BOZEMAN AREA LABOR REPORT

GALLATIN COLLEGE
MONTANA STATE UNIVERSITY

BOZEMAN MT
Economic Development

bozeman area chamber of Commerce

Montana Department of LABOR & INDUSTRY

BOZEMAN AREA LABOR REPORT

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This report was commissioned by the City of Bozeman, Gallatin College, and the Bozeman Chamber of Commerce, and written by the Montana Department of Labor & Industry, with the goal of providing local information on the Bozeman labor market. The coalition of community partners intends for the Bozeman community to use this information to understand the local labor market, address challenges that workers face in the community, and provide ideas for workforce training needs.

EXECUTIVE SUMMARY

The Bozeman micropolitan area, which includes all of Gallatin County, had greater population growth than any other micropolitan area in the U.S. since the last census was taken. There were roughly 18,000 more people in Gallatin County in 2017 than there were in 2010, a growth rate of 20%. By itself, the City of Bozeman grew by nearly 9,300 people, or 25%. While Gallatin County grew rapidly, the unemployment rate has been below 4% since 2014 and at 3% or lower since 2015. The low unemployment rate indicates that local job opportunities, self-employment, and remote work have been able to support the change in population. However, job growth is slowing while wage growth is strong. This combination suggests that Gallatin County is facing a tight labor market, making it difficult for local employers to fill job openings.

The worker shortage is a national and statewide trend, but there are signs that the problem is more acute in Bozeman. A worker shortage and tight labor market can constrain growth if employers cannot find the workers they need to sustain or grow their business.

Additionally, the strong population growth has uniquely impacted the local labor market. High-wage jobs in the high-tech and professional service industries are bringing workers and business to the area, but the high level of in-migration is also creating other jobs to support this population growth. These jobs are typically low-wage with high rates of turnover, leading to concerns about job quality. The strong population growth has also contributed to increased home prices in the area, a constraint that affects businesses ability to recruit and retain workers in the local area.

Because of the concerns arising from both the tight labor market and strong in-migration, this report focuses on Bozeman's economic growth as it relates to the labor market. The report includes industry and occupational job growth and potential workforce constraints. Both Gallatin and Park County are included in the report. Highlights include:

- From 2012 to 2017, Gallatin County had the fastest growing labor force in Montana with an average annual rate of 4.1%, or 2,370 people per year. Park County had the fourth fastest growing labor force during that time at a rate of 1.5% annually, or 120 people per year.
- Fast job growth combined with growing share of the population reaching retirement age contributed to low levels of unemployment. The Bozeman area's unemployment rate was 2.9% in 2017. For this report, the Bozeman area generally refers to Gallatin and Park County.
- Payroll jobs are growing quickly in Gallatin County at an average annual increase of 4.8% between 2012 and 2017. The accommodation and food services, construction, and healthcare industries added the most jobs during this time.
- The high-tech industry is supporting Bozeman's economic growth. High-tech businesses make up 60% of jobs in the professional services industry, 46% in the information industry, and 12% in the manufacturing industry.

- Population growth in Livingston is accelerating, likely in response to the economic growth in Bozeman. Livingston's population grew at an average annual rate of 1.4% from 2012 to 2017, accelerating to 2.2% from 2016 to 2017. In comparison, the remainder of Park County's population grew at an average annual rate of 0.6% from 2012 to 2017, and 1.1% in 2017.
- Gallatin County had the ninth highest average annual wage among counties in Montana at $42,611 in 2017. Other sources of income, including income from a high level of entrepreneurial activity, helped increase Gallatin County's overall income levels. Per capita income was $51,750 in 2017, the third highest in Montana.
- Park County had the 40th highest average annual wage among counties in Montana at $34,101. Other sources of income significantly increased Park County's level of income. Park County had the 11th highest per capita income in Montana at $47,033.
- In-demand occupations in the Bozeman area are similar to statewide demand. Occupational demand that is specific to the Bozeman area includes software developers and cost estimators. These jobs are reflective of the fast growth in the professional services and construction industries.
- Seventy-two percent of Gallatin County residents are in the labor force, which is a higher share than Montana and the U.S. Efforts to increase the labor force participation rate may be limited in their effectiveness.
- The most common age to move to Gallatin County is between 18 and 24, consistent with young adults moving to Bozeman to attend Montana State University or Gallatin College. Migration patterns and student retention rates suggest that many students stay in the local area and find jobs after graduation.
- The most common demographic groups moving out of Gallatin County are people age 20 to 29 and people with bachelor's degrees. These migration patterns are consistent with people moving to Bozeman to attend college and leaving after graduation.
- Housing prices are high, but Gallatin County is not the only geographic area facing this cost of living constraint. Missoula and Flathead counties in Montana, the Bend MSA in Oregon, and the Seattle MSA in Washington have similar median mortgage to median household income ratios.
- Childcare costs and availability may be an employment barrier to Gallatin County parents. Average childcare costs for two children range from 20-25% of total median family income in the Bozeman area. Gallatin and Park County childcare facilities only have the capacity to care for 33% and 38% of children under five years old.
- Benefits of living and working in Bozeman include short commuting times and high rates of people working from home. These benefits help with work-life balance.

CONTENTS

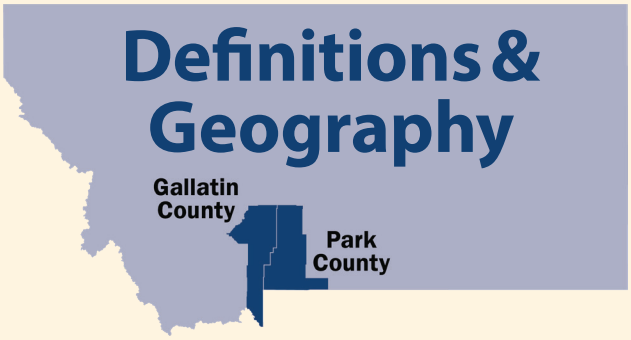
INTRODUCTION

The Bozeman micropolitan area had greater population growth than any other micropolitan area in the U.S. since the last census was taken in 2010. There were 18,000 more people in Gallatin County in 2017 than in 2010 – 9,300 of this growth was specifically in the City of Bozeman. While some growth is due to natural increases (the number of births minus the number of deaths), the majority of Gallatin County's growth is due to in-migration. Seventy-four percent of total population growth was the result of people moving to the local area.

One may think that this large in-migration would provide excess workers to the area and increase unemployment rates, but Bozeman's labor market remains tight. In fact, the Bozeman area is experiencing lower unemployment than the state and national labor markets. The low unemployment rate is partially explained by many people moving to the area already having a job before arriving to Bozeman. At the same time, in-migration drives job growth to provide services to these newcomers. On top of it all, an aging population and workforce has contributed to tight labor markets throughout the U.S.

A tight labor market can constrain growth if employers cannot find the workers they need to sustain or grow their business. Because of this concern, this report focuses on Bozeman's economic growth as it relates to the labor market, including what industries and occupations are supporting this growth and what factors are constraining the workforce. The strong population growth has also impacted the labor market and cost of living, which are also addressed. Labor market trends are analyzed for both Gallatin and Park Counties as commuters from all of Gallatin and Park Counties support the Bozeman economy. References to the Bozeman area/region generally refers to both Gallatin and Park Counties in this report.

Definitions & Geography



BOZEMAN MICROPOLITAN STATISTICAL AREA (MSA)
is an official definition of the urban area of Bozeman that includes all of Gallatin County.

This report also includes Park County, with the combined area of Gallatin and Park referred to as the Bozeman Area.

THE LABOR FORCE refers to everyone working or looking for work. Retirees, stay-at-home caretakers, and others who are not working or actively seeking work are considered out of the labor force.

TOTAL EMPLOYMENT refers to all individuals who are working for pay or profit, including the self-employed.

PAYROLL EMPLOYMENT only includes non-farm wage and salary workers, and does not include agricultural workers, independent contractors, some railroad workers, and the self-employed.

UNEMPLOYED people must be actively seeking work in order to be counted as unemployed. Retirees, stay-at-home caretakers, students, children, and other people who are not actively seeking work are considered out of the labor force rather than unemployed.

SECTION ONE:

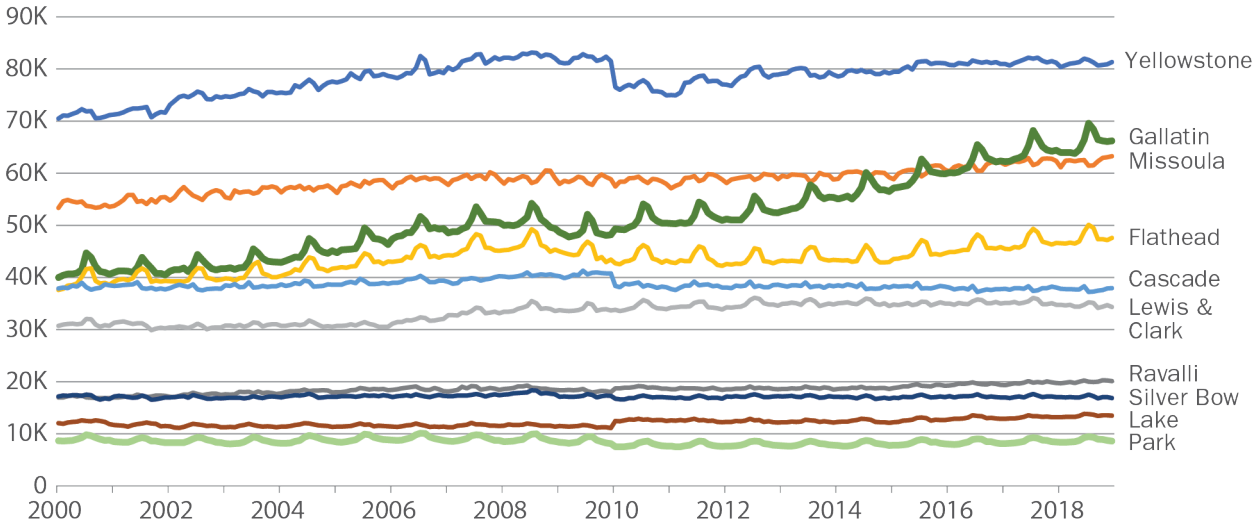
BOZEMAN'S CURRENT LABOR MARKET

Bozeman's Labor Market – a General Overview

Bozeman and its surrounding area are growing rapidly, with the in-migration also expanding the labor force. Gallatin County's labor force was the fastest growing in Montana over the last five years (2012-2017) at an average annual rate of 4.1%, or 2,370 people annually. During that same time, Montana's labor force grew at a rate of 0.7%. With 64,000 people, Gallatin County's labor force is the second largest in Montana and makes up 12.2% of the entire statewide labor force.

Bozeman's labor supply also includes workers from Park County. Park County's labor force was over 8,600 people in 2017, or 1.6% of Montana's total labor force. Despite being significantly smaller than Gallatin County, Park County is the tenth largest labor force in Montana. Park County's labor force declined during the most recent recession and is still below its 2006 peak of 9,000 people. However, growth is picking up with Park County having the fourth fastest growing labor force in the state over the last five years at an average rate of 1.5%, or 120 people per year.[1] **Figure 1** shows the size of Montana's ten largest labor forces and how they have grown since 2000.

Figure 1: Labor Force Growth of Montana's 10 Largest Counties



Source: Bureau of Labor Statistics. Local Area Unemployment Statistics.

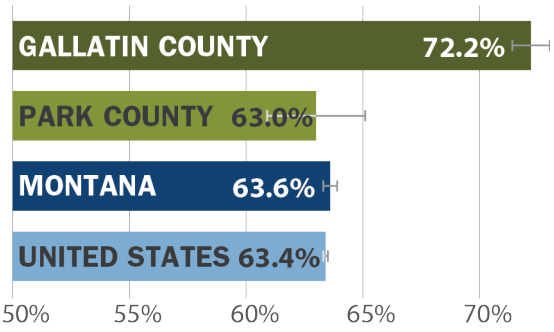
The fast growth of the labor force relative to population growth indicates that people moving into the Bozeman area come for work. From 2012 to 2017, Gallatin and Park County's combined labor force grew at an average annual rate of 3.8% (nearly 2,500 people) compared with population growth at 2.8% (over 3,200 people). Another sign is the consistently high labor force participation rate. Gallatin County has a labor force participation rate of 72%, which is the same as it was five years ago. Meanwhile, the U.S. and

1 Labor force source: Bureau of Labor Statistics (BLS). Local Area Unemployment Statistics (LAUS).

Montana both have labor force participation rates of 63.5%, a decline from five years earlier as the baby boomer population reaches retirement.[2]

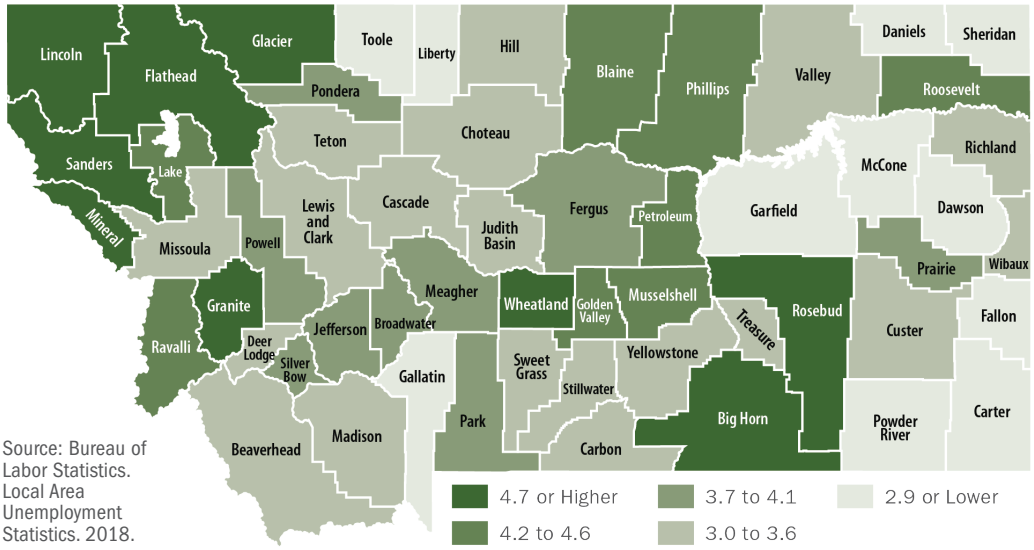
At 2.7%, the Bozeman area had one of the lowest unemployment rates in Montana, suggesting that job opportunities are matching labor force growth.[3] Job opportunities include jobs in the local area, remote work in other areas of the country, or through entrepreneurial activity. This tight labor market is positive for workers as they move between jobs and negotiate higher pay. However, businesses may struggle to find people with the right skills because of the shortage of available workers. As this worker shortage continues, employers may recruit nonworkers into the labor force, market their job opening to workers outside the local area, and turn to automation when feasible. **Figure 3** shows Montana county unemployment rates.

Figure 2: Labor Force Participation Rates
(2017)



Source: U.S. Census Bureau. 2013-2017 American Community Survey. Error bar represents the 90% confidence interval.

Figure 3: 2018 Unemployment Rates by County



Source: Bureau of Labor Statistics. Local Area Unemployment Statistics. 2018.

Consistent job growth and a growing share of people nearing retirement are the primary causes of the worker shortage. Statewide, Montana has a high share of the baby boomer generation reaching retirement without enough young workers to replace them. Both Gallatin and Park County also face this issue. While Montana State University (MSU) and Gallatin College bring young adults to Gallatin County, the share of adults over the age of 65 is growing. The share of Gallatin County's population over the age of 65 grew from 9% in 2010 to 12% in 2017 (7,500 people to 13,100 people).[4]

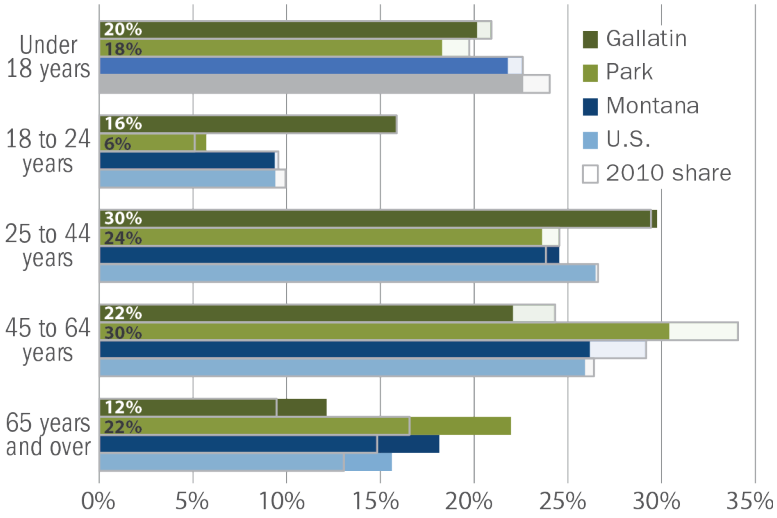
2 Labor force participation rates source: U.S. Census Bureau. 2013-2017 American Community Survey (ACS) 5-Year Estimates.

3 This unemployment rate is the combined Gallatin and Park County rate for 2018. Source: BLS. LAUS.

4 From 2010 to 2017, 10,700 people age 18 to 64 moved to Gallatin County – enough to replace the growing share of retirees. This suggests that the population growth helps mitigate the issue of an aging workforce. However, these new workers must fill new job openings in addition to replacing workers leaving the labor force (including retirees). If the share of workers by age group would have remained consistent over this time then there would be fewer workers reaching retirement age and dropping out of the labor force, and there would be more workers to help ease the tight labor market.

Park County has an older population and the share of that population over 65 has increased more than the statewide average, suggesting that Park County may be attracting retirees into the community. The share of Park County's population age 65 and older was 17% in 2010 and grew to 22% in 2017. In comparison, Montana's 65 and older population grew from 15% to 18% during that time.[5] **Figure 4** shows the 2017 population share by age for Gallatin and Park Counties, Montana, and the U.S. The solid black outlines indicate the 2010 share of population by age.

Figure 4: Share of the Population by Age
(2010 compared with 2017)



Source: U.S. Census Bureau. Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017.

Total Job Growth

The region of Gallatin and Park Counties have both had fast employment growth in recent years, although the pace of that growth is moderating. Most of the jobs and the job growth occurs in Gallatin County. Total employment in Gallatin County was 62,540 in 2017, an average annual increase of 4.7%, or 2,550 jobs, from five years prior. Total employment includes payroll jobs, agricultural jobs, and self-employment.[6] Excluding self-employment and most agricultural jobs there were over 56,600 payroll jobs in Gallatin County in 2017, an average annual increase of 4.8%, or 2,380 jobs, from five years earlier.[7] Job growth has exceeded labor market growth, resulting in lower unemployment and tighter labor markets.

Job growth in Gallatin County has been strong, but it is starting to slow. This slowdown is expected with low unemployment rates – it is difficult to add jobs if too few people are available to fill the openings. **Figure 5** shows the percent change in average payroll job growth from 2004 to 2017 (annual growth) and from 2018Q1 to 2018Q3 (over-the-year quarterly growth) for Gallatin and Park Counties, Montana, and the U.S. As shown, Gallatin County's job growth accelerated in 2015 at 5% and slowed to 3.9% in 2017. Quarterly data suggests this slowdown continued into 2018. Growth from the first three quarters of 2017 to the first three quarters of 2018 was 3.5%.

The Growing Share of Retirees in Park County

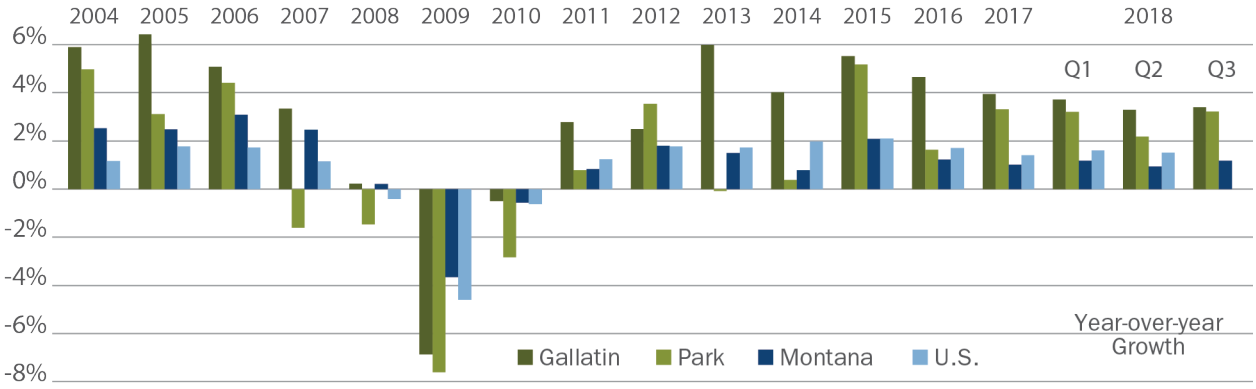
Attracting retirees into a community can be an effective economic development strategy because these individuals spend their income in the local economy, driving job growth among service sector jobs. Population-driven service jobs typically are in the retail, entertainment, and food service industries, which often offer part-time jobs at lower compensation levels and are insufficiently diversified for a self-supporting economy. Therefore, this strategy must also be accompanied by spending to develop community services for an older population, and efforts to diversify the economy into areas that offer high-paying jobs.

5 Population estimates source: U.S. Census Bureau. Annual Estimates of the Resident Population. April 1, 2010 to July 1, 2017.

6 Total employment source: BLS. LAUS. Agricultural employment was nearly 1,380 workers in 2017. Source: Bureau of Economic Analysis (BEA).

7 Payroll employment source: BLS. Quarterly Census of Employment and Wages (QCEW).

Figure 5: Average Annual Job Growth



Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages

Park County's job growth has fluctuated in the past several years, but on average has been strong. Park County's total employment was nearly 8,300 in 2017, an average annual increase of 2.1%, or 160 jobs from 2012 to 2017.[8] Excluding self-employed workers and most agricultural jobs, there were nearly 6,000 payroll jobs, an average annual increase of 2.1%, or 115 jobs, from five years earlier. Park County's total employment growth exceeded labor force growth during this time.

Historically, Park County struggled before and during the recession with negative employment growth from 2007 to 2010. Although the county's labor force is still below its prerecession peak, the number of jobs has recovered and is now past its prerecession level as of 2017. The strong and recent population growth in Livingston is stronger than the rest of Park County, and it suggests that some of the recent economic activity is related to Bozeman's economic growth. Livingston's population grew at an average annual rate of 1.4% from 2012 to 2017 and accelerated to 2.2% from 2016 to 2017. In comparison, the remainder of Park County's population grew at an average annual rate of 0.6% from 2012 to 2017 and 1.1% in 2017.

Payroll Job Growth by Industry

The largest employing industries in the Gallatin and Park County region are retail trade, accommodation and food services, and healthcare. Retail trade is Gallatin County's largest employing industry as Bozeman has become a regional center for shopping. Retail trade had strong job growth over the last five years but slowed significantly in 2017. This slow year appears to be an outlier as about 250 jobs were added through the first three quarters of 2018, similar growth to the five-year trend.[9] Because of the retail industry's slow year, the accommodations and food services, healthcare, and construction industries contributed the most to payroll job growth in 2017 and over the five years prior.

