LABOR DAY REPORT

MONTANA 2018

Montana Department of
LABOR & INDUSTRY

MONTANA 2018 LABOR DAY REPORT

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STATE OF MONTANA
Steve Bullock, Governor
Mike Cooney, Lieutenant Governor

MONTANA DEPARTMENT OF LABOR & INDUSTRY
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A MESSAGE FROM COMMISSIONER HOLLENBAUGH

Commissioner Galen Hollenbaugh has been working for the State of Montana for over 20 years and has been with the Department of Labor & Industry since 2012. A Missoula native, Hollenbaugh received a B.A. in Political Science and a Masters of Public Administration from the University of Montana. In addition to his tenure with multiple state agencies, Hollenbaugh also served four terms in the Montana House of Representatives, representing the south central area of Helena.

Governor Steve Bullock:

As the Commissioner of the Montana Department of Labor & Industry, it is an honor to share the 2018 Labor Day Report with you and the citizens of Montana. Montana's economy experienced growth over the last year, adding jobs and wealth for both businesses and workers.

Montana created 4,600 jobs and reported the fourth fastest wage growth among states over the last decade. Over the last year, average wages increased by 3.2 percent, and all regions of the state experienced wage gains. Wages over the rate of inflation increased by 1.3 percent, meaning Montanans can afford more goods and services with their earnings.

The state continues to foster entrepreneurship and added 2,940 new businesses last year. These enterprises are critical to supporting Montana's economy as approximately 45,000 Montanans are employed by businesses created in the last five years.

Strong wage growth and slower employment growth suggests Montana's labor markets are tightening and workers are in high demand. Businesses are addressing a shortage in workers through public-private partnerships to recruit young people into work-based learning programs. Continued collaborations and additional workforce training efforts can ensure workers are qualified for in-demand jobs.

Diversity in our industries remains one of Montana's greatest assets and allows us to withstand changes in the economy. While the mining and agricultural industries have lagged over the last year, other industries are doing well. The healthcare industry contributed over $4.3 billion to the Montana economy, which more than offsets losses in mining, utilities, and agriculture.

Montanans can look forward to future growth. The Department of Labor & Industry will continue to lead when addressing the worker shortage and other economic issues in Montana. Through Registered Apprenticeship, HELP-Link, and other workforce programs, the Department will stay focused on preparing people for the workforce and developing partnerships between businesses and workforce training organizations. Together, businesses and workers can invest in Montana's future and ensure our continued economic prosperity.

Governor Bullock, thank you for your leadership and commitment to Montana's workforce, business and communities.

Sincerely,

Galen Hollenbaugh, Commissioner
Montana Department of Labor & Industry

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EXECUTIVE SUMMARY

Montana's economy continues to grow in 2018, adding jobs and wealth for both businesses and workers. Real wages increased, allowing Montana families to achieve a higher standard of living with their earnings. Our entrepreneurs are among the most successful in the nation at starting and developing new businesses. Highlights of Montana's economic performance include:

- Montana posted the 4th fastest wage growth among states in the past decade. In the last year, average annual wages increased by 3.2% to $42,045. Real wages grew by 1.1%. Every region of the state experienced wage gains.
- Over the last ten years, Montana's per capita income has grown rapidly – the 10th fastest increase among states.
- From 2015 to 2016, Montana's mean household income increased by 4.8%, ranking 12th fastest growth in the nation.
- Montana's personal income growth over the past ten years was the 11th fastest among states.
- Montana has the highest household rate of business ownership in the nation. 21% of Montana households report income from a business or a farm.
- In the last year, over 2,940 new establishments were formed by Montana entrepreneurs.
- Roughly 45,000 Montana workers are employed by businesses that have been created in the last five years.
- Strong wage growth with slower employment growth suggests that Montana's labor markets are tightening. Greater workforce training efforts are underway to ensure workers are being trained for in-demand jobs and are developing skills needed by employers.
- The Montana Department of Labor & Industry has helped expand the worker supply and increase the quality of the Montana workforce by providing career and training services to over 50,000 Montanans in the last year through programs like Registered Apprenticeship and HELP-Link.
- Overall, Montana added 4,600 jobs in 2017 for an employment growth rate of 1%. Current job growth is slower than average, which is expected during periods of tight labor markets.

- Real GDP growth over the 2007 to 2017 timeframe outpaced the nation, adding an average of roughly 1.3% (or $513 million) per year to real GDP. Montana's total nominal GDP in 2017 was $48 billion.
- Montana's manufacturing sector had the third fastest GDP growth among states over the last five years.

In addition to increasing prosperity, Montana's economic growth has combined with an aging population to create an environment where workers are in high demand. Successful businesses are addressing worker needs through public-private partnerships to grow and retain their workforce, such as recruiting young workers into the field through work-based learning opportunities. Businesses are also working to recruit under-utilized populations into the labor force by adapting modern work schedules and hiring practices. For example, addressing the gender pay gap increases women's labor force participation and provides greater incentive for women to work longer hours. Adding accommodations attracts workers with disabilities. Even simple scheduling changes help students work around classes and allow parents to plan for childcare.

Meanwhile, increased inflation has resulted in higher prices for Montana consumers and rising interest rates. High prices for housing relative to incomes can place a strain on workers, particularly younger workers who may be buying a home for the first time. Retaining these younger workers in our workforce is critical in addressing our worker shortage. Other changes have threatened Montana's energy industry.

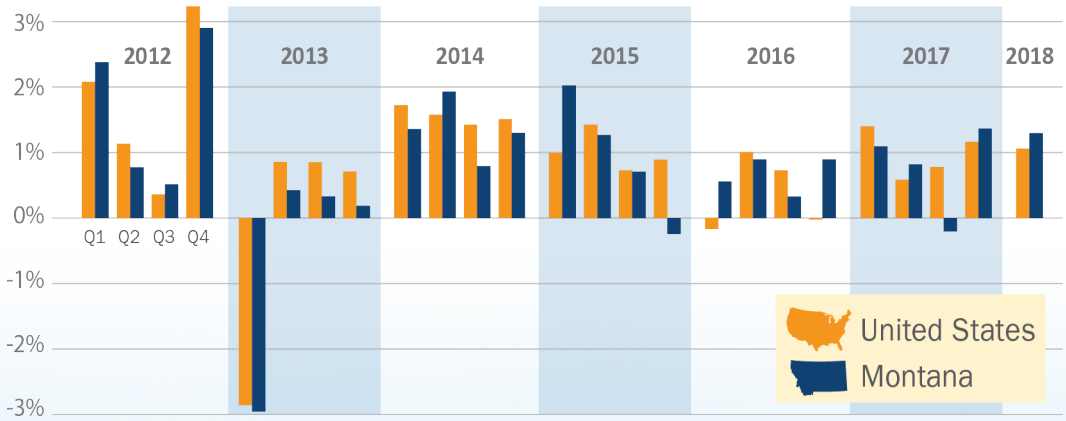
Montanans look forward to future economic growth and prosperity. With a strong, diversified, and constantly changing economy, Montana entrepreneurs and workers remain nimble enough to turn obstacles into opportunities and face future challenges. Continued partnerships between businesses and workforce training organizations will ensure that Montana's economic future continues to be bright.

Part 1 MONTANA CONTINUES STEADY GROWTH

Montana's economy enjoyed steadier economic growth than the U.S. economy in the last ten years, with lower unemployment rates and faster economic growth from 2007-2017 than the nation. In the last two years, the U.S. economy caught up with Montana and posted 2.7% personal income growth annually in 2016 and 2017, near Montana's pace of 2.6% growth.[1] Personal income measures the monetary value received by Montana residents from economic activity, and thus is an overall measure of economic growth. Montana's growth in the last two years has been moderated by declines in the energy and agricultural industries.

In the most recent two quarters (4th quarter of 2017 and 1st quarter of 2018), Montana's personal income growth returned to the strong pace last seen in 2015, exceeding U.S. growth and promising a stronger economy in 2018. **Figure 1** illustrates the U.S. and Montana personal income growth by quarter. Even with the slower growth in the prior two years, **Montana's personal income growth over the past ten years was the 11th fastest among all states.**[2]

Figure 1:
Personal Income Growth by Quarter
Montana and the United States



Source: Bureau of Economic Analysis (BEA), U.S. Department of Commerce (DOC)

Out of the 25 quarters shown in **Figure 1**, Montana had three quarters of negative personal income growth. The two most recent negative quarters, in the fourth quarter of 2015 and the third quarter of 2017, were due to losses in farm earnings and mining. Oil and gas development in Eastern Montana and North Dakota benefitted our economy during and exiting the 2007 recession, but personal income in mining peaked in 2013 before declining in subsequent years. In 2015 and 2016, Montana's coal industry struggled with low global prices. In addition to the losses in mining, farm earnings posted several quarters of negative growth during the 2015-2017 period. While strong growth in other industries kept Montana's total personal income growth positive for most of the timeframe shown in **Figure 1**, the losses in agriculture and mining impacted growth in the fourth quarter of 2015 and the third quarter of 2017. Recent data from both farm and mining earnings provide more positive news for both agriculture and mining.[3]

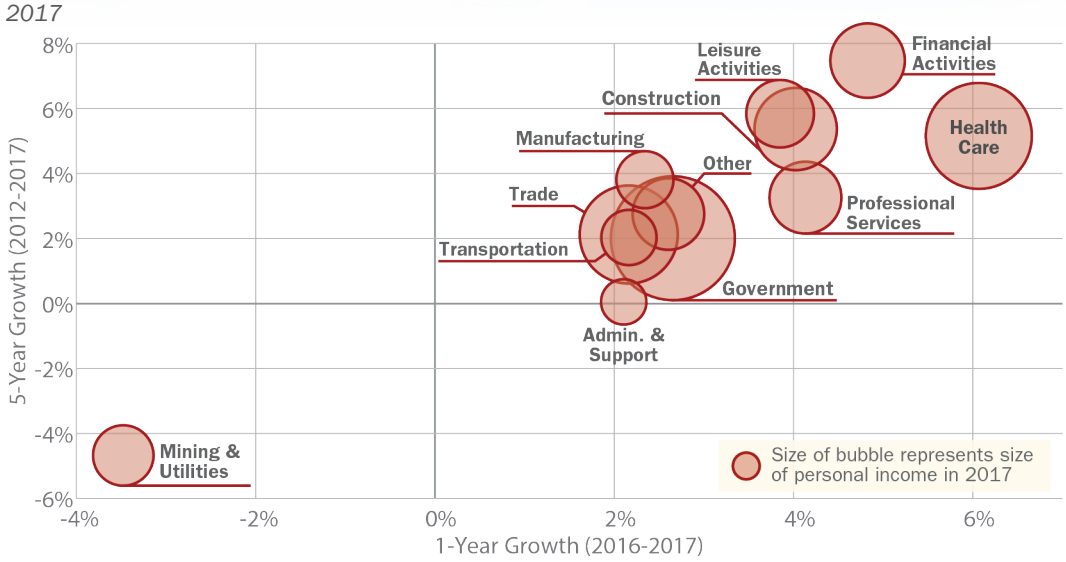
The decline in personal income in the first quarter of 2013 was due to the "fiscal cliff," when the federal government both increased taxes and made substantial spending cuts across a wide variety of government programs. Federal funding cutbacks slowed economic growth throughout 2013, with particular impacts near military bases, the national parks, and on reservations.

