



HEADWATERS
ECONOMICS

A Profile of Socioeconomic Measures

Beartooth Region

Selected Geographies:

Big Horn County, MT; Carbon County, MT; Stillwater County, MT; Sweet Grass
County, MT; Yellowstone County, MT

Benchmark Geographies:

U.S.

Produced by

Headwaters Economics'

Economic Profile System (EPS)

<https://headwaterseconomics.org/eps>

December 6, 2018

Socioeconomic Measures

Beartooth Region

About the Economic Profile System (EPS)

EPS is a free web tool created by Headwaters Economics to build customized socioeconomic reports of U.S. counties, states, and regions. Reports can be easily created to compare or aggregate different areas. EPS uses published statistics from federal data sources, including the U.S. Census Bureau, Bureau of Economic Analysis, and Bureau of Labor Statistics.

The Bureau of Land Management and Forest Service have made significant financial and intellectual contributions to the operation and content of EPS.

See <https://headwaterseconomics.org/eps> for more information about the capabilities of EPS. For technical questions, contact Patty Gude at eps@headwaterseconomics.org or telephone 406-599-7425.



headwaterseconomics.org

Headwaters Economics is an independent, nonprofit research group. Our mission is to improve community development and land management decisions.



www.blm.gov

The Bureau of Land Management, an agency within the U.S. Department of Interior, administers 249.8 million acres of America's public lands, located primarily in western states. It is the mission of the Bureau of Land Management to sustain the health, diversity, and productivity of public lands for the use and enjoyment of present and future generations.



www.fs.fed.us

The Forest Service, an agency of the U.S. Department of Agriculture, administers national forests and grasslands encompassing 193 million acres. The Forest Service's mission is to sustain the health, diversity, and productivity of the nation's forests and grasslands to meet the needs of present and future generations.

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* This page is unavailable for the selected geographies and has been removed.

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Note to Users:

This is one of 14 reports that can be created and downloaded from EPS. Topics include land use, demographics, specific industry sectors, the role of non-labor income, the wildland-urban interface, the role of amenities in economic development, and payments to county governments from federal lands. The EPS reports are downloadable as Excel or PDF documents. See <https://headwaterseconomics.org/eps>.

Socioeconomic Measures

Beartooth Region

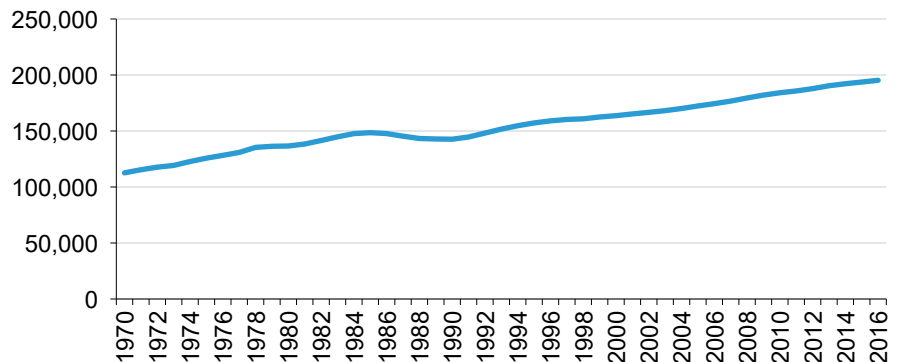
Overview of Historical Trends

	1970	2000	2016	Change 2000-2016
Population	112,636	163,680	195,269	31,589
Employment (full & part-time jobs)	50,161	106,102	129,142	23,040
Personal Income (thousands of 2017 \$s)	2,718,918	5,917,913	9,120,350	3,202,437

Population and personal income are reported by place of residence, and employment by place of work on this page.

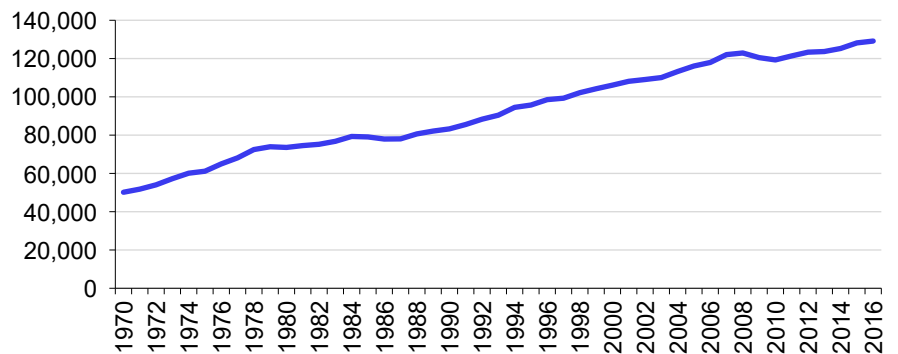
- From 1970 to 2016, population grew from 112,636 to 195,269 people, a 73% increase.

Population Trends, Beartooth Region



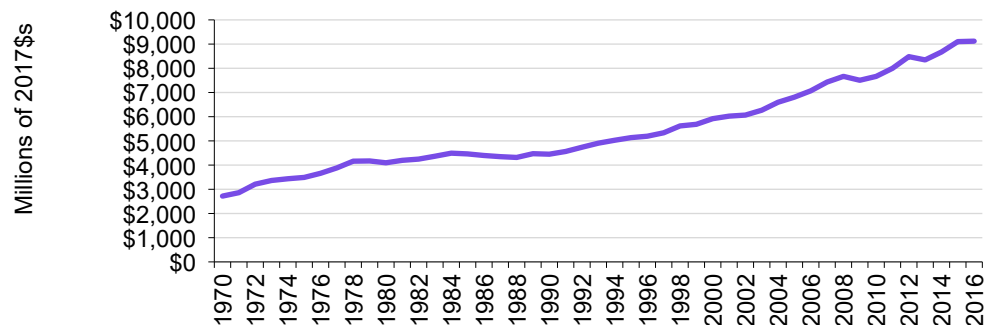
- From 1970 to 2016, employment grew from 50,161 to 129,142, a 157% increase.

Employment Trends, Beartooth Region



- From 1970 to 2016, personal income grew from \$2,718.9 million to \$9,120.4 million, (in real terms), a 235% increase.

Personal Income Trends, Beartooth Region



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Overview of Historical Trends

What do we measure on this page?

This page describes trends in population, employment, and real personal income. If this report is for an individual county, it also shows the county classification (metropolitan, micropolitan, or rural).¹

Population: The total number of people by place of residence.

Employment: All full- and part-time workers, wage and salary jobs (employees), and proprietors (the self-employed) reported by place of work.

Personal Income: Income from wage and salary employment and proprietors' income (labor earnings), as well as non-labor income (dividends, interest, rent, and transfer payments) reported by place of residence. All income figures in this report are shown in real terms (i.e., adjusted for inflation). Subsequent sections of this report define labor earnings and non-labor income in more detail.

Metropolitan Statistical Areas: Counties that have at least one urbanized area of 50,000 or more people, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties. Metropolitan Statistical Areas are classified as either Central or Outlying.

Micropolitan Statistical Areas: Counties that have at least one urbanized area of 10,000 to 50,000 people, plus adjacent territory that has a high degree of social and economic integration with the core as measured by commuting ties. Micropolitan Statistical Areas are classified as either Central or Outlying.

Rural: Counties that are not designated as either Metropolitan or Micropolitan.

Why is it important?

Long-term, steady growth of population, employment, and real personal income is generally an indication of a healthy, prosperous economy. Erratic growth, no-growth, or long-term decline in these indicators are generally an indication of a struggling economy.

Growth can benefit the general population of a place, especially by providing economic opportunities, but it can also stress communities and lead to income stratification. When considering the benefits of growth, it is important to distinguish between standard of living (such as earnings per job and per capita income) and quality of life (such as leisure time, crime rate, and sense of well-being).

A related indicator of economic performance is whether the local economy is negatively affected by periods of national recession. This issue is explored in depth in the section "Employment During National Recessions" later in this report.

The size of a population and economy (metropolitan, micropolitan, or rural) can have an important bearing on economic activities as well as opportunities and challenges for area businesses.