INDUSTRIES DRIVING GROWTH:

Tourism

High-Tech

Healthcare

INDUSTRIES ACCENTUATING GROWTH:

Construction

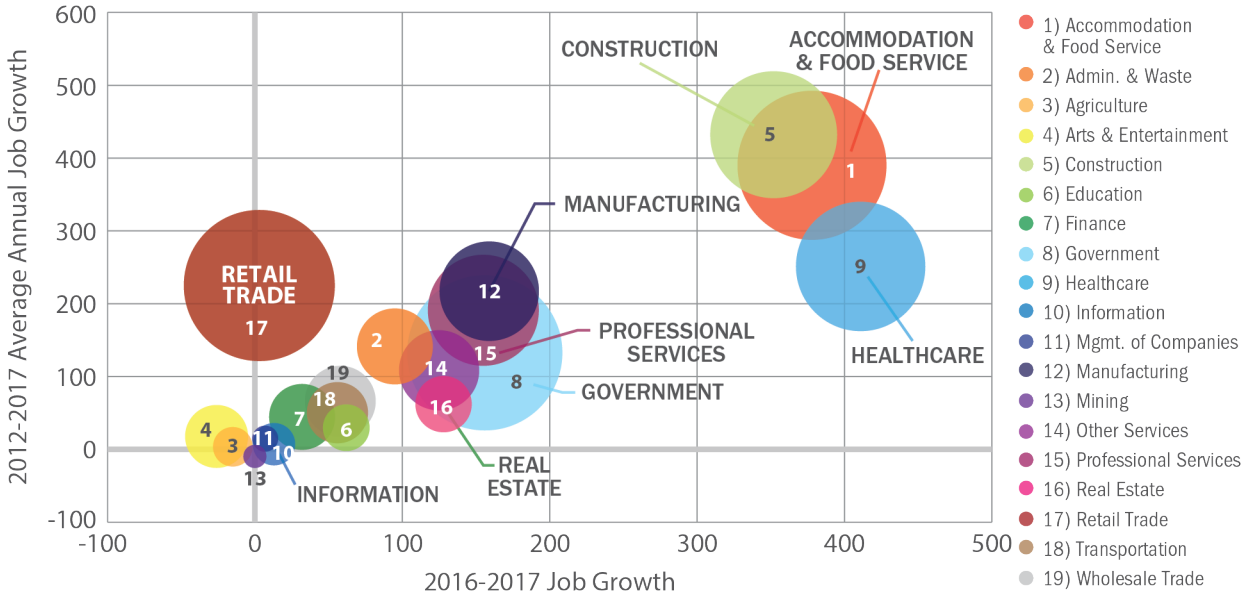
Restaurants and Food Services

Most industries in Gallatin County are following the overall trend of slowing job growth. Job growth in the healthcare and real estate industries accelerated in 2017, but slowed through the first three quarters of 2018. **Figure 6.1** shows average annual number of jobs added from 2012 to 2017 compared with number of jobs

8 Agricultural employment was 680 in 2017. Source: BEA.

9 The most recent data available for the QCEW payroll jobs is 2018Q3.

Figure 6.1: Gallatin County Average Annual Job Growth by Industry



Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages. Size of bubble indicates the number of jobs in 2017.
All public jobs including public education are in the "government" category.

added from 2016 to 2017. The size of the bubble indicates the number of jobs in that industry. **Figure 6.2** provides more detail with the number of jobs in each industry, and their 10-year, 5-year, and 1-year numeric and percent job growth for Gallatin County. The top five industries are highlighted in each column. **Figures 7.1 and 7.2** show similar information for Park County.

Job growth is both a cause and effect of population growth. Construction is an example of an industry reacting to the growing population. Construction added the most jobs over the five-year time frame, and real estate is one of the fastest growing industries. Both industries are reacting to the high demand for housing and new business development. To put this growth in perspective, Gallatin County added the most construction jobs statewide over the last five years with 430 jobs per year. Flathead County added the second most construction jobs with 160 per year.

A large amount of job growth in healthcare is a reaction to population growth, but it may also be contributing to population growth as hospitals and healthcare establishments recruit workers from outside the local area. Healthcare job growth is stable and has consistently added jobs over the past ten years, even throughout the recession. This trend is consistent statewide as factors other than population increases are contributing to this industry job growth, such as changing demographics.

The accommodation and food services industry is also likely reacting and contributing to population growth. As more people move to the area, more of these services are demanded. However, as Bozeman continues to develop, adding a larger variety of restaurants and activities, the city becomes more attractive to people looking to relocate. The tourism industry, with the west entrance to Yellowstone National Park, the Big Sky and Bridger ski areas, and many other outdoor recreational activities, is a significant driver of job growth in

Figure 6.2: Gallatin County Number of Jobs and Job Growth by Industry

Industry	2017 Jobs	Level Growth			Percent Growth		
		10-yr	5-yr	1-yr	10-yr	5-yr	1-yr
Private Industry Jobs							
44 Retail Trade	7,904	80	225	3	1.1%	3.1%	0.0%
72 Accommodation and Food Service	7,691	224	390	378	3.5%	6.0%	5.2%
62 Healthcare	5,799	244	251	411	5.6%	5.0%	7.6%
23 Construction	5,575	-60	432	352	-1.0%	10.3%	6.7%
54 Professional Services	4,264	98	191	155	2.6%	5.2%	3.8%
31 Manufacturing	3,423	79	217	159	2.7%	7.9%	4.9%
81 Other Services	2,222	76	109	125	4.3%	5.8%	6.0%
56 Admin and Waste	1,994	83	141	95	5.5%	9.1%	5.0%
42 Wholesale Trade	1,728	36	66	58	2.4%	4.3%	3.5%
52 Finance	1,500	23	45	32	1.7%	3.3%	2.2%
71 Arts and Entertainment	1,368	14	18	-26	1.1%	1.3%	-1.9%
48 Transportation	1,293	24	50	56	2.0%	4.4%	4.5%
53 Real Estate	1,098	11	62	128	1.1%	6.9%	13.2%
61 Education	754	26	30	62	4.4%	4.5%	9.0%
51 Information	619	-1	7	13	-0.2%	1.2%	2.1%
11 Agriculture	538	13	4	-15	2.8%	0.7%	-2.7%
55 Management of Companies	232	9	15	7	5.3%	8.0%	3.1%
21 Mining	183	-7	-10	0	-3.0%	-4.6%	0.0%
22 Utilities	105	1	-1	.	0.5%	-0.6%	.
Government Jobs							
Total State	4,561	64	83	106	1.5%	1.9%	2.4%
Total Local	3,211	58	66	59	2.0%	2.2%	1.8%
Total Federal	566	-7	-16	-9	-1.2%	-2.6%	-1.6%
Total Payroll Jobs	**56,629**	**1,089**	**2,375**	**2,146**	**2.2%**	**4.8%**	**3.9%**

Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages.

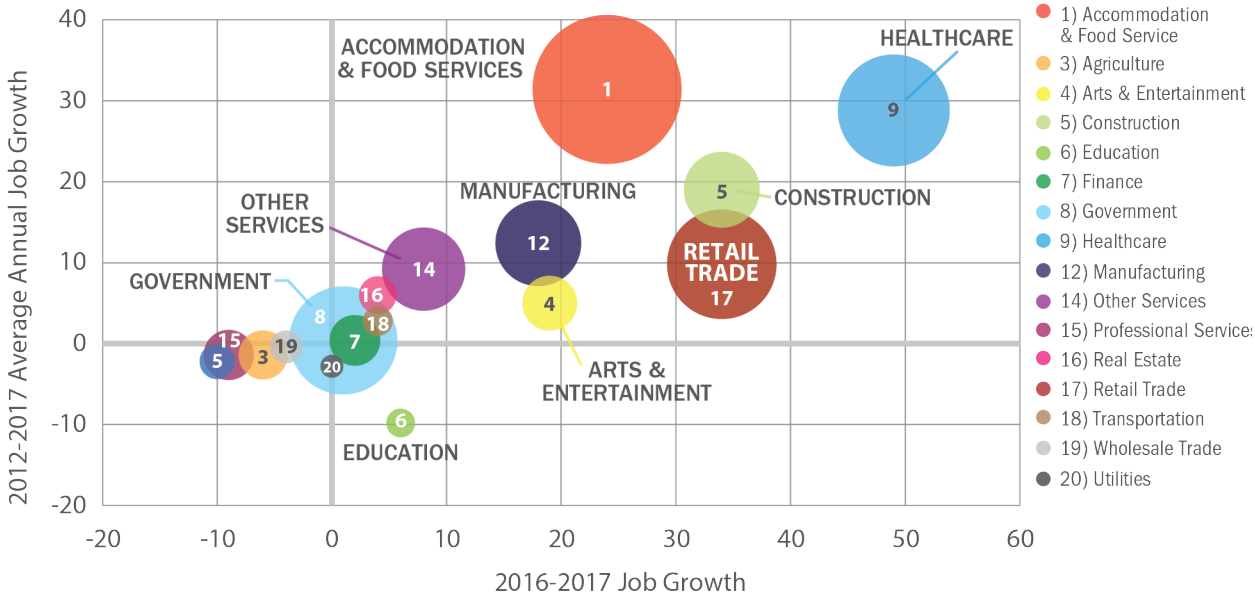
the accommodation and food services industry. According to a report by the University of Montana, Gallatin County received the most nonresident traveler spending in the state in 2017 at $660 million.[10]

One driver of population growth to the Bozeman area has been its growing reputation as a high-tech industry hub. The high-tech industry primarily falls into professional services, but some high-tech businesses are in manufacturing or information. Nearly 60% of jobs in the professional services industry are considered high-tech compared with 12% in manufacturing and 46% in the information industry.[11] Professional services and manufacturing have each added about 200 jobs per year over the last five years, a significant contribution to total job growth. The long-term statewide trend for the information industry (which includes newspaper publication) has been declining job growth. The recent addition of new businesses within this industry have stopped the trend in Gallatin County, at least in the short-term.

10 Grau, Kara. 2017 "Economic Contribution of Nonresident Travel Spending in Montana Travel Regions and Counties." University of Montana Institute for Tourism and Recreation. Available at https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=1374&context=itrr_pubs

11 Montana Department of Labor & Industry (MT DLI). QCEW. 2017.

Figure 7.1: Park County Average Annual Job Growth by Industry



Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages. Size of bubble indicates the number of jobs in 2017.
All public jobs including public education are included in the "government" category.

Park County's labor market is highly reliant on three large employing industries that make up nearly 50% of total jobs in the area. These industries are the accommodation and food services, healthcare, and retail trade industries. These three industries, along with construction, have been the primary job creators over the past several years.

Despite the statewide trend of slowing employment growth, some Park County industries accelerated significantly through 2017 and into 2018. The three primary examples of this trend are healthcare, construction, and manufacturing. Retail trade also accelerated in 2017 but slowed in 2018. These accelerations suggest that Park County may be experiencing a lagged benefit from Bozeman's growth. Population growth in Livingston has recently picked up as well and may partially explain the recent job growth.

With the north entrance to Yellowstone National Park, and an abundance of fishing, hiking, and other recreational activities, a significant portion of jobs within Park County are still centered around tourism rather than economic activity from Bozeman. According to a University of Montana report on tourism, Park County received the sixth most nonresident traveler spending of all Montana counties ($186 million).[12] The large presence of tourism helps explain why the accommodation and food services industry makes up over 23% of Park County's total payroll jobs.

12 Grau, Kara. 2017. "Economic Contribution of Nonresident Travel Spending in Montana Travel Regions and Counties." University of Montana Institute for Tourism and Recreation. Available at https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=1374&context=itrr_pubs

Figure 7.2: Park County Number of Jobs and Job Growth by Industry

Industry	2017 Jobs	Level Growth			Percent Growth		
		10-yr	5-yr	1-yr	10-yr	5-yr	1-yr
Private Industry Jobs							
72 Accommodation & Food Services	1,361	11	31	24	9.0%	2.5%	1.8%
62 Healthcare	767	11	29	49	1.6%	4.2%	6.8%
44 Retail Trade	734	-5	10	34	(0.6%)	1.4%	4.9%
31 Manufacturing	450	15	12	18	4.2%	3.0%	4.2%
81 Other Services	424	7	9	8	1.8%	2.3%	1.9%
23 Construction	352	-2 1	19	34	(4.5%)	6.5%	10.7%
71 Arts and Entertainment	184	-1	5	19	(0.3%)	3.0%	11.5%
52 Finance	157	-1	0	2	(0.7%)	0.3%	1.3%
54 Professional Services	154	-4	-1	-9	(2.2%)	(0.9%)	(5.5%)
11 Agriculture	147	0	-1	-6	(0.2%)	(0.9%)	(3.9%)
53 Real Estate	86	4	6	4	7.4%	9.0%	4.9%
51 Information	76	-1	-2	-10	(1.3%)	(2.7%)	(11.6%)
42 Wholesale Trade	65	2	0	-4	4.7%	(0.6%)	(5.8%)
48 Transportation	54	2	3	4	3.9%	6.2%	8.0%
61 Education	50	-3	-10	6	(4.6%)	(12.8%)	13.6%
22 Utilities	32	-2	-3	0	(4.0%)	(7.0%)	0.0%
21 Mining	4	0	-1	-3	(5.4%)	(15.0%)	(42.9%)
Government Jobs							
Total Local	590	-1	-2	-2	(0.2%)	(0.4%)	(0.3%)
Total Federal	73	-1	0	3	(1.0%)	0.0%	4.3%
Total State	52	-2	3	0	(2.8%)	6.5%	0.0%
Total Payroll	**5,977**	**13**	**116**	**191**	**0.2%**	**2.1%**	**3.3%**

Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages. Jobs and wages in the management of companies industry and the administration and waste industry are confidential.

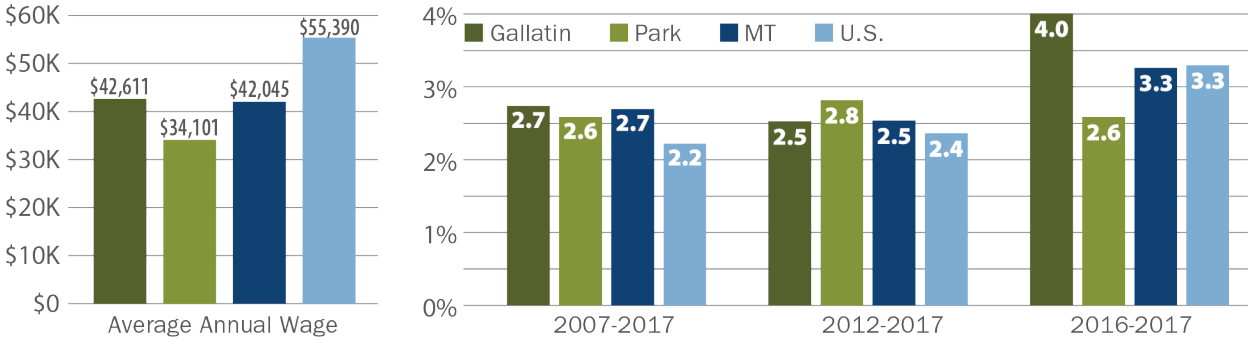
Wages and Wage Growth

Gallatin County's wages are higher than the statewide average, while Park County's wages are lower than average. Both counties have growing wages. Gallatin County had the ninth highest average annual wage in Montana at $42,611 in 2017. This wage is slightly higher than the statewide average of $42,045, but lower than the U.S. average of $55,390. Park County had the 40th highest annual average wage in Montana at $34,101.[13]

Until recently, the Bozeman area's average wages grew similarly to Montana, with both Park and Gallatin Counties roughly matching the state's growth rate of 2.7% since 2007. However, Gallatin County's wage growth accelerated in 2017, likely due to low unemployment leading businesses to compete for workers by raising wages.

13 Average wage source: BLS. QCEW.

Figure 8: Average Annual Wage (2017) and Wage Growth



Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages

While the tight labor market and shortage of workers exists throughout the entire Bozeman area and across all industries, faster wage growth can indicate the growing competitiveness within specific industries. Beyond tight labor markets, general industry growth also drives wages, particularly if high-wage businesses move to the area and skew industry wages up. Human capital increases and productivity growth also contribute to wage growth. **Figures 9.1 and 9.2** show average annual wage growth for the most recent data available.

Figure 9.1: Gallatin County Average Annual Wage Growth by Industry

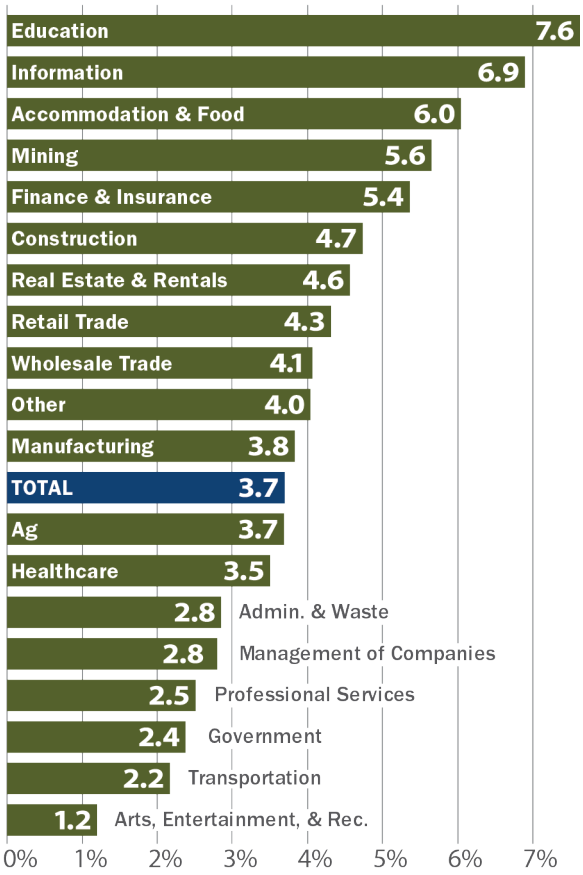
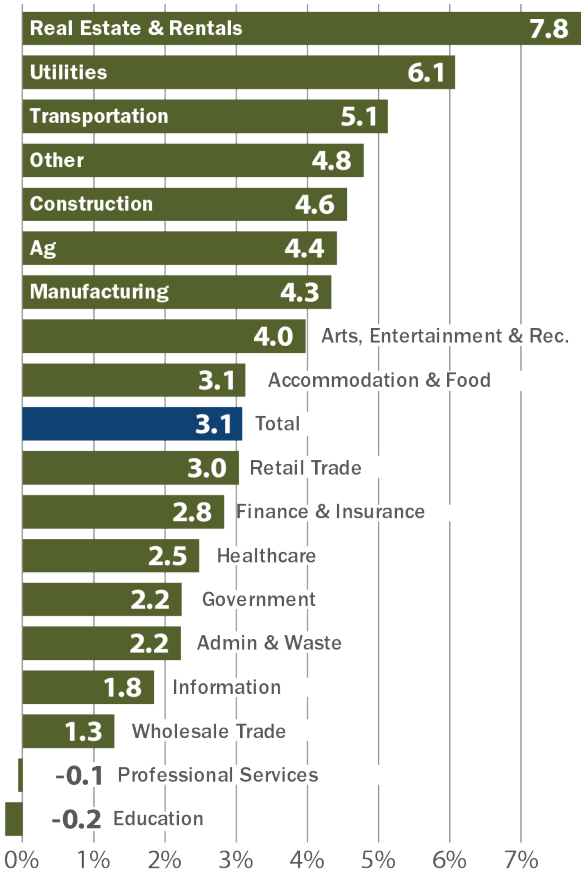
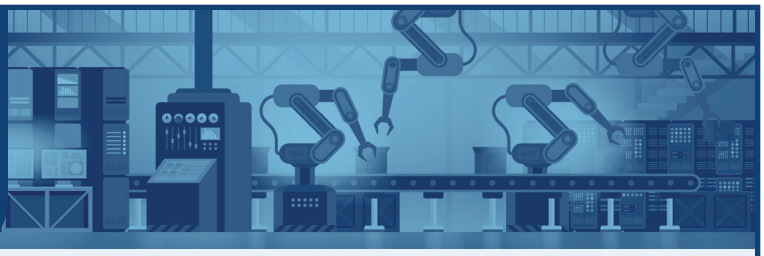


Figure 9.2: Park County Average Annual Wage Growth by Industry



Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages. Average annual wage growth from 2012 Q4-2013 Q3 to 2017 Q4-2018 Q3.

WHAT ARE HIGH-TECH BUSINESSES?



High-tech businesses are centered around new and rapidly changing technology and are often characterized by the high share of STEM jobs. High-tech businesses fall into several NAICS categories shown in figures 6.2 and 7.2, which makes it difficult to know exactly how many high-tech jobs are in the Bozeman area. While there is not one standardized method for defining the high-tech industry, the Bureau of Labor Statistics provided a definition in their 2005 Monthly Labor Review written by Daniel E Hecker. The industries that met the definition had a high proportion of scientists, engineers, and technicians. Montana's Bureau of Business and Economic Research annual report "A Profile of Montana's High-Tech Industries" also used this definition for a statewide analysis. For consistency, this paper adopts that definition. Industries include:

NAICS industries considered to be High-Tech Industries

NAICS	Description
3254	Pharmaceutical and medicine manufacturing
3341	Computer and peripheral equipment manufacturing
3342	Communications equipment manufacturing
3344	Semiconductor and other electronic component manufacturing
3345	Navigational, measuring, electromedical, and control instruments manufacturing
3364	Aerospace product and parts manufacturing
5112	Software publishers
516	Internet publishing and broadcasting
517	Telecommunications
518	Data processing, hosting, and related services
5413	Architectural, engineering, and related services
5415	Computer systems design and related services
5417	Scientific research and development services.

Source: MT BBER and Hecker 2005 BLS Monthly Labor Review

Per this definition, there were over 3,200 high-tech jobs in Gallatin County in 2017. These jobs are growing fast at a 4.6% average annual rate from five years prior. High-tech businesses support the local economy as they create high-paying jobs. Average wages within this industry were about $82,000 a year, nearly twice the average wage across all jobs.

Gallatin County's high-tech industry employment makes up 7% of total private employment. This share is higher than Montana (4%) and the U.S. average (6%) suggesting that there is a high-tech cluster in Gallatin County. Clusters are geographic concentrations of interconnected businesses and institutions centered around a specific industry. High-tech clusters are typically near a University, which allows for research collaboration and knowledge-sharing. Montana State University and Gallatin College also ensures Bozeman's high-tech cluster has a continuous supply of educated workers.

Accommodation and food services and retail trade are two of Gallatin County's largest industries and both have had above average wage growth. These two industries typically pay lower wages and offer fewer benefits, but as hiring becomes more competitive throughout all industries workers will move into the highest paying jobs possible. This shift forces lower paying industries to become more competitive by offering higher wages or more benefits. As the worker shortage continues and wage growth remains strong, some businesses may choose to invest in labor-saving technology or other automation.

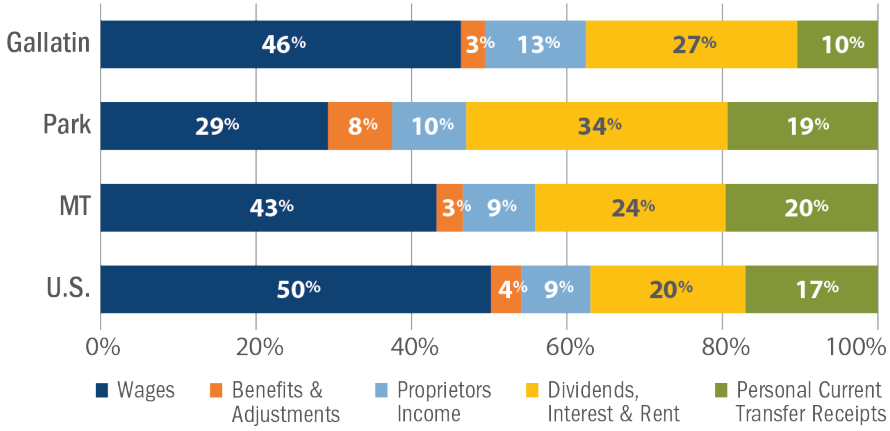
Construction and manufacturing have both had faster wage increases than average in Gallatin and Park County. Construction wage growth is likely due to the rapidly growing demand for these services. From 2012 to 2017, construction jobs in the combined Gallatin and Park region grew by 10.1% annually. There is also fast job growth within manufacturing, growing at an average annual rate of 7.3% in the region. A shift to higher-tech manufacturing also helps explain manufacturing wage increases. Average high-tech manufacturing wages are over $60,000. Average manufacturing wages across all jobs is just under $43,000.[14]

Healthcare and professional services both have lower wage increases than average. These lower wage increases do not necessarily indicate that these industries are able to recruit workers easier than other industries. Professional services and healthcare have higher average wages. Increasing wages by one percent raises costs more in a high-wage job than in a minimum wage job. Further, jobs in these industries tend to be more specialized and often require a college degree. Hiring workers to fill these jobs may be difficult depending on the job requirements and availability of specialty trained workers.