Industry Performance

Although the mining and agricultural industries have been subject to changing global markets, other industries performed quite well. In particular, the healthcare industry grew by $251 million in personal income in the last year, contributing over $4.4 billion total to the Montana economy and more than offsetting the losses in mining, utilities, and agriculture. All other industries posted gains, with construction growing more than $102 million in personal income from 2016-2017. The relative size and performance of Montana's industries for personal income is displayed in **Figure 2**. Financial activities, construction, and healthcare have all experienced growth in the last year that exceeded 4%, and have posted annual growth of over 4% in the past five years.

One continued concern for the Montana economy is the future for coal and coal-fired power plants, such as the one in Colstrip. Several communities in the southeast corner of Montana are highly dependent on the tax revenues and income from coal-related industries. In particular, Rosebud County, Musselshell County, and the Crow and Northern Cheyenne Reservations have struggled with the loss of coal-related revenues in recent years, causing increased unemployment rates and concerns about the stability of future tax revenues. Coal production increased in 2017, improving these economies in the near term, but long-term demand will remain uncertain while low natural gas prices provide a cheaper alternative for power generation. The Bullock Administration and the Montana Department of Labor and Industry have been actively working

Figure 2:
Personal Income by Industry
2017



Source: Montana Department of Labor & Industry (MTDLI) using BEA data

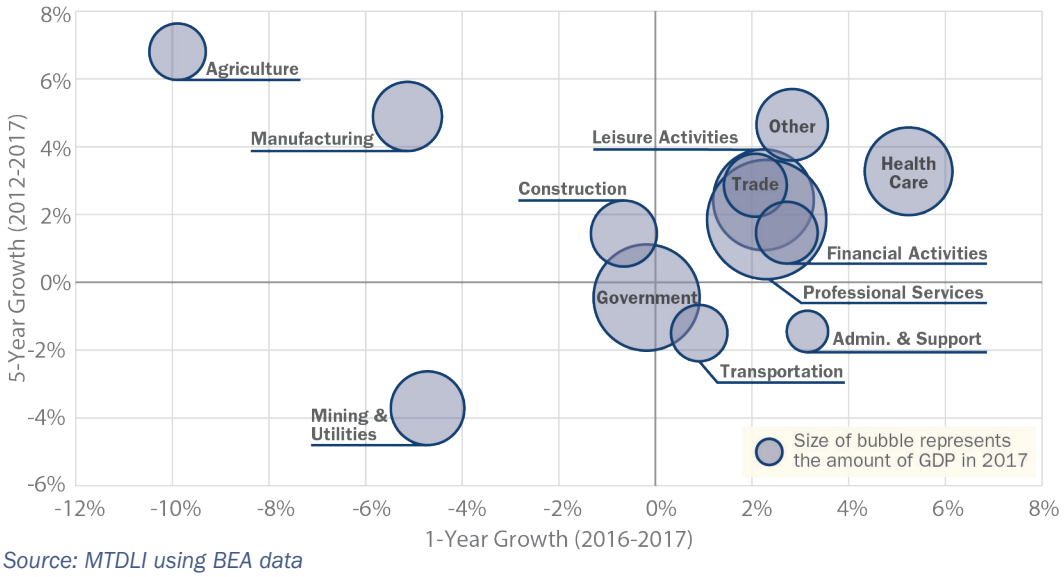
with the Colstrip community and other regional bodies to provide resources and assistance during their transition planning. With local support and state assistance, these communities will be able to transition to a more diversified economy able to weather future downturns.

Montana's real GDP growth over the 2007 to 2017 timeframe outpaced the nation, adding 1.3% per year (roughly $513 million) compared to 1.2% in the U.S. **Montana's total GDP in 2017 was $48 billion** in nominal terms (real GDP was $41.8 billion in 2009 dollars). Figure 3 illustrates the GDP generation of Montana's industries in the one-year and five-year timeframes. Much of the growth in the last ten years has been in the healthcare and real estate industries. In the last five years, the manufacturing sector also has experienced strong growth. Montana was the fastest growing state for manufacturing GDP in 2016. The sector slipped in 2017, declining 5% over the year, but still added over $100 million in GDP over the last five years. **Montana's manufacturing sector had the third fastest growth among states over the last five years.**

What's the Difference between GDP and Personal Income?

Gross Domestic Product (GDP) measures the value of economic activity within Montana, typically calculated by taking final sales minus the costs of inputs and wages. Personal Income measures the amount of income Montanans received from their economic activities, even if these activities took place outside Montana's borders. If a Montana corporation distributed dividends to out-of-state investors, the amount of the income would be included in GDP because it was created in Montana, but the personal income would be recorded in the investor's home state.

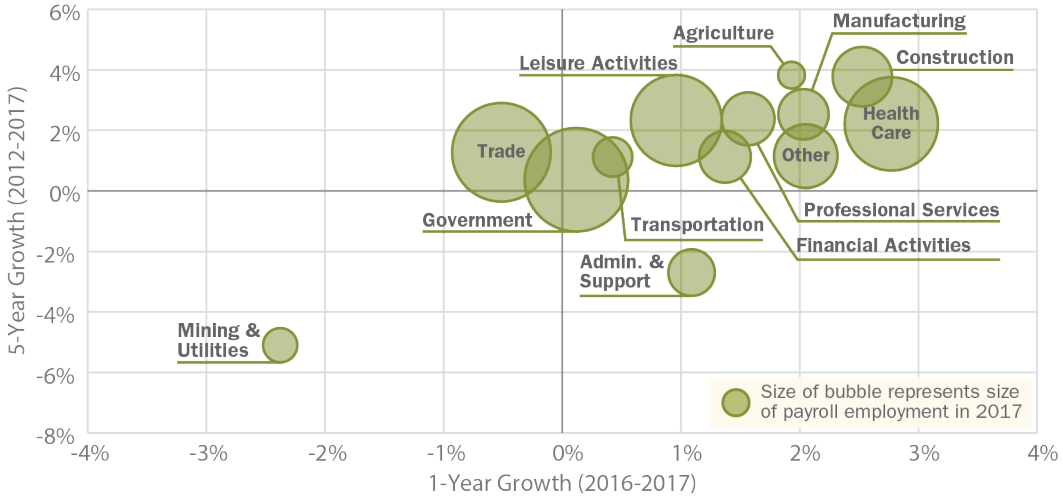
Figure 3:
Gross Domestic Product by Industry
2017



Source: MTDLI using BEA data

Growth in payroll employment has followed similar patterns to GDP and personal income, with healthcare, professional services, leisure activities, and construction adding the most jobs in the last year. **Figure 4** illustrates the payroll employment growth for the one-year and five-year timeframes. Healthcare added 1,900 payroll jobs over the year, while manufacturing added 400 jobs. State government, federal government, mining, and retail and wholesale trade posted job losses in 2017. **Overall, Montana added 4,600 jobs for an employment growth rate of 1%.** Current job growth is slower than average, which is expected during periods of tight labor markets. If worker availability is limited, businesses cannot add workers to their businesses quickly, restricting employment growth.

Figure 4:
Payroll Employment by Industry
2017

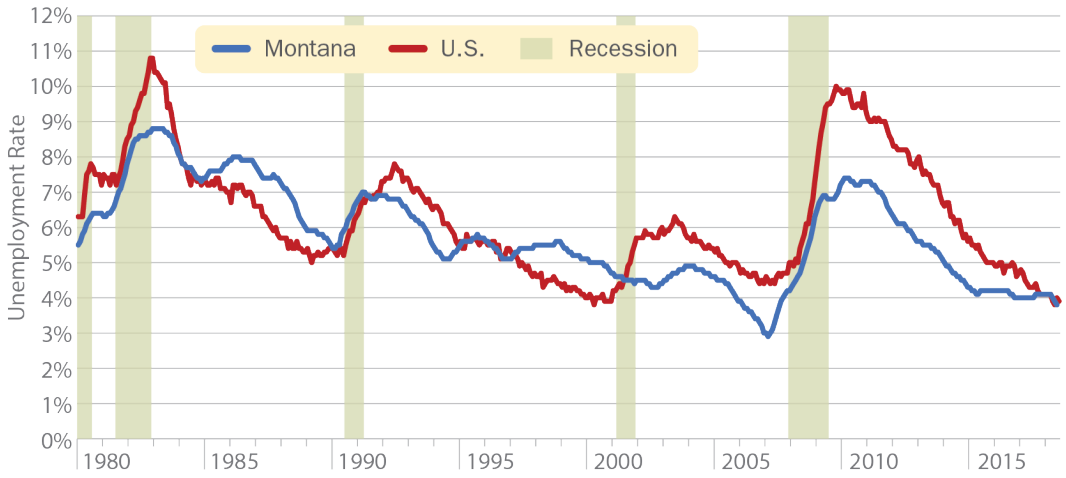


Source: MTDLI using data from the Quarterly Census of Employment and Wages (QCEW)

Low Unemployment Rates Continue

Strong economic growth has created a low unemployment rate in Montana and nationally. Montana's unemployment rate has hovered around the 4.0% level for much of the last three years. In the last year, the U.S. unemployment rate joined Montana's at around 4%, creating tight labor markets both statewide and nationally. **Figure 5** illustrates the Montana and U.S. unemployment rates since 1980.