Socioeconomic Measures

Beartooth Region

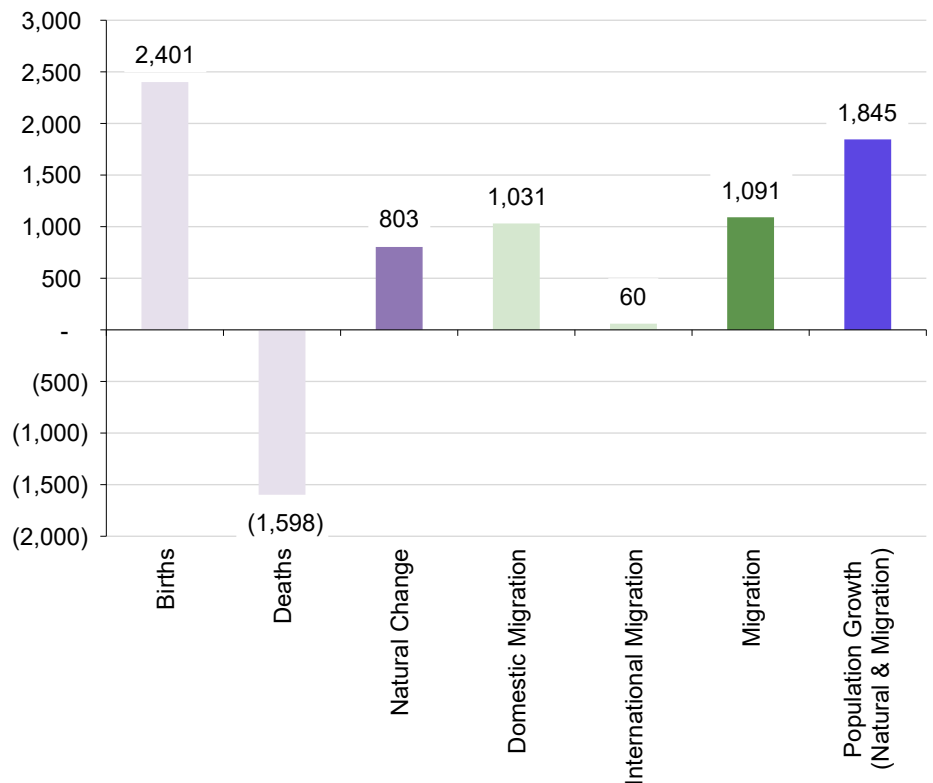
Population

	Change 2000-2017
Population Growth, 2000-2017	32,542
Average Annual Population Change	1,845
From Natural Change	803
Births	2,401
Deaths	1,598
From Net Migration	1,091
International Migration	60
Domestic Migration	1,031
From Residual	-49

Percent of Average Annual Population Growth, 2000-2017

Natural Change	41.3%
Net Migration	56.2%
Residual	2.5%

Average Annual Components of Population Change, Beartooth Region, 2000-2017



- From 2000 to 2017, population grew by 32,542 people, a 20% increase.
- From 2000 to 2017, natural change contributed to 41% of population growth.
- From 2000 to 2017, migration contributed to 56% of population growth.

* The Census Bureau makes a minor statistical correction, called a "residual" which is shown in the table above, but omitted from the figure. Because of this correction, natural change plus net migration may not add to total population change in the figure.

Data Sources: U.S. Department of Commerce. 2018. Census Bureau, Population Division, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Population

What do we measure on this page?

This page describes components of population change and total population growth or decline. Total population growth (or decline) is the sum of natural change (births and deaths) and migration (international and domestic). Data are from the U.S. Census Bureau.^{2,3}

The U.S. Census Bureau makes a minor statistical correction called a "residual." This is defined by the U.S. Census Bureau as resulting from two parts of the estimates process: 1) the application of national population controls to state and county population estimates; and 2) "the incorporation of accepted challenges and special censuses into the population estimates." The residual represents change in the population that cannot be attributed to any specific demographic component of population change.

For more detailed information about demographics for a given area, create an EPS Demographics report at <https://headwaterseconomics.org/eps>.

Why is it important?

The components of population change offer insight into the causes of population growth or decline and they help highlight important areas of inquiry. For example, if a large portion of population growth is attributable to in-migration, it would be helpful to understand what is driving this trend, such as whether people are moving to the area for jobs, quality of life, or both. Similarly, if a large portion of population decline is attributable to out-migration, it would be important to understand the reasons, such as the loss of employment in specific industries, youth leaving for education or new opportunities, or elderly people leaving for better medical facilities.

Socioeconomic Measures

Beartooth Region

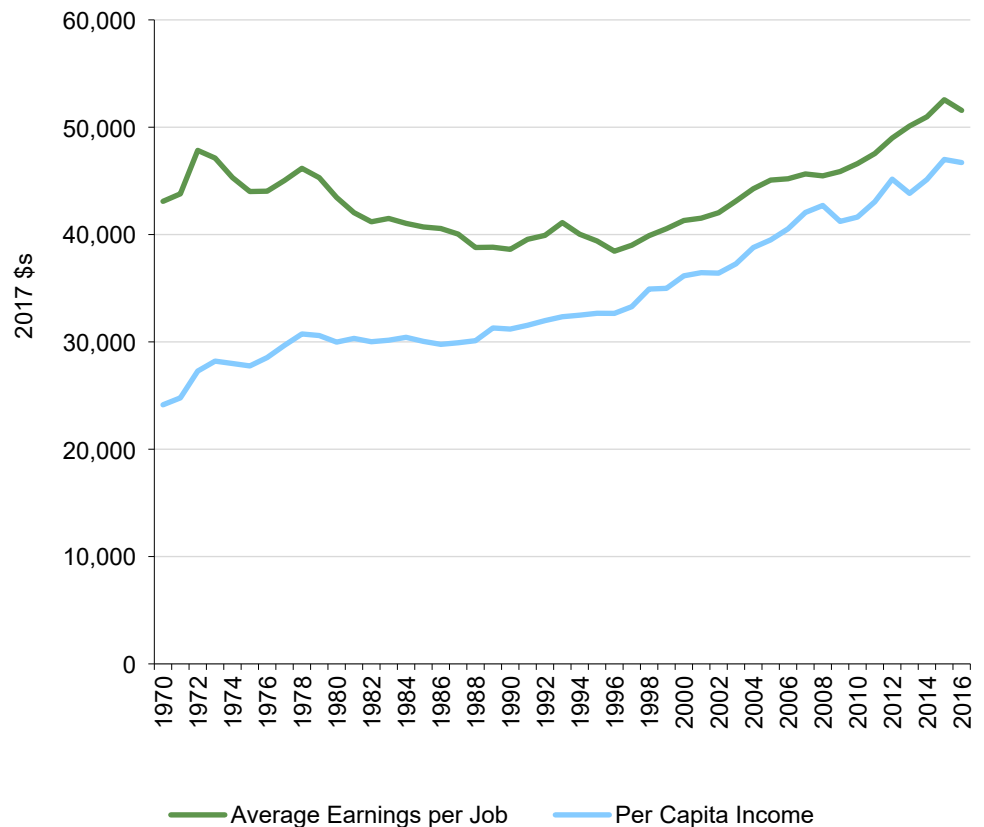
Earnings Per Job and Per Capita Income

	1970	2000	2016	Change 2000-2016
Average Earnings per Job (2017 \$s)	\$43,095	\$41,309	\$51,566	\$10,257
Per Capita Income (2017 \$s)	\$24,139	\$36,155	\$46,707	\$10,552
Percent Change				Percent Change 2000-2016
Average Earnings per Job				24.8%
Per Capita Income				29.2%

Average Earnings per Job & Per Capita Income, Beartooth Region

- From 1970 to 2016, average earnings per job grew from \$43,095 to \$51,566 (in real terms), a 20% increase.

- From 1970 to 2016, per capita income grew from \$24,139 to \$46,707 (in real terms), a 93% increase.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Earnings Per Job and Per Capita Income

What do we measure on this page?

This page describes how average earnings per job and per capita income (in real terms) have changed over time.

Average Earnings per Job: The compensation of the average job. It is total earnings divided by total employment. Full-time and part-time jobs are counted at equal weight. Employees, sole proprietors, and active partners are included.

Per Capita Income: Income per person. It is total personal income (from labor and non-labor sources) divided by total population.

Why is it important?

