workers, and entrepreneurs to locate to Wyoming.

- <sup>4</sup> U.S. Bureau of Census, Moody's Analytics
- <sup>5</sup> National Association of Realtors; U.S. Cenus Bureau; U.S. Cenus Bureau; U.S. Bureau of Economic Analysis; Moody's Analytics
- <sup>6</sup> Federal Reserve Bank of Atlanta
- <sup>7</sup> U.S. Cenus Bureau, "2021 American Community Survey"; Tax Foundation Calculations



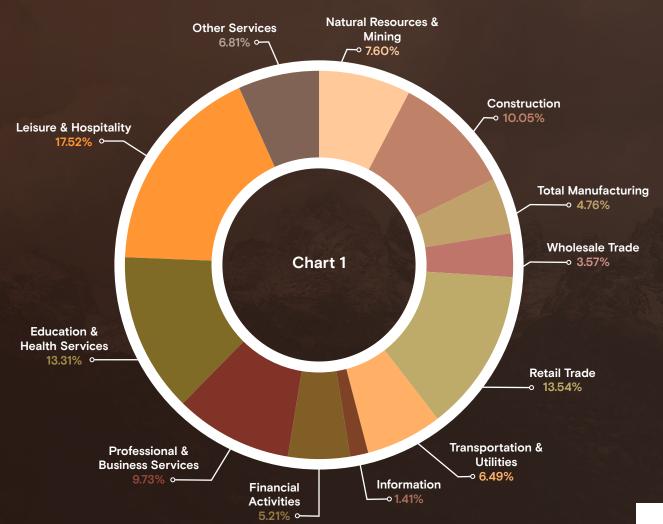


#### **Detailed Wyoming Outlook**

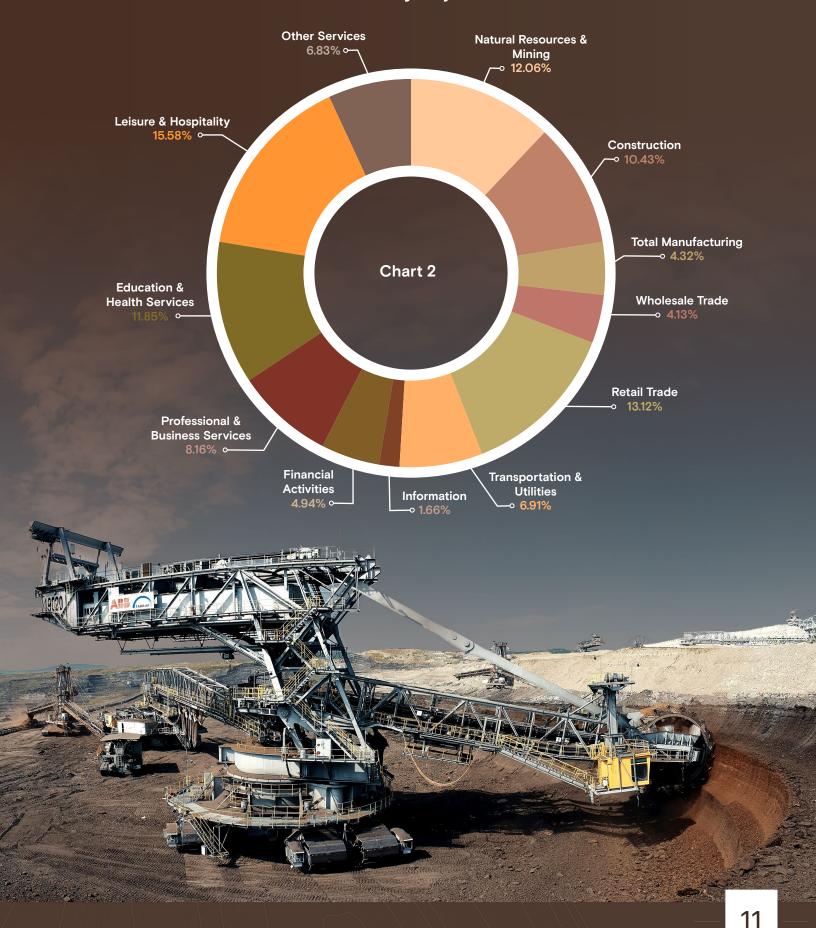
The year ahead for Wyoming holds many opportunities and challenges, including finding solutions to current binding constraints for growth – housing affordability for workers, challenging transportation and connectivity resulting in constrained access to markets, a thin and complex labor market, and the brain drain in our higher-education graduates, among others.