Personal Income and Entrepreneurialism

Wages are a large portion of people's income. However, Bozeman area residents earn a high share of their total personal income from other non-wage sources suggesting a large presence of entrepreneurial activity. **Figure 10** shows the components of personal income from Gallatin County, Park County, Montana, and the U.S.

Figure 10: Components of Personal Income (2017)



Source: Bureau of Economic Analysis

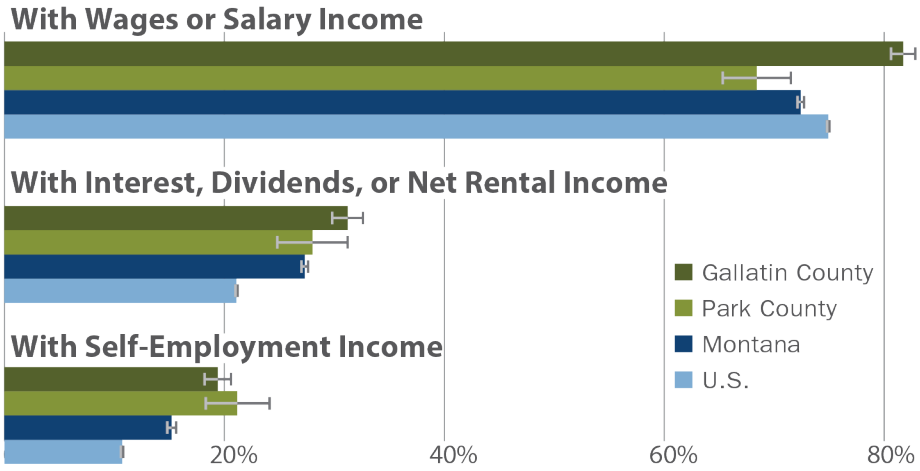
Gallatin and Park County receive a higher share of total income from proprietors' income and from dividends, interest, and rents than the state and national average. Gallatin County earns 13% of total income from proprietors' income and 27% from dividends, interest, and rent. Park County residents earn 10% of total income from proprietors' income and 34% from dividends, interest, and rent.[15]

14 MT DLI. QCEW. 2017.

15 Personal income, per capita personal income, and components of personal income source: BEA.

Proprietors income and dividends, interest, and rent are collected by a larger share of the population in Gallatin and Park Counties than nationwide. This relatively high share means that more Bozeman area residents benefit from entrepreneurial activity than the national average. In Gallatin County, 19% of households reported self-employed income and 31% reported receiving interest, dividends, or rental income compared with 11% and 21% in the U.S.[16] **Figure 11** shows the percent of households collecting certain types of income.

Figure 11: Share of Households with Income Sources

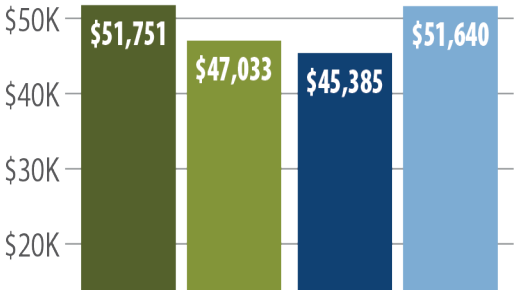


Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates.
Error bars represent the 90% confdience interval.

Gallatin and Park County's high share of entrepreneurial income helps increase total income levels. Gallatin County had the third highest per capita personal income in Montana at $51,750 in 2017. This income was higher than Montana at $45,385 and the U.S. at $51,640. Park County's per capita income was $47,033 in 2017.

While Park County ranked 40th highest for wages in Montana, the presence of other income sources significantly helps increase Park County's per capita personal income – up to 11th highest among Montana counties.

Figure 12: Per Capita Personal Income (2017)



Source: Bureau of Economic Analysis.

Factors Influencing Wages

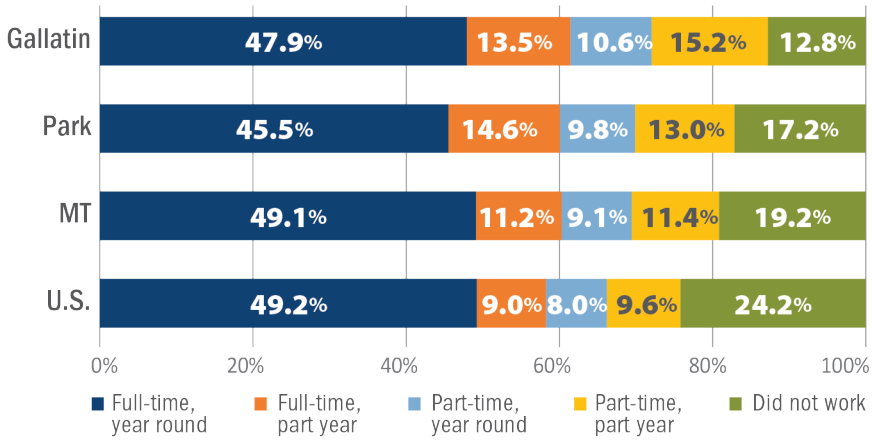
While the presence of entrepreneurial activity raises per capita income levels in Gallatin County to the national level, wages from payroll jobs are still comparatively low. Part of this reason is simply because Gallatin County is located within Montana's labor market, which also has lower average wages than the U.S. However, there are several systemic causes to the relatively lower wages in Gallatin County.

Entrepreneurial activity benefits the economy and leads to significant job creation. However, younger and smaller businesses tend to pay less than older and larger businesses. The industry share of employment, age of workers, and the number of part-time and part-year workers also pull wages down. While none of these reasons are negative aspects of the area, they are factors that influence wages. If Bozeman continues to grow then understanding local wages and wage growth is important to ensure the population that works in the area can continue to afford living in the area. These next four sections explore factors affecting local wages.

16 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

Part-Time and Part-Year Workers Affect Average Annual Wages

Figure 13: Work Status in the Past Year



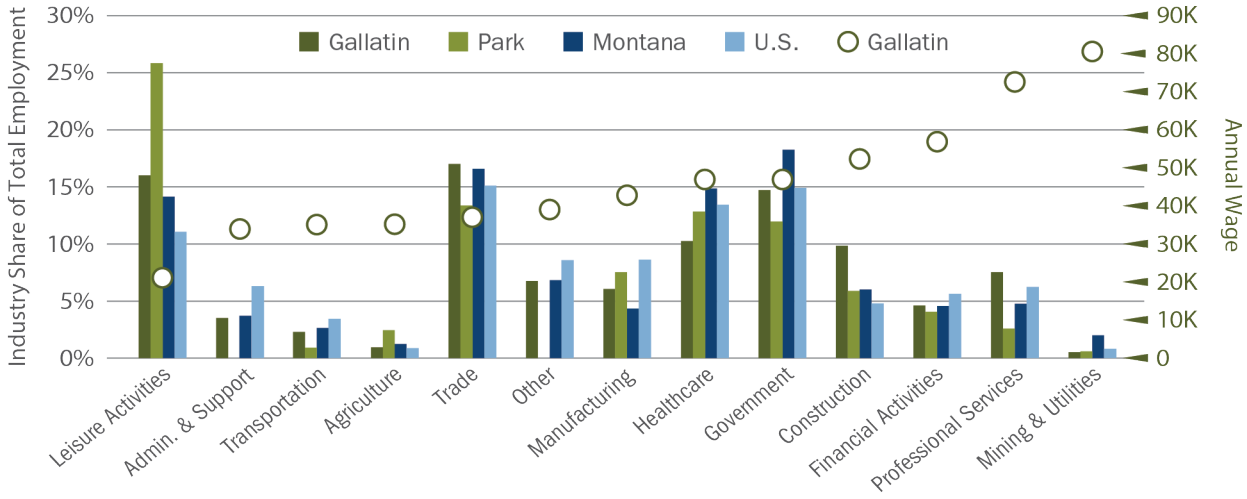
Source: U.S. Census Bureau. 2013-2017. American Community Survey 5-Year Estimates.

Gallatin and Park County have a high share of part-time or part-year workers. Average annual wages do not take hours worked into consideration, so a greater share of people working part-time would cause lower annual wages. About 39% of Gallatin County and 37% of Park County workers age 16 to 64 worked either part-time, part-year, or both compared with 32% in Montana and 26% in the U.S.[17] However, Gallatin and Park Counties average hourly wage is still lower than the U.S. average at $20.15 compared with $24.34.[18]

Jobs in Trade and Leisure Activities Have Lower Average Annual Wages

Many workers in the Bozeman area are in the trade and leisure activities industries. While these two industries allow the community to maximize the benefits of tourism and contribute to a vibrant downtown they also tend to offer low-wage and part-time jobs. **Figure 14** shows the share of industry employment for Gallatin and Park Counties compared with Montana and the U.S. The industries are sorted by lowest average wages to highest average wages.

Figure 14: Share of Industry Employment (2017)



Source: Bureau of Labor Statistics. Quarterly Census of Employment & Wages.
Other includes information (NAICS 51), management of companies (55), private education (61), and other (81).

17 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

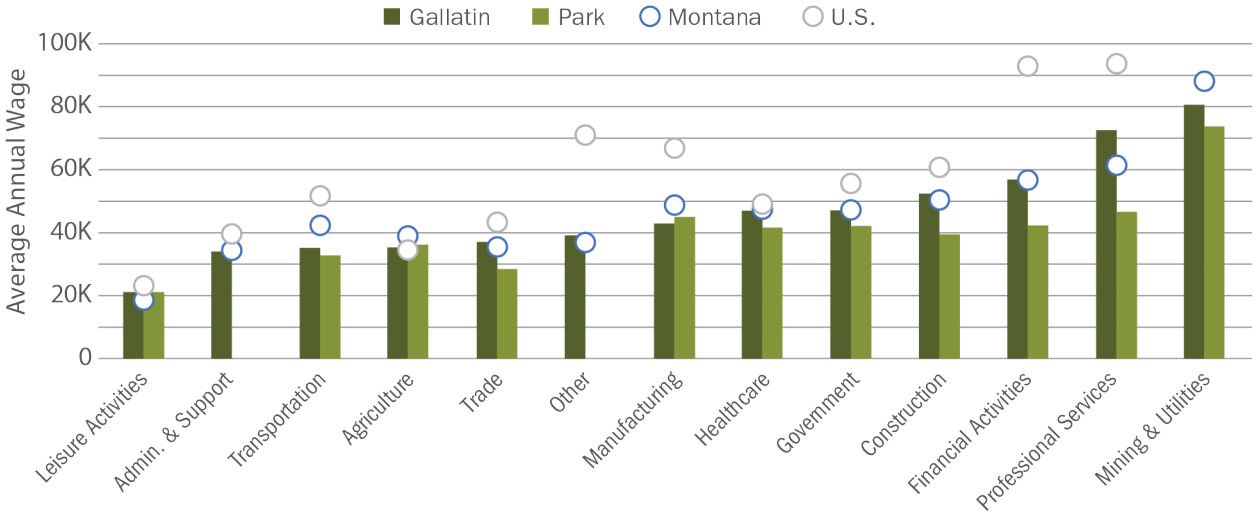
18 BLS. Occupational Employment Statistics (OES). 2017.

A large share of low-wage jobs brings down average wages. Leisure activities (the accommodation and food services industry plus the art and entertainment industry) make up 16% of Gallatin County employment and over 25% of Park County's total employment compared with just 14% in Montana and 11% in the U.S. Tourism supports this industry, which benefits the local area as it brings in outside money and creates jobs. However, these jobs pay less than average at $21,150 in 2017. In contrast, healthcare jobs are higher wage jobs at $46,980, but these jobs make up a smaller share of employment in Gallatin and Park County. This small share of high-wage jobs also brings down average wages.

A large share of high-wage jobs helps positively influence average wages. Construction and professional services both have a higher share of employment in Gallatin County than elsewhere in the state. Working in the construction industry were paid $52,330 on average in 2017, and professional services was one of the highest paying industries at $72,555.

However, both the construction and professional services industries had lower average annual wages in the Bozeman area than the U.S. For example, average wages in Gallatin County's professional service industry is nearly $20,000 less than the U.S. average. These jobs cannot bring Bozeman's average wages to the U.S. average if workers are getting paid less in these industries than other areas of the nation. **Figure 15** shows Gallatin and Park Counties average wages by industry compared with Montana and the U.S. average.

Figure 15: Wages by Industry (2017)



Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages.
Other includes information (NAICS 51), management of companies (55), private education (61), and ther (81).

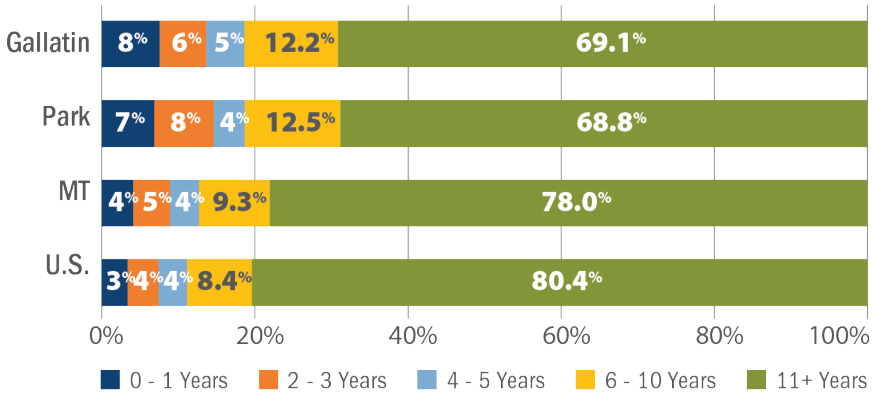
Smaller and Younger Businesses Pay Lower Wages

The size and age of businesses in the Bozeman area also affects wages. Gallatin County and Park County workers are more likely to be employed at young businesses than the statewide average. Nearly 19% of Gallatin County and Park County workers are employed at businesses that are less than five years old compared with only 13% of Montana workers and 11% of U.S. workers.[19] **Figure 16** shows the share of workers by age of firm for Gallatin and Park Counties, Montana, and the U.S.

19 U.S. Census Bureau. Quarterly Workforce Indicators (QWI).

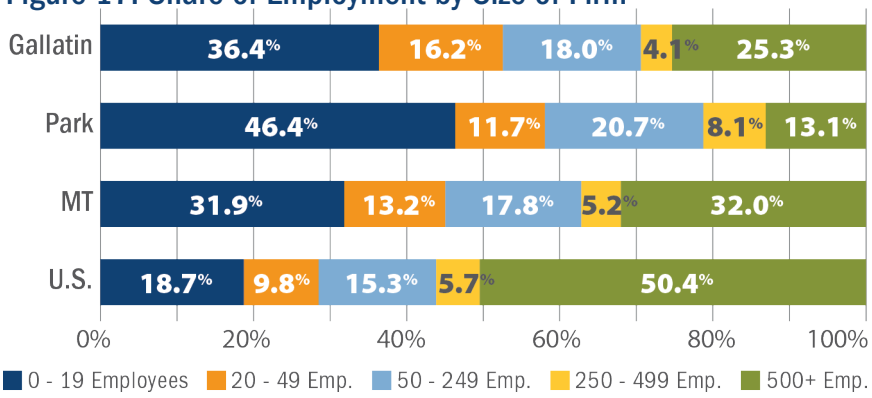
Gallatin and Park County workers are also more likely to work for smaller firms than workers across Montana and the U.S. **Figure 17** shows the share of employment by firm size for Gallatin and Park Counties, Montana, and the U.S. Thirty-six percent of Gallatin County workers and 46% of Park County workers are employed in firms with less than 20 employees. These small firms hire just 32% of Montana workers and only 19% of U.S. workers on average.[20]

Figure 16: Share of Employment by Age of Firm



Source: U.S Census Bureau. Quarterly Workforce Indicators. U.S. share is the average of 2016Q4-2017Q3 employment. Montana shares are the average of 2017Q1-Q4 employment. Excludes public employment.

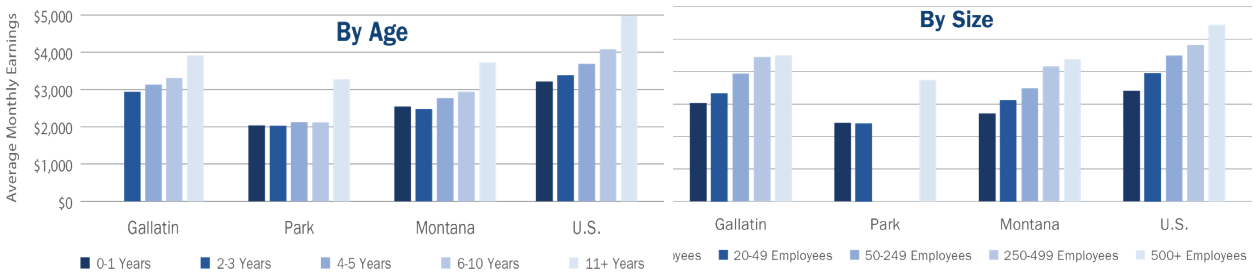
Figure 17: Share of Employment by Size of Firm



Source: U.S Census Bureau. Quarterly Workforce Indicators. U.S. share is the average of 2016Q4-2017Q3 employment. Montana shares are the average of 2017Q1-Q4 employment. Excludes public employment.

Small and young firms are a positive component to the Bozeman area, as it's another signal of strong entrepreneurial activity. Entrepreneurial activity leads to innovation while creating jobs. However, smaller and younger firms tend to pay less than larger and older firms because they typically do not yet have the resources or stability to compensate as well as more established firms. In the U.S., employees at firms five years or younger earn 65%-74% the wages of those at firms older than ten years earn. Likewise, firms with less than 50 employees pay 63%-73% the wages that firms with more than 500 employees pay.[21] **Figure 18** shows average monthly earnings by age of firm and by size of firm.

Figure 18: Average Monthly Earnings by Age & Size of Firm



Source: U.S Census Bureau. Quarterly Workforce Indicators. Data for the year 2016Q3-17Q2. Excludes government earnings.

20 U.S. Census Bureau. QWI.

21 U.S. Census Bureau. QWI.

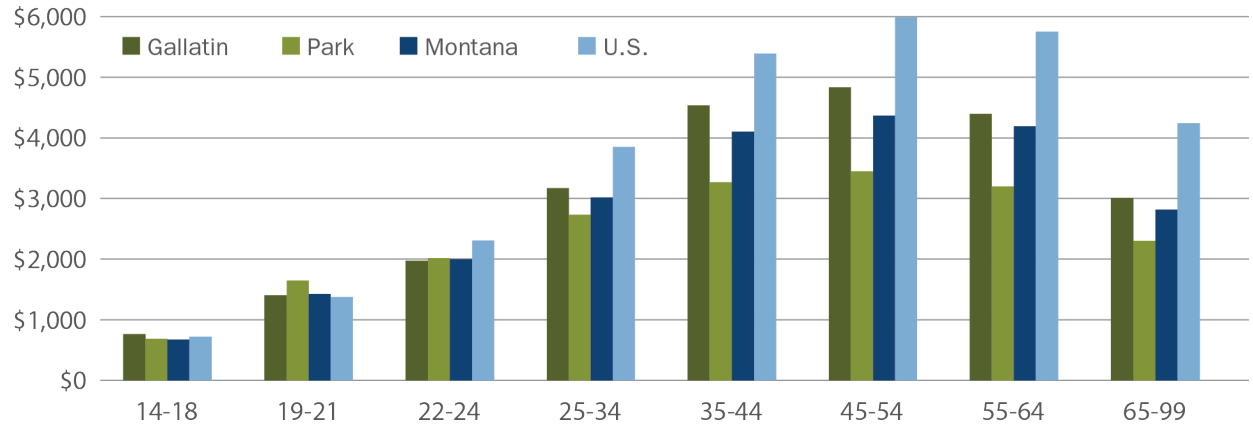
It is also worth noting that larger businesses are more likely to offer benefits. Nationally, 30% of private-sector establishments with less than 50 employees offer health insurance compared with over 96% for establishments with more than 100 employees.[22] Similarly, 48% of private-sector establishments with less than 50 employees offer a retirement plan compared with 90% for establishments with more than 100 employees.[23]

Younger Workers Earn Less than Older Workers

Demographics also contribute to wage levels because Gallatin County has a high share of young workers. The median age for Gallatin County workers was 35.1 years compared with 39.9 for both the Montana and the U.S. Park County had a slightly higher median age at 43.8.[24] Young workers are typically paid less than older workers because they have less experience and less time for advancement opportunities or longevity raises. In Gallatin County, workers between the age of 22 and 24 had average monthly earnings of $1,973 and workers between the age of 25 and 34 had average earnings of $3,173. Meanwhile workers age 35 to 54 were paid between $4,537 to $4,834.[25] **Figure 19** shows average monthly earnings by age for Gallatin and Park Counties, Montana, and the U.S.

Part-time and part-year workers, industry composition, entrepreneurs, and young workers all influence wages. None of these features are negative aspects to the Bozeman area, but they do help explain wages relative to the U.S. average.

Figure 19: Average Monthly Earnings by Age of Worker



Source: U.S. Census Bureau. Quarterly Workforce Indicators. Average of 2016Q3-2017Q2. Excludes government earnings.

22 U.S. Department of Health and Human Services. Medical Expenditure Panel Survey. 2017.

23 BLS. National Compensation Survey. March 2018..

24 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates

25 U.S. Census Bureau. QWI.

What is in Each industry?

Super Sector	Code	Industry	Establishments primarily engaged in	Examples
Agriculture	11	Agriculture	Raising crops or animals, harvesting timber, and harvesting animals from natural habitats.	Farms, ranches, greenhouses, orchards, hatcheries, and loging operations.
Mining & Utilities	21	Mining	Extracting mineral solids, liquids and gases.	Oil and gas, coal and mineral mining, and associated support activities.
Construction	22	Utilities	Provision of power, natural gas, water supply, and sewage removal.	Utility companies, sewage removal.
	23	Construction	Construction of buildings, highways, or engineering projects.	Contractors, plumbing and electrical companies, highway construction.
Manufacturing	31-33	Manufacturing	Transformation of materials into new products.	Food manufacturing, breweries, wood product manufacturers.
Trade & Transportation	42	Wholesale Trade	Arranging the sale of nonconsumer goods and raw materials used in production.	Manufacturers' sales representatives, merchant wholesalers.
	44-45	Retail Trade	Selling mechandise to the general public.	Automotive dealers, office supply stores, gas stations, grocery stores, clothing stores.
	48-49	Transportation	Transportation of passengers and cargo, sightseing, warehousing and storage for goods.	Trucking, air, rail, and water transport, postal and delivery service.
Information	51	Information	Producing, distributing, or transmitting information and entertainment.	Newspapers, TV, and radio, telecom and internet providers.
Financial Activities	52	Finance	Facilitating financial transactions.	Banks, investing, credit unions, insurance agencies.
	53	Real Estate	Renting or leasing-related services.	Rentals of apartments, real estate, autos, or machinery goods
Business Services	54	Professional & Tech. Services	Performing professional, scientific, and technical activities for others, typically to other businesses.	Legal, accounting, payroll, engineering, computer programming, advertising, R&D.
	55	Management of Companies	Manage the strategic role of the company or enterprise. Facilitate mergers.	Managing offices, holding companies.
	56	Admin. & Waste	Perform support activities for toher businesses. Temp. employment firms.	Recycling, janitorial, temporary employment firms, collection agencies, security services.
Healthcare & Education	61	Educational Services	Provide instruction and training. They may be private for-profit, non-profit, or public.	Schools, colleges, universities, and training centers. Private testing centers.
	62	Healthcare & Social Assistance	Deliver healthcare and social assistance from trained professionals.	Hospitals, elderly care facilities, childcare, mental health and family services.
Leisure Activities	71	Arts, Recreation & Entertainment	Cultural, entertainment and recreational services.	Casinos, museums, theatre, amusement parks, sports and recreational facilities.
	72	Accommodations & Food Servide	Provide lodging, meals, snacks, and beverages for immediate consumption.	Restaurants, bars, hotels, caterers, RV parks.
Other Services	81	Other Services	Any other services not already classified.	Auto and machinery repair, religious and nonprofit organizations, dry-cleaning.
Public Administration	92	Public Administration	Federal, state, local, or quasi-government agencies. Excludes education and public works construction classified above.	Local and state governments, police and fire protection.