Average earnings per job is an indicator of the quality of local employment. A higher average earnings per job indicates that there are relatively more high-wage occupations. It can be useful to consider earnings against local cost of living indicators.⁴

Average earnings per job may decline for a number of reasons:^{5,6}

1. more part-time and/or seasonal workers entering the workforce;
2. a rise in low-wage industries, such as tourism-related sectors;
3. a decline of high-wage industries, such as manufacturing;
4. more lower-paid workers entering the workforce;
5. the presence of a university that is increasing its enrollment of relatively low-wage students;
6. the in-migration of semi-retired workers who work part-time and/or seasonally; and
7. an influx of people who move to an area for quality of life rather than profit-maximizing reasons.

Per capita income is one of the most important measures of economic well-being. However, this measure can be misleading. Per capita income is total personal income divided by population. Because total personal income includes non-labor income sources (dividends, interest, rent and transfer payments), it is possible for per capita income to be relatively high due to the presence of retirees and people with investment income.⁷ And because per capita income is calculated using total population and not the labor force (as in average earnings per job), it is possible for per capita income to be relatively low in a population with a disproportionate number of children and/or elderly people.

Socioeconomic Measures

Beartooth Region

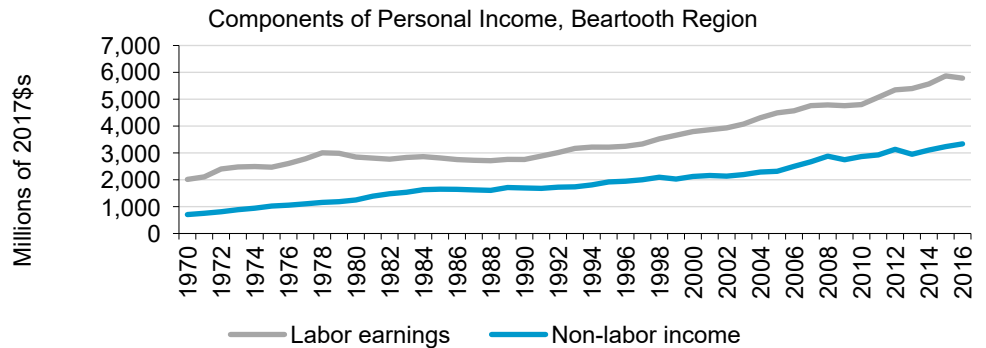
Labor Earnings and Non-Labor Income

	1970	2000	2016	Change 2000-2016
Personal Income (thous' of 2017 \$s)	2,718,918	5,917,913	9,120,350	3,202,437
Labor Earnings	2,014,010	3,794,731	5,783,573	1,988,842
Non-Labor Income	704,907	2,123,183	3,336,777	1,213,594
Dividends, Interest, and Rent	475,761	1,272,619	1,744,207	471,588
Age-Related Transfer Payments	122,686	491,956	917,530	425,574
Hardship-Related Payments	38,163	221,052	433,416	212,364
Other Transfer Payments	66,019	137,369	241,625	104,256

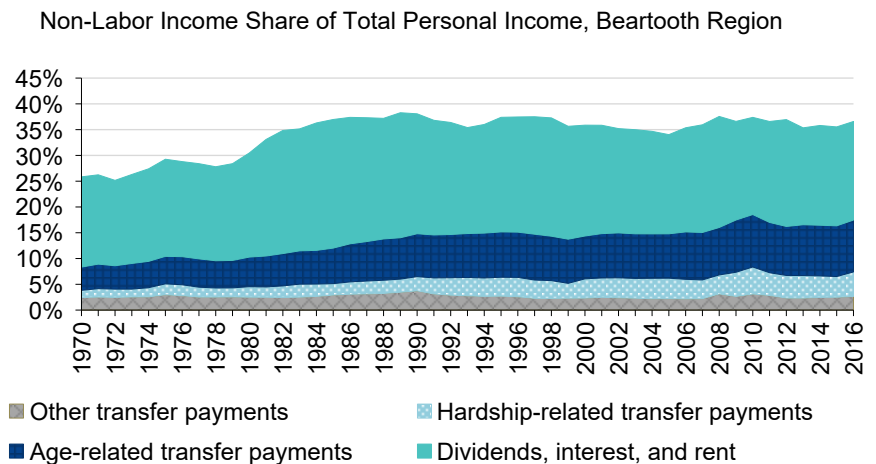
	Percent Change 2000-2016			
Personal Income	54.1%			
Labor Earnings	74.1%	64.1%	63.4%	52.4%
Non-Labor Income	25.9%	35.9%	36.6%	57.2%
Dividends, Interest, and Rent	17.5%	21.5%	19.1%	37.1%
Age-Related Transfer Payments	4.5%	8.3%	10.1%	86.5%
Hardship-Related Payments	1.4%	3.7%	4.8%	96.1%
Other Transfer Payments	2.4%	2.3%	2.6%	75.9%

All income data in the table above are reported by place of residence and are displayed in thousands of 2017 dollars. Labor earnings and non-labor income may not add to total personal income due to adjustments made by the Bureau of Economic Analysis.

- From 1970 to 2016, labor earnings grew from \$2,014.0 million to \$5,783.6 million (in real terms), a 187% increase.
- From 1970 to 2016, non-labor income grew from \$704.9 million to \$3,336.8 million (in real terms), a 373% increase.



- From 1970 to 2016, labor earnings accounted for 59% of growth and non-labor income for 41%.
- In 1970, non-labor income represented 26% of total personal income. By 2016 non-labor income represented 37% of total personal income.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Labor Earnings and Non-Labor Income

What do we measure on this page?

This page describes changes in labor earnings and non-labor sources of income.

Labor Earnings: Net earnings by place of residence, which is earnings by place of work (the sum of wage and salary disbursements, supplements to wages and salaries, and proprietors' income) less contributions for government social insurance, plus an adjustment to convert earnings by place of work to a place of residence basis.

Non-Labor Income: Dividends, interest, rent, and transfer payments (includes government retirement and disability insurance benefits, medical payments such as mainly Medicare and Medicaid, income maintenance benefits, unemployment insurance benefits, etc.). Non-labor income is reported by place of residence.

Labor earnings and non-labor income may not add to total personal income because of adjustments made by the Bureau of Economic Analysis to account for contributions for Social Security, cross-county commuting, and other factors.

Dividends, Interest, and Rent: Personal dividend income, personal interest income, and rental income of persons with capital consumption adjustments. Dividends, interest, and rent are sometimes referred to as "investment income" or "property income."

Age-Related Transfer Payments: Payments, including Social Security and Medicare, associated with older populations.

Hardship-Related Transfer Payments: Payments associated with poverty and welfare, including Medicaid and income maintenance.

Other Transfer Payments: Payments from veteran's benefits, education and training, Workers Compensation insurance, railroad retirement and disability, other government retirement and disability, and other receipts of individuals and nonprofits.

The EPS Non-Labor report provides a more detailed analysis of non-labor income and its components. The EPS Demographics report provides more information about the aging of the population and poverty. See <https://headwaterseconomics.org/eps>.

Why is it important?

In many locations, non-labor income is the largest source of personal income and also the fastest growing.⁸ This is particularly the case in some rural areas and small cities. An aging population, growth in the stock market and investments, and a highly mobile population are some of the reasons behind the rapid growth in non-labor income.

Growth in non-labor income can indicate an attractive place to live and retire. The in-migration of people who bring investment and retirement income with them (verify from previous pages that in-migration is increasing) is associated with a high quality of life (for example, local recreation opportunities), good health care facilities, and affordable housing (important for those on a fixed income). Non-labor income can also be important to places with struggling economies, either as a source of income maintenance for the poor or as a more stable form of income in areas with declining industries and labor markets.