Figure 5:
Unemployment Rates since 1980
Montana and the U.S.



Source: MTDLI using Local Area Unemployment Statistics (LAUS)

Economists generally consider unemployment rates between four to five percent as "normal" unemployment, which is the level of unemployment that provides a healthy balance of workers being able to find jobs at reasonable pay and businesses being able to find workers with matching skills and experience to do the job. Unemployment rates lower than the normal level suggest worker shortages, where businesses have a difficult time finding employees to fill positions. Without workers, businesses are unable to produce goods and services, slowing the growth of our state's economic production.

National Inflation Risks Rise

Tight employment markets can also increase inflationary pressure as businesses lift prices of goods to cover rising wages. The higher unemployment rates nationally kept national wage growth fairly anemic until recent years (wages in the state have been increasing steadily).[4] Now that the national unemployment rate has decreased to below normal levels, inflation has become a greater concern.

Further driving up inflation concerns, tax cuts and additional government spending that occur when the economy is already at full employment cause the economy to overheat and generate inflation. Tariffs and other trade barriers implemented to protect certain industries also have the negative effect of increasing input prices for other industries and putting upward pressure on consumer prices. These influences have increased inflation risk in the U.S., making it difficult for Montana families to stay ahead of rising prices. Although still relatively low in historic terms, the Consumer Price Index for All Urban Consumers (CPI-U), the most commonly used measure of inflation, has increased by 2.9% over the last year.[5]

Montana consumers have noticed the impacts of inflation in rising prices for food, gas, and housing. Over the last year, gasoline prices have increased by over 24%, slowing tourism into Montana and placing pressure on workers' paychecks.[6] Montanans already spend a high share of their budgets on gasoline – the average Montanan spent $1,323 on gasoline in 2016, the 8th highest in the nation.[7]

Homebuyers are also facing rapid increases in housing prices, both from inflationary pressure and from rising interest rates. As inflationary pressures build, the Federal Reserve must increase interest rates to keep inflation under control.[8] Increases in the Federal Funds rate typically drives up the rates for all loans, including mortgages. First-time buyers have more difficulty affording homes in this environment of rapidly rising prices and higher interest rates.

The median home value in Montana in 2016 was $217,200, the 19th highest among states.[9] That level allows many Montanans to afford homes, but some of Montana's more populated areas have much higher prices. The median value of an owner-occupied home in Flathead County is $247,800, while Gallatin County's median home value is $347,900. If Gallatin County's median home value was compared to other states, it would be the 5th highest in the nation, between Massachusetts and New Jersey. While rising home prices benefit homeowners, high costs for first-time homebuyers make it difficult for some Montana communities to recruit and retain younger and low-wage workers.

MONTANA WAGE$

Montana has had the

#4 4TH FASTEST WAGE GROWTH

over the last 10 years!

In **2017**, Montana's average annual wage was

$42,045

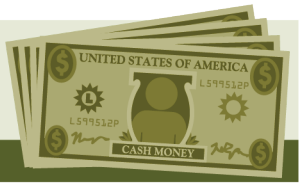
Including benefits and bonuses, Montana's average compensation per job was **$50,937** ranking 49th among states.

From 2015 to 2016, Montana's mean household income grew by **4.8%**

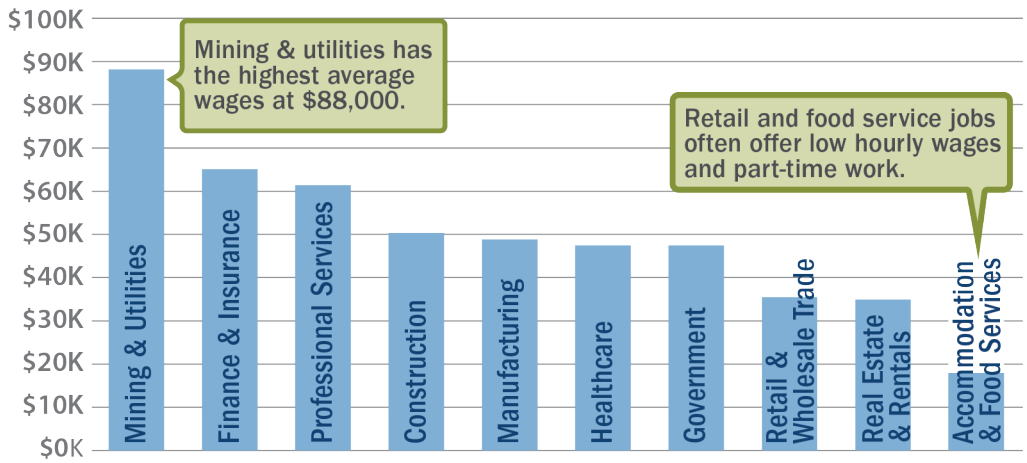
RANKING **12th** AMONG STATES.

Montana's personal income per capita is **$43,907**

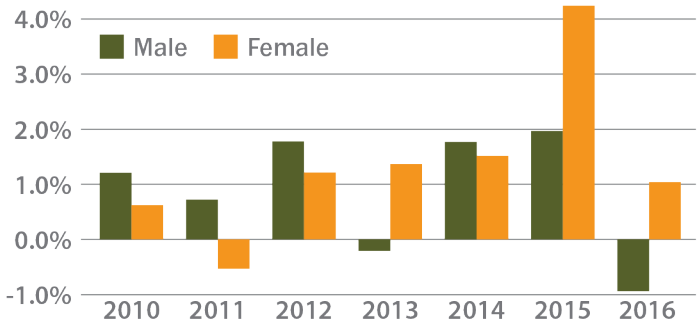
RANKING **35th** AMONG STATES.



Average Annual Wage Select Industries



Montana Real Wage Growth by Gender



Female wage growth has outpaced the statewide average.

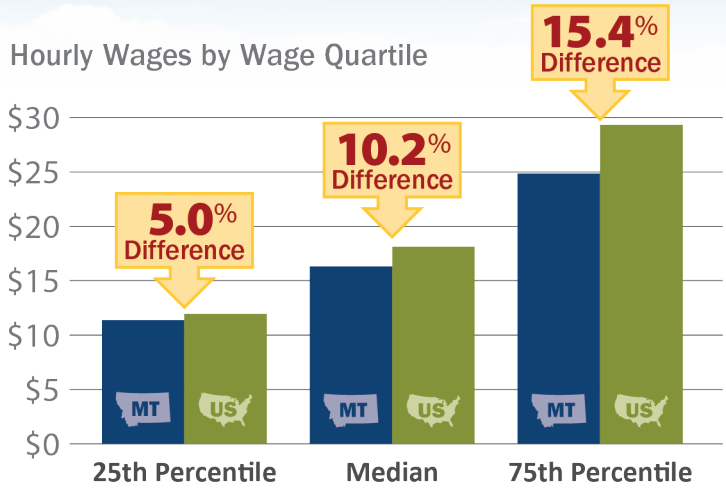
On average, women's real wages have risen by 1.9% since 2010 compared to 0.9% for men.

Sources: 2017 QCEW wage and BEA personal income data. 2016 BEA average compensation and ACS mean household income.

MONTANA WAGE$

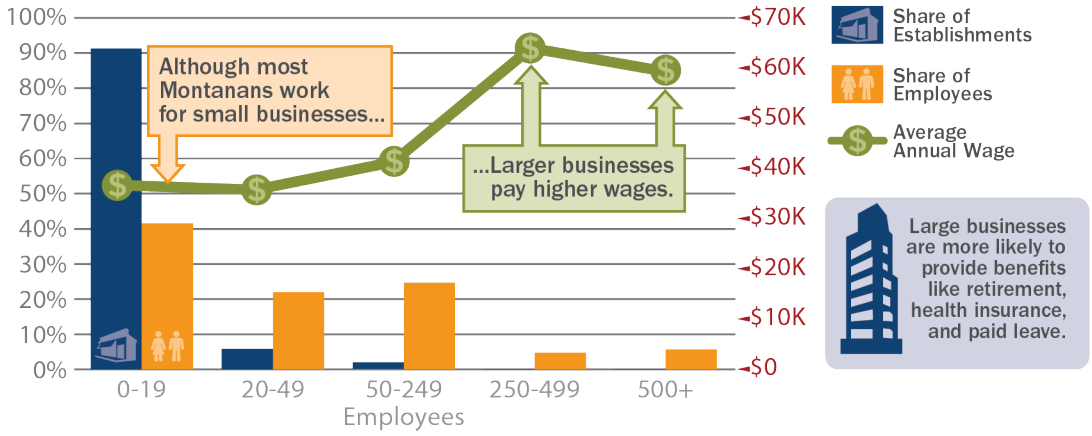
Montana's Mean Hourly Wage among private payroll jobs is **$23.10** per hour, ranking 37th among states.

Hourly Wages by Wage Quartile



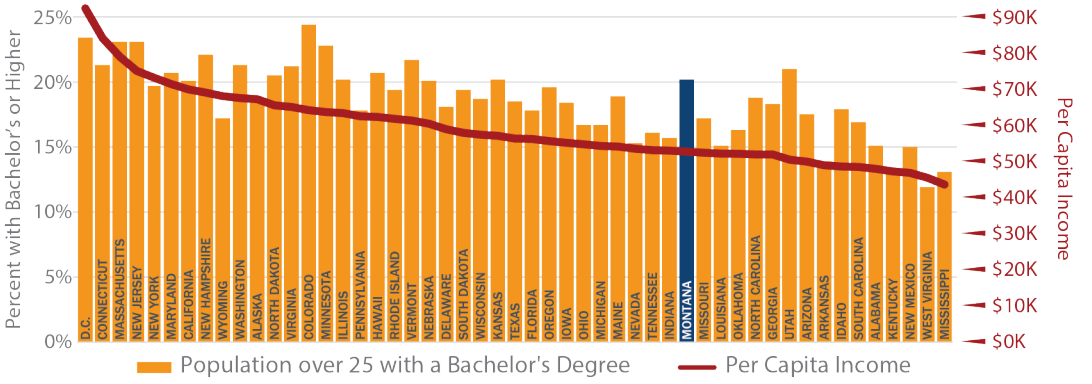
The gap between Montana and U.S. wages is larger among high-paying jobs than low-wage jobs, suggesting that having higher wages for high-wage jobs would improve Montana's ranking.