Wyoming's private sector employment composition has changed slightly over the past few years due to the structural decline of mining. Predicted private sector composition for 2025 is shown in **Chart 1** below. Natural Resources and Mining employment has contracted by nearly 40% in the past decade, but employment in this sector is expected to rise slightly in 2025. Employment in the wholesale trade sector is expected to remain steady, while construction, manufacturing, retail trade, transportation and utilities, financial services, education and health services, and leisure and hospitality are expected to experience increases in year-on-year employment. Information services and professional and business services are expected to rebound after a slight decline in employment. Other services have experienced a contraction in employment, a trend we expect to continue. **Chart 2** shows the employment composition of Wyoming a decade ago for comparison.

# Wyoming 2025 Predicted Private Nonfarm Employment by Sector Seasonally Adjusted

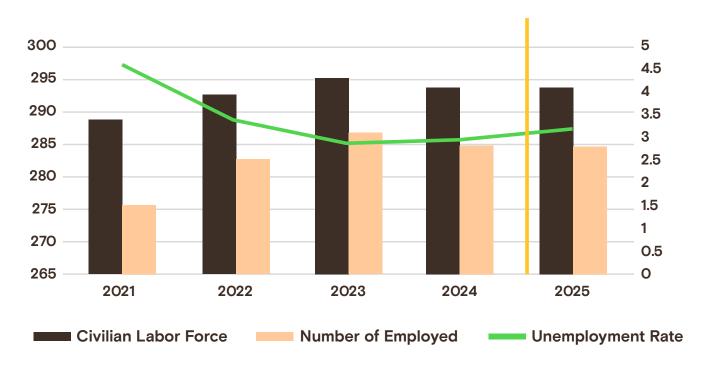


# Wyoming 2014 Predicted Private Nonfarm Employment by Sector Seasonally Adjusted



The number of people in the Wyoming labor force is expected to increase slightly in 2025, and the number of people employed is expected to decline slightly. The unemployment rate is expected to be around 3.2% in 2025, a slight increase, and the number of people unemployed is expected to increase slightly. In all graphs in this and upcoming sections, a yellow vertical line indicates that data in dates beyond are forecasts.

Wyoming Employment: Labor Force, Number of Employed and Unemployment Rate







Income, as measured by average nominal household income and per capita nominal disposable income, for the past decade and predicted for 2025 are shown below in Chart 4 and Chart 5. Chart 4 highlights Wyoming's household income versus other states in the mountain region. Chart 5 shows per capita disposable income for Wyoming only.