SECTION TWO:

BOZEMAN'S OCCUPATIONAL DEMAND

Although the accommodation and food services, healthcare, and construction industries are adding the most jobs, that information does not provide detail on the specific occupations within those industries that are growing. While it's obvious the construction industry is adding carpenters and electricians, it's less apparent that they are also adding administrative assistants and other clerical workers. Similarly, it may seem obvious that the accommodation and food services industry is adding cooks and housekeeping cleaners, but the industry is also adding accountants and managers. Many occupations are added across several industries such as cashiers, janitors, and managers. This section provides information on future occupational growth specific to the Bozeman area and a summary of job postings from MontanaWorks.gov.

Figure 20: Annual Projected Occupational Demand by Large Occupation Group

2017-2027

Large Occupational Group	Annual Openings				2017 Annual Wages	
	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1 Food Preparation & Serving Related	155	584	798	1,536	$23,245	$24,710
2 Office & Administrative Support	128	580	643	1,351	$34,583	$37,950
3 Sales & Related	116	514	680	1,310	$37,151	$40,680
4 Construction & Extraction	169	236	433	838	$46,171	$49,930
5 Building & Grounds Cleaning & Maintenance	88	271	287	647	$28,766	$28,930
6 Personal Care & Service	87	259	260	605	$26,983	$27,270
7 Management	77	196	179	452	$95,872	$119,910
8 Transportation & Material Moving	62	157	219	438	$34,740	$37,070
9 Education, Training, & Library	53	180	164	397	$49,979	$55,470
10 Business & Financial Operations	78	100	197	375	$64,913	$76,330
11 Production	48	126	191	365	$36,897	$38,070
12 Installation, Maintenance, & Repair	60	105	183	347	$40,853	$47,870
13 Healthcare Practitioners & Technical	80	84	83	247	$80,453	$80,760
14 Arts, Design, Entertainment, Sports, & Media	27	75	106	208	$36,290	$58,950
15 Healthcare Support	42	83	83	207	$29,921	$31,310
16 Computer & Mathematical	41	30	81	152	$70,354	$89,810
17 Community & Social Service	27	46	76	148	$37,849	$48,050
18 Architecture & Engineering	31	31	59	120	$63,988	$86,190
19 Farming, Fishing, & Forestry	7	24	73	103	$24,679	$28,840
20 Life, Physical, & Social Science	14	23	56	92	$58,412	$74,370
21 Protective Service	9	29	34	71	$44,760	$47,190
22 Legal	11	15	21	46	$64,954	$107,370
TOTAL	**1,410**	**3,744**	**4,901**	**10,055**	**$41,914**	**$50,620**

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027. Bozeman region wages are the average wages in Gallatin and Park counties.

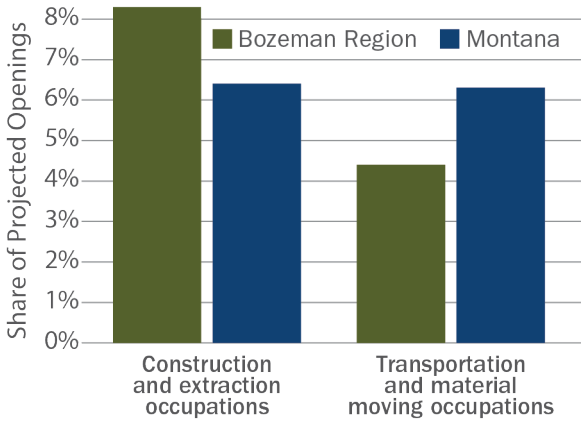
Occupational Projections – a General Overview

The Bozeman region is projected to have over 10,000 job openings per year through 2027, making it one of the fastest growing areas of the state. Job openings exist both when a new job is created and when a worker leaves their job and needs to be replaced. Workers who leave their jobs and need to be replaced due to exiting the labor force entirely (possibly to retire, enroll in school full-time, or for family reasons) are categorized as "exits." Workers who leave their occupation to work in a different occupation (reasons may include promotions or career changes) are categorized as "transfers." About 1,410 of the projected job openings are due to new jobs, 3,744 are due to exits, and 4,901 are due to transfers. The box titled "How Are Bozeman's Occupations Projected?" has information on methodology.

Figure 20 shows the 2017-2027 annual projected openings by large occupational group. Wages shown are for the Bozeman region (Gallatin and Park Counties) and for the U.S. average. The Bozeman region has a similar share of job openings by major occupation group compared with Montana.[26] For example, 15.3% of Bozeman's projected job openings are within food preparation and serving related occupations compared with 14.6% statewide. The shares fall within one percentage point in all major occupation groups except for construction and extraction occupations and transportation and material moving occupations. The Bozeman area has a higher share of projected construction and extraction job openings (8.3%) than Montana (6.4%), and Bozeman has a lower share of transportation and material moving projected job openings (4.4%) than Montana (6.3%). These shares are shown in **Figure 21**.

Among low-wage occupations, Montana has very similar wages to the same occupations nationally; Montana falls behind in wages among high-paying jobs.[27] Jobs within the Bozeman area have comparable wage levels to the nation among the lower-paying building. grounds cleaning, and maintenance occupations and personal care and service occupations. In fact, the largest difference in wages in **Figure 20** is within legal occupations and management occupations, which are both high-paying occupational groups.

Figure 21: Share of Projected Job Openings by Select Occupational Groups 2017-2027



Source: MT DLI. Occupational Projections 2017-2027.

Figure 22 shows the top ten detailed occupations with the most projected job openings over the next ten years in the Bozeman region. Many of the jobs on this top ten list are entry-level jobs at lower wage levels. There are more low-wage jobs than high-wage jobs in any economy, and low-wage jobs tend to have higher turnover. Both factors lead to a high level of job openings among the entry-level jobs listed. The only two in-demand job openings that are unique to the Bozeman area are carpenters, and landscaping and groundskeeping workers. Neither occupation was in the state or Southwest region's top ten list.

26 A summary of the Montana projections is available in the "Montana Employment Projections 2017-2027" publication available at http://lmi.mt.gov/Publications/montana-employment-projections-2017-2027.

27 Wagner, Barbara. Economy at a Glance May 2015. "Montana's Growing Wages: Income and Wages are Gaining Ground on National Average." Available at http://lmi.mt.gov/Publications/PublicationsContainer/montanas-growing-wages.

Figure 22: Top Ten Detailed Occupations with the Most Job Openings, 2017-2027

	Occupation	Minimum Requirements		Annual Openings				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Retail Salespersons	<HS	ST-OJT	26	190	238	454	$27,440	$27,460
2	Waiters & Waitresses	<HS	ST-OJT	34	149	228	410	$21,108	$25,280
3	Office Clerks, General	HS or GED	ST-OJT	26	180	176	382	$31,912	$33,910
4	Combined Food Preparation & Serving Workers, Including Fast Food	<HS	ST-OJT	38	132	138	307	$21,177	$21,230
5	Cashiers	<HS	ST-OJT	9	127	124	259	$23,632	$22,130
6	Cooks, Restaurant	<HS	MT-OJT	34	93	127	254	$24,099	$26,440
7	Maids & Housekeeping Cleaners	<HS	ST-OJT	24	113	85	221	$23,517	$24,630
8	Landscaping & Groundskeeping Workers	<HS	ST-OJT	34	70	107	211	$29,374	$29,700
9	Carpenters	HS or GED	Apprent.	43	63	102	208	$44,550	$49,630
10	Janitors & Cleaners, Except Maids & Housekeeping Cleaners	<HS	ST-OJT	22	72	70	163	$32,039	$27,900

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027.
Note: ST OJT = short-term on-the-job training. MT OJT = medium-term on-the-job training

Jobs by Educational Attainment

As mentioned above, there are many entry-level occupations and they experience frequent turnover, thus creating more job openings. Further, many entry-level jobs tend to have minimal education and work experience requirements. Overall, 70% of jobs that exist today require a high school degree or less to enter the profession; this share is not projected to see significant change. These jobs may require job-specific training, such as certifications or customer service training, but most jobs in the economy do not require postsecondary degrees.

In comparison, the Bozeman region is a highly educated area. Fifty-three percent of Gallatin and Park County residents age 25 and older have obtained a degree in higher education (including associate degrees, bachelor's degrees, and graduate or professional degrees). Only 39% of all U.S. workers over the age of 25 have a degree[28] **Figure 23** shows the projected share of jobs by educational requirements, and the share of the population over 18 and over 25 by educational attainment.

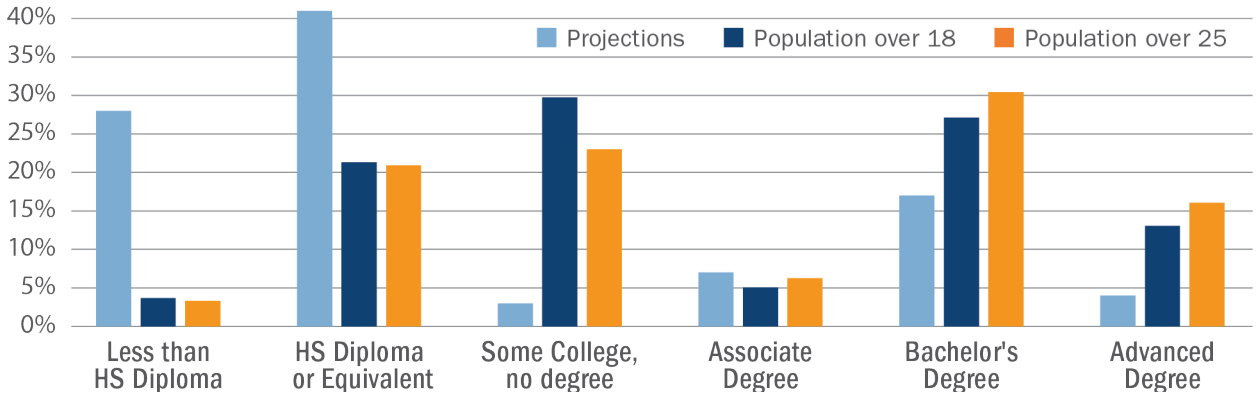
A highly educated workforce is an advantage for the local area. A talented and well-educated workforce is helpful for recruiting new business into the area. Higher education levels are associated with higher lifetime earnings, longer job retention, lower poverty rates, higher rates of entrepreneurialism, and more civic engagement, all of which benefit a community. However, a population with higher education levels than required for the local jobs may lead to underemployment for some workers.

The highly educated workforce may also provide challenges to businesses trying to recruit workers for jobs that have lower education requirements. With an unemployment rate under 3%, every worker is needed. However, workers will most likely accept the job that matches their highest level of education and work experience, potentially making the tight labor market more difficult for businesses posting job openings requiring less education.

28 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

Figure 23: Projected Job Openings Compared with Educational Attainment

For Population over 25 and the Population over 18



Source: Projections is from the MT DLI Bozeman Region Employment Projections. Population by educational attainment is from the U.S. Census Bureau 2013-2017 ACS. The ACS combines "some college" and "associate degree" for the population 18 to 24: they are grouped in "some college, no degree" for this graph. The ACS combines "bachelor's degrees" and "higher than bachelor's degrees" for the population 18 to 24: they are grouped in "bachelor's degree" for this graph. Postsecondary non-degrees are grouped in with associate degrees.

In-Demand Occupations Requiring Some Postsecondary Education

Students attending Gallatin College have a high retention rate in their local economy with 67% of graduates working in the local area one year after graduation[29] This retention rate makes Gallatin College an important training institution specific to the Bozeman area. Students who want to pursue a higher degree with a shorter training time often look to two-year colleges to obtain an associate degree or certification. **Figure 24** shows jobs with the most openings in the Bozeman region that require some postsecondary education but less than a bachelor's degree. A column called "Graduates" is included to show Gallatin College's average number of graduates over the past three years that completed a degree qualifying them to work in that occupation.[30]

With 74 job openings, automotive service technicians and mechanics are projected to have the most annual job openings per year over the next ten years. Nursing assistants and dental assistants are projected to have 67 and 37 openings per year, consistent with the fast growth in the healthcare industry. These three occupations, along with heating and cooling mechanics, were identified as being undersupplied throughout Montana, meaning that worker needs exceed the number of graduates in this field statewide.[31] Gallatin College does not have programs for any of these occupations, requiring local employers to recruit workers for these occupations from other areas within Montana or from outside the state.

29 Montana Office of Commissioner of Higher Education (OCHE) graduate data and Montana Unemployment Insurance (UI) wage match.

30 Number of graduates is calculated from MT OCHE graduate data. Majors were matched to occupations using the CIP code to SOC code crosswalk provided by the National Center for Education Statistics available at https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=55.

31 Watson et al 2017. "Meeting State Worker Demand" Available at http://lmi.mt.gov/Publications/meeting-state-worker-demand

Figure 24: Jobs Requiring Some Postsecondary Education, but Less Than a Bachelor's Degree
(2017-2027)

	Occupation	Min. Required Edu./Work Experience	Annual Openings				2017 Annual Wage		Gallatin College Graduates
			New Jobs	Exits	Trans-fers	Total Openings	Bozeman Region	U.S.	
1	Bookkeeping, Accounting, & Auditing Clerks	SC ND/MT-OJT	12	79	62	153	$35,890	$41,110	9
2	Heavy & Tractor-Trailer Truck Drivers	PS ND/ST-OJT	14	32	47	92	$43,659	$44,500	0
3	Automotive Service Technicians & Mechanics	PS ND/ST-OJT	11	22	41	74	$31,397	$42,660	0
4	Nursing Assistants	PS ND	11	31	26	67	$26,105	$28,540	0
5	Dental Assistants	PS ND	8	14	16	37	$39,834	$38,690	0
6	Teacher Assistants	SC ND	4	18	15	37	$26,577	$27,950	0
7	Computer User Support Specialists	SC ND	9	8	20	37	$47,850	$54,150	0
8	Medical Assistants	PS ND	8	10	14	32	$32,092	$33,580	21
9	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	PS ND/LT-OJT	Top demand, but exact estimates are not disclosable.				$44,684	$49,530	0
10	Preschool Teachers, Except Special Ed.	Assoc.					$32,327	$33,590	0

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027
Note: ST OJT = short-term on-the-job training, MT OJT = medium-term on-the-job training, LT OJT = long-term on-the-job training, SC ND = some college, no degree, PS ND = postsecondary non-degree award.

Gallatin College is the fastest growing two-year college in the state, growing from 324 students enrolled in the fall of 2013 to 716 in the fall of 2018.[32] However, Gallatin College students still make up a smaller share of the local population than comparable colleges. Gallatin College students make up 0.7% of Gallatin County's population compared to 1.2% for Missoula College students in Missoula County and 1.0% for City College students in Yellowstone County.[33] Further, a smaller share of local high school graduates attend Gallatin College compared with other two-year colleges. Just over 3% of Gallatin County's high school students attend Gallatin College within sixteen months of graduation. In comparison, 8.2% of Missoula County's high school students attend Missoula College and 5.1% of Yellowstone County's high school students attend City College in Billings.[34] These relatively small shares suggest that there's room for Gallatin College to continue to grow and contribute more to the local labor market.

In-Demand Occupations Requiring a Bachelor's Degree

Figure 25 shows jobs with the most projected openings that require a bachelor's degree or higher. A column called "Graduates" is included to show Montana State University's average number of graduates over the past three years that majored in degrees qualifying them to work in that occupation.[35] MSU is an important contributor to educating the local workforce; however, Bozeman's labor market is dynamic with many of these graduates leaving Bozeman and other educated individuals moving into the area. Therefore, the graduates column is for informational purposes rather than predicting worker shortages or surpluses in specific occupations.

32 Montana Office of the Commissioner of Higher Education (OCHE)

33 Fall 2018 enrollment compared with 2017 population from the U.S. Census Bureau.

34 MT Office of Public Instruction (OPI). GEMS. MUS Campus Feeder Report. Average for the 2015-16 and 2016-17 high school graduating classes. Includes students who attend college within 16 months of graduation.

35 Number of graduates is calculated from MT OCHE graduate data. Majors were matched to occupations using the CIP code to SOC code crosswalk provided by the National Center for Education Statistics available at https://nces.ed.gov/ipeds/cipcode/resources.aspx?y=55.

Teachers, substitute teachers, and coaches/scouts all make the top ten list, both for the Bozeman region and statewide. Despite this high demand, the current number of Montana students graduating in a teaching field exceed demand, suggesting that Montana's schools will be able to hire from a locally trained pool of applicants.[36] If the local area does not have enough teachers to hire, the issue is with retention rather than overall supply.

Other notable occupations in this list include software developers, which is consistent with fast growth in the professional services industry. This in-demand occupation is specific to the Bozeman area as it is not one of the most in-demand jobs statewide. Cost estimators is also specific to the Bozeman region and is indicative of the fast growth in the construction industry.

Figure 25: Most Job Openings for Jobs that Require a Bachelor's Degree or Higher

2017-2027

	Occupation	Min. Required Edu./Work Experience	Annual Openings				2017 Annual Wages		MSU Graduates
			New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.	
1	Substitute Teachers	Bach.	13	60	46	118	$24,797	$31,510	.
2	Accountants & Auditors	Bach.	19	22	43	84	$64,677	$77,920	23
3	General & Operations Managers	Bach./ 5+ yrs	16	16	47	80	$109,989	$123,460	250
4	Registered Nurses	Bach.	23	29	22	74	$64,048	$73,550	234
5	Coaches & Scouts	Bach.	7	23	31	60	$23,123	$42,540	.
6	Market Research Analysts & Marketing Specialists	Bach.	14	10	27	51	$58,998	$71,450	.
7	Cost Estimators	Bach./ MT-OJT	7	9	18	33	$61,705	$68,420	415
8	Software Developers, Applications	Bach.	11	4	13	28	$93,835	$106,710	85
9	Middle School Teachers, Except Special & Career/Technical Education	Bach.	4	11	12	26	$57,708	$61,040	103
10	Business Operations Specialists, All Other	Bach.	Top demand, but exact estimates are not disclosable.				$74,720*	$75,740	.

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027
Note: MT OJT = medium-term on-the-job training. * indicates the Southwest Region's average wage.

Knowing the local area's in-demand jobs is important for workforce training and planning around the local labor market. However, many Bozeman area students and educational institutions are planning careers around a labor market broader than the local area. Some of MSU's programs are regional leaders in training workers, and many students travel to the school for training with no intention of staying after graduation. Roughly 31% of Bozeman's postsecondary graduates are employed in Gallatin or Park County one year after graduation. Another 30% of graduates work elsewhere in Montana one year after graduation, and the remaining 39% either work out-of-state, are self-employed, or are not working.[37]

Local employers can plan recruitment strategies around students being educated outside of the Bozeman area. Nearly 2,000 people with college degrees moved to the local area in 2017, suggesting that students graduating from local educational institutions are not the only resource for local employers.[38]

36 Watson et al 2017. "Meeting State Worker Demand" Available at http://lmi.mt.gov/Publications/meeting-state-worker-demand.

37 MT OCHE graduate data and MT UI wage match.

38 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

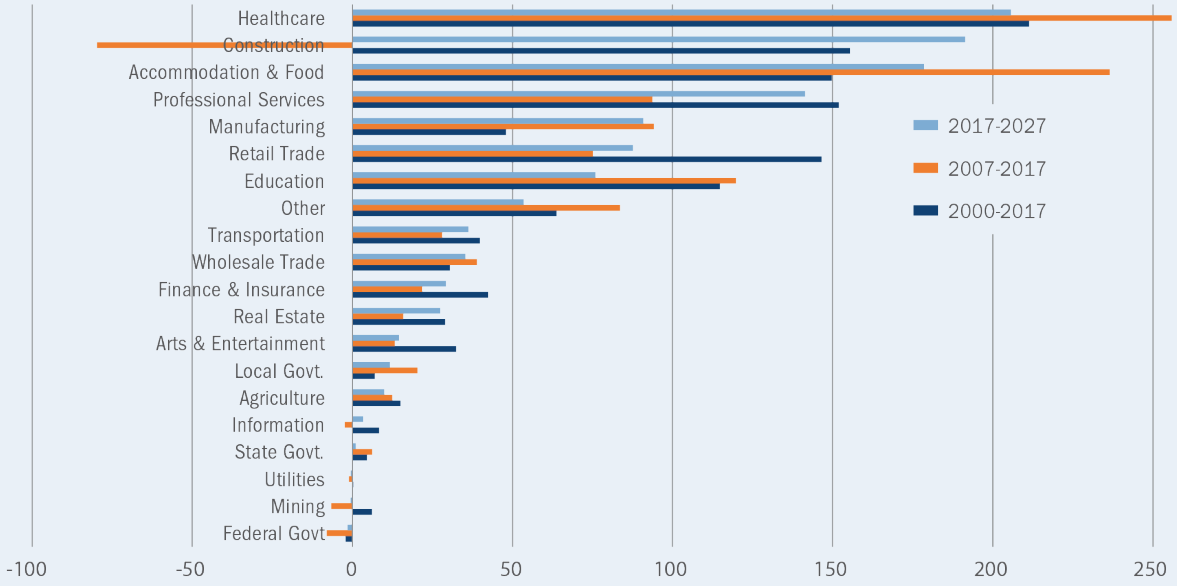
How Are Bozeman's Occupations Projected?

Every year, the Montana Department of Labor & Industry forecasts the ten-year job growth by industry and occupation statewide and for five regions within Montana. Gallatin and Park County are included in the Southwest Region, which is expected to grow by 0.9% per year. Statewide growth is projected at 0.7%. For this report, employment forecasts were created for the combined Gallatin and Park County area using the same methodology as the statewide projections. A detailed explanation on methodology can be found in the projections publication available at http://lmi.mt.gov/Publications/montana-employment-projections-2017-2027.

Gallatin and Park County combined are projected to grow by an annual rate of 1.8%, or 1,410 jobs per year from 2017 to 2027. This growth is a slowdown from recent years, which is expected with a tight labor market and a worker shortage, but it's similar to the long-term growth. The Bozeman region grew at an annual average rate of 2.0%, or 1,300 jobs per year from 2007 to 2017. The source of historical job data is the Quarterly Census of Employment and Wages.

The chart below shows the projected annual number of jobs added per industry compared with its historical growth. Jobs added from 2007 to 2017 is displayed to show how that industry changed over the prior ten years. Jobs added from 2000 to 2017 is displayed to represent long-term growth. Healthcare, construction, and accommodation and food services are expected to add the most jobs over the next ten years, similar to historical growth. Because no forecast is a perfect prediction, emphasis should be placed on the relative growth (healthcare is projected to grow faster than manufacturing), rather than exact numbers.