Montana Establishments, Employment, and Average Wages by Size of Business



Large businesses are more likely to provide benefits like retirement, health insurance, and paid leave.

Per Capita Income and Percent of Population over 25 with Bachelor's Degree



Workers with higher education levels tend to be more productive, and therefore earn higher incomes. Montana could lift incomes by increasing educational attainment.

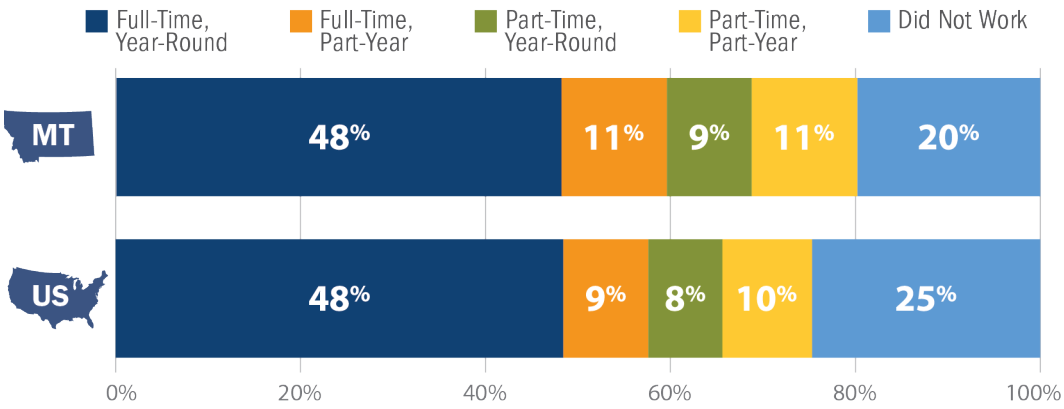
Sources: 2017 OES, QCEW, CES, and BEA data. 2016 5-year ACS data.

Wages Continue to Grow

Even when impacted by national inflation, Montana workers continue to find a better standard of living than in previous years due to real wage growth. Tighter labor markets have resulted in fast wage growth for Montana families. Average wages posted strong gains in the last year, increasing by 3.2% to over $42,045. With inflation increasing by 2.1%, real wages have grown by 1.1%. Real wage growth suggests that Montana workers have been able to afford more goods and services with their wages, increasing their standard of living. **Montana has posted strong real wage growth for most of the last decade, with the 4th fastest wage growth among states from 2007-2017.**

The average wage has increased by $9,800 since 2007. Despite this growth, wages in Montana remain lower than in many other states, although Montana is catching up to the national average. At $40,045, Montana's wage ranks 48th in the nation. Part of this low wage rank is because Montana has a high share of part-time jobs, with only 32.9 hours worked per week per job, tied for lowest in the nation.[10] The low average hours per week is not because Montana has fewer full-time jobs – 48% of working age adults work full-time jobs in both Montana and the nation. Rather, Montana has more people working part-time jobs instead of not working, as seen in Figure 6. Nationally, 25% of the working age population did not work, compared to only 20% in Montana.

Figure 6:
Work Status
For Montana population older than 16



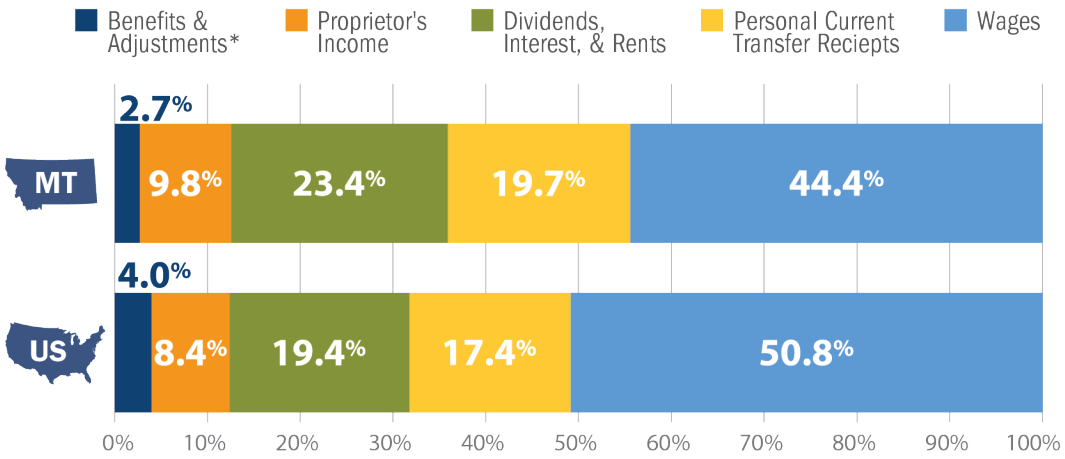
Source: MTDLI using 2016 American Community Survey (ACS) 5-year estimates

The high share of part-time jobs pulls down Montana's average annual wage per job. When comparing hourly wages, Montana's rank improves to 37th in the nation, averaging $23.10 per hour for private payroll jobs. The infographic "Montana's Wages" (see pages 14-15) explores a few additional drivers of Montana's wages compared to the national average, including the size of Montana businesses, the types of jobs available, and education levels.

Income Levels Increase

In addition to faster wage growth than other states, Montanans have also benefited from growth in income from other sources. People earn income in a variety of ways – wages from a payroll job, profits from business ownership, or rents and royalties from property ownership. Nonwage income also includes government transfers (like social security). Montanans tend to earn a larger portion of their income from nonwage sources than most Americans, as shown in Figure 7. The state has 23.4% of personal income coming from dividends, interest, and rents compared to less than 20% nationally. **Montana ranks third in the nation for the highest share of personal income coming from dividends, interest, and rents.**

Figure 7:
Components of Personal Income



**Benefits & Adjustments category includes adjustment for residence and employer contributions for pension, insurance, and government social insurance*
Source: MTDLI using BEA data, 2017

Montana also has a high share of personal income coming from proprietor income, which is income earned by business owners from their own businesses. The high share of income from nonwage sources is due to Montana's success at entrepreneurialism, which increases the income derived from business ventures. Montana's entrepreneurial activity helps lift per capita income, which was $43,907 in 2017. The state's per capita income ranked 35th among states in 2017 – one place higher than in 2016. In many ways, per capita income is a better measure of well-being than wages because it includes the benefits of entrepreneurial activity. **Over the last ten years, Montana's per capita income has grown quite rapidly, with the 10th fastest increase among states.**

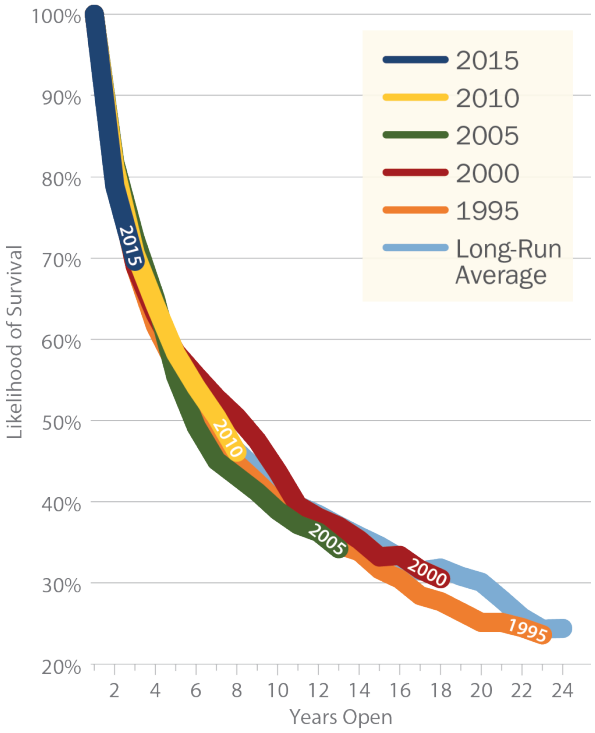
With the increase in wages and nonwage entrepreneurial income, Montana's household income has also been increasing. **Over the last year of data from 2015 to 2016, Montana's mean household income increased by 4.8%, ranking 12th fastest growth among states.** The mean household income in 2016 was $69,308.[11]

Montana Continues to Lead in Entrepreneurialism

The large share of personal income from proprietor's income, dividends, and rents is one indication of Montana's high level of entrepreneurialism. 9.8% of personal income comes from proprietor income, ranking Montana the 11th highest among states in this metric. In addition, **Montana has the highest rate of business ownership among households, with 21% of Montana households reporting income from a business or a farm.**[12] In the last year, over 2,940 new establishments were formed by Montana entrepreneurs.[13] These new establishments have great importance to the Montana economy as nearly 15,000 Montanans work in businesses that were less than two years old and **roughly 45,000 Montana workers are employed by businesses that have been created in the last five years.**[14]

Montana startups are also more likely to be successful than businesses nationally. Nationwide, new businesses have about an 80% chance of staying in business for at least one year, a 70% chance of staying in business for two years, or a 63% chance of staying in business for three years. While the one-year survival rate for new businesses in Montana is similar to the U.S. rate (79.8% compared with 78.6%), Montana entrepreneurs are more successful in the five-year and ten-year timeframes. The likelihood of keeping a business running for five years is 56.2% in Montana, compared with 48.6% in the U.S. The ten-year survival rate is 39.6% compared with the U.S. rate of 33.5%.[15] Figure 8 shows Montana's business survival rates.