Average Household Income in USD:
Wyoming vs Mountain Region

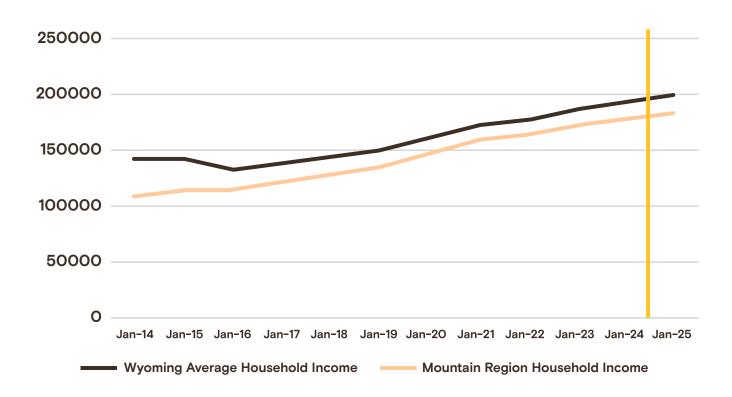
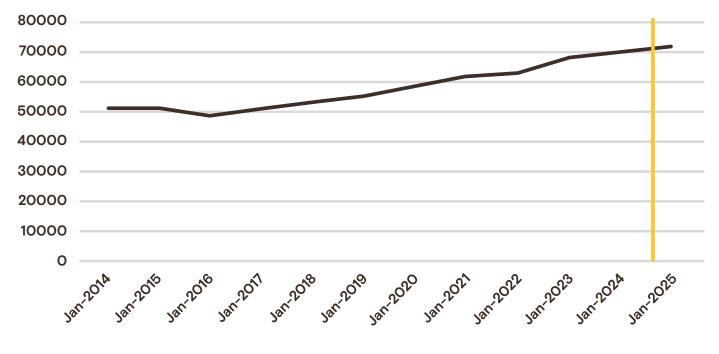


Chart 5
Wyoming Per Capita Disposable Income (USD)



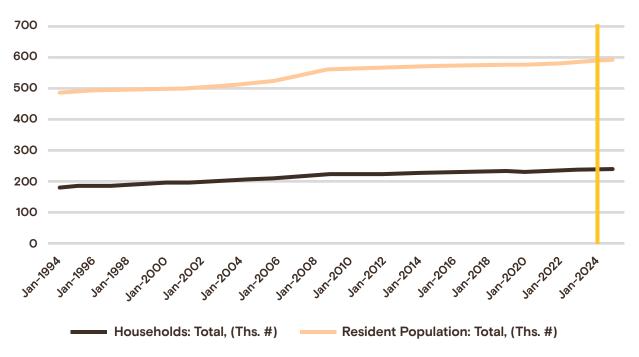
Income: Per Capita Disposable, (USD)





Wyoming's population and the number of households from 1994 through 2025 (predicted), are shown in **Chart 6** below.

Chart 6
Wyoming Resident Population and Households, (Ths.#)



According to the U.S. Census Bureau's Business Formation Statistics by State, new business applications were up 25% between September 2023 and September 2024; Wyoming also recently was ranked as the 6th most entrepreneurial state in the nation by The Digital Project Manager. This bodes well for new business startups and job creation in the entrepreneurial space.

As shown in **Table 1** below, the population of Wyoming, along with the number of households in the state, is expected to slightly increase in 2025. Net migration into the state has fallen this year, and this trend is expected to continue in 2025. The number of older Wyoming residents (65 years old and over) and those aged 45-64 are expected to drive that growth, though the age group 45-65 is expected to be a much smaller proportion of growth than those over 65 years old. The populations of residents 0-4, 5-19, 20-24, and 25-44 years old are expected to decline. The implications of our aging population are broad reaching. The K-12 school age student population will be impacted in both the near- and long-term; the workforce necessary for economic growth and the number of potential entrepreneurs and small business owners will decline. In addition, by 2031, the high school enrollment of the state is expected to decline by 5.6%, according to the National Center for Educational Statistics.

A selection of tables summarizing the Wyoming forecast for 2025 are shown below in **Tables 1-4**, built using Moody's Analytics. Additional forecast tables are in Annex 2.

Table 1 - Wyoming Demographics

Demographics	Units	2021	2022	2023	2024	2025
Total population	Thousands	580.5	584.1	589.6	593.1	595.3
Population: 0-4	Thousands	32.2	31.5	31.1	30.9	30.7
Population: 5-19	Thousands	115.3	115.4	115.3	114.2	113.0
Population: 20-24	Thousands	37.5	37.7	38.4	38.2	37.9
Population: 25-44	Thousands	150.7	151.6	152.6	152.8	152.3
Population: 45-64	Thousands	140.1	139.4	139.3	139.4	139.7
Population: 65 and older	Thousands	104.6	108.5	112.9	117.4	121.7
Households	Thousands	237.1	241.0	243.6	243.6	244.9
Birth rate	%	10.6	10.4	10.1	10.1	10.1
Death rate	%	10.6	11.6	9.8	9.0	9.2
Net Migration	Thousands	2.8	4.4	5.3	2.9	1.7