Socioeconomic Measures

Beartooth Region

Employment by Industry (1970-2000)

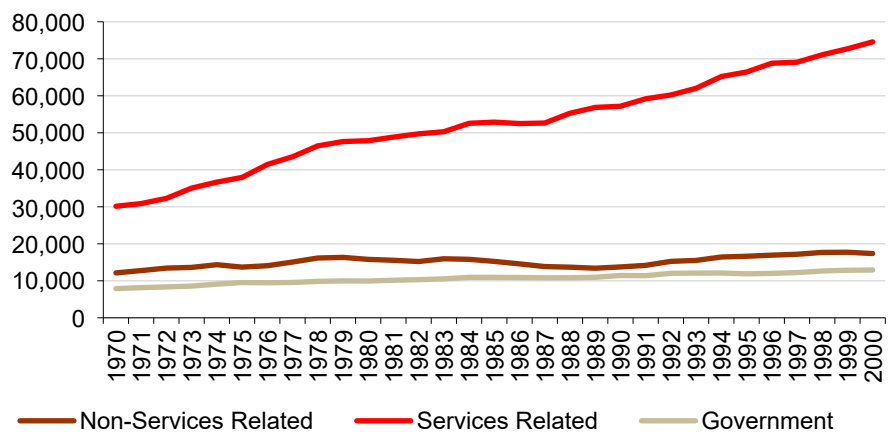
	1970	1990	2000	Change 1990-2000
Total Employment (number of jobs)	50,161	83,266	106,102	22,836
Non-Services Related	~12,138	~13,745	~17,364	~3,619
Farm	4,517	3,916	4,150	234
Agricultural services, forestry, fishing & oth	334	942	~1,432	~490
Mining (including fossil fuels)	~719	~1,524	~1,220	~304
Construction	2,503	3,336	~6,165	~2,829
Manufacturing (incl. forest products)	4,065	4,027	~4,397	~370
Services Related	~30,146	~57,172	~74,578	~17,406
Transportation & public utilities	3,503	4,949	~6,120	~1,171
Wholesale trade	~3,482	5,986	~7,014	~1,028
Retail trade	8,965	15,721	20,375	4,654
Finance, insurance & real estate	4,001	6,454	7,041	587
Services	10,195	~24,062	34,028	~9,966
Government	7,879	11,438	12,927	1,489

	Percent of Total			
	1970	1990	2000	Percent Change 1990-2000
Total Employment				27.4%
Non-Services Related	~24.2%	~16.5%	~16.4%	~26.3%
Farm	9.0%	4.7%	3.9%	6.0%
Agricultural services, forestry, fishing & oth	0.7%	1.1%	~1.3%	~52.0%
Mining (including fossil fuels)	~1.4%	~1.8%	~1.1%	~19.9%
Construction	5.0%	4.0%	~5.8%	~84.8%
Manufacturing (incl. forest products)	8.1%	4.8%	~4.1%	~9.2%
Services Related	~60.1%	~68.7%	~70.3%	~30.4%
Transportation & public utilities	7.0%	5.9%	~5.8%	~23.7%
Wholesale trade	~6.9%	7.2%	~6.6%	~17.2%
Retail trade	17.9%	18.9%	19.2%	29.6%
Finance, insurance & real estate	8.0%	7.8%	6.6%	9.1%
Services	20.3%	~28.9%	32.1%	~41.4%
Government	15.7%	13.7%	12.2%	13.0%

All employment data are reported by *place of work*. Estimates for data that were not disclosed are indicated with tildes (~).

- From 1970 to 2000, jobs in non-services related industries grew from 12,138 to 17,364, a 43% increase.
- From 1970 to 2000, jobs in services related industries grew from 30,146 to 74,578, a 147% increase.
- From 1970 to 2000, jobs in government grew from 7,879 to 12,927, a 64% increase.

Employment by Major Industry Category, Beartooth Region



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Employment by Industry (1970-2000)

What do we measure on this page?

This page describes historical employment change by industry. Industries are organized according to three major categories: non-services related, services related, and government. Employment includes wage and salary jobs and proprietors. The employment data are organized according to the Standard Industrial Classification (SIC) system and reported by place of work.

Non-Services Related: Employment in industries such as farming, mining, and manufacturing.

Services Related: Employment in industries such as retail trade, finance, insurance and real estate, and services.

The terms “non-services related” and “services related” are not terms used by the U.S. Department of Commerce. They are used in these pages to help organize the information into easy-to-understand categories.

Government: Federal, military, state, and local government employment, and government enterprise.

The SIC data end in 2000 because in 2001 the Bureau of Economic Analysis switched to organizing industry-level information according to the newer North American Industrial Classification System (NAICS). More recent employment trends, organized by NAICS, are shown in subsequent pages of this report.

It is not normally appropriate to put SIC and NAICS data in the same tables and graphs because of the difference in methods used to organize industry data. The SIC coding system organizes industries by the primary activity of the establishment. In NAICS, industries are organized according to the production process.⁹ See the Data Sources and Methods section of this report for more information on the shift from SIC to NAICS.

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps.¹⁰ These values are indicated with tildes (~).

Why is it important?

Understanding which industries are responsible for most jobs and which sectors are growing or declining is key to grasping the type of economy that exists, how it has changed over time, and evolving competitive strengths.^{11,12} Most new jobs created in the U.S. economy in the last 30 years have been in services-related sectors, a category that includes a wide variety of high- and low-wage occupations ranging from jobs in hotels and amusement parks to legal, health, business, and educational services. The section in this report titled “Wages by Industry” shows the difference in wages among various services related industries and compared to non-services related sectors.

In many small rural communities, government employment (e.g., the Forest Service and Bureau of Land Management) represents an important component of the economy. In others there have been important changes in employment in mining and fossil fuel energy development, manufacturing (which includes lumber and wood products), and construction.^{13,14}

Socioeconomic Measures

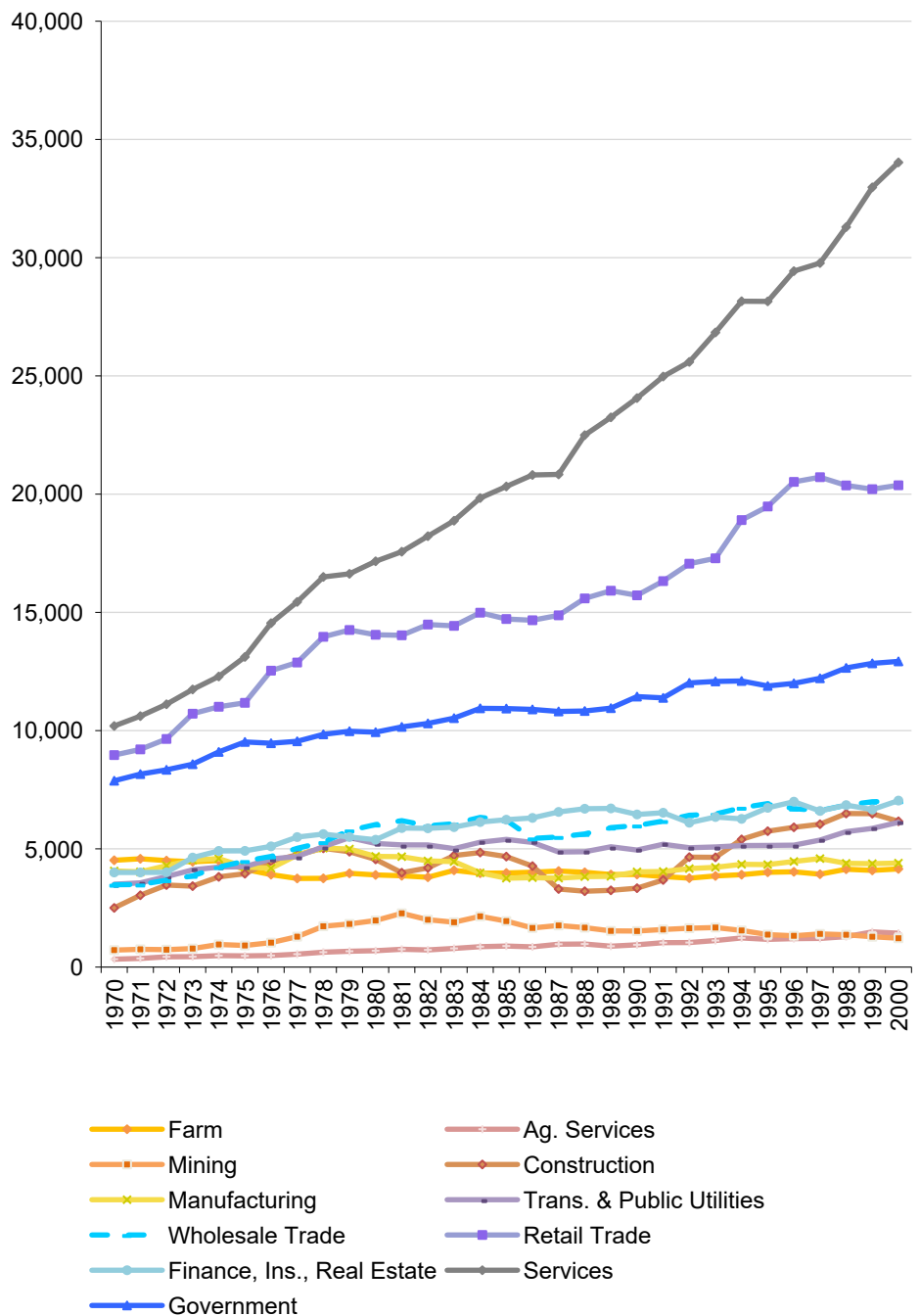
Beartooth Region

Employment by Industry (1970-2000)

Employment by Industry, Beartooth Region

- In 2000 the three industry sectors with the largest number of jobs were services (34,028 jobs), retail trade (20,375 jobs), and government (12,927 jobs).