Figure 8:
Montana's Business Survival Rates



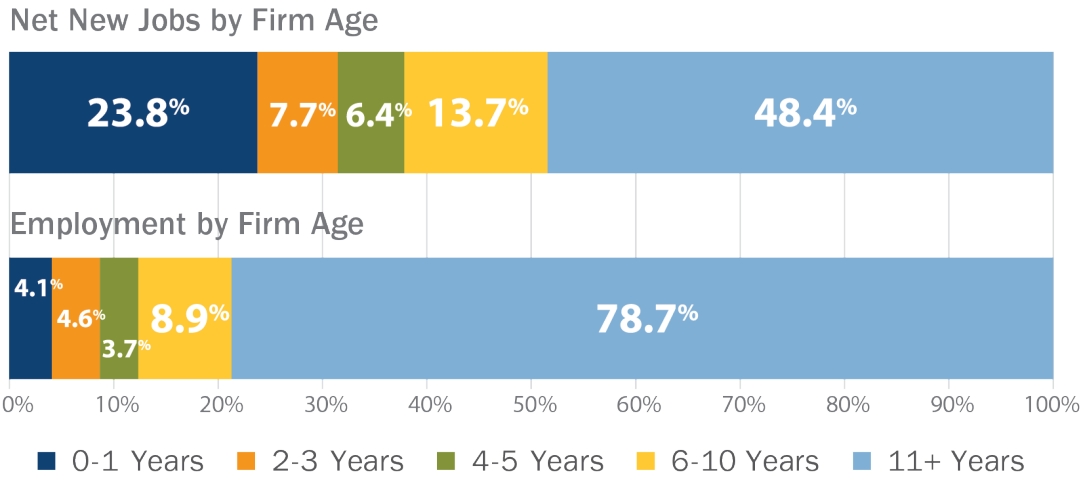
Source: MTDLI using Business Employment Dynamics data

The fact that only a portion of entrepreneurs see their business continue for years is a reminder that business openings and closings are a normal part of the ever-changing and dynamic economy. **In 2017, business births comprised 2.9% of existing Montana businesses, while business deaths were only 2.6% of existing businesses, resulting in positive business creation.**[16]

In addition to providing an important source of nonwage income that increases the prosperity of Montanans, new businesses provide an important contribution to the economy by creating new jobs that did not exist before. Older firms employ more Montanans than new firms. Seventy-nine percent of Montana employment falls within firms that are 11 years or older, while younger firms (those less than five years old) employed

only about 12.4% of employment. However, roughly 40% of net new jobs are created by firms younger than five years.[17] Younger firms have faster job creation than older firms. **Figure 9** shows employment and new jobs by firm age.

Figure 9:
Share of Employment and Net Job Growth by Age of Firm



Source: Quarterly Workforce Indicators (QWI) Net Job Creation and Beginning of Quarter Employment, 2017 Annual Average

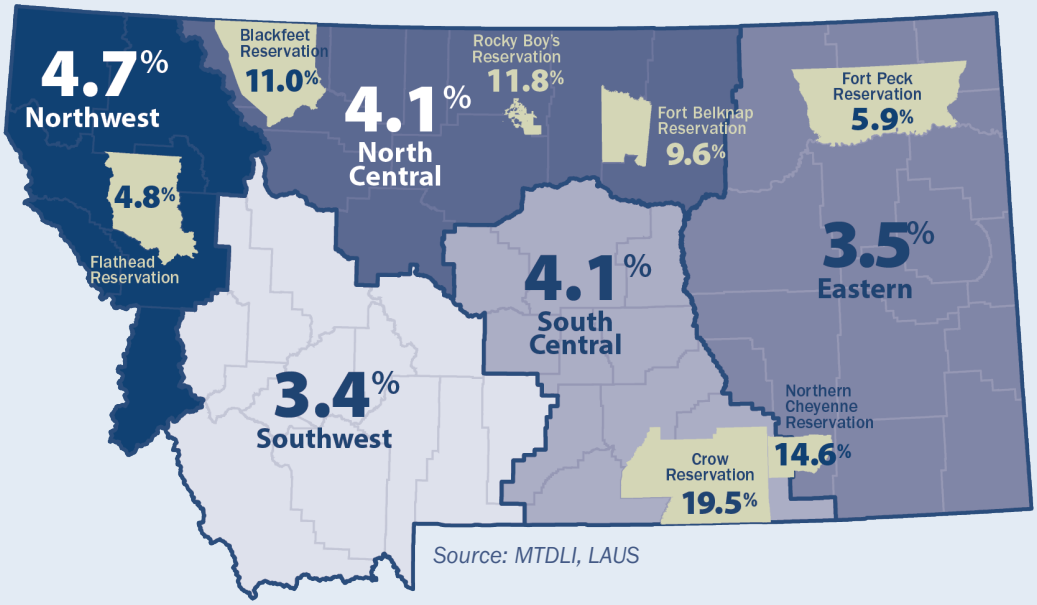
Regional Economic Growth Since the 2007 Recession

Much of Montana's recent economic growth is happening in the more populated areas of the state. The industries of healthcare, finance and real estate, construction, and professional services had strong gains from 2016 to 2017, resulting in strong job growth in the western portion of Montana where these industries are concentrated. The Northwest region of Montana added 2,250 payroll jobs in 2017 for 1.7% growth, while the Southwest region posted payroll job gains of 2,100 for 1.6% growth. In contrast, the Eastern region posted strong growth exiting the recession, but has since posted job declines. The Eastern region lost nearly 600 jobs over the last year, for a loss of -1.9%. Finally, the North Central and South Central regions had little change in payroll employment levels over the last year, with both areas losing roughly 100 jobs.[18]

Figure 10 illustrates the payroll job growth in each region of the state, indexing the payroll job growth to the 2007 level to highlight the changes during and after the recession. In other words, the 100% line illustrates the 2007 employment level in each region. **Figure 10** shows data from 2008 through the first quarter of 2018. The more populated areas of the state – the Northwest, Southwest, and South Central regions – all experienced significant job losses during the recession. The Northwest had the largest and longest contraction, hitting a trough of 93% of its pre-recession employment in late 2010. The region took the longest to recover, hitting their pre-recession employment levels in 2015.

Unemployment Rates of Regions and Reservations

With strong employment growth in the western half of the state, unemployment rates in the Northwest region decreased in 2017, down 0.2 percentage points to 4.7%. The Southwest region also posted strong economic growth, but had a fairly large number of workers join the labor force. The increased labor supply in the region kept the unemployment rate unchanged over the year at 3.4%, and will help promote future economic growth in the region through the addition of more human capital. The urban areas of the state posted stronger job gains than the rural regions. Both the North Central and Eastern regions of the state had decreased unemployment rates over the year driven by small declines in the labor force and in employment levels, reducing unemployment down to 4.1% in the North Central region and 3.5% in the Eastern region. Finally, the South Central region had a small increase in employment paired with a larger increase in the labor force. While this resulted in the unemployment rate moving up slightly in 2017, from 3.9% in 2016 to 4.1% in 2017, the increased labor force will assist the region in future economic growth.

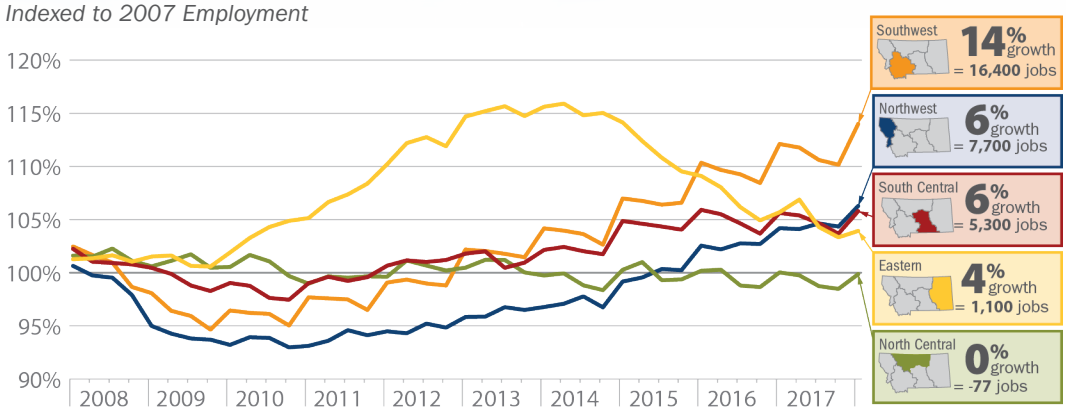


Source: MTDLI, LAUS

The reservation communities also demonstrate the pattern of faster urban job growth, with the Flathead reservation posting a drop in its unemployment rate down to 4.8%. Rocky Boy's reservation gained a handful of jobs, helping the unemployment rate slip down to 11.8%. Unemployment rates also decreased on the Blackfoot, Fort Belknap, and Fort Peck reservations, although these reservations only experienced small job changes.

Both the Northern Cheyenne and Crow reservations have been impacted by the changing global demand for coal. The Northern Cheyenne unemployment rate increased to 14.6% in 2017. On the Crow reservation, declines in coal production, the closure of the Hardin power plant, and local government funding declines from lower coal receipts have led to employment losses, spiking unemployment from 11% in 2016 to 19.5% in 2017. The unemployment rate on the Crow reservation has started to decline in 2018, and coal production in Montana has been gaining steam, suggesting more positive economic outcomes for these two reservations in the near future.

Figure 10:
Regional Payroll Employment Growth
Indexed to 2007 Employment



Source: MTDLI, QCEW

Strong job gains in the last two years placed the Northwest region at 6% over the 2007 employment levels by the end of 2017, gaining 7,700 jobs overall. In the last year, the Northwest added roughly 500 jobs in construction (although construction employment in the region is still below the pre-recession peak). Retail trade has added about 1,800 payroll jobs in the last five years, and real estate has posted significant job growth in the region. Healthcare added 730 jobs in 2017, and now comprises 17% of total payroll employment in the region.

The South Central region ended 2017 similarly, with gains over the ten year period of roughly 6% of the 2007 employment level, but with a shallower contraction during the recession and more steady payroll job growth throughout the period. In the last year, the South Central region posted job gains of 580 in healthcare, but had losses in trade, transportation, government, mining, utilities, and construction. The decline in the coal mining sector in the region around Billings has caused a loss of income in the economy, particularly for the reservation areas. The job losses in construction, government, and trade are likely due to the job and wage losses in the other declining industries.

The Southwest has been the fastest growing area of the state since 2007. The Southwest hit a trough of 95% of its pre-recession employment in 2009, but has posted fairly rapid growth ever since, currently 14% higher than its 2007 employment level or 20% higher than their recessionary low. Construction has added significant payroll employment growth over the last five years, adding 2,500 jobs for annual average growth over 6%. The manufacturing sector in the Southwest has grown steadily, adding 230 jobs in the last year and 1,130 over the last ten years. Healthcare added 440 jobs in 2017. The largest payroll job gain in the Southwest has come from tourism, with the leisure activities sector adding 3,400 jobs in the last five years.