### Table 2 - Wyoming Output and Employment

Wyoming	Units	2021	2022	2023	2024	2025
Output						
Nominal gross state product	Bil. \$, Seasonally Adjusted Annual Rate	42.2	49.1	50.2	52.1	53.8
Real gross state product	Bil. Inflation Adjusted \$, Seasonally Adjusted Annual Rate	36.9	37.3	39.3	40.4	40.9
Employment						
Total Non-Agricultural	Thousands, Seasonally Adjusted	278.3	284.9	291.3	293.5	295.4
Natural Resources & Mining	Thousands, Seasonally Adjusted	14.8	16.3	17.1	16.7	17.1
Construction	Thousands, Seasonally Adjusted	21.0	21.3	22.2	22.6	22.6
Manufacturing	Thousands, Seasonally Adjusted	9.8	10.2	10.4	10.6	10.7
Retail Trade	Thousands, Seasonally Adjusted	29.7	30.4	30.3	30.3	30.5
Wholesale Trade	Thousands, Seasonally Adjusted	7.3	7.7	7.9	8.0	8.0
Transportation & Utilities	Thousands, Seasonally Adjusted	14.2	14.0	14.3	14.4	14.6
Information Services	Thousands, Seasonally Adjusted	2.9	3.1	3.2	3.1	3.2
Financial Services	Thousands, Seasonally Adjusted	11.2	11.5	11.5	11.6	11.7
Professional & Business Services	Thousands, Seasonally Adjusted	19.7	20.7	21.7	21.6	21.9
Education & Health Services	Thousands, Seasonally Adjusted	28.6	28.8	29.3	29.6	30.0
Leisure & Hospitality Services	Thousands, Seasonally Adjusted	35.8	37.4	38.4	39.2	39.5
Other Services	Thousands, Seasonally Adjusted	15.8	16.0	16.1	15.4	15.3
Unemployment Rate	%, Seasonally Adjusted	4.5	3.4	2.9	3.0	3.2
Labor Force	Thousands	288.8	292.7	295.3	293.8	294.0
Number of Unemployed	Thousands	13.1	10.0	8.6	8.7	9.4
Number of Employed	Thousands	275.7	282.7	286.7	285.1	284.6

Table 3 - Wyoming Housing

Housing	Unit	2021	2022	2023	2024	2025
Total Residential Permits	#, Seasonally Adjusted Annual Rate	2,706	3,004	1,681	2,104	2,214
Single-family	#, Seasonally Adjusted Annual Rate	2,158	1,924	1,418	1,780	1,884
Multifamily	#, Seasonally Adjusted Annual Rate	548	1,080	263	325	330
Total starts	#, Seasonally Adjusted Annual Rate	2,690	2,820	1,975	2,082	2,178
Single-family	#, Seasonally Adjusted Annual Rate	2,266	2,090	1,618	1,811	1,924
Multi-family	#, Seasonally Adjusted Annual Rate	424	730	357	271	254
Existing single-family sales	Ths., Seasonally Adjusted Annual Rate	13.9	10.3	9.4	9.2	8.4
Median. existing. single- family price	\$, Seasonally Adjusted Annual Rate	364.5	397.6	415.7	441.9	453.1
FHFA home price	1995Q1=100, Not Seasonally Adjusted	380.3	438.2	459.4	484.4	491.6
Affordability	Index	138.1	98.5	85.0	85.1	89.6