- From 1970 to 2000, the three industry sectors that added the most new jobs were services (23,833 new jobs), retail trade (11,410 new jobs), and government (5,048 new jobs).



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

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Socioeconomic Measures

Beartooth Region

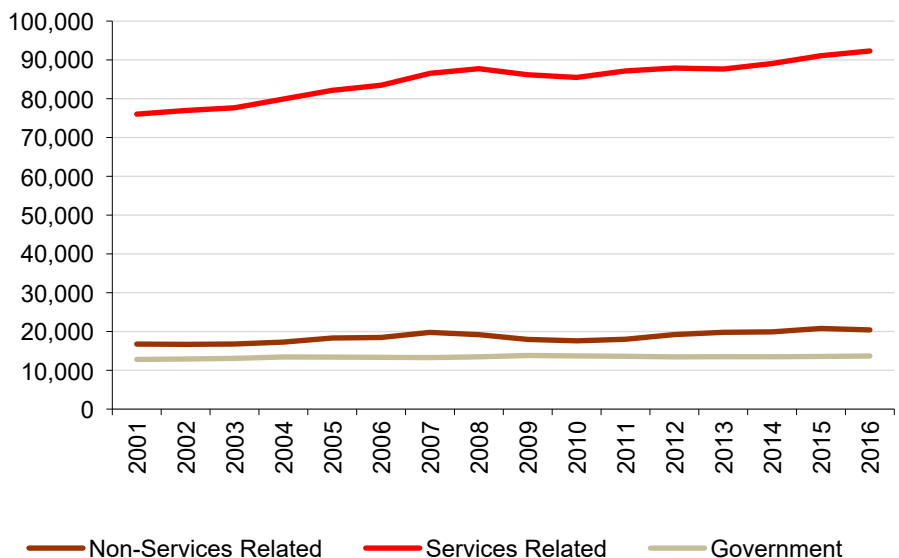
Employment by Industry (since 2000)

	2001	2010	2016	Change 2010-2016
Total Employment (number of jobs)	108,110	119,287	129,142	9,855
Non-services related	~16,759	~17,596	~20,404	~2,808
Farm	4,070	3,690	3,753	63
Forestry, fishing, & ag. services	~594	~636	~702	~66
Mining (including fossil fuels)	~1,311	~2,233	~2,796	~563
Construction	~6,531	~7,193	~8,643	~1,450
Manufacturing	~4,253	3,844	4,510	666
Services related	~76,021	~85,484	~92,300	~6,816
Utilities	~433	~437	~383	-54
Wholesale trade	6,210	~5,959	~6,554	~595
Retail trade	13,754	14,311	15,299	988
Transportation and warehousing	~4,146	~4,258	4,915	~657
Information	~1,577	~1,696	1,544	-152
Finance and insurance	~4,259	4,988	4,924	-64
Real estate and rental and leasing	~3,626	5,565	6,804	1,239
Professional and technical services	5,943	6,819	7,828	1,009
Management of companies	~419	~444	~692	~248
Administrative and waste services	~6,351	~6,341	~4,806	-1,535
Educational services	~860	~1,347	~1,560	~213
Health care and social assistance	~11,211	~14,375	~15,332	~957
Arts, entertainment, and recreation	2,398	3,359	3,625	266
Accommodation and food services	8,630	9,494	11,060	1,566
Other services, except public admin.	6,204	6,091	6,974	883
Government	12,803	13,708	13,676	-32

All employment data are reported by *place of work*. Estimates for data that were not disclosed are indicated with tildes (~).

Employment by Major Industry Category, Beartooth Region

- From 2001 to 2016, jobs in non-services related industries grew from 16,759 to 20,404, a 22% increase.
- From 2001 to 2016, jobs in services related industries grew from 76,021 to 92,300, a 21% increase.
- From 2001 to 2016, jobs in government grew from 12,803 to 13,676, a 7% increase.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Employment by Industry (since 2000)

What do we measure on this page?

This page describes recent employment change by industry. Industries are organized according to three major categories: non-services related, services related, and government. Employment includes wage and salary jobs and proprietors. The employment data are organized according to the North American Industrial Classification System (NAICS) and reported by place of work.

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Why is it important?

Recent employment trends organized by NAICS offer more detail than the previous SIC system, particularly with regard to services-related industries. This is especially useful since in many places the majority of new job growth in recent years has been in services-related industries.

The services-related sector encompasses a wide variety of high- and low-wage occupations ranging from jobs in accommodation and food services to professional and technical services. The section in this report titled “Wages by Industry” shows the difference in wages among various services related industries and compared to non-services related sectors.

Socioeconomic Measures

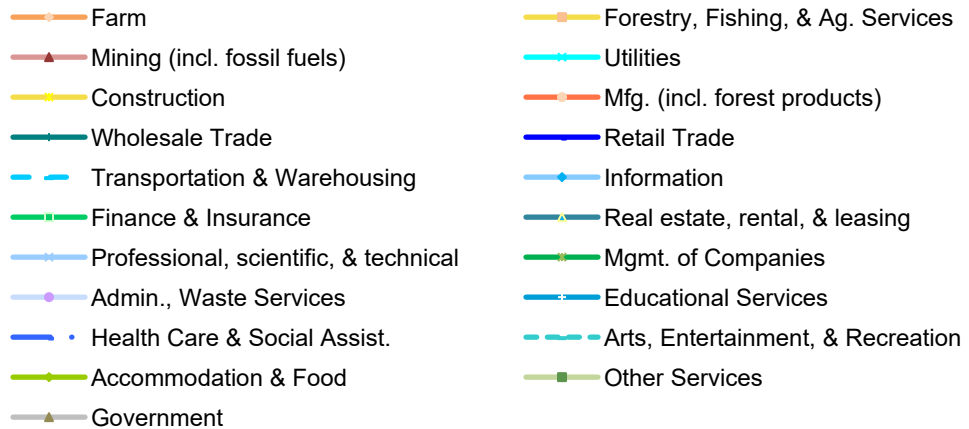
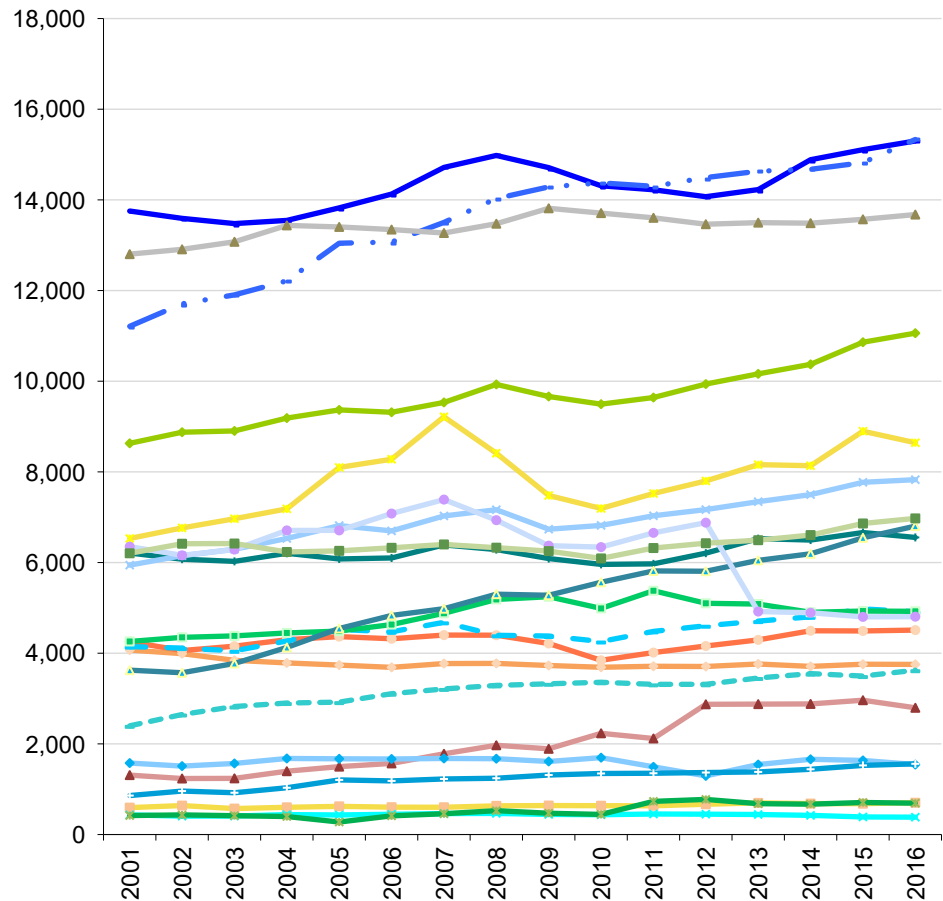
Beartooth Region