Number of Annual Jobs Added by Industry (2000-17 & 2007-17) and Number of Annual Jobs Projected by Industry (2017-2027)



Forecasted industry employment is disaggregated into occupations using the Occupational Employment Statistics, which provides staffing patterns for each industry. If cashiers currently comprise 12% of the retail trade industry, then cashiers comprise 12% of that projected industry. These staffing patterns are also adjusted for expected changes based on change factors provided by the Bureau of Labor Statistics (BLS). For example, if business practices are expected to lower the share of cashiers from 12% to 10%, then the change factors adjust for that expectation. These calculations explain the 1,410 new job openings.

The 3,744 job openings due to exits and the 4,901 job openings due to transfers are calculated using methodology from the BLS to determine the likelihood of people separating from their job. For further information on the BLS methodology, see https://www.bls.gov/emp/documentation/separations.htm.

In-Demand Occupations by Apprenticeship

About 49% of Gallatin and Park County High School students enroll in the Montana University System within sixteen months of their high school graduation.[39] For those not attending college, registered apprenticeship may be a good alternative. Registered apprenticeship has been gaining attention in the state as a primary or complementary means of training a worker. Apprenticeship certification requires both on-the-job training and an educational component, possibly including classes at the local community college. **Figure 26** shows the top ten most projected job openings for occupations that have an existing apprenticeship program in the state. Many of these jobs are in the trades and represent the rapidly growing occupations within the construction industry, such as carpenters, construction laborers, and electricians. Electrician apprenticeships are currently Montana's most popular program, likely because Montana licensing requires an apprenticeship credential.

Figure 26: Montana's Apprenticeable Occupations with the Most Projected Job Openings
2017-2027

	Occupation	Minimum Requirements		Annual Openings				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Carpenters	HS or GED	Apprent.	43	63	102	208	$44,550	$49,630
2	Bookkeeping, Accounting, & Auditing Clerks	SC ND	MT-OJT	12	79	62	153	$35,890	$41,110
3	Construction Laborers	<HS	ST-OJT	29	38	73	140	$36,173	$38,890
4	Automotive Service Technicians & Mechanics	PS ND	ST-OJT	11	22	41	74	$31,397	$42,660
5	Maintenance & Repair Workers, General	HS or GED	MT-OJT	11	25	34	70	$33,714	$40,280
6	Operating Engineers & Other Construction Equipment Operators	HS or GED	MT-OJT	14	20	36	69	$52,922	$51,890
7	Nursing Assistants	PS ND		11	31	26	67	$26,105	$28,540
8	Electricians	HS or GED	Apprent.	12	17	35	64	$46,657	$57,910
9	Childcare Workers	HS or GED	ST-OJT	.	.	.	.	$28,427	$23,760
10	Heating, Air Conditioning, & Refrigeration	PS ND	LT-OJT	.	.	.	.	$44,684	$49,530

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Figure 27 shows the top ten occupations that are apprenticeable by U.S. standards and are also categorized as STEM. Apprenticeship has modernized in recent years to include occupations outside of the trades. The education component can be completed through an educational institution, while the on-the-job training is typically arranged by the employer of the apprentice. The result is a highly educated and qualified worker trained specifically to the employer's needs. There are many apprenticeable occupations within information technology on this list, including computer user support specialists, software developers, and computer programmers. Healthcare occupations are also heavily represented in **Figure 27** with pharmacy technicians and licensed practical nurses.

39 MT OPI. GEMS. MUS Campus Feeder Report. Average for the 2015-16 and 2016-17 high school graduating classes. Includes students who attend college within 16 months of graduation.

Figure 27: Apprenticeable Occupations in a STEM field with the Most Projected Job Openings (2017-2027)

	Occupation	Minimum Requirements		Annual Openings				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Computer User Support Specialists	SC ND		9	8	20	37	$47,850	$54,150
2	Software Developers, Applications	Bach.		11	4	13	28	$93,835	$106,710
3	Computer Programmers	Bach.		4	5	13	22	$103,457	$87,530
4	Mechanical Engineers	Bach.		5	3	6	14	$71,222	$91,500
5	Computer & Info. Systems Managers	Bach.	5+ yrs	3	2	7	12	$140,590	$149,730
6	Pharmacy Technicians	HS or GED	MT-OJT	2	4	5	12	$32,843	$33,060
7	Licensed Practic Vocational Nurses	PS ND		3	5	4	12	$40,604	$45,710
8	Biological Technicians	Bach.		2	2	6	11	$36,616	$47,410
9	Computer Occs, All Other	Bach.		3	2	5	10	$60,037	$91,080
10	Architectural & Civil Drafters	Assoc.		.	.	.	.	$45,263	$55,110

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Job Postings

Occupational projections are created to show anticipated long-term occupational demand. Another source for in-demand occupations is found from online job postings. Online job postings provide recent information on businesses that are hiring and the occupations they are looking to fill. **Figure 28** shows the top 20 occupations most often posted through the Montana Department of Labor & Industry's online job postings board MontanaWorks.gov during the year 2018. Gallatin and Park County combined had over 12,000 job postings for nearly 13,900 job openings in that year.[40]

Retail sales, maids and housekeeping cleaners, cashiers, combined food preparation and serving workers, cooks, and janitors and cleaners were also on the occupational projections top ten in-demand occupations. These jobs tend to have high turnover leading to a

Figure 28: Most Job Openings Listed on MontanaWorks

(Gallatin and Park Counties, 2018)

Occupations	Total Openings
Retail Salespersons	696
Maids & Housekeeping Cleaners	626
Truck Drivers, Heavy & Tractor-Trailer	439
First-Line Supervisors/Managers of Mechanics, Installers, & Repairers	399
First-Line Supervisors/Managers of Retail Sales Workers	327
Cashiers	324
Nursing Instructors & Teachers, Postsecondary	315
Customer Service Representatives	282
First-Line Supervisors/Managers of Office & Administrative Support Workers	257
Truck Drivers, Light or Delivery Services	218
Licensed Practical & Licensed Vocational Nurses	213
Construction Laborers	203
Social and Human Service Assistants	180
Laborers and Freight, Stock, and Material Movers, Hand	179
Combined Food Preparation & Serving Workers, Including Fast Food	167
First-Line Supervisors/Managers of Food Preparation and Serving Workers	163
Cooks, Institution and Cafeteria	160
Janitors & Cleaners, Except Maids & Housekeeping Cleaners	160
Secretaries, Except Legal, Medical, & Executive	149
Tellers	146

Source: MT DLI. MontanaWorks.gov. 2018.

40 MT DLI. MontanaWorks.gov. 2018

higher level of job postings. Other occupations that were on a top projected occupation list include truck drivers, construction laborers, and licensed practical and licensed vocational nurses.

Job postings data provides recent information on occupational openings, but it does not capture the full story. Not all businesses post jobs on this website, choosing to use other online job boards. Some employers use their resources through the university system to recruit directly from colleges. Others use headhunters and recruiters to find workers.[41] Regardless, the job postings in **Figure 28** provide valuable insight into hiring trends and corroborate some findings from the occupational projections.

Additional Information on In-Demand Occupations

Additional tables about in-demand jobs can be found in Appendix A. This information includes the top ten occupations adding the most jobs by industry. Tables are included for the five industries projected to add the most jobs (healthcare, construction, accommodation and food services, professional services, and manufacturing). Industry tables are also provided for the top ten occupations requiring postsecondary education that are projected to add the most jobs. Appendix A also provides information on STEM occupations projected to add the most jobs.

41 For more information on statewide job postings data see Bradley, Christopher. Economy at a Glance October 2017. "Online Job Postings as Economic Data." Available at http://lmi.mt.gov/Publications/PublicationsContainer/online-job-postings-as-economic-data

SECTION THREE:

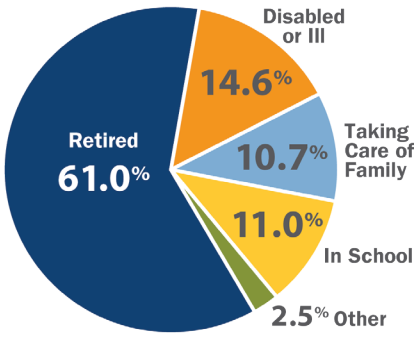
BOZEMAN'S WORKFORCE

Bozeman's labor market is influenced by national and statewide trends, including the current tight labor market. The Bozeman area is unique with high levels of in-migration, but rapid job growth combined with a growing share of the population reaching retirement age has left few people unemployed. To help ease the effects of a tight labor market, businesses may need to pull people into the labor force who are not currently participating or retain and recruit workers that are likely to migrate from or to the area. When possible, some businesses are hiring remotely, allowing access to more resources than the local labor market provides. Some businesses are also turning to automation when feasible, such as replacing cashiers with automatic checkouts at retail stores. Other employers are turning the high share of part-time workers into full-time workers or focusing efforts on reducing turnover. Focusing on the local area, this section examines why people are not participating in the local labor market, migration patterns, job turnover, and local constraints that affect the workforce.

Labor Force Participation

Employers seeking to find additional workers outside of the labor force may find it difficult as Gallatin County already has a high labor force participation rate. Seventy-two percent of Gallatin County residents are in the labor force, significantly higher than Montana at 64% and the U.S. at 63%. The low unemployment rate indicates that most workers who have been drawn into the labor force by higher wages and more abundant job opportunities are already working.

Figure 29: Reasons cited for not being in the Montana Labor Force



Source: MT DLI using 2018 CPS data through Data Ferret.

However, there are some common reasons why people are not participating in the labor force, and employers will need to address any employment barriers if they wish to hire from that population. As shown in **Figure 29**, 61% of the people not in Montana's labor force are retired. Another 15% are disabled or ill, 11% are in school, 11% are taking care of family, and 3% are for other reasons.[42] This data is not available at the county level, but it's reasonable to assume Gallatin County's distribution has fewer retirements and more students not in the labor force. Park County likely has more retirements and fewer students.

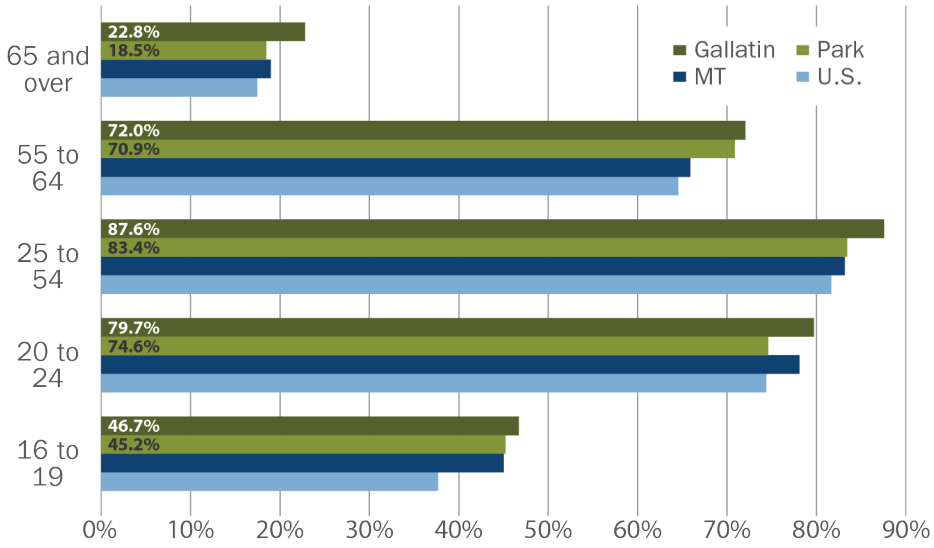
Not in the Labor Force – Retired or Student

People over the age of 65 and people between the ages of 16 and 19 have the lowest labor force participation rates, underscoring that retirements and education are common reasons for Bozeman area residents to not participate in the labor force. **Figure 30** shows labor force participation rates by age.

42 MT DLI using 2018 BLS Current Population Survey (CPS) microdata through Data Ferret.

Gallatin and Park Counties as well as Montana have a higher share of teenagers in the labor force than nationwide. This high share can be positive as early participation in the workforce can build valuable skills even if the job is not associated with a person's desired career path. Entry-level jobs can teach the soft skills needed to succeed in any job. According to the Bozeman region projections, the most needed soft skills will be coordination (adjusting to others' actions), service orientation (actively looking for ways to help people), and time management.

Figure 30: Labor Force Participation Rate by Age



Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates.

High school students are not the only student group from which employers can recruit. Sixty-three percent of Gallatin County's population age 18 to 24 is enrolled in school.[43] Pulling more teenagers and young adults into the labor force is dependent on employers' ability to work around student scheduling and other extracurricular activities. Employers looking to hire for jobs that require postsecondary education may also explore work-based learning options such as internships, pre-apprenticeship, and apprenticeships.

Convincing retirees to reenter the labor market may be challenging for business. However, retirees make up the largest group for not participating in the labor market, and the labor force participation rate for people over the age of 65 is the lowest out of all age groups. If employers want to recruit from this population, they will most likely have to address job flexibility. People choosing to retire may still enjoy occasional work but are not likely to adhere to a rigorous schedule. Work from home options may be intriguing to this population, as well as jobs that don't revolve around a specific schedule, such as clerical or consulting work that can be done at any time throughout the day.

Not in the Labor Force – Taking Care of Family

Taking care of house or family refers to numerous situations, such as taking care of children, parents, or a different member of the family or household. In a young county where the median age is 33, labor force participation for families with children is an important issue.[44] In Gallatin County, 27% of households have children under 18 years old. Nearly 13% of all households have children under six years. In Park County, 23% of households have children under 18, and 11% have children under six.[45]

43 In comparison, 37% of Montana's population age 18 to 24 is enrolled in school, and 43% of the U.S. population age 18 to 24 is enrolled in school. Source: U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

44 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

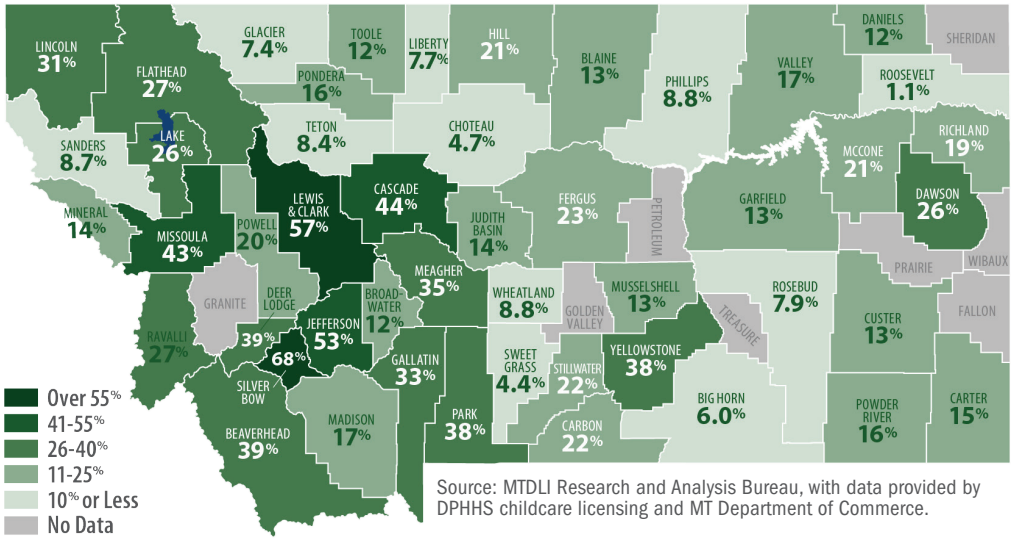
45 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

Parents may choose to stay home to care for their children. Women in families with children are more likely to stay out of the labor force than men in families with children. In Gallatin and Park County combined, 73% of women in a family with children are in the labor force, compared with 96% of men in a family with children.[46]

There are multiple reasons for choosing to stay home to care for a child. One reason is based on finances. The average cost of infant care in Montana is $9,000 per year. The average cost for toddler care is $8,000 per year.[47] This cost means that a family with two young children pay an average of $16,000 to $17,000 a year in childcare. Average childcare costs in Park and Gallatin Counties for two young children are roughly 20-25% of median family income.[48]

Childcare availability is limited in Gallatin and Park Counties, which may create an additional workforce barrier for families. **Figure 31** shows Montana counties childcare capacity as a percent of children under age five. Gallatin and Park County childcare facilities only have the capacity to care for 33% and 38% of children under five years old.[49] Parents who cannot find childcare must rely on friends or family, unlicensed providers, or drop out of the labor force to care for their children. Employers attempting to recruit stay-at-home parents must address childcare costs and daycare availability as they relate to workforce barriers.

Figure 31: Childcare Capacity as a Percent of Children Under Age 5 By County



Source: MTDLI Research and Analysis Bureau, with data provided by DPHHS childcare licensing and MT Department of Commerce.

Addressing Employment Barriers

Childcare constraints, student scheduling, and retirements explain a large portion of why people choose not to participate in the labor force. However, there are other, more detailed explanations for not participating. The Montana Department of Labor & Industry's HELP-Link survey targets the Medicaid popu-

46 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

47 Economic Policy Institute. April 2016. Available at https://www.epi.org/child-care-costs-in-the-united-states/#/MT.

48 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates. Median family income is $79,430 in Gallatin County and $66,870 in Park County.

49 Watson, Amy. Economy at a Glance October 2018. "Childcare in Montana." Available at http://lmi.mt.gov/Publications/PublicationsContainer/child-care-in-montana.

lation to help understand Montana's employment barriers. Responses from this survey are from people working as well as not working, which means that employment barriers may be interpreted as a barrier to having a job, a full-year job, a full-time job, or a better job. In Gallatin and Park Counties, 280 Medicaid recipients identified an employment barrier listed in **Figure 32**.

The most common employment barriers were personal finance and credit history (33% of responses), lack or transportation (22%), and a felony or misdemeanor conviction (20%). Lack of childcare was cited by 11% of the responses. Having a disability or illness is the second most common reason for not participating in Montana's labor force. Responses from the Medicaid survey reiterate that poor physical health, mental illness, and physical disability are common barriers to employment. **Figure 32** shows these responses.[50]

Figure 32: Employment Barriers in Gallatin and Park Counties

Personal finances/credit history	33%
Lack of transportation	22%
Felony/misdemeanor conviction	20%
Poor physical health	19%
Lack of housing	13%
Mental illness	13%
Physical disability	11%
Lack of childcare	11%
Probation	7%
Lack of telephone	6%
Caring for a family member with health issues	6%
Learning disability	5%
Drug or alcohol addiction	5%
Court mandated programs or classes	4%
Domestic violence	3%
Pending felony/misdemeanor	2%

Source: MT DLI. Montana Medicaid HELP-Link Survey Results as of June 2018.

Lack of transportation was one of the most common barriers to employment from the Medicaid survey. Transportation costs can be expensive, particularly in Montana as it is a large state. **Figure 33** shows per capita transportation expenditures for Montana and the U.S. (this data is not available for counties). As shown, transportation costs make up a higher share of income in Montana than the U.S. as a whole. Nearly 10% of Montanan's per capita income goes to transportation expenditures compared with just over 7% nationwide. These expenditures include purchasing and financing a vehicle, gasoline, car repairs, and car insurance. Employers can help address workforce constraints as they relate to transportation costs by providing on-site vehicles, travel stipends, or offer remote work. Local governments can address these issues by ensuring there is sufficient and reliable public transportation.

Figure 33: Per Capita Transportation Expenditures Compared with Per Capita Income

	Montana		U.S.	
	Dollars	% of Income	Dollars	% of Income
Total per capita expenditures	$40,955	90.2%	$40,878	90.1%
Transportation expenditures	4,412	9.7%	3,815	7.4%
Motor vehicles and parts	1,893	4.2%	1,530	3.0%
Gasoline and other energy goods	1,484	3.3%	943	1.8%
Transportation services	1,035	2.3%	1,342	2.6%
Per capita personal income	45,385	100.0%	51,640	100.0%

Source: Bureau of Economic Analysis

Simple solutions could help address some of the other employment barriers in **Figure 32**. Longer-range scheduling allows people caring for families more time to arrange childcare or other help as needed. Flexible scheduling helps students plan around their classes. Providing accommodations to workers with disabilities can integrate that population into the workforce. However, some employment barriers may have more complex solutions such as increasing childcare capacity for families with children. Businesses looking to recruit workers from outside the labor force will have to understand why that population is not working and address any specific workforce barrier to move forward.

50 MT DLI. Montana Medicaid HELP-Link survey results as of June 2018.

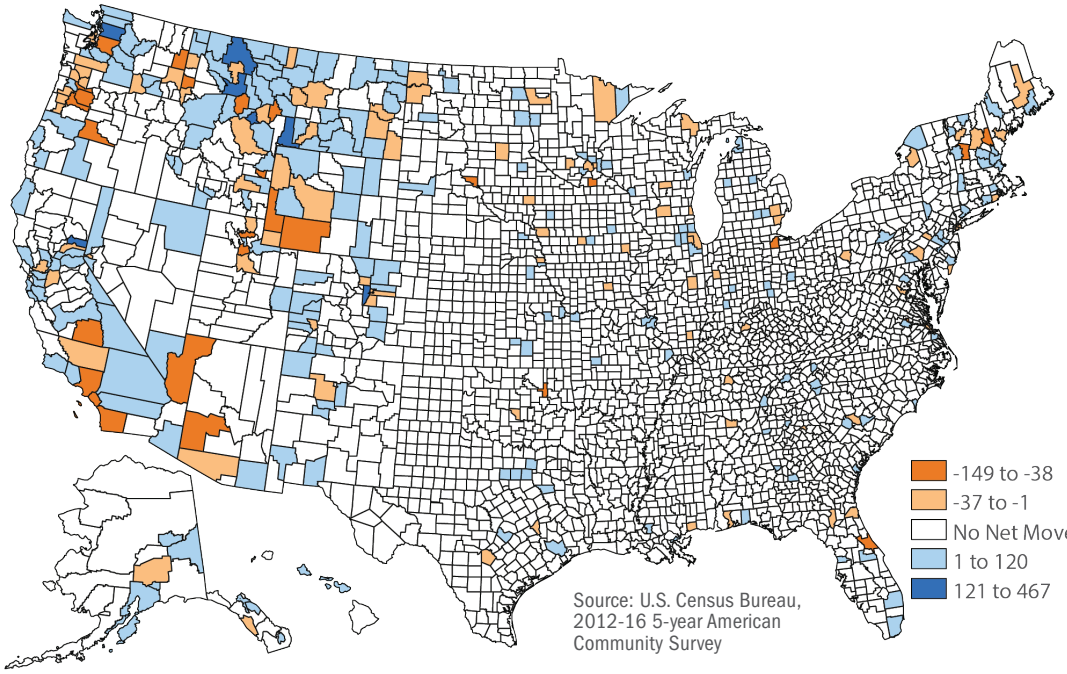
Migration Patterns

Rather than recruiting people from outside the labor force, some employers may want to target hiring practices to the population that is migrating to or from the area. From 2016 to 2017, 81% of Gallatin County population growth was due to migration, meaning that net 3,000 people moved to Gallatin County in 2017. During that same time, net 260 people moved to Park County.[51] Understanding who these people are, where they are coming from, and whether they are staying in the area are important components of the labor market. This section focuses on Gallatin County migration rather than Park County migration.

County-to-County Migration Patterns

Gallatin County has a high rate of people moving in and out of the area. While just over 9,000 people moved to the area, over 6,600 people moved away.[52] **Figure 34.1** shows a map of Gallatin County's county-to-county net migration.[53] **Figure 34.2** provides a table of the locations with the most in-migration to Gallatin County and the most out-migration from Gallatin County.

Figure 34.1: Total Net Migration Flows for Gallatin County



Montana residents make up the highest share of people moving to and from Gallatin County, as expected. Montana residents make up 38% of the people moving to Gallatin County. Many of these people move from Montana's most populated areas such as Yellowstone County, Missoula County, Flathead County, and Cascade County. In fact, these four counties are the most populated Montana counties (excluding Gallatin County).