The growth patterns of Montana's more rural regions – the North Central and Eastern regions – are different than the more populated areas of the state. The Eastern region experienced rapid employment and economic growth during the boom of the Bakken, increasing up to 116% of their 2007 employment level. Since 2014, employment has fallen in a significant contraction of

10% -- larger than the contraction in the Northwest during the recession. However, the Eastern region remains above their starting employment levels even after the bust, currently at an increase of 4% in payroll employment since 2007. In the last year, the Eastern region has posted 8.7% payroll employment growth in the manufacturing sector, adding about 50 jobs.

The North Central region has been very stable throughout the recession and recovery, but sluggish in their economic growth. The North Central region has posted small negative employment change in recent years, ending the ten-year period shown in **Figure 10** at roughly the same employment level as 2007.

The wages in all regions have posted growth in the one-year, five-year, and ten-year timeframes, as shown in **Figure 11**. The South Central region has the highest wages among the five regions, with annual average payroll wages of nearly $45,000, and adding 2.9% growth over the last year. The fastest growing average wages occurred in the Northwest, where job growth was strong, and in the North Central, where wages increased despite stagnant employment growth. Strong wage growth with slow employment growth is a common symptom of a worker shortage. Both areas posted wage growth over 3.4%. Although wage gains in the Eastern region have been low in recent years, the average annual wage has increased the most over the last ten years, moving up by over $11,400 since 2007.

Figure 11:
Wage Gains by Region

	Northwest	Southwest	N. Central	S. Central	Eastern
2017 Average Annual Wage	$39,468	$42,386	$38,945	$44,949	$41,623
Change since 2016 Annual Growth	$1,347 3.5%	$1,280 3.1%	$1,271 3.4%	$1,274 2.9%	$763 1.9%
Change over Five Years (2012-17) 5-Year Annual Growth	$5,191 2.9%	$4,776 2.4%	$4,467 2.5%	$5,233 2.5%	$2,673 1.3%
Change over Ten Years 10-Year Annual Growth	$8,612 2.5%	$9,658 2.6%	$8,988 2.7%	$10,485 2.7%	$11,402 3.3%

Source: QCEW, BLS & MTDLI. Nominal terms. Growth rates are compounding annual growth rate.

Reservation Economies

Although the Flathead reservation performed well in 2017, following the performance of its surrounding region, the remaining reservation economies in more rural areas of the state did not perform well. **Figure 12** illustrates the employment, labor force, and unemployment rate change over the last year. In particular, the declines in the energy industry have created job losses on the Crow, Northern Cheyenne, and Fort Peck reservations. Five of Montana's seven reservations saw unemployment rates decrease, with the rate increasing in the remaining two. However, other than the Flathead reservation, decreasing unemployment rates were primarily a result of a shrinking labor force.

The Flathead reservation saw employment grow faster than the state at nearly 1.3%, while the labor force grew slightly slower, causing unemployment rates to fall to 4.8%. 2017 job growth on the Flathead reservation was driven by employment growth in the arts, entertainment, and recreation industry. Rocky Boy's reservation was the only other area to see an increase in employment. Combined with a decrease in the labor force, the unemployment rate declined by 1.3% down to 11%.

The Crow reservation experienced the largest increase in the unemployment rate, from 11% to 19.5%, stemming from declines in the coal and utility industries resulting in decreased revenues and layoffs in local government employment. The high unemployment rates experienced on the Crow reservation placed extreme stress on the local communities; fortunately, unemployment rates have begun to rebound. The unemployment rate on the Crow reservation was 15% in June 2018. The Northern Cheyenne reservation saw unemployment rates increase by 1.6%, to 14.6%, also due to decreasing coal mining activity and concerns about the coal-fired power plant in Colstrip. For the Northern Cheyenne reservation, unemployment rates have not yet started to recover.

The Blackfeet, Fort Peck, and Fort Belknap reservations which saw similar declines of 0.8%, 1.3%, and 0.7%, respectively. For each of these reservations, decreases in the unemployment rate came from workers leaving the labor force. The trend of a decreasing labor force among reservations happens in many other rural areas in Montana. However, unemployment rates remain higher on the reservations due to fewer job opportunities and a less mobile labor force.

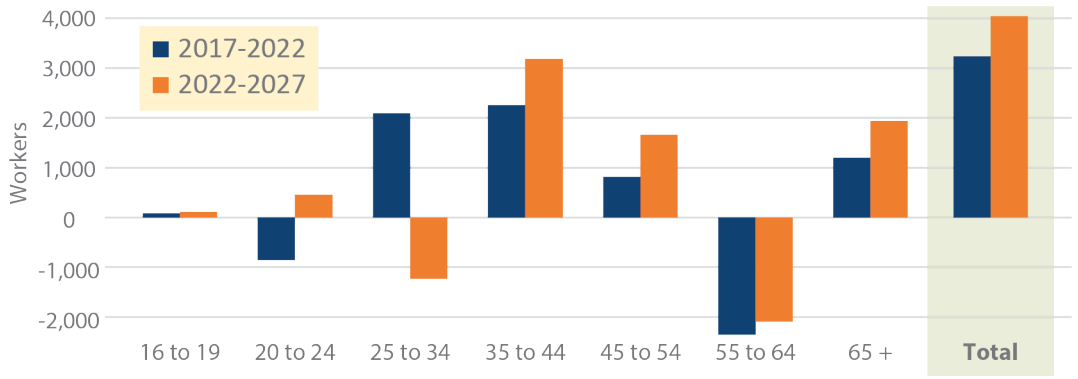
Figure 12:
Montana Reservations Labor Force, Employment, and Unemployment Change
2017

Source: MTDLI, LAUS

Part 2 IMPROVING MONTANA'S WORKFORCE

Montana has been facing a tight labor market for some time, with unemployment rates at 4.3% or lower since the beginning of 2015. Increased labor force participation among older workers and among those under 35 has prevented further tightening of the labor market for the last two years. However, with steady growth in employment and continued retirements of the large Baby Boomer population, Montana's labor market is expected to tighten in 2018 and beyond. As illustrated in **Figure 13**, labor force growth in the next five years will be sustained by people aged 25 to 44, while many 55 to 64-year-old workers will move into retirement and exit the labor force. The labor force in the next five years is expected to expand by roughly 3,200 workers per year. During the same period, employment is projected to grow by 4,200 jobs per year, pushing unemployment rates lower.

Figure 13:
Projected Average Annual Change in Montana Labor Force



Source: MTDLI, Labor Force Projections 2017-2027

Roughly 100,000 workers are expected to retire in the next 10 years, nearly 1/5th of Montana's current labor force. After 2022, the labor force should expand more quickly because the wave of Baby Boomers retirements will have mostly passed, leveling out the pace between labor market entrants and exits. From 2022 to 2027, the labor force is projected to grow by about 4,000 workers per year. Because this labor force growth is higher than the expected job growth of 3,500 per year, labor constraints should ease, making it easier for businesses to find workers. Every Montana worker is vital to maintaining economic growth in tight labor markets, making workforce investments a critical concern for businesses, workers, and policy makers alike.

Finding Workers

Montana's employers and policy makers are pursuing several methods to increase the availability and quality of labor. One solution is to increase the number of people available for work in Montana, both by increasing migration and by improved labor force participation. Montana already has positive net in-migration of roughly 6,300 people per year (who are included in the labor force projections). Montana has higher in-migration than most of our neighboring states due to our low unemployment rate, high quality of life, and access to natural amenities.[19] In-migrations often bring fresh perspectives and new ideas into the state, helping to increase productivity levels.[20] These in-migrants have helped Montana maintain strong population growth for the last five years. **Montana has had the 15th fastest population growth in the last five years among states.**[21] However, increasing population through migration is not enough to meet all worker needs. Montana also needs to engage its existing population to more fully participate in the labor force, and businesses need to invest in worker training to maximize the potential of every worker.

Montana employers are continuously adapting employment practices to attract more workers into the labor force. Increased employment opportunities and higher wages will naturally provide more incentives for workers to enter the workforce. Yet, these natural forces will not be enough to maintain normal unemployment rates; additional efforts by employers are needed. For example, equipment modifications can help disabled workers access work opportunities. Regular scheduling can help stay-at-home parents arrange childcare or school pick-ups around their jobs.

The Montana Department of Labor & Industry is also doing its part to increase access to workers in Montana. **The Department provided career and training services to over 51,000 workers in state fiscal year 2018, helping Montana's economy grow.** Often, clients just need additional help getting skills to transition to a new career with greater stability or higher pay. Other times, workers only need help on their resume to land the right job. Research by the Bureau of Business and Economic Research suggests that the HELP-Link program, which provides career services and workforce training to the Montana Medicaid population, has increased labor force participation among low-income workers.[22] Research in other states regarding workforce programs for unemployment insurance recipients found that reemployment services reduce unemployment periods and makes it more likely for workers to remain in the labor force during periods of unemployment.[23]

As Montana's labor market tightens, workers are also facing increased struggles in finding sufficient childcare arrangements. Montana employers have reported having trouble recruiting

The Montana Worker
By the Numbers

The Montana Labor Force

In Labor Force, Employed

In Labor Force, Unemployed

Not in the Labor Force

Total population:	1,050,493
Population over 16:	846,952*
In the Labor Force:	525,453
Employed:	504,279
Unemployed:	21,174

*The civilian, non-institutionalized population over 16, which is considered the available labor pool, is 822,530.

63.7% of Montanans over 16 are in the labor force.

59.7% are employed.

Both rates are above the national average.