Employment by Industry (since 2000)

Employment by Industry, Beartooth Region

- In 2016 the three industry sectors with the largest number of jobs were health care and social assistance (15,332 jobs), retail trade (15,299 jobs), and government (13,676 jobs).

- From 2001 to 2016, the three industry sectors that added the most new jobs were health care and social assistance (4,121 new jobs), real estate and rental and leasing (3,178 new jobs), and accommodation and food services (2,430 new jobs).



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

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Socioeconomic Measures

Beartooth Region

Earnings by Industry (1970-2000)

Labor earnings in thousands of 2017 \$s

	1970	1990	2000	Change 1990-2000
Labor Earnings	\$2,161,694	\$3,215,903	\$4,382,967	\$1,167,064
Non-Services Related	~\$659,474	~\$578,658	~\$745,122	~\$166,464
Farm	\$233,097	\$84,707	\$43,042	-\$41,665
Agricultural services, forestry, fishing	~\$11,385	\$37,006	~\$52,212	~\$15,206
Mining (including fossil fuels)	~\$33,455	~\$92,449	~\$103,744	~\$11,295
Construction	\$144,964	\$148,786	~\$285,118	~\$136,332
Manufacturing (incl. forest products)	\$236,574	\$215,710	~\$261,006	~\$45,296
Services Related	\$1,152,464	~\$2,058,169	~\$2,787,718	~\$729,549
Transportation & public utilities	\$217,837	\$301,511	~\$312,685	~\$11,174
Wholesale trade	\$194,795	\$328,090	~\$406,660	~\$78,570
Retail trade	\$296,276	\$394,686	\$521,446	\$126,760
Finance, insurance & real estate	\$93,788	~\$162,751	\$304,999	~\$142,248
Services	\$349,768	~\$871,132	\$1,241,927	~\$370,795
Government	\$349,806	\$535,619	\$680,547	\$144,928

Percent of Total*

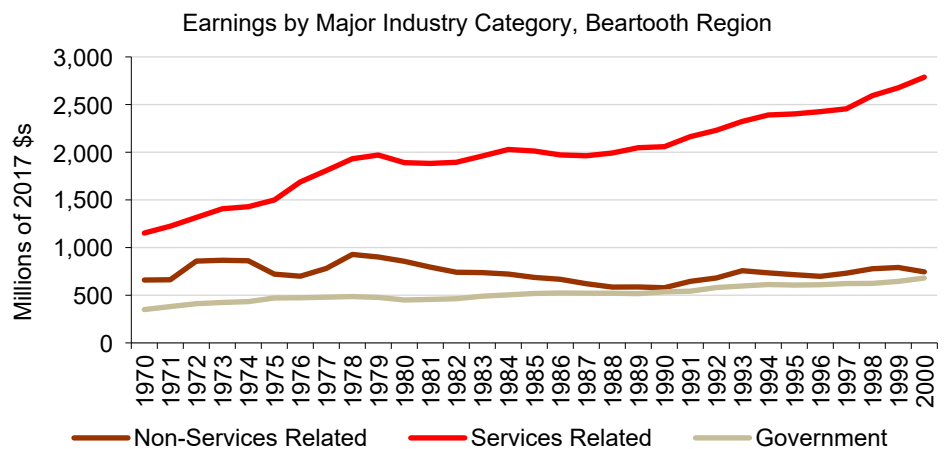
Percent Change
1990-2000

	1970	1990	2000	Percent Change 1990-2000
Labor Earnings				36.3%
Non-Services Related	~30.5%	~18.2%	~17.7%	~28.8%
Farm	10.8%	2.7%	1.0%	-49.2%
Agricultural services, forestry, fishing	~0.5%	1.2%	~1.2%	~41.1%
Mining (including fossil fuels)	~1.5%	~2.9%	~2.5%	~12.2%
Construction	6.7%	4.7%	~6.8%	~91.6%
Manufacturing (incl. forest products)	10.9%	6.8%	~6.2%	~21.0%
Services Related	53.3%	~64.9%	~66.2%	~35.4%
Transportation & public utilities	10.1%	9.5%	~7.4%	~3.7%
Wholesale trade	9.0%	10.3%	~9.7%	~23.9%
Retail trade	13.7%	12.4%	12.4%	32.1%
Finance, insurance & real estate	4.3%	~5.1%	7.2%	~87.4%
Services	16.2%	~27.5%	29.5%	~42.6%
Government	16.2%	16.9%	16.2%	27.1%

All earnings data are reported by *place of work*. Estimates for data that were not disclosed are indicated with tildes (~).

* Total is considered to be the sum of all reported or estimated income with positive values from the earnings by industry table.

- From 1970 to 2000, earnings from non-services grew from \$659.5M to \$745.1M (in real terms), a 13% increase.
- From 1970 to 2000, earnings from services grew from \$1,152.5M to \$2,787.7M (in real terms), a 142% increase.
- From 1970 to 2000, earnings from government grew from \$349.8M to \$680.5M (in real terms), a 95% increase.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Employment by Industry (1970-2000)

What do we measure on this page?

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Why is it important?

Historical changes in labor earnings by industry show how the structure of the local economy has changed over time. Some of the trends are caused by national and international circumstances while other trends may reflect local conditions. The shifting sources of labor earnings can point to evolving weaknesses and strengths in the local or regional economy.

Most new jobs created in the U.S. economy in the last several decades have been in services-related sectors, a category that includes a wide variety of high- and low-wage occupations ranging from jobs in hotels and amusement parks to legal, health, business, and educational services. The section in this report titled “Wages by Industry” shows the difference in wages among various services related industries and compared to non-services related sectors.

In many communities there have been important changes in employment in non-services, particularly mining and fossil fuel energy development, manufacturing (which includes lumber and wood products), and construction.¹³

In rural communities, government employment (e.g., the Forest Service and Bureau of Land Management) often represents an important component of the economy.