51 U.S. Census Bureau. Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017.

52 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates. Net population change from the 2013-2017 ACS does not equal total net change of 3,000 people listed in the previous paragraph. The difference is caused by different data sources and referenced time periods.

53 The most recent data available for county-to-county migration is from the U.S. Census Bureau 2012-2016 ACS 5-Year Estimates.

Figure 34.2: Locations with the Most In-Migration to and Out-Migration from Gallatin County

In-State (by county)			
In-Migration		Out-Migration	
County	People	County	People
Missoula	755	Yellowstone	331
Yellowstone	400	Missoula	288
Flathead	379	Lewis & Clark	200
Park	312	Cascade	159
Cascade	275	Park	135

Out-of-State (by state)			
In-Migration		Out-Migration	
State	People	State	People
Washington	874	Washington	657
California	737	California	542
Colorado	599	Oregon	293
Idaho	440	Idaho	283
Nevada	290	Wyoming	265

Out-of-State (by county)			
In-Migration		Out-Migration	
County	People	County	People
Clark County, NV	233	King County, WA	274
Snohomish County, WA	228	Spokane County, WA	236
Sierra County, CA	215	Orange County, CA	173
King County, WA	213	Clark County, NV	145
Pierce County, WA	146	Latah County, ID	125

Source: U.S. Census Bureau. 2012-2016 ACS 5-Year Estimates

Of the Gallatin County residents moving out of the local area, 42% move somewhere else in Montana. Most of this out-migration is also to highly populated areas. Lewis and Clark County is the third most common Montana county to move to from Gallatin County, but it is only the sixth most populated Montana county. Students leaving to attend Carroll College, job opportunities, and a lower cost of living likely contribute to this out-migration.

Migration is common between Gallatin County and Washington state, with the second highest share of in-migration and out-migration. King County, which includes Seattle, has the largest share of out-migration from Gallatin County. Job opportunities and city attractions are factors in this high rate of out-migration. King County, Pierce County, and Snohomish County comprise a high share of the people moving to Gallatin County. These three counties combined are the Seattle-Tacoma-Bellevue MSA. Education, job opportunities, and easy access to outdoor recreation likely contribute to this in-migration from the Seattle MSA.

Many Gallatin County residents are relocating to Spokane County, another Washington county. A large number of Gallatin County residents are also moving to Latah County in Idaho, which contains the City of Moscow. Both counties are less than 450 miles west of Bozeman, and both are home to a University – Gonzaga University in Spokane County and University of Idaho in Latah County. Washington State University is also close to Latah County. These educational institutions and relative proximity contributes to the large amount of people moving from Gallatin County to these areas.

In-migration from Colorado is significantly more common than out-migration. Colorado is the fourth most common state for in-migration to Gallatin County, but only the seventh most common for out-migration. Jefferson County and Larimer County are the most common counties for in-migration to Gallatin County. Jefferson County is part of the Denver-Aurora-Lakewood MSA, and is home to the Colorado School of Mines. Larimer County is home to Fort Collins and Colorado State University. Education, job opportunities, and outdoor activity in a less populated area is likely drawing Colorado residents to Bozeman.

One additional area that stands out in **Figure 34.1** is Deschutes County in Oregon, home of the City of Bend. Deschutes County is a mid-sized county with less than 200,000 people. Yet despite the distance from Bozeman and its population size it is the most common Oregon county that Gallatin County residents move to relocate. Bend has an outdoor recreation and tourism-based economy like Bozeman, and it has similarly experienced rapid population growth due to high rates of migration to the area. Education and high-paying job opportunities are not likely a reason for this high level of out-migration as Deschutes County has significantly lower college enrollment and similar average wages compared to Gallatin County.[54] Instead, people moving from Bozeman to Bend are likely looking for a mid-size community with a comparable standard of living to Bozeman and easy access to many recreational opportunities.

Migration by Age

Migration patterns by age, as well as student retention rates, suggest that a large part of the rapid population growth in the Bozeman area comes from college students staying in the area after graduation. In other words, the higher education system results in a larger labor force in the long run, annually drawing more students into the community to stay (even though many students also leave after graduation). For example, about 4,360 people move to the area between the traditional college ages of 18 and 24, while only 3,030 people move away between the traditional graduate ages of 20 and 29.[55] This population gain is further demonstrated through student retention rates as 31% of MSU and Gallatin College students work in Gallatin or Park County one year after graduation, which is a little less than 1,000 people.[56] These workers include many students not originally from the Bozeman area as an average of 330 Gallatin and Park County High School graduates attend MSU-Bozeman or Gallatin College following high school graduation.[57]

While people age 18 to 24 comprise the highest share of in-migration (48% of total in-migration), adults between the ages of 25 to 34 years comprise the second highest share of people moving to the Gallatin County (22% of in-migration). Bozeman's ability to attract a young workforce is a unique benefit to the local area. These workers are in the early stages of their careers and are often able to make significant contributions to the economy during these prime working years. **Figure 35** shows out-migration by age compared to in-migration by age. Lighter colors represent in-state moves and darker colors represent out-of-state moves.

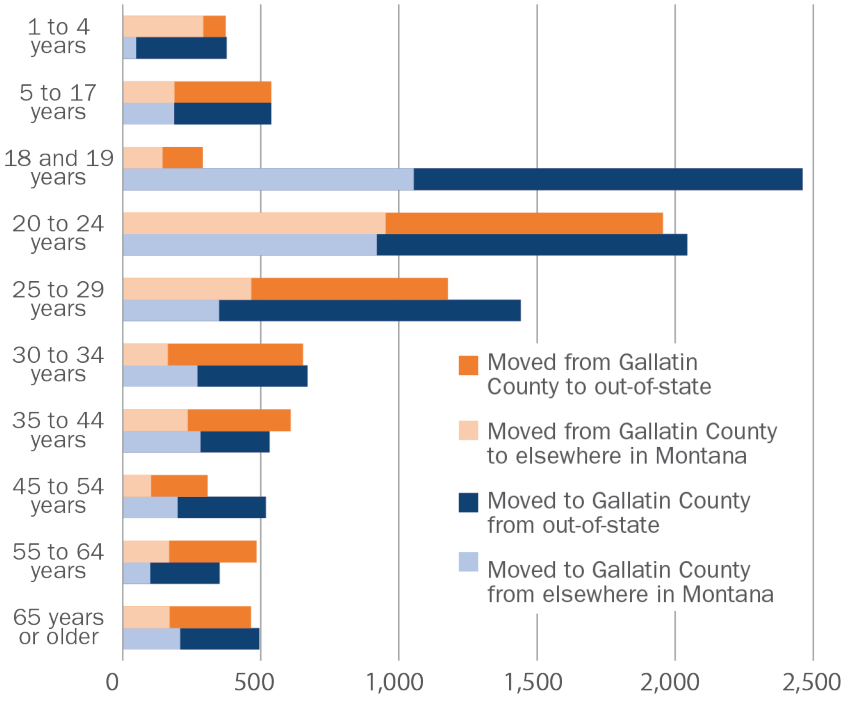
54 Average wage source: QCEW. 2017. College enrollment source: U.S. Census Bureau. 2013-2017 ACS.

55 Migration by age source: U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

56 MT OCHE graduate data and MT DLI UI wage match.

57 MT OPI. GEMS. MUS Campus Feeder Report. Average for the 2015-16 and 2016-17 high school graduating classes. Includes students who attend college within 16 months of graduation.

Figure 35: Gallatin County Migration by Age



Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates.

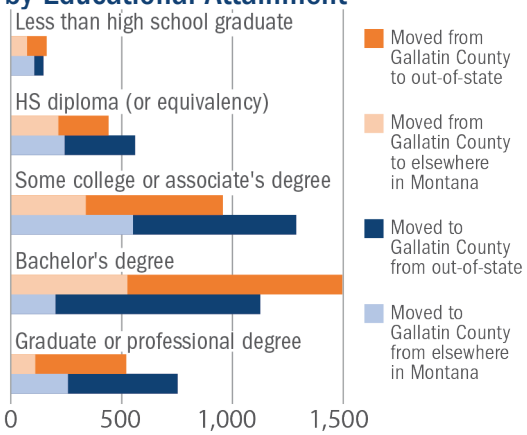
Migration by Educational Attainment

Figure 36 shows migration by educational attainment for the population age 25 and over. Because this graph shows the population over 25, it doesn't capture the in-migration of young students coming to the area to obtain their degree. Instead, it focuses on the migration patterns of individuals outside of the traditional school-aged population. Net migration is minimal for people over age 25, with 3,870 moving to Gallatin County and 3,570 moving away from Gallatin County.[58]

Gallatin County is a net exporter of bachelor's graduates because MSU is a university that trains students to meet statewide and national workforce needs.[59] Gallatin and Park County could not employee every graduate from MSU as there are not enough jobs for them; therefore, they move to other areas of the state or to other states to find work. Eight-three percent of out-migration from people 25 and older is from people with at least some college experience – 56% of total out-migration is from people specifically with bachelor's degrees or higher.

However, that doesn't mean that there are not bachelor's degree graduates who move to Gallatin and Park County. Over 80% of in-migration is from people 25 and older who have at least some college experience. Nearly 50% of in-migration is from people who have specifically obtained a bachelor's degree or higher. This group of people may have returned home after attending college elsewhere. Some of them may attend MSU for a graduate degree. Job opportunities are drawing in some of this population. Others may have moved to enjoy the outdoor recreation and other benefits Bozeman has to offer, possibly bringing a job and a salary with them as remote work opportunities become more common.

Figure 36: Gallatin County Migration by Educational Attainment



Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates.

58 Migration by educational attainment source: U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

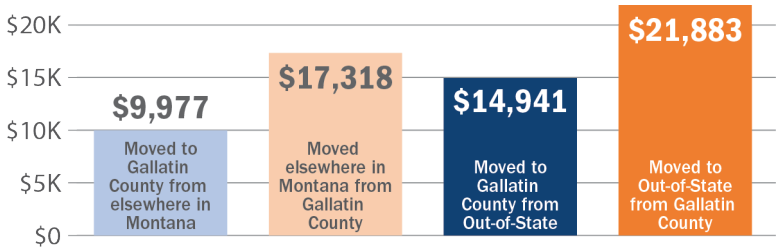
59 Watson et al 2017. "Meeting State Worker Demand" Available at http://lmi.mt.gov/Publications/meeting-state-worker-demand

More people with some college, associate degrees, and graduate or professional degrees move to the area than move away. The migration by graduate and professional degrees may be related to MSU and Gallatin College employment opportunities or to other high-tech or professional service employers in the area.

Migration by Income Level

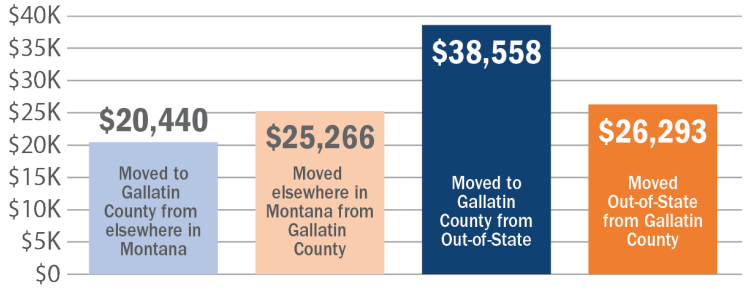
Median incomes moving into Gallatin County are lower than median incomes moving out of Gallatin County for both in-state and out-of-state migration. This difference is expected with the number of pre-college students moving to the area, and graduates moving out of the area. **Figure 37.1** shows median income by migration. People that moved to Gallatin County from in-state and out-of-state earned a median income of $10,000 and $15,000 in the year that they moved, respectively. People moving out of Gallatin County to elsewhere in Montana and out-of-state earned a median income of just over $17,000 and $22,000, respectively.[60]

Figure 37.1: Migration by Median Incomes



Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates.

Figure 37.2: Migration by Mean Per Capita Income



Source: The IRS Statistics of Income Division. 2015 to 2016 Migration Data.
Number of exemptions are a proxy for per capita.

In contrast, mean incomes moving into Gallatin County from out-of-state are higher than mean incomes moving from Gallatin County to out-of-state. This contrast can partially be explained by a difference in data collection and methodology. However, mean incomes tend to be higher than median incomes when there are high income earners that skew the data. In other words, data suggest that there are high income earners moving to Gallatin County. Average per capita income of people moving to Gallatin County from a different state was $38,600 compared with $26,300 for Gallatin County residents moving out-of-state. This difference means that more income is flowing to Gallatin County than out of Gallatin County regarding out-of-state migration.

This difference is opposite for in-state migration. Average per capita income for people moving to the area from Montana was $20,400 compared with $25,300 for people leaving the area.[61] These average incomes may represent people moving to Gallatin County for educational purposes and leaving once they graduate. It also reflects the fact that Bozeman incomes are higher than other parts of Montana.

60 Migration by median income source: U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

61 Migration by mean income source: Internal Revenue Service. Statistics of Income Division. Migration Data 2015-2016. Number of exemptions is used as a proxy for the number of people.

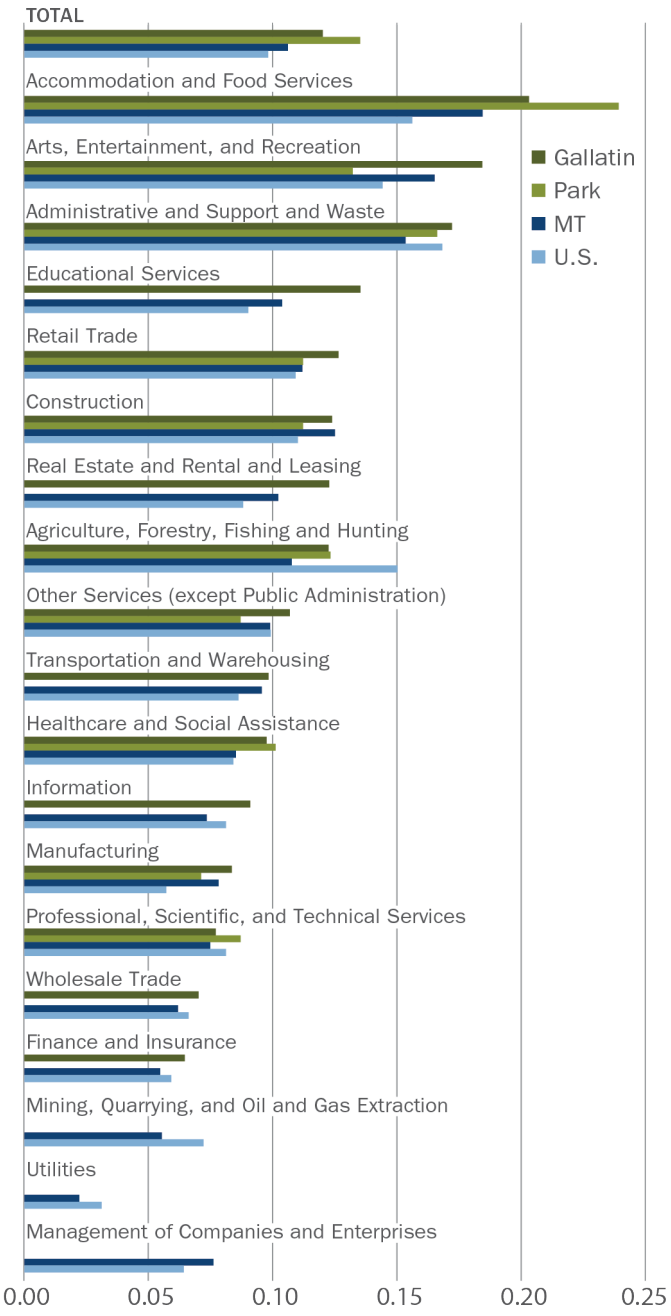
Job Turnover

Some employers may wish to reduce turnover rates to retain existing workers rather than focusing efforts on hiring new workers. Improving turnover rates may be an effective strategy as Gallatin and Park County have higher turnover rates than the rest of Montana and the U.S. Gallatin County's turnover rate is 12% and Park County's is 14% compared with 11% statewide in Montana and 10% nationwide.

One explanation for the high rate of turnover is due to industry share of employment. The accommodation and food services industry and the arts, entertainment, and recreation industry employ more people in Gallatin and Park County than elsewhere, and these industries tend to have higher turnover rates. In fact, turnover in Gallatin County's accommodation and food services industry is 20%. Turnover in the arts, entertainment, and recreation industry is 18%.[62]

High turnover can be positive. Lateral movement between firms has been identified as a positive contributor to innovation and knowledge transfer within knowledge-based economies. However, the Bozeman area does not have higher turnover rates in the professional services industry, which is the industry that primarily includes high-tech industry jobs. The manufacturing and information industries both have slightly higher turnover than elsewhere, but that does not necessarily mean that turnover is related to the high-tech industry.

Figure 38: Job Turnover Rates by Industry

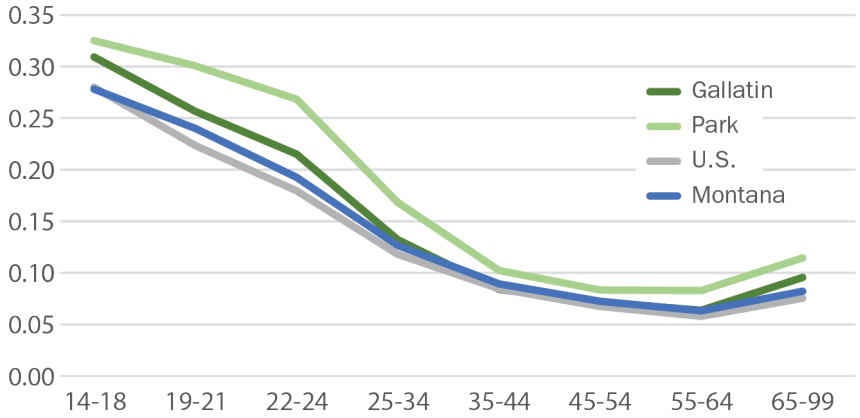


Source: U.S. Census Bureau. Quarterly Workforce Indicators. Data for the year 2016Q2-2017Q1.

Age is another factor explaining high turnover rates in the Bozeman area. Gallatin County has a higher share of young workers. Young workers tend to stay at their job for shorter periods than older more established workers. **Figure 39** shows turnover rates by age. Trends in turnover rates by age are relatively consistent throughout the Bozeman area, Montana, and the U.S. However, Gallatin and Park County have slightly higher turnover rates for younger workers than elsewhere.

62 Job turnover rate source: U.S. Census Bureau. QWI.

Figure 39: Job Turnover Rates by Age



Source: U.S. Census Bureau. Quarterly Workforce Indicators. Data is for private industry for the year.

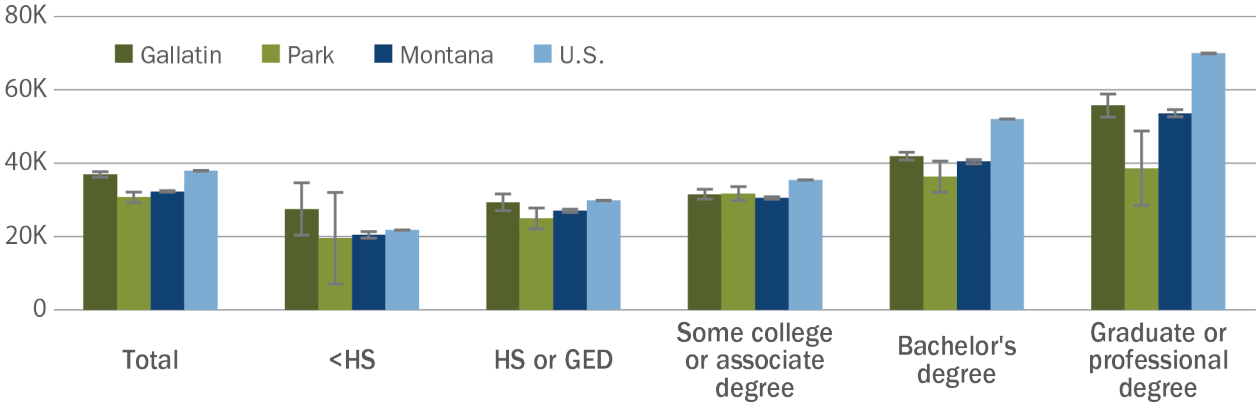
Benefits and Constraints to Living in the Bozeman Area

Understanding why people are not participating in the labor force, migration patterns, and turnover is essential for helping employers plan retention and recruitment strategies. However, there are benefits and constraints to living in the Bozeman area that may further explain workforce decisions. This section explores these benefits and constraints specifically related to income, cost of living, and work-life balance.

Earnings by Educational Attainment

Gallatin County is a highly educated area. However, people with college experience tend to earn less in Montana than comparable earners throughout the U.S. This trend is also true for Gallatin County. Bachelor's degree earners get paid less on average in Gallatin County, at $41,900, than the U.S. average of $52,000. Graduate or professional degree earners also earn less in Gallatin County than the U.S. at $55,700 compared with $69,900. Similarly, some college or associate degree earners have average earnings of $31,500 in Gallatin County compared with the U.S. average of $35,400. **Figure 40** shows earnings by education level.

Figure 40: Median Earnings by Educational Attainment



Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates. Error bars represent 90% confidence intervals

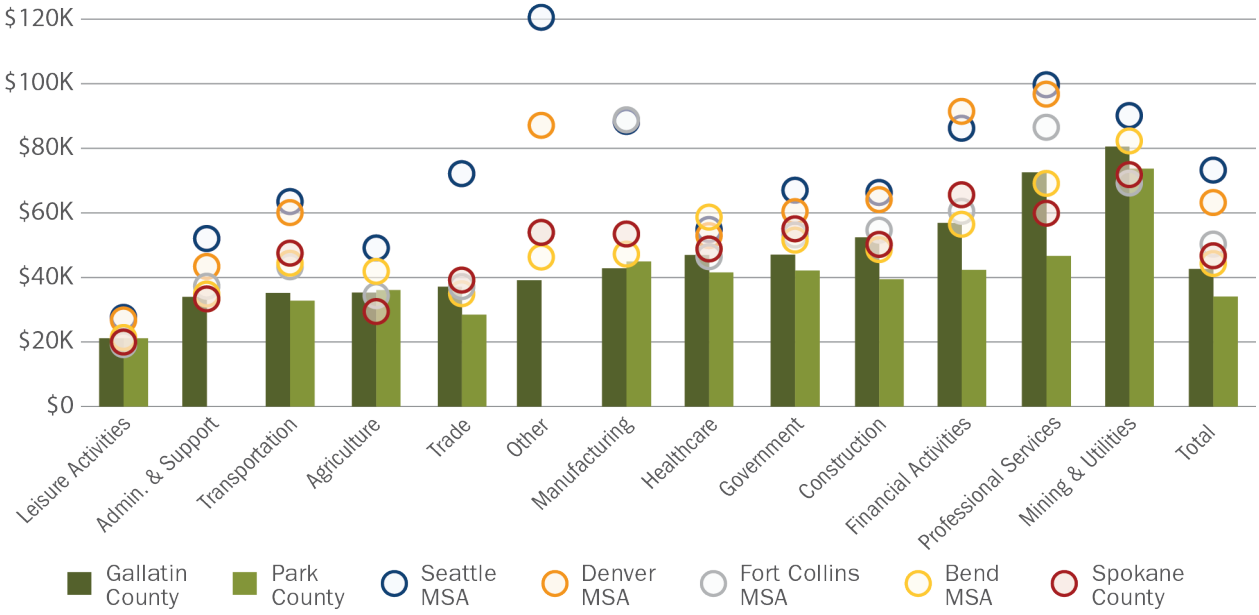
This earnings differential is specific to higher education earners. People with less than a high school degree as well as high school graduates have relatively equal average earnings to the rest of the U.S.[63] Lower earnings for people with college experience may be a constraint to living in the Bozeman area. However, this constraint is consistent across all of Montana and not specific to the local area.