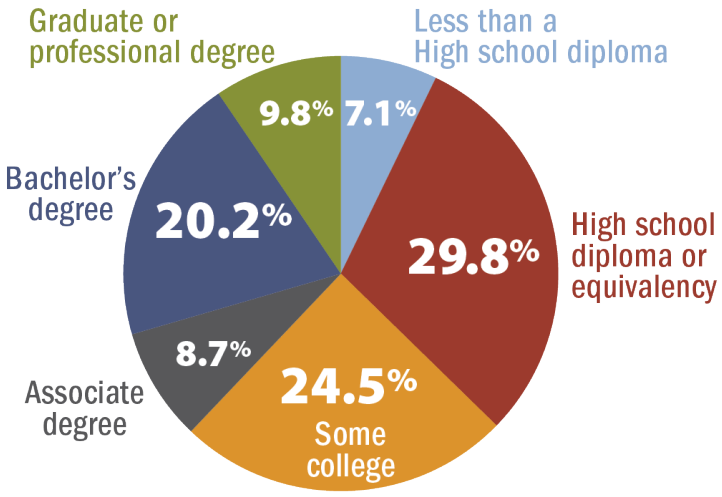
The Montana Labor Force is

46% Female

54% Male

Population Educational Attainment

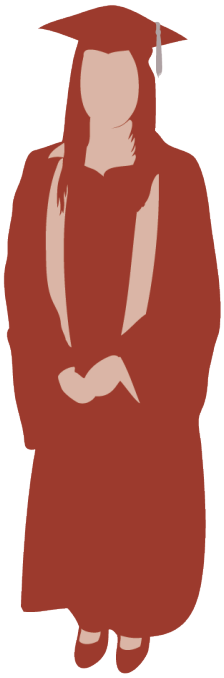
Educational Attainment of Montanans 25 and Older



Montana ranks **highest** in the nation for high school-level education.

93% of Montanans 25 and over have a high school diploma or equivalency.

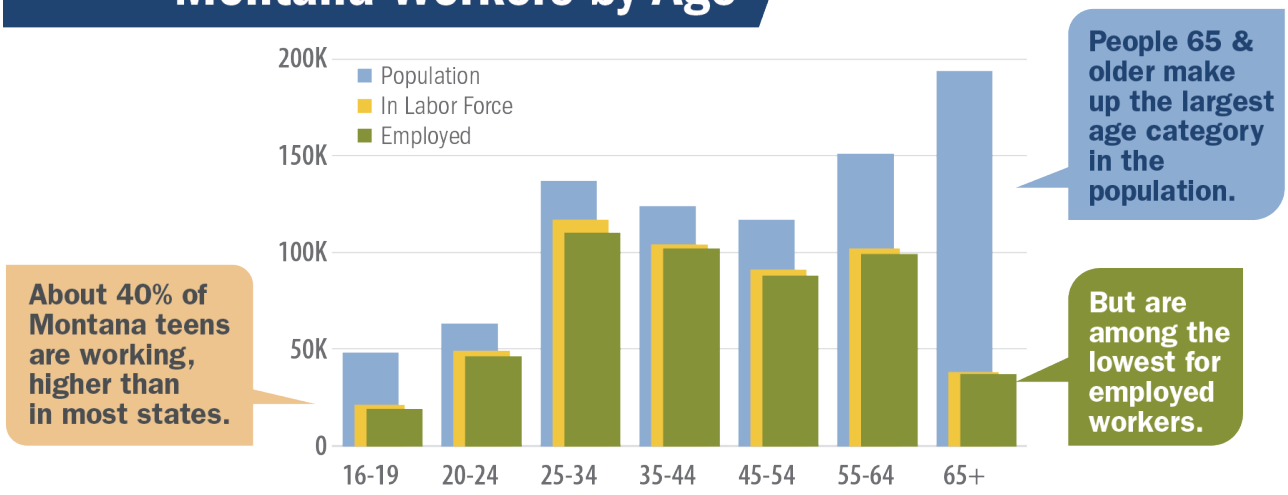
The state ranks 21st for bachelor's degree attainment.



Sources: 2016 5-year ACS, U.S. Census, LAUS, MTDLI, and BLS

The Montana Worker
By the Numbers

Montana Workers by Age



Population by Veteran Status

11.2% of Montanans are veterans.

Veterans

Veterans with Disabilities

Non-veterans

30.0% of Montana veterans have a disability.

Montana has the **2nd** highest proportion of veterans in the nation, but Montana veterans have lower labor force participation compared to non-veterans and veterans nationally.

Labor Force by Race

Other	3.8%
American Indian	4.9%
White	91.3%

Monthly Earnings

23.4%	38.3%	38.3%
of Montana workers earn **$1,250 or less** per month in their primary job.	of Montana workers earn **$1,251 to $3,333** per month.	of Montana workers earn **More than $3,333** per month.

Sources: LEHD, QWI and 2016 5-year ACS, U.S. Census, LAUS, MTDLI, and BLS

workers to Montana because they or their spouse were unable to find childcare. Roughly 95% of Montana families with children under 18 have at least one parent in the labor force. Roughly 75% of families with children have all parents in the labor force.[24] Childcare is essential to keep parents active in the labor force and available for full-time work. The Montana Department of Labor & Industry is working to increase the worker supply for childcare workers, helping over 18 businesses train their workers through the Registered Apprenticeship program.

Under Governor Bullock's Administration, Montana has increased high quality childcare slots and access to free preschool opportunities for thousands of children under the age of five.[25] These state investments not only allow parents to more fully participate in the labor force, but research finds that children who participate in quality pre-kindergarten programs often are more successful later in life, with better educational and workforce outcomes.[26] Early brain development and the social and emotional skills that children learn in the first years of life set the foundation for future learning and skill-building, making quality pre-kindergarten an important first step to ensuring a successful and well-trained workforce for Montana's future businesses.[27]

Montana businesses are also adopting new practices to gain access to workers. Many Montana businesses are connecting with local high schools and colleges to create work-based learning opportunities for students. Research suggests that greater ties between employers and college students helps to retain Montana's workers in the state. **Roughly 75% of graduates from Montana's colleges work in Montana at some point in the five years after graduation**, but this percentage could be improved. Incumbent workers, who have an existing connection to a Montana business during their school years through an internship or other work-based learning activity, are more likely to remain in Montana after graduation.[28] Employers who offer internships and career exploration through work experience can gain an edge on recruiting the best workers and retaining graduates within our economy. Not only does this practice allow local businesses to identify the best recruits long before graduation, students are better trained through on-the-job experience.

Montana employers are also expanding their utilization of Montana's Registered Apprenticeship and Incumbent Worker Training programs to create new opportunities for work-based learning. Montana's Registered Apprenticeship program provides workers with a structured training program to obtain an industry-recognized credential while also offering businesses the opportunity to train their workforce in a customized manner. Over 1,000 Montana businesses have active Registered Apprenticeship programs. Montana businesses can also utilize the Incumbent Worker program to up-skill their existing workforce and improve the productivity and wage earnings of their workforce. The Incumbent Worker program provides subsidies to small business owners to invest in workforce training.

Montana Registered Apprenticeship Program

Apprenticeships are a time-honored training model used to educate the next generation of Montana's workforce through union and non-union business sponsors. Over the last five years, apprenticeships have increased over 30% and almost 90% of those who complete a Registered Apprenticeship are still working in Montana.

Through this type of work-based learning, apprentices can earn a paycheck while learning the technical and soft skills employers need to grow their operations. Apprentices who completed their training earned average wages of $60,754 in 2016, about $20,000 more than the statewide average.

With over 1,000 business sponsors across the state offering apprenticeships in over 60 occupations, the expansion of apprenticeships is becoming a vital training method to address retirements of the baby boomers in Montana's economy. If your business is interested in Registered Apprenticeship, contact the program at 406-444-3556 or via the website at apprenticeship.dli.mt.gov.

Apprenticeable Occupations with the Most Projected Job Openings

Montana, 2017-2027

	Occupation	Total Annual Openings	Annual Avg. Wage 2017
1	Bookkeeping, Accounting, and Auditing Clerks	928	$35,640
2	Nursing Assistants	876	$27,070
3	Construction Laborers	730	$37,430
4	Carpenters	649	$43,900
5	Childcare Workers	631	$22,360
6	Maintenance and Repair Workers, General	515	$36,810
7	Operating Engineers & Other Construction Equip. Operators	415	$51,230
8	Automotive Service Technicians and Mechanics	369	$37,870
9	Electricians	306	$60,400
10	Plumbers, Pipefitters, and Steamfitters	270	$63,860

Source: Montana Department of Labor and Industry Employment Projections, 2017-2027. Apprenticeship report available at: lmi.mt.gov/Publications/PublicationsContainer/apprenticeship-works-for-montana.

Using Each Worker Effectively

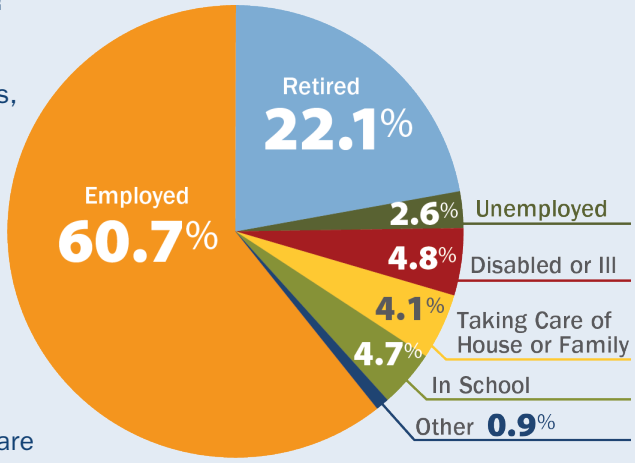
Another solution to Montana's worker shortage is to increase worker hours and to ensure each worker hour is of the highest quality by improving labor productivity. Montana has a high share of part-time employment. Among Montana workers aged 16 to 64, roughly 21% work less than 35 hours per week – the second highest percent of part-time workers in the nation.[29] Part-time jobs benefit the Montana economy by allowing semi-retired workers, students, and others who choose to only work part-time to participate in the labor market; however, many other part-time workers may prefer full-time employment.

In addition, increasing labor productivity would reduce labor needs. Labor productivity refers to the amount of output created with each labor hour and is a measure of the efficiency of labor. Productivity gains benefit businesses through more efficient production, but also benefit workers through faster wage growth, because each labor hour becomes more valuable to the employer. Enhancing productivity is achievable through better workforce education that allows workers to continuously upgrade skills and knowledge, and by businesses learning about and implementing the latest innovative technologies and practices. Better productivity also requires communication and networking with researchers who are identifying best practices, as well as communication with upstream and downstream businesses to identify ways to save labor hours.

Some productivity enhancing investments will occur naturally in response to market forces. For example, as labor becomes more expensive, businesses will invest in productivity-enhancing machines and automation to allow each worker to produce more output. The new technologies will produce more output with fewer labor hours, re-deploying workers into more productive activities, and allowing economic growth to continue despite the labor shortage. Ultimately, Montana's long-term growth depends on our ability to increase technology, productivity, and innovation.

Who is Working in Montana?