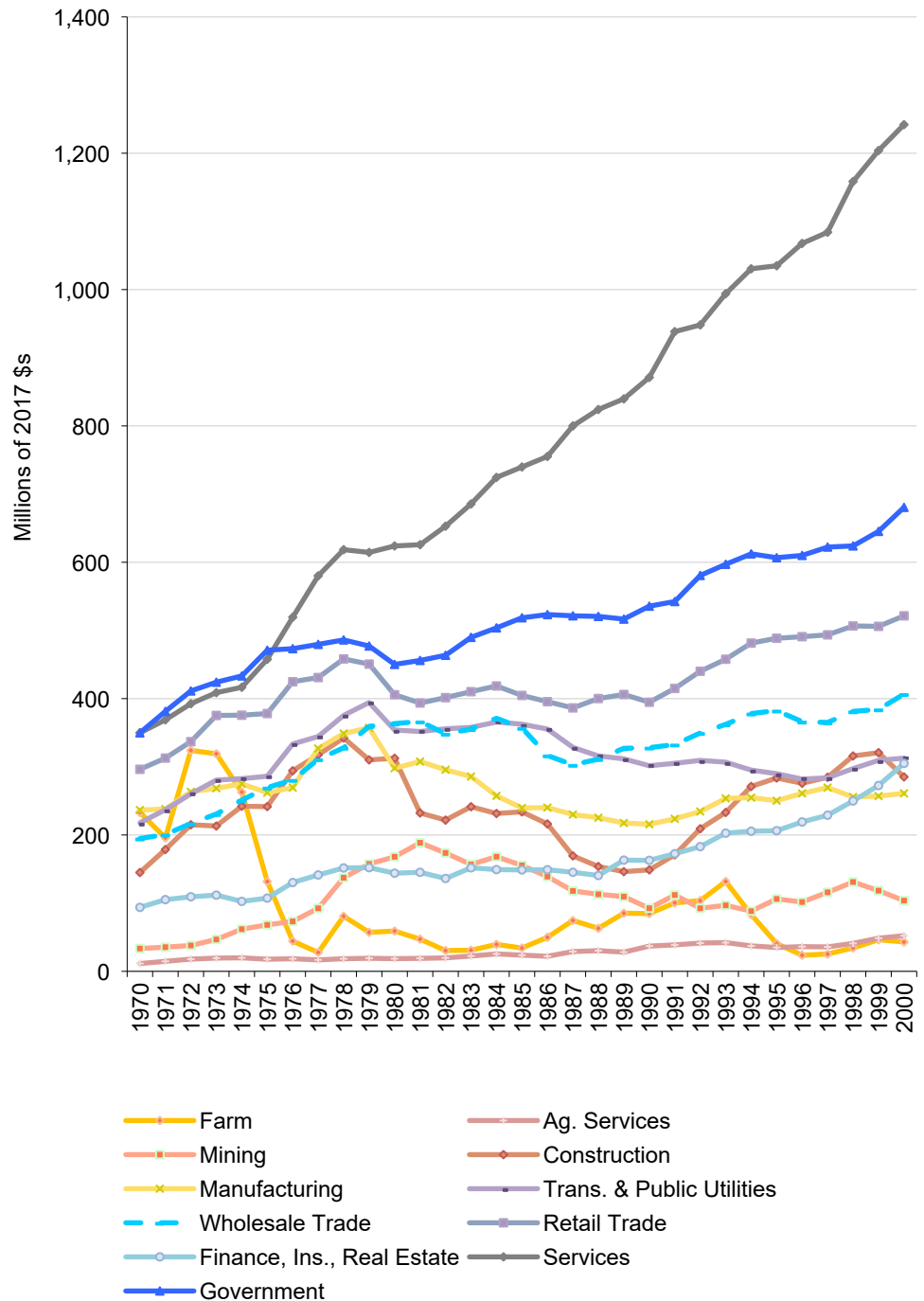
Socioeconomic Measures

Beartooth Region

Earnings by Industry (1970-2000)

Earnings by Industry, Beartooth Region

- In 2000 the three industry sectors with the largest earnings were services (\$1,241.9 million), government (\$680.5 million), and retail trade (\$521.4 million).
- From 1970 to 2000, the three industry sectors that added the most earnings were services (\$892.2 million), government (\$330.7 million), and retail trade (\$225.2 million).



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

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Socioeconomic Measures

Beartooth Region

Earnings by Industry (since 2000)

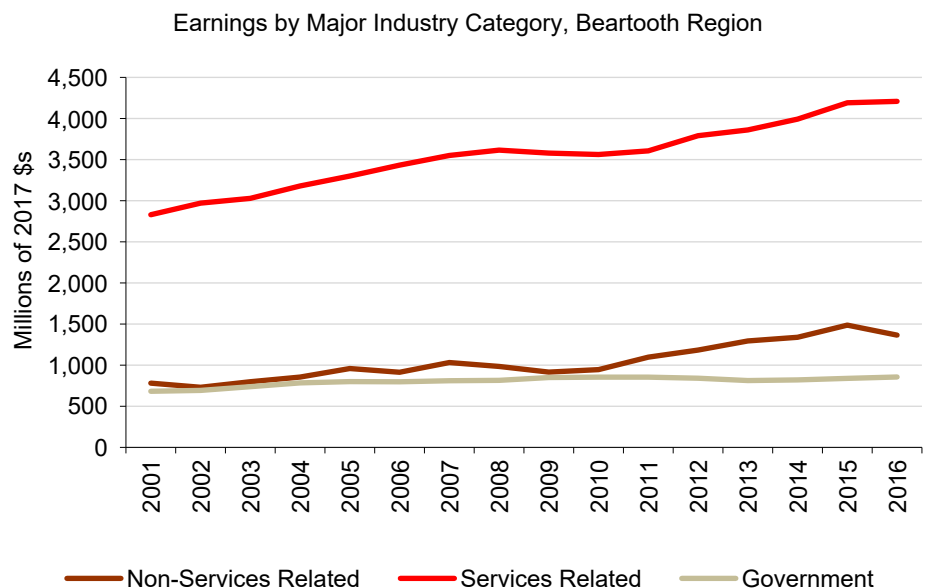
Labor earnings in thousands of 2017 \$s

	2001	2010	2016	Change 2010-2016
Labor Earnings	\$4,489,473	\$5,560,020	\$6,659,345	\$1,099,325
Non-services related	~\$781,310	~\$945,818	~\$1,365,353	~\$419,535
Farm	\$67,934	\$26,420	\$20,132	-\$6,288
Forestry, fishing, & ag. services	~\$10,642	~\$11,170	~\$21,428	~\$10,258
Mining (including fossil fuels)	~\$71,229	~\$185,272	~\$405,806	~\$220,534
Construction	~\$348,998	~\$419,522	~\$553,327	~\$133,805
Manufacturing	~\$282,507	\$303,434	\$364,660	\$61,226
Services related	~\$2,829,749	~\$3,562,075	~\$4,208,421	~\$646,346
Utilities	~\$44,296	~\$50,375	~\$44,340	~\$6,035
Wholesale trade	\$349,064	~\$368,144	~\$426,054	~\$57,910
Retail trade	\$380,833	\$422,972	\$487,121	\$64,149
Transportation and warehousing	~\$200,717	~\$235,305	\$312,603	~\$77,298
Information	~\$71,192	~\$93,937	\$87,701	~\$6,236
Finance and insurance	~\$223,833	\$269,616	\$281,142	\$11,526
Real estate and rental and leasing	~\$45,843	\$130,563	\$216,157	\$85,594
Professional and technical services	\$302,888	\$390,650	\$502,970	\$112,320
Management of companies	~\$25,858	~\$33,015	~\$53,118	~\$20,103
Administrative and waste services	~\$165,426	~\$191,847	~\$173,874	~\$17,973
Educational services	~\$19,347	~\$29,308	~\$35,879	~\$6,571
Health care and social assistance	~\$598,060	~\$896,155	~\$1,000,581	~\$104,426
Arts, entertainment, and recreation	\$45,434	\$56,249	\$70,512	\$14,263
Accommodation and food services	\$166,815	\$197,151	\$265,544	\$68,393
Other services, except public admin.	\$190,142	\$196,788	\$250,826	\$54,038
Government	\$682,423	\$854,340	\$856,145	\$1,805

All earnings data are reported by *place of work*. Estimates for data that were not disclosed are indicated with tildes (~).

* Total is considered to be the sum of all reported or estimated income with positive values from the earnings by industry table.

- From 2001 to 2016, earnings in non-services related industries grew from \$781.3 million to \$1,365.4 million, a 75% increase.
- From 2001 to 2016, earnings in services related industries grew from \$2,829.7 million to \$4,208.4 million, a 49% increase.
- From 2001 to 2016, earnings in government grew from \$682.4 million to \$856.1 million, a 25% increase.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Earnings by Industry (since 2000)

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In many places the majority of growth in earnings in recent years has been in services-related industries, which include a wide variety of high- and low-wage occupations ranging from jobs in hotels and amusement parks to legal, health, business, and educational services. The section in this report titled "Wages by Industry" shows the difference in wages among various services related industries and compared to non-services related sectors.