Wages Compared to Elsewhere

If earnings in the Bozeman area become a personal constraint, then job seekers will look elsewhere for employment. Migration patterns reveal some of the places with high levels of migration to and from Gallatin County including: the Seattle-Tacoma-Bellevue MSA in Washington; the Denver-Aurora-Lakewood MSA in Colorado; the Fort Collins MSA in Colorado; the Bend-Redmond MSA in Oregon; and Spokane County, Washington. Relocation happens for numerous reasons, but financial constraints and seeking higher wages is likely a factor for some of these people.

Figure 41 shows wages by industry for Gallatin and Park Counties compared with the areas listed above. The Bend MSA has the most similar average wage to Gallatin County at nearly $44,200 followed by Spokane County at $46,600. The Seattle and Denver MSA's have much higher average annual wages at $73,180 and $63,080, respectively.[64] Higher wages in Seattle and Denver are expected since larger cities typically have a higher cost of living for which jobs must compensate. Large cities also typically have more job opportunities and a larger variety of jobs.

Figure 41: Average Wages by Industry (2017)



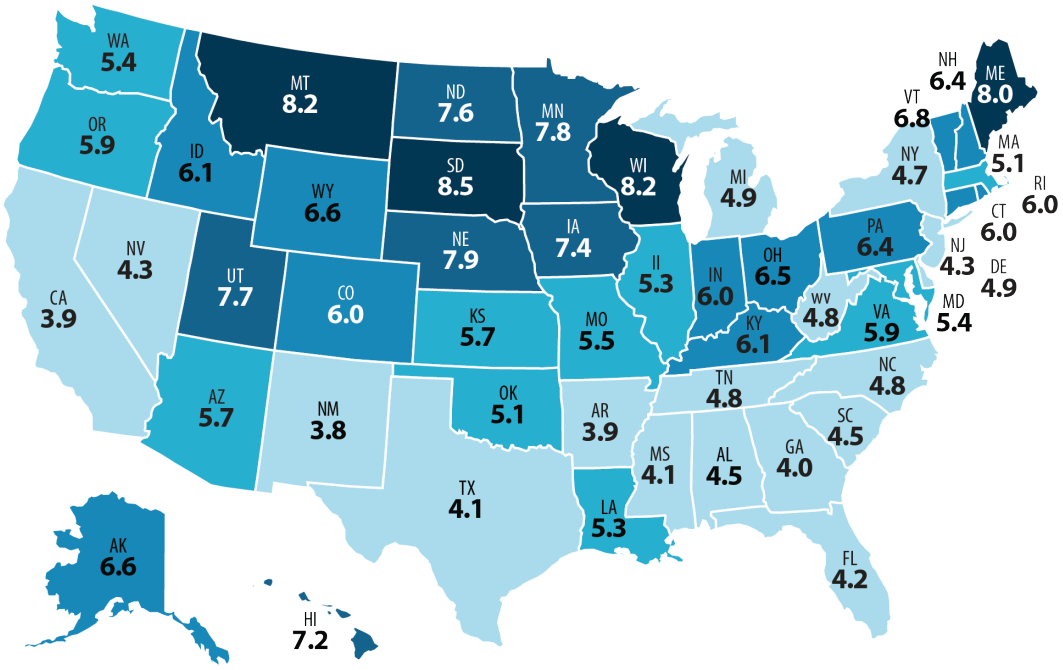
Source: Bureau of Labor Statistics. Quarterly Census of Employment and Wages. Other includes information (NAICS 51), management of companies (55), private education (61), and other (81).

63 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates. Earnings include wages and self-employed income.

64 BLS. QCEW.

The financial constraint caused by low wages leads some people to work more than one job. Just over 8% of Montanans work multiple jobs compared with 5% nationwide.[65] In fact, Montana has the second highest rate of multiple job holders in the U.S., and it's reasonable to assume Gallatin and Park County follow that statewide trend. Working multiple jobs is difficult as it allows less time for leisure activities and other responsibilities, such as taking care of family. Multiple job holders may migrate out of Montana in search of higher paying jobs. **Figure 42** shows the percent of multiple job holders by state.

Figure 42: Percent of Multiple Job Holders by State.



Source: U.S. Census Bureau. Current Population Survey microdata using Data Ferret. 2018.

Home Values and Gross Rents

The availability of affordable housing may impact people's decisions to live and work in the Bozeman area. High home prices relative to income not only impact workers, but they also impact businesses trying to recruit workers from outside the Bozeman area. Home prices in Gallatin County are expensive relative to the U.S. average. Gallatin County's median home values are 1.6 times the U.S. median home value at $303,700 compared with $193,500. Park County's median home value was slightly higher than the U.S. at $235,600.[66]

Affordable housing is dependent both on home values and incomes. Gallatin County's median household income is $59,400, only slightly higher than the U.S. median household income at $57,650. These comparable wages suggest that Gallatin County's higher home prices are not being compensated for by higher incomes.

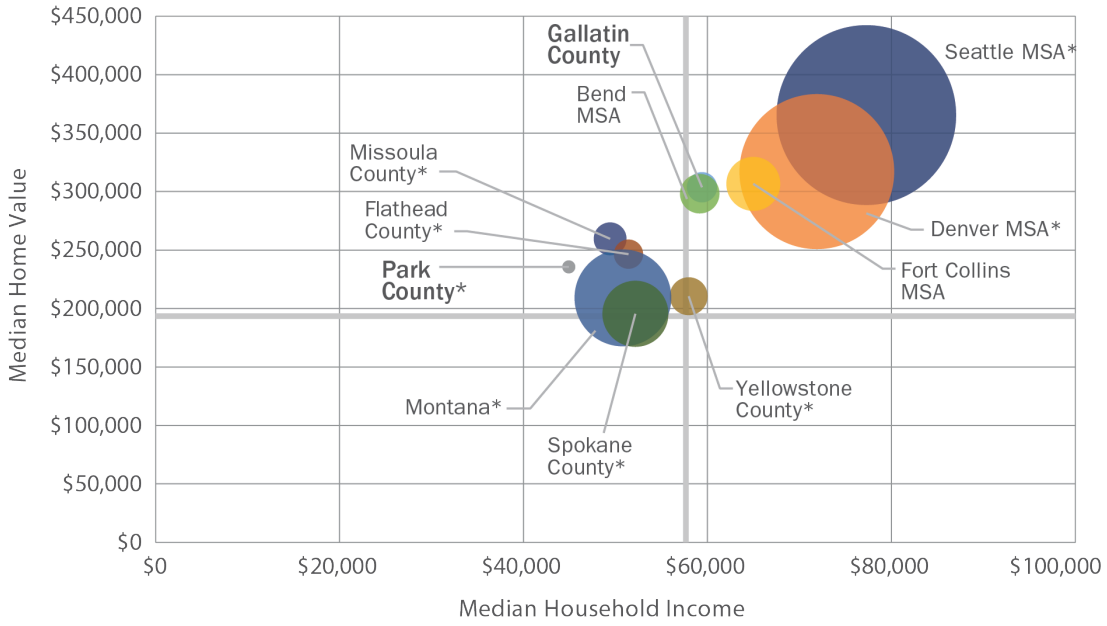
65 BLS. CPS microdata using Data Ferret. 2018. Data not available at the county level.

66 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates. Median home values are estimated over the five-year period 2013 to 2017, which means that these reported values do not match today's values. However, all locations are measured using the same methodology, so this data is valuable for comparison purposes.

To explore the relationship between income to home values further, **Figure 43** shows median household income verse median home values for select cities with high rates of migration to and from the area. Montana counties include Yellowstone, Missoula, and Flathead Counties. Out-of-state includes: the Seattle-Tacoma-Bellevue MSA in Washington; the Denver-Aurora-Lakewood MSA in Colorado; the Fort Collins MSA in Colorado; the Bend-Redmond MSA in Oregon; and Spokane County, Washington. The horizontal axis shows median household income, the vertical axis shows median home values, and the size of the bubble shows the number of households. The bold axis represents the U.S. average.

Gallatin County and the Bend MSA have the most similar income to home value ratio. The Fort Collins MSA has similar home values, but higher incomes making home ownership more affordable. Home ownership also appears more affordable in the Denver MSA as the population has relatively high incomes, but median home values are only about $20,000 more than Gallatin County's median home value. Seattle has the most expensive housing market as well as the highest household income. All Montana counties in **Figure 43** as well as Spokane County have lower median home values and household income than Gallatin County.

Figure 43: Median Home Values compared with Median Household Income



Source: U.S. Census Bureau. 2013-2015 American Community Survey 5-Year Estimates. Size of bubble is number of households paying rent. Bold lines represent the national average. * indicates statistically significant difference in gross rents as a percentage of income from Gallatin at the 90% confidence level.

To compare incomes to home values directly, **Figure 44**[67] shows the ratio of median monthly mortgage to median monthly income. Median monthly mortgages in **Figure 44** is an estimate based on the total home value and excludes other homeowner costs such as taxes and insurance. Home values and their calculated mortgages are shown from both the 2013-2017 American Community Survey (ACS) and 2018 Zillow Research Data. The same median household income is used in both the ACS and Zillow mortgage to income ratios. Because median household incomes most likely grew in 2018, the ratio using 2018 Zillow

67 Median monthly mortgages are calculated by assuming homeowners finance the entire median value over a 30-year term at a 4.5% annual interest rate. Taxes and insurance are excluded. While financing the entire median value is not necessarily realistic, it provides a consistent methodology for comparison. Household income and 2017 median home values are from the 2013-2017 ACS 5-Year Estimates. 2018 median home values are from Zillow Research Data.

Data will be an overestimate. Therefore, emphasis of these ratios should be placed on the relative closeness of the ratios rather than the actual ratio itself.

Gallatin County has the most similar mortgage to income ratio with the Bend MSA and the Seattle MSA, as suggested by both estimates. These three areas have some of the highest mortgage to income rates. However, Gallatin County is not an outlier within Montana as Missoula County and Flathead County also have notably high ratios. The Denver MSA and Fort Collins MSA, both in Colorado, have slightly lower ratios than Gallatin County due to higher household incomes. While housing has become expensive in the Bozeman area, Gallatin County is not an outlier among the areas listed in **Figure 45**, suggesting that high housing prices relative to income are a more widespread problem than specific to the local area.

Figure 44: Estimated Mortgage to Income Ratio

Location	Median Monthly Household Income	2013-2017 ACS			2018 Zillow Research		
		Median Home Value	Estimated Monthly Mortgage	Monthly Mortgage to Income Ratio	Median Home Value	Estimated Monthly Mortgage	Monthly Mortgage to Income Ratio
Missoula County	$4,118	$259,600	$1,315	31.90%	297,375	1,507	36.6%
Park County	$3,743	$235,600	$1,194	31.90%	218,667	1,108	29.6%
Gallatin County	$4,950	$303,700	$1,539	31.10%	382,642	1,939	39.2%
Bend MSA	$4,929	$298,200	$1,511	30.70%	374,417	1,897	38.5%
Flathead County	$4,284	$246,500	$1,249	29.20%	289,400	1,466	34.2%
Seattle MSA	$6,439	$365,400	$1,851	28.80%	483,558	2,450	38.1%
Fort Collins MSA	$5,415	$306,600	$1,553	28.70%	368,817	1,869	34.5%
Denver MSA	$5,990	$317,100	$1,607	26.80%	396,717	2,010	33.6%
Montana	$4,233	$209,100	$1,059	25.00%	226,258	1,146	27.1%
Spokane County	$4,347	$195,500	$991	22.80%	228,383	1,157	26.6%
Yellowstone County	$4,830	$210,500	$1,067	22.10%	226,167	1,146	23.7%
U.S.	$4,804	$193,500	$980	20.40%	217,083	1,100	22.9%

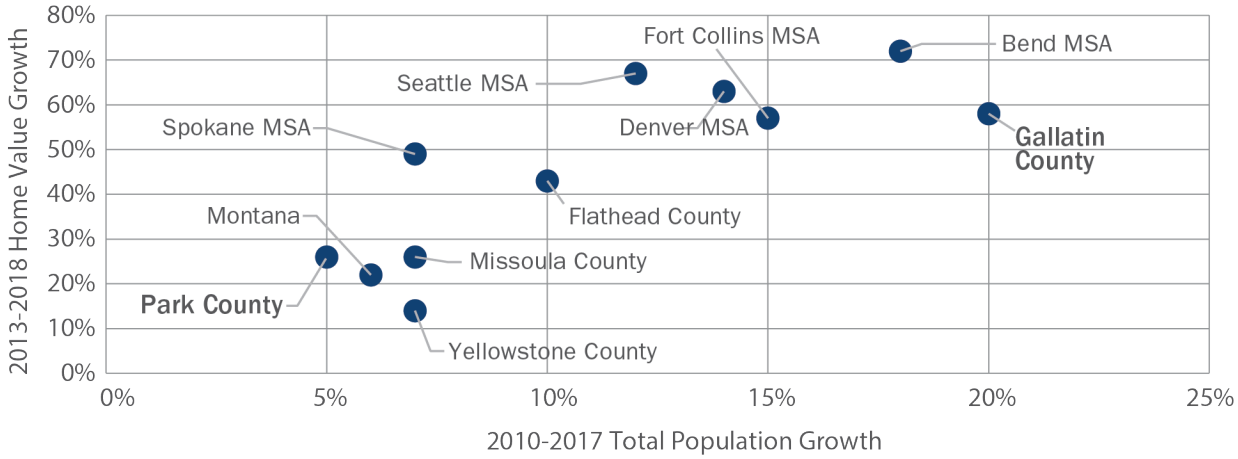
Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates and Zillow Research Data. 2018 is the average of the reported median estimated monthly values for all homes.

Note: Estimated mortgage assumes the entire home value is mortgaged over 30 years at 4.5%. Excludes insurance and taxes.

Home values are increasing in Gallatin County, and there are many reasons that may contribute to this growth. A shortage of construction workers limits the number of homes built while rising wages may increase labor costs. Living in the northern climate shortens the home building season, which also limits new construction. High-income earners moving to the area can afford more than the average resident, and competition for limited housing helps drive up prices. Fast population growth is also an issue if supply of housing cannot keep up with the demand. **Figure 45** compares 2010 to 2017 total population growth to 2013 to 2018 total home value growth under the assumption that population growth is a leading indicator of home value growth.[68] In general, faster population growth correlates with faster home value growth for the areas shown.

68 Home value growth source: Zillow Research Data. Zillow data estimates are higher than U.S. Census estimates because the data is more recent. However, the relative rankings of least to most expensive between the comparison areas are relatively consistent between the two data sources.

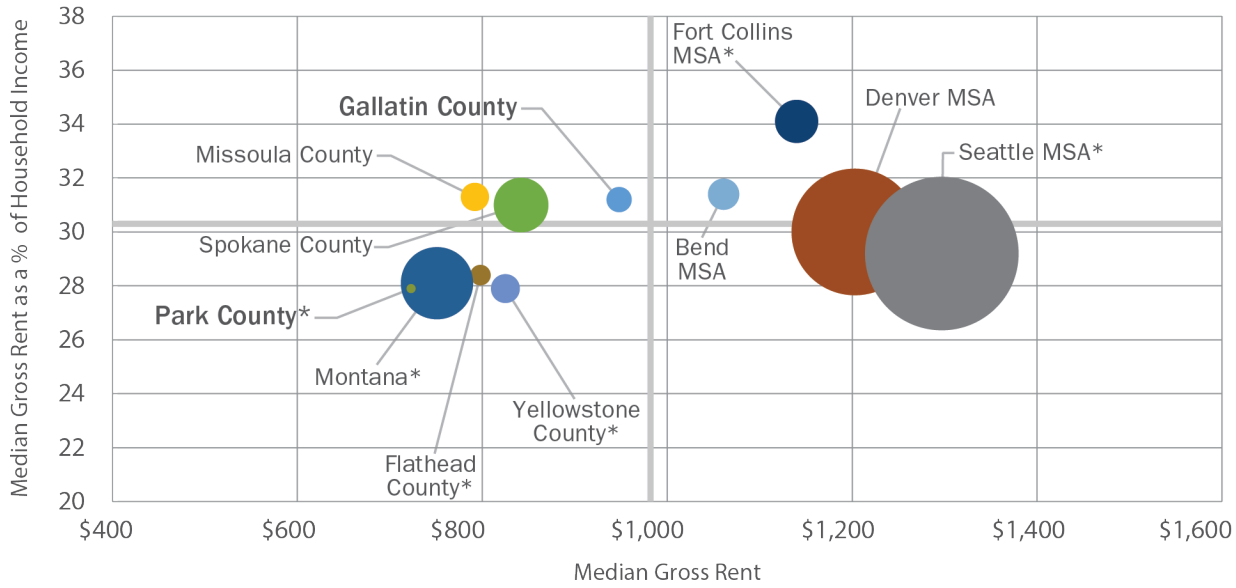
Figure 45: Home Value Growth compared with Population Growth



Source: Population estimates from the U.S. Census Bureau. Home value growth from Zillow Research.

Rising housing costs affect renters as well. Thirty-eight percent of Gallatin County households are renter occupied.[69] **Figure 46** shows median gross rent as a percentage of household income compared with gross rent. The size of the bubble represents the number of households paying rent. The bold axis indicates the U.S. average. Fort Collins is the only area with a significantly higher rent to income ratio than Gallatin County at 34% compared with 31%. Gallatin County's rent to income ratio is similar to the U.S. at 30%, suggesting that high rents relative to income affects a larger part of the nation than just the local area.

Figure 46: Gross Rent as a Percent of Household Income Compared with Median Gross Rent



Source: U.S. Census Bureau. 2013-2015 American Community Survey 5-Year Estimates. Size of bubble is number of households paying rent. Bold lines represent the national average. * indicates statistically significant difference in gross rents as a percentage of income from Montana at the 90% confidence level.

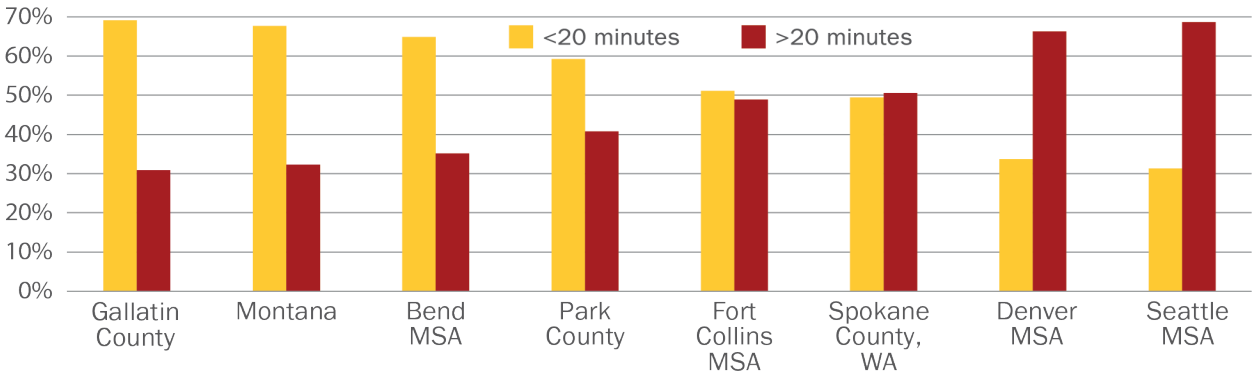
69 U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

Travel Time to Work

Work-life balance is an important factor for some people when deciding where to reside. Reputation suggests that finding employment that allows time for recreational activities is important for many people in the local area. For this group of people who value their time, short commuting times are essential. Gallatin County's average travel time to work is 18 minutes, matching the statewide average at 18 minutes, but less than the U.S average at 26 minutes. Park County has a similar commuting time to the U.S. average.

Nearly 70% of Gallatin County residents commute to work within twenty minutes, compared with only about one-third of the Denver MSA and Seattle MSA residents with that short of a commute. In fact, over 40% of workers in these cities take 30 minutes or more to commute. Even smaller metropolitan areas have longer commutes than Gallatin County. Only about half of Spokane and Fort Collins residents can commute to work within twenty minutes.[70] **Figure 47** shows the percent of workers able to commute to work in less than 20 minutes.

Figure 47: Percent of People with Commuting Times within 20 Minutes



Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates.

Work from Home

Job flexibility is another component to work-life balance. One indicator that might suggest greater job flexibility is the number of people working from home. At 7% of workers, Gallatin County has a higher share of people working from home than the rest of Montana and the U.S. average at 6.4% and 4.7%, respectively. Gallatin County also has a higher share of workers working from home compared to the Seattle MSA and Spokane County. The Bend MSA has the highest share of workers working from home at 10.4%. **Figure 48** shows percent of workers who work from home for these select areas.

Figure 48: Percent of Workers Who Work from Home

Location	% Work from Home	% Age 25-44 Work from Home	Median Age
Bend MSA, OR	10.4%*	9.3%*	48.5
Park County	8.8%	6.9%	52.9*
Denver MSA, CO	7.6%	6.8%	46.0
Fort Collins MSA, CO	7.5%	6.9%	47.7
Gallatin County	7.1%	6.6%	45.3
Montana	6.4%	5.6%	48.7*
Seattle MSA, WA	5.8%*	4.8%*	46.8
Spokane County, WA	5.2%*	4.8%*	46.0
U.S.	4.7%*	4.0%*	47.7

Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates. * statistically significant difference from Gallatin County at the 90% confidence level.

70 Commuting times source: U.S. Census Bureau. 2013-2017 ACS 5-Year Estimates.

The median age of workers staying at home is 45 in Gallatin County, suggesting that people work from home once they are further along in their career. Gallatin County also has a high share of self-employed workers, so the high share of people working from home could be the result of a lack of office space (by choice or otherwise) rather than employers offering this type of flexibility.

Workers in certain industries are more likely to work from home. Twenty percent of Gallatin County's residents in the combined industries of professional, scientific, and management and administrative and waste management services work from home. This share is higher than Montana at 15.0% and the U.S. at 10.6%. The industries with the lowest share of people working from home are industries that are customer facing, as expected.

Figure 49: Percent of Workers Who Work from Home by Industry

Industry	Gallatin	Montana	U.S.
Total	**7.1%**	**6.4%**	**4.7%***
Agriculture, forestry, fishing & hunting, & mining	18.0%	18.7%	9.8%*
Construction	5.6%	5.7%	4.2%
Manufacturing	5.2%	5.3%	3.0%
Wholesale trade	8.8%	4.7%*	5.9%
Retail trade	1.6%	2.9%*	2.9%*
Transportation & warehousing, & utilities	5.2%	2.9%	2.8%
Information	11.8%	7.7%	8.6%
Finance & insurance, & real estate & rental & leasing	13.5%	7.1%*	7.9%*
Professional, scientific, & management, and administrative & waste management services	20.0%	15.0%*	10.6%*
Educational services, & healthcare & social assistance	3.5%	4.1%	3.4%
Arts, entertainment, & recreation, & accommodation & food services	3.3%	4.3%	2.6%
Other services (except public administration)	10.2%	9.5%	6.0%*
Public administration	4.3%	2.2%	2.2%
Armed forces	0.0%	0.5%	6.7%

Source: U.S. Census Bureau. 2013-2017 American Community Survey 5-Year Estimates. * indicates statistically significant difference from Gallatin County at the 90% confidence level.

The high levels of in-migration to the Bozeman area suggest that the local area's work-life balance helps offset the relatively high cost of living. Short commuting times and job flexibility helps free up workers time for other activities. However, the cost of living relative to income may cause people to work multiple jobs or move out of the area for higher-paying work or lower cost of living. Expenses specifically related to housing, childcare, and transportation may need to be addressed by employers and local governments. Attempts to slow these expenses or increase wages all while maintaining the work-life balance can help ease workforce barriers and maximize benefits to the local workforce.