With low unemployment rates, rising wages, and plentiful job opportunities, many people wonder why every Montanan does not work. In truth, those not in the labor force are often in school, retired, formerly incarcerated, disabled, or caring for family members. Efforts to bring more workers into the labor force must address barriers to employment, such as difficulty scheduling work hours around childcare and classes, or providing accommodations for workers with disabilities.



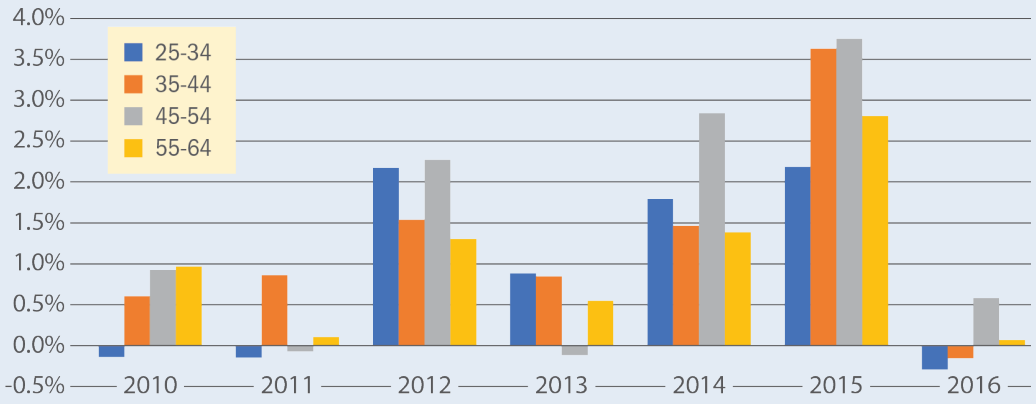
Source: MTDLI using 2016 CPS data through DataFerret.

Demographic Changes Dampen Montana Wage Growth

In general, younger workers tend to have faster wage growth than workers over 55. Montanans between the ages of 35 and 54, have experienced the fastest real wage growth since 2010. Real wages for workers aged 35 to 44, and 45 to 54 have grown by 1.4% and 1.5% respectively, which is higher than the statewide average of 1.1%. By comparison, workers aged 55 and older have seen their wages grow by 1.0% per year since 2010. As more of Montana's workers move into the "older worker with slow wage growth" category, the statewide average wage growth has been dampened.

Montana Real Wage Growth by Age

2010 - 2016



Source: QWI Explorer.

As more and more of Montana's older workers retire and exit the workforce, they are replaced by younger workers with less experience who are paid less. The average wage of workers aged 25 to 34 was $35,754 in 2016, compared to $48,500 for those aged 55 to 64. This replacement of high-wage earners with younger lower-paid workers brings down the average wage and dampens wage growth. Over 100,000 people employed in Montana are between the ages of 25 and 34, making this age category the largest. Montana's wage growth has been fairly rapid, but would likely reach even higher levels without the current replacement of high-wage older earners with lower-wage younger earners in the state's workforce.

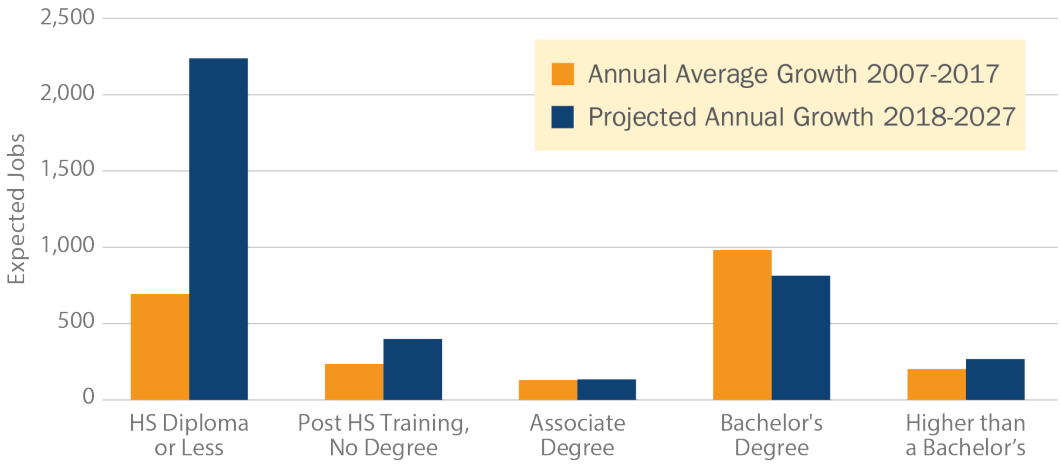
Connecting Worker Training to the Economy

Montana's workforce and education systems continue to implement strategies to make worker training more affordable, accessible, and aligned with the needs of our economy. Businesses and workforce professionals should continue to encourage students to seek out in-demand fields needed in our economy. Education organizations should persist in increasing the efficiency and flexibility of training, allowing adults already in the labor force to learn new skills while still working, and allowing high schools students to get a head start on career exploration. For example, the HealthCARE Montana grant revised curriculums for nurses in order to reduce training times by a semester, saving tuition for workers and increasing worker availability for employers without any loss in quality. The grant also added soft skill training to the programs at the request of employers, creating a better workforce suited to job needs.[30]

But the responsibility for a well-prepared workforce does not just fall on public institutions, workers, and students. When workers are in short supply, individual businesses must take on additional responsibility to train workers, particularly with on-the-job training to learn job-specific skills that may not be needed in other businesses.

Businesses are especially critical for the training and certification of workers who may not need a college degree to complete their job. **Figure 14** illustrates the average annual job growth over the past ten years from 2007 to 2017 by education level, along with the projected growth of jobs by education level over the next ten years. In the past ten years, the highest job growth has been among jobs that require a bachelor's degree, partially because many of the jobs lost during the 2007 recession were low-wage jobs at lower education and training levels. Looking to the future, the highest worker demand is expected among jobs that do not require a college degree. However, such jobs often require worker training in customer service or other soft skills, sometimes even

Figure 14:
Job Growth by Minimum Education Required
Past 10 Years and Projected Next 10 Years



Source: MTDLI, Employment Projections 2017-2027

requiring a certification or industry-recognized credential. On-the-job training provided by employers is the primary delivery vehicle for productivity-enhancing skill training.

Gains in artificial intelligence have also raised concerns about the effects of automation on the labor force and the need to adapt worker training to new work technologies. Research on the effects of automation suggest that many repetitive work tasks may be automated in the future, changing the workday to require more critical and creative thinking, communication skills, customer service, and cross-disciplinary problem solving.[31] Worker training programs should adapt by focusing on skills that will be demanded in an automated future.

In addition, the changing demographics of Montana's labor force means that experienced older workers are retiring and being replaced by younger workers with little job experience. About 50% of Montana teens are in the labor force, meaning that there may be high school or college graduates who have never held a prior job.[32] Both tight labor markets and a younger workforce increase the need for businesses to have an active on-the-job training program that allows workers to gain job experience quickly, and that facilitates knowledge transfer from the older generation. Businesses must continue to increase their involvement in the training systems, providing more work-based learning to perfect worker skills and working with the education systems to ensure that curriculums teach the right skills for the job. Efforts to strengthen Montana's labor force require the private and public sectors to collaborate. Together, these efforts will steadily increase the productivity levels of Montana's workforce so each worker can achieve their highest level of success.

Montana's Growth is Expected to Continue

Montana's economic growth continues, adding benefits for both businesses and workers. While challenges to our state's economy will always be present, our economic resiliency and industry diversity make it possible to overcome these challenges. Montanans have once again shown our mettle in lifting the state's economy to superior growth.

Governor Bullock and the Montana Department of Labor & Industry will continue to lead in addressing worker needs and other issues faced by the Montana economy. The Governor and Department will continue to promote partnerships between the private, nonprofit, and public sectors by advancing apprenticeships and work-based learning opportunities, making sure workers receive the training and skills needed to move Montana forward.

Endnotes

1 *Personal Income, Bureau of Economic Analysis, U.S. Department of Commerce. Unless stated otherwise, all growth rates in the Labor Day Report are compounding annual average rates of growth.*

2 *Personal Income Statistics, Bureau of Economic Analysis (BEA).*

3 *Mining posted gains in GDP and personal income for the most recent two quarters of 2017:Q4 and 2018:Q1. Agriculture posted GDP gains in 2018:Q1, but has not posted a recovery in proprietor income.*

4 *Watson, Amy. 2017. "Is it Time for a Raise? Understanding Wage Growth since the Great Recession" in Economy at a Glance, MTDLI. May 2018. Available at http://lmi.mt.gov/Portals/193/Publications/LMI-Pubs/Articles/2018/0518-WageGrowth.pdf.*

5 *CPI-U to June 2018, Bureau of Labor Statistics (BLS)*

6 *CPI-U for gasoline all types, June 2017 to June 2018, BLS.*

7 *Average Expenditure on Gasoline, Bureau of Economic Analysis, 2016. Montanans tend to drive more, drive less efficient vehicles, and typically face higher prices, all contributing to the higher expenditures for gasoline.*

8 *Board of Governors of the Federal Reserve System, FAQ. 2018. https://www.federalreserve.gov/faqs/money_12848.htm*

9 *2016 American Community Survey, 1-year estimates. U.S. Census Bureau.*

10 *Current Employment Statistics, BLS, Private average weekly hours and average hourly earnings of all employees. 2017.*

11 *American Community Survey 1-Year estimates, U.S. Census Bureau*

12 *BLS. Current Population Survey. 2017.*

13 *BLS. Business Employment Dynamics. 2017.*

14 *Quarterly Workforce Indicators. 2017. Beginning of Quarter Employment. U.S. Census Bureau*

15 *Klungtvedt, Emily. 2018. "Montana's Entrepreneurs" Economy at a Glance, February 2018. Available at http://lmi.mt.gov/Portals/193/Publications/LMI-Pubs/Articles/0218-MontanasEntrepreneurs.pdf*

16 *BLS. Business Employment Dynamics. 2017 establishment births and establishment deaths covering the year ending 2017Q1.*

17 *U.S. Census. Quarterly Workforce Indicators. 2012-2016 averages.*

18 *All payroll employment data in this section comes from the Quarterly Census of Employment and Wages, BLS & MTDLI.*

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