### Table 4 - Wyoming Income

Income	Unit	2021	2022	2023	2024	2025
Nominal personal Income	Mil. \$, Seasonally Adjusted Annual Rate	40,867	42,585	45,381	47,166	48,792
Real personal Income	Mil. Inflation Adjusted \$, Seasonally Adjusted Annual Rate	37,507	36,696	37,697	38,242	38,719
Wages & Salary	Mil. \$, Seasonally Adjusted Annual Rate	15,449	16,597	17,830	18,545	19,264
Nonwage	Mil. \$, Seasonally Adjusted Annual Rate	25,418	25,988	27,550	28,621	29,528
Residence Adjustment	Mil. \$, Seasonally Adjusted Annual Rate	-322	-316	-339	-350	-365
Contributions. for Social Insurance	Mil. \$, Seasonally Adjusted Annual Rate	2,815	2,948	3,133	3,274	3,400
Dividends, Interest & Rent	Mil. \$, Seasonally Adjusted Annual Rate	13,010	14,387	15,448	16,014	16,551
Farm Proprietors	Mil. \$, Seasonally Adjusted Annual Rate	115	228	234	154	82
Nonfarm Proprietors	Mil. \$, Seasonally Adjusted Annual Rate	4,068	3,863	4,032	4,157	4,154
Wage/Salary Supplements	Mil. \$, Seasonally Adjusted Annual Rate	4,109	4,204	4,415	4,611	4,781
Transfer Payments	Mil. \$, Seasonally Adjusted Annual Rate	7,252	6,571	6,893	7,308	7,725
Nominal disposable. personal income	Mil. \$, Seasonally Adjusted Annual Rate	35,941	36,818	40,323	41,658	42,970
Real disposable. personal income	Mil. Inflation Adjusted \$, Seasonally Adjusted Annual Rate	32,990	31,725	33,496	33,776	34,100
Average household income	\$, Seasonally Adjusted Annual Rate	171,973	176,565	186,388	193,424	199,095
Median household income	\$, Seasonally Adjusted Annual Rate	65,204	70,042	75,150	77,915	80,286
Nominal per capita. personal. income	\$, Seasonally Adjusted Annual Rate	70,348	72,820	76,923	79,490	81,926
Real per capita. personal. income	Inflation Adjusted \$, Seasonally Adjusted Annual Rate	64,566	62,753	63,900	64,449	65,014

The continued decline in employment, wage and income contribution, and contribution to gross state product in the coal mining industry is offset somewhat by a relatively strong outlook for other natural resources, including trona and rare earths. In addition, pockets of manufacturing clusters, notably in Sheridan and Casper, along with strong business startup numbers, point to potential positives for the state. Fin-tech and digital innovation are a unique attribute of Wyoming's business climate but not likely to lead to an increase in domiciled businesses and enough employment to offset the structural decline of coal. The continued problems with lack of quality, affordable housing; lack of economies of scale due to low population numbers; challenges in accessing childcare for workers; a decline in the prime-working age population; low college-going numbers; and connectivity challenges, including road, air, and internet connectivity, cloud Wyoming's mid- and long-term growth prospects.







The University of Wyoming College of Business offers an education and a student experience like no other. Housed in a multi-million-dollar facility, we combine state-of-the-art technology with world-class design and functionality. We aspire to be the premier provider of ethical business leaders in accounting, administration, environment, ethics, finance, management, marketing and beyond.

The College of Business is committed to equipping our students with a degree and knowledge in sustainable business practices to benefit the state of Wyoming and our nation. Our students leave prepared to pursue meaningful, impactful careers.

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The Center for Business and Economic Analysis (CBEA) supports the economic growth and diversification of Wyoming's economy through applied economic and business analytics for communities, industries, and entrepreneurs who desire a thriving and prosperous Wyoming. The center was established in 2019 as a unit within the College of Business at the University of Wyoming. CBEA is a member of the Association for University Business and Economic Research (AUBER).

#### Thank You's and Partners

The UW CBEA is indebted to our partners in this economic outlook for Wyoming.

- The Wyoming Business Council for commissioning this outlook.
- The Wyoming Business Alliance for providing us with a forum to present the summary findings.