Conclusion

The Bozeman area offers both livability and job opportunity, attracting significantly more in-migration than other areas of the state. New residents typically come ready and looking for work, with growth in the labor force and employment matching rapid population growth. Some of the recent job growth is driven by high-tech and other professional service industries. These businesses and entrepreneurs are choosing to locate their business in Bozeman likely to take advantage of the highly educated workforce, to benefit from the growing high-tech cluster, and to enjoy the recreation that Bozeman provides. High-tech employers provide high wage jobs for the growing population. However, new in-migrants also generate jobs in the lower-paying service and tourism sector, resulting in concerns about job quality and high rates of turnover in the community. The high concentration of tourism and service sector jobs are part of what makes Bozeman attractive, but these workers must also be provided pathways to higher salary and career levels.

The strong population growth has also increased home prices in the area, which is difficult for those on fixed incomes or within the service sector, even if the home price increases are similar to the experiences of other cities. High costs and low availability of childcare, as well as car payments and other transportation costs, may place additional financial constraints on households. Going forward, businesses will have to adjust wages to the local cost of living to continue to attract in-migrants and local workers. For many, Bozeman's quality of life outweighs the cost of living, but preserving this balance must be an important consideration to future growth policies.

Tight labor markets are a current issue throughout the entire nation, and the Bozeman area is no exception. While local employers have been growing their business, they may find that hiring has become more difficult. Recruiting nonworkers from outside the labor force, recruiting workers from outside of the local area, automation, remote hires, turning part-time workers into full-time workers, and reducing turnover may help minimize hiring concerns. Bozeman is also fortunate to be home to MSU-Bozeman and Gallatin College, as both contribute a continuous supply of educated workers to the local area. Expanding partnerships with these institutions and increasing work-based learning opportunity, possibly through internships or apprenticeships, may ease hiring difficulties for specially trained workers. Increased industry and college partnerships also helps to grow the high-tech cluster and other knowledge-based jobs, as greater collaboration can lead to greater research, innovation, and knowledge sharing. However, the community must also continue to address training needs for the skilled trades and lower-paying industries that make up a large share of the local employment. Industries such as tourism, construction, and food service are rapidly growing and must also provide opportunities for workers to increase their skills and progress in their careers.

The Bozeman area has the beneficial ability to attract college graduates to the area. College graduates from outside the local area as well as locally trained students who wish to stay in the area post-graduation result in Bozeman having more college graduates than needed to fill the available jobs requiring a bachelor's degree. New employers looking for highly skilled, technical, and educated labor may potentially find a group of underemployed workers ready to move into a job that matches their highest level of education. While workers tend to move into the highest wage job available that matches their skillset, it's important to recognize that low-wage industries become disproportionately affected by tight labor markets as they compete for the few workers available. The accommodation and food services industry and the retail trade industry have raised wages by more than the local average, suggesting growing competitiveness among these employers.

The fast in-migration to the Bozeman area shows what many residents have known for a long time – Bozeman is a desirable place to live. As the Bozeman area continues to grow and develop, it is important to acknowledge both the benefits and costs of the fast population growth, and any additional constraints caused by the tight labor market. Addressing these concerns allows employers and local governments time to be proactive and plan for any future difficulties. Acknowledging the benefits reminds residents that fast population growth combined with tight labor markets comes with its own set of strengths, such as increased business development, rapid job growth, and strong and recent wage increases.

The Bozeman Area's Labor Market - Pros and Cons

High levels of in-migration

PROS

- Drives new business creation and job growth.
- Population growth increases demand for more services and infrastructure, creating higher paying jobs in healthcare and construction.

CONS

- Generates jobs in the lower-paying service and tourism sector. These jobs make Bozeman culturally attractive, but workers need to be provided pathways to higher salary and career levels.

Tight labor markets and worker shortages

PROS

- Leads to increased wages and benefits as employers compete for workers.
- Employers seek new ways to recruit workers by making it easier to join the workforce.

CONS

- Employers have a difficult time finding workers.
- Tight labor markets disproportionately affect low-wage industries. Workers move to the highest wage job available to match their skillset, leaving low-wage industries competing for the few unemployed workers available.

Highly educated population

PROS

- Encourages entrepreneurialism and other community benefits (lower poverty, more civic engagement, etc.).
- Higher education levels are associated with higher lifetime earnings and longer job retention.
- Well-trained and productive workforce.

CONS

- Many workers are employed below their ideal level, resulting in difficulties paying student loans. Greater use of 2-year degreees and certifications would result in better matches between jobs and worker skills, as long as the workers had opportunities to continue career training and advancement.

Housing and other cost of living

PROS

- Housing costs relative to income are not out-of-line with other similarly-sized MSAs.

CONS

- Childcare remains expensive and undersupplied.
- Transportation is a workforce barrier for some.
- Housing costs are still difficult for many workers in the community.
- High housing costs may constrain employers' ability to recruit workers from outside the local area.

Wages and income

PROS

- Wages are similar to the Montana average, suggesting balance between low-wage and high-wage jobs.
- Workers with high school degrees are at similar wage levels to the U.S. average.
- Self-employment and other income sources help raise average income levels to higher than the state average.

CONS

- Nonwage income is not available to all workers in the community. Wages alone may not be sufficient for some residents to afford the growing cost of living.
- Wages for jobs for workers with college experience are lower than the U.S. average. Employers may have a hard time retaining these workers if they are competing with higher wage employment opportunities elsewhere.

Quality of life

PROS

- Workers enjoy short commuting times, allowing more time for other nonwork activites
- High share of people working from home may be reflective of employers offering flexible work schedules or self-employed workers working out of their home.

CONS

- For many, quality of life outweighs cost of living, but the growing cost of living may test this balance.

APPENDIX

Further information on top job openings by specific industries is provided throughout the following pages including the healthcare, construction, accommodation and food services, professional services, and manufacturing industries. The ten fastest growing occupations within the specific industry are shown in the figures below. Many of the occupations' job growth is nondisclosable at the industry level. Therefore, annual job openings shown in the tables include all projected job openings for that occupation, not just within the specific industry.

For example, bartenders are one of the most in-demand jobs in manufacturing likely due to the growth in beverage manufacturing establishments (breweries and distilleries). Being in this top ten list indicates that bartenders are projected to be one of manufacturing's most in-demand occupations. However, the 140 projected job openings listed in figure 58 is not specific to manufacturing and it includes projected job openings across other industries such as accommodation and food services.

Occupations in these lists are first ranked from most new job growth to least new job growth within the industry. They are ranked by total job openings across all industries for occupations that are confidential within the industry. All occupations in the list indicate top demand within the industry.

Each industry section has two tables. The first is the top job growth across all education levels. The second table is top job growth for occupations requiring postsecondary education. These projections by industry are displayed in figure 50 through figure 59.

This appendix also shows most projected job openings for occupations requiring postsecondary education and are also categorized as a STEM occupation. **Figure 60** displays STEM occupations requiring post-secondary education, but less than a bachelor's degree. **Figure 61** displays STEM occupations requiring bachelor's degrees or higher. These figures are shown to provide training ideas for the growing share of jobs within the high-tech industry as the high-tech industry is often characterized by the large share of STEM jobs. the industry.

Jobs Within the Healthcare Industry

Figure 50: The Bozeman Region's Top 10 Jobs within the Healthcare Industry

2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Personal Care Aides	HS or GED	ST-OJT	34	62	47	143	$23,757	$24,100
2	Nursing Assistants	PS ND		11	31	26	67	$26,105	$28,540
3	Medical Secretaries	HS or GED	MT-OJT	8	14	14	36	$33,520	$35,870
4	Registered Nurses	Bach.		23	29	22	74	$64,048	$73,550
5	Receptionists & Info. Clerks	HS or GED	ST-OJT	8	23	25	55	$27,956	$29,640
6	Dental Assistants	PS ND		8	14	16	37	$39,834	$38,690
7	Social & Human Service	HS or GED	ST-OJT	6	10	16	32	$30,103	$35,460
8	Medical Assistants	PS ND		8	10	14	32	$32,092	$33,580
9	Home Health Aides	HS or GED	ST-OJT	*Top demand, but exact estimates are not disclosable.*				$25,630*	$24,280
10	Childcare Workers	HS or GED	ST-OJT					$28,427	$23,760

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Note: PS ND = postsecondary non-degree award, ST OJT = short-term on-the-job training, MT OJT = medium-term on-the-job training, * indicates southwest region average wage

Figure 51: The Bozeman Region's Top 10 Jobs Requiring Postsecondary Education within the Healthcare Industry, 2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Nursing Assistants	PS ND		11	31	26	67	$26,105	$28,540
2	Child, Family, & School Social Workers	Bach.		4	5	10	19	$32,117	$48,430
3	Nurse Practitioners	Mast.		3	1	2	5	$96,614	$107,480
4	Registered Nurses	Bach.		23	29	22	74	$64,048	$73,550
5	Dental Assistants	PS ND		8	14	16	37	$39,834	$38,690
6	Medical Assistants	PS ND		8	10	14	32	$32,092	$33,580
7	Physical Therapists	Phd or Prof		5	3	3	11	$79,444	$88,080
8	Physician Assistants	Mast.		4	2	3	9	$105,626	$104,760
9	Preschool Teachers, Except Special Ed.	Assoc.		*Top demand, but exact estimates are not disclosable.*				$32,327	$33,590
10	Anesthesiologists	Phd or Prof	Intern.					.	$265,990

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Note: PS ND = postsecondary non-degree award, Phd or Prof = PhD or professional degree, "." indicates nondisclosable

Jobs Within the Construction Industry

Figure 52: The Bozeman Region's Top 10 Jobs within the Construction Industry, 2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Carpenters	HS or GED	Apprent.	43	63	102	208	$44,550	$49,630
2	Construction Laborers	<HS	ST-OJT	29	38	73	140	$36,173	$38,890
3	First-Line Supervisors of Construction Trades & Extraction Workers	HS or GED	5+ yrs	20	23	45	88	$65,598	$69,200
4	Operating Engineers & Other Construction Equipment Operators	HS or GED	MT-OJT	14	20	36	69	$52,922	$51,890
5	Electricians	HS or GED	Apprent.	12	17	35	64	$46,657	$57,910
6	Office Clerks, General	HS or GED	ST-OJT	26	180	176	382	$31,912	$33,910
7	Cost Estimators	Bach.	MT-OJT	7	9	18	33	$61,705	$68,420
8	Painters, Construction & Maintenance	<HS	MT-OJT	7	12	18	37	$35,314	$41,840
9	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	PS ND	LT-OJT	Top demand, but exact estimates are not disclosable.				$44,684	$49,530
10	Plumbers, Pipefitters, & Steamfitters	HS or GED	Apprent.					$67,144	$57,070

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Note: PS ND = postsecondary non-degree award, ST OJT = short-term on-the-job training, MT OJT = medium-term on-the-job training, LT OJT = long-term on-the-job training, 5+yrs = at least 5 years experience

Figure 53: The Bozeman Region's Top 10 Jobs Requiring Postsecondary Education within the Construction Industry, 2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Cost Estimators	Bach.	MT-OJT	7	9	18	33	$61,705	$68,420
2	Construction Managers	Bach.	MT-OJT	6	5	10	20	$90,904	$101,000
3	Heavy & Tractor-Trailer Truck Drivers	PS ND	ST-OJT	14	32	47	92	$43,659	$44,500
4	Bookkeeping, Accounting, & Auditing Clerks	SC ND	MT-OJT	12	79	62	153	$35,890	$41,110
5	Accountants & Auditors	Bach.		19	22	43	84	$64,677	$77,920
6	General & Operations Managers	Bach.	5+ yrs	16	16	47	80	$109,989	$123,460
7	Market Research Analysts & Marketing Specialists	Bach.		14	10	27	51	$58,998	$71,450
8	Civil Engineers	Bach.		7	6	13	26	$66,174	$91,790
9	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	PS ND	LT-OJT	Top demand, but exact estimates are not disclosable.				$44,684	$49,530
10	Business Operations Specialists, All Other	Bach.						$74,720*	$75,740

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Note: SC ND = some college no degree, PS ND = postsecondary non-degree award, ST OJT = short-term on-the-job training, MT OJT = medium-term on-the-job training, LT OJT = long-term on-the-job training, 5+yrs = at least 5 years experience, * indicates southwest region average wage

Jobs Within the Accommodation & Food Services Industry

Figure 54: The Bozeman Region's Top 10 Jobs within the Accommodation and Food Services Industry, 2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Combined Food Preparation & Serving Workers, Including Fast Food	<HS	ST-OJT	38	132	138	307	$21,177	$21,230
2	Waiters & Waitresses	<HS	ST-OJT	34	149	228	410	$21,108	$25,280
3	Cooks, Restaurant	<HS	MT-OJT	34	93	127	254	$24,099	$26,440
4	Maids & Housekeeping Cleaners	<HS	ST-OJT	24	113	85	221	$23,517	$24,630
5	Bartenders	<HS	ST-OJT	12	38	90	140	$22,247	$26,260
6	First-Line Supervisors of Food Preparation & Serving Workers	HS or GED	<5 yrs	12	29	61	102	$34,793	$35,460
7	Dishwashers	<HS	ST-OJT	7	40	43	90	$21,835	$22,210
8	Hotel, Motel, & Resort Desk Clerks	HS or GED	ST-OJT	6	24	43	73	$24,320	$24,250
9	Food Preparation Workers	<HS	ST-OJT	4	29	31	65	$22,364	$23,900
10	Hosts & Hostesses, Restaurant, Lounge, & Coffee	<HS	ST-OJT	4	26	25	54	$23,185	$22,290

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Note: ST OJT = short-term on-the-job training, MT OJT = medium-term on-the-job training, <5 yrs = less than 5 years experience

Figure 55: The Bozeman Region's Top 10 Jobs Requiring Postsecondary Education within the Accommodation and Food Services Industry, 2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Bookkeeping, Accounting, & Auditing Clerks	SC ND	MT-OJT	12	79	62	153	$35,890	$41,110
2	Accountants & Auditors	Bach.		19	22	43	84	$64,677	$77,920
3	General & Operations Managers	Bach.	5+ yrs	16	16	47	80	$109,989	$123,460
4	Computer User Support Specialists	SC ND		9	8	20	37	$47,850	$54,150
5	Human Resources Specialists	Bach.		4	6	14	24	$55,693	$66,220
6	Computer & Information Systems Managers	Bach.	5+ yrs	3	2	7	12	$140,509	$149,730
7	Web Developers	Assoc.		2	2	6	10	$35,592	$74,110
8	Network & Computer Systems Administrators	Bach.		1	1	4	7	$61,995	$86,340
9	Human Resources Managers	Bach.	5+ yrs	Top demand, but exact estimates are not disclosable.				$93,780	$123,510
10	Health & Safety Engineers, Except Mining Safety Engineers & Inspectors	Bach.						.	$92,190

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Note: SC ND = some college no degree, MT OJT = medium-term on-the-job training, 5+yrs = at least 5 years experience, "." indicates nondisclosable

Jobs Within the Professional Services Industry

Figure 56: The Bozeman Region's Top 10 Jobs within the Professional Services Industry, 2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Accountants & Auditors	Bach.		19	22	43	84	$64,677	$77,920
2	Market Research Analysts & Marketing Specialists	Bach.		14	10	27	51	$58,998	$71,450
3	Computer User Support Specialists	SC ND		9	8	20	37	$47,850	$54,150
4	Civil Engineers	Bach.		7	6	13	26	$66,174	$91,790
5	Paralegals & Legal Assistants	Assoc.		4	5	10	18	$43,651	$53,910
6	Customer Service Representatives	HS or GED	ST-OJT	17	46	68	131	$40,850	$35,650
7	Software Developers, Applications	Bach.		11	4	13	28	$93,835	$106,710
8	Software Developers, Systems Software	Bach.		4	2	7	14	$75,034	$111,780
9	Management Analysts	Bach.	<5 yrs	Top demand, but exact estimates are not disclosable.				$55,569	$93,440
10	Nonfarm Animal Caretakers	HS or GED	ST-OJT					$26,077	$25,170

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027
Note: SC ND = some college no degree, ST OJT = short-term on-the-job training, <5yr = less than 5 years experience

Figure 57: The Bozeman Region's Top 10 Jobs Requiring Postsecondary Education within the Professional Services Industry, 2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Accountants and Auditors	Bach.		19	22	43	84	$64,677	$77,920
2	Market Research Analysts and Marketing Specialists	Bach.		14	10	27	51	$58,998	$71,450
3	Computer User Support Specialists	SC ND		9	8	20	37	$47,850	$54,150
4	Civil Engineers	Bach.		7	6	13	26	$66,174	$91,790
5	Paralegals and Legal Assistants	Assoc.		4	5	10	18	$43,651	$53,910
6	Lawyers	Phd or Prof		6	7	7	20	$80,886	$141,890
7	Architects, Except Landscape and Naval	Bach.	Intern.	4	5	9	17	$61,439	$87,500
8	Software Developers, Applications	Bach.		11	4	13	28	$93,835	$106,710
9	Software Developers, Systems Software	Bach.		4	2	7	14	$75,034	$111,780
10	Management Analysts	Bach.	<5 yrs	Top demand, but exact estimates are not disclosable.				$55,569	$93,440

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027
Note: SC ND = some college no degree, Phd or Prof = PhD or professional degree, <5yr = less than 5 years experience

Jobs Within the Manufacturing Industry

Figure 58: The Bozeman Region's Top 10 Jobs within the Manufacturing Industry, 2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	First-Line Supervisors of Production & Operating Workers	HS or GED	<5 yrs	6	8	16	29	$59,401	$62,660
2	Bartenders	<HS	ST-OJT	12	38	90	140	$22,247	$26,260
3	Laborers & Freight, Stock, & Material Movers, Hand	<HS	ST-OJT	11	28	48	87	$29,459	$29,690
4	Customer Service Representatives	HS or GED	ST-OJT	17	46	68	131	$40,850	$35,650
5	Packaging & Filling Machine Operators & Tenders	HS or GED	MT-OJT	3	6	8	17	$28,200	$31,990
6	Welders, Cutters, Solderers, & Brazers	HS or GED	MT-OJT	4	4	12	20	$40,374	$43,410
7	Team Assemblers	HS or GED	MT-OJT	2	9	15	27	.	.
8	Sales Representatives, Wholesale & Manufacturing, Except Technical & Scientific Products	HS or GED	MT-OJT	18	28	57	103	$60,949	$67,960
9	Packers & Packagers, Hand	<HS	ST-OJT	4	13	15	32	$23,146	$25,410
10	Metal Workers & Plastic Workers, All Other	HS or GED	MT-OJT	Top demand, but exact estimates are not disclosable.				.	$37,440

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Note: ST OJT = short-term on-the-job training, MT OJT = medium-term on-the-job training, <5yrs = less than 5 years experience, "." indicates nondisclosable

Figure 59: The Bozeman Region's Top 10 Jobs Requiring Postsecondary Education within the Manufacturing Industry, 2017-2027

	Occupation	Minimum Requirements		Annual Openings (all industries)				2017 Annual Wages	
		Edu.	Work Exp.	New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.
1	Mechanical Engineers	Bach.		5	3	6	14	$71,222	$91,500
2	Industrial Engineers	Bach.		2	1	2	5	$71,575	$90,340
3	Market Research Analysts & Marketing Specialists	Bach.		14	10	27	51	$58,998	$71,450
4	Commercial & Industrial Designers	Bach.		2	3	4	8	$58,815	$70,540
5	Electrical Engineers	Bach.		3	2	4	8	$81,794	$99,580
6	Electrical & Electronics Engineering Technicians	Assoc.		1	2	3	6	$53,535	$64,290
7	Bookkeeping, Accounting, & Auditing Clerks	SC ND	MT-OJT	12	79	62	153	$35,890	$41,110
8	Accountants & Auditors	Bach.		19	22	43	84	$64,677	$77,920
9	Heavy & Tractor-Trailer Truck Drivers	PS ND	ST-OJT	14	32	47	92	$43,659	$44,500
10	General & Operations Managers	Bach.	5+ yrs	16	16	47	80	$109,989	$123,460

Source: Montana Department of Labor & Industry Employment Projections. 2017-2027

Note: SC ND = some college, no degree, PS ND = postsecondary non-degree award, ST OJT = short-term on-the-job training, MT OJT = medium-term on-the-job training, 5+yrs = more than 5 years experience

Jobs in STEM Occupations

Figure 60: Most Job Openings for STEM Jobs Requiring some Postsecondary Education, but Less Than a Bachelor's Degree in the Bozeman Region

2017-2027

	Occupation	Min. Education/ Work Experience Require-ments	Annual Openings				2017 Annual Wages		Gallatin College Grads
			New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.	
1	Computer User Support Specialists[1]	SC ND	9	8	20	37	$47,850	$54,150	0
2	Forest and Conservation Technicians	Associate	0	5	10	15	$38,869	$39,180	0
3	Licensed Practical and Licensed Vocational Nurses	PS ND	3	5	4	12	$40,604	$45,710	0
4	Web Developers[1]	Associate	2	2	6	10	$35,592	$74,110	0
5	Veterinary Technologists and Technicians	Associate	2	2	3	8	$37,356	$34,710	0
6	Computer Network Support Specialists[1]	Associate	1	2	4	7	$63,871	$67,510	1
7	Architectural and Civil Drafters[1]	Associate	Top demand, but exact estimates are not disclosable				$45,263	$55,110	7
8	Dental Hygienists	Associate					$72,370*	$74,680	0
9	Emergency Medical Technicians and Paramedics	PS ND					$30,334	$36,700	0
10	Psychiatric Technicians	PS ND/ST OJT					.	$36,070	0

Source: Montana Department of Labor & Industry Employment Projections for Gallatin and Park County. 2017-2027

Notes: ST OJT = short-term on-the-job training, SC ND = some college, no degree, PS ND = postsecondary non-degree award, "." = nondisclosable, * indicates the Southwest Region's average wage, [1]indicates the occupation requires a high level of computer and/or electronics knowledge

Figure 61: Most Job Openings for STEM Jobs Requiring a Bachelor's Degree or Higher in the Bozeman Region, 2017-2027

	Occupation	Min. Education/ Work Experience Require-ments	Annual Openings				2017 Annual Wages		MSU Grads
			New Jobs	Exits	Transfers	Total Openings	Bozeman Region	U.S.	
1	Registered Nurses	Bachelor's	23	29	22	74	$64,048	$73,550	234
2	Software Developers, Applications[1]	Bachelor's	11	4	13	28	$93,835	$106,710	85
3	Civil Engineers[1]	Bachelor's	7	6	13	26	$66,174	$91,790	79
4	Computer Programmers[1]	Bachelor's	4	5	13	22	$103,457	$87,530	71
5	Architects, Except Landscape and Naval[1]	Bachelor's/ Intership	4	5	9	17	$61,439	$87,500	69
6	Mechanical Engineers[1]	Bachelor's	5	3	6	14	$71,222	$91,500	145
7	Software Developers, Systems Software[1]	Bachelor's	4	2	7	14	$75,034	$111,780	85
8	Computer and Information Systems Managers[1]	Bachelor's/ 5+ yrs	3	2	7	12	$140,509	$149,730	71
9	Physical Therapists	Phd or Prof	5	3	3	11	$79,444	$88,080	0
10	Psychology Teachers, Postsecondary	Phd or Prof	Top demand, but not disclosable				.	$85,050	93

Source: Montana Department of Labor & Industry Employment Projections for Gallatin and Park County. 2017-2027

Notes: 5+ yrs = 5 years or more experience, "." = nondisclosable, [1]indicates the occupation requires a high level of computer and/or electronics knowledge

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