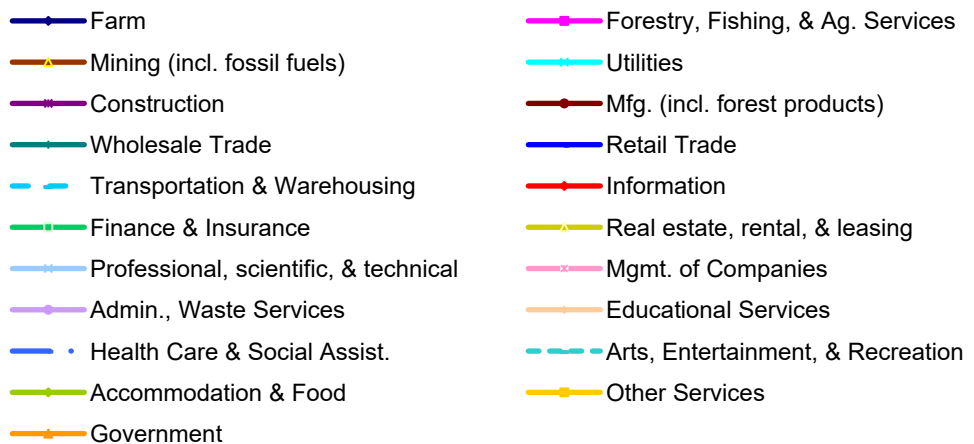
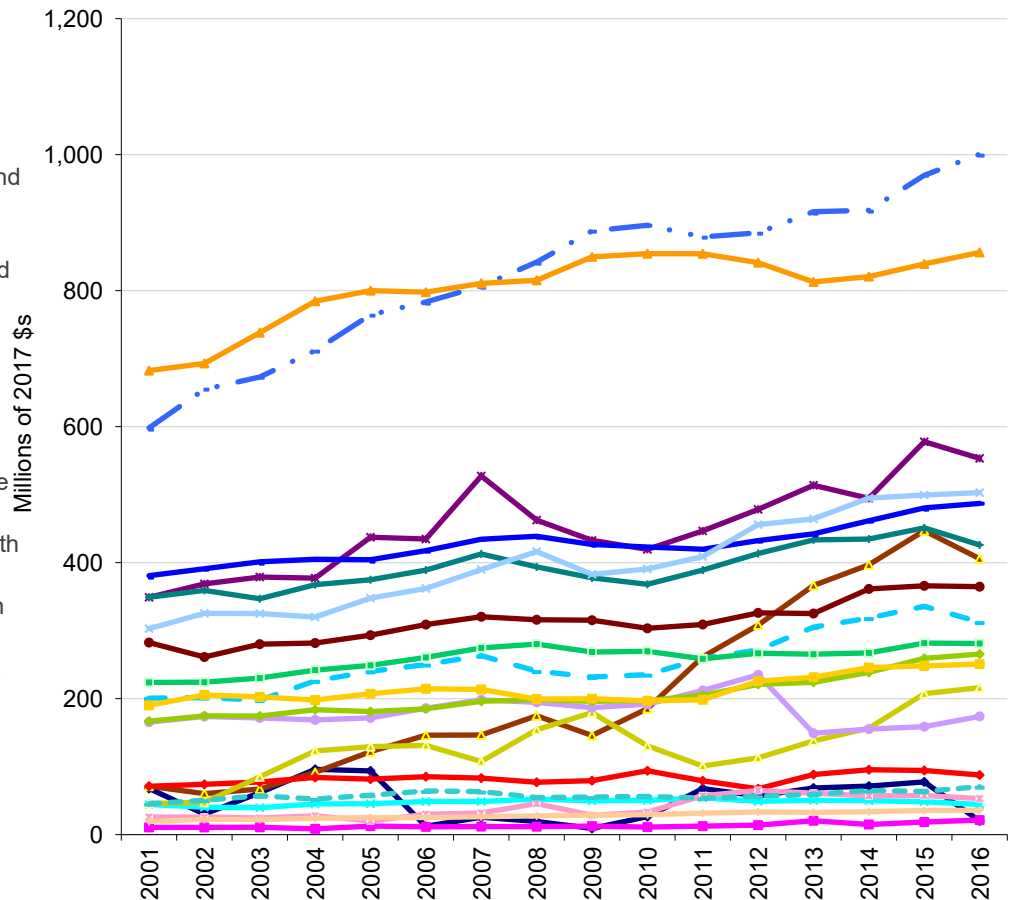
Socioeconomic Measures

Beartooth Region

Earnings by Industry (since 2000)

Earnings by Industry, Beartooth Region

- In 2016 the three industry sectors with the largest earnings were health care and social assistance (\$1,000.6 million), government (\$856.1 million), and professional and technical services (\$503.0 million).
- From 2001 to 2016, the three industry sectors that added the most earnings were health care and social assistance (\$402.5 million), construction (\$204.3 million), and government (\$173.7 million).



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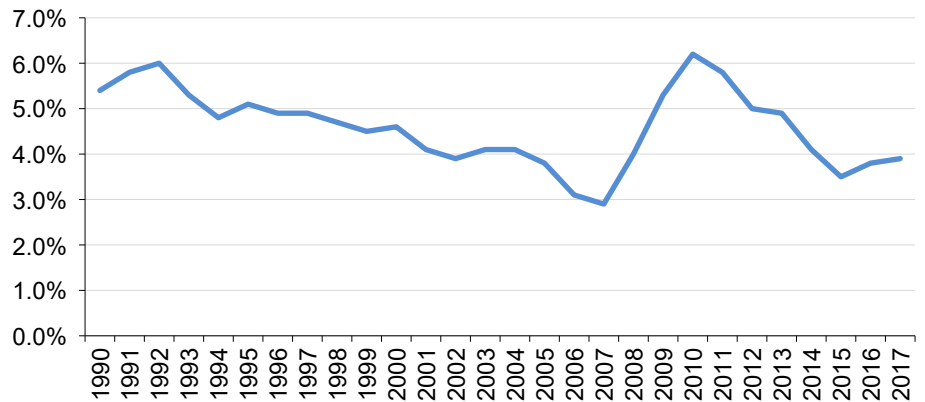
Socioeconomic Measures

Beartooth Region

Unemployment

	1990	2000	2010	2017	Change 2010-2017
Average Annual Unemployment Rate	5.4%	4.6%	6.2%	3.9%	-2.3%

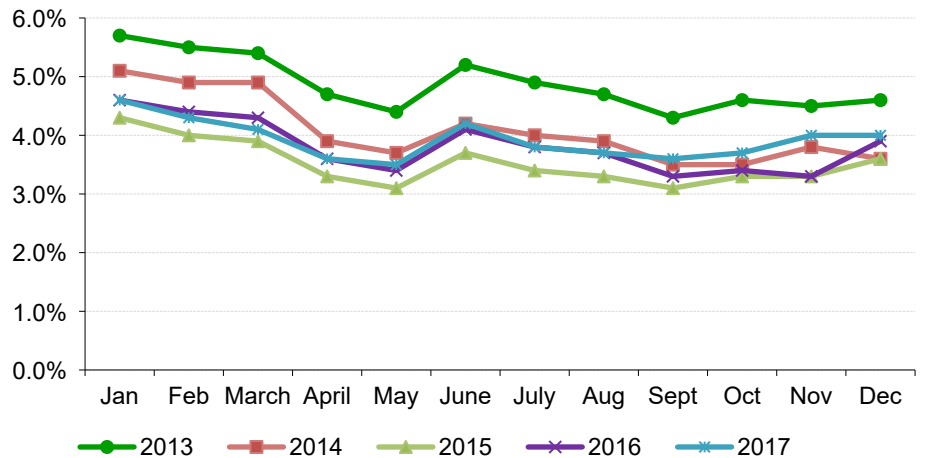
Average Annual Unemployment Rate, Beartooth Region



• Since 1990, the annual unemployment rate ranged from a low of 2.9% in 2007 to a high of 8.2% in 1986.

Monthly Unemployment Rate	Jan.	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
2013	5.7%	5.5%	5.4%	4.7%	4.4%	5.2%	4.9%	4.7%	4.3%	4.6%	4.5%	4.6%
2014	5.1%	4.9%	4.9%	3.9%	3.7%	4.2%	4.0%	3.9%	3.5%	3.5%	3.8%	3.6%
2015	4.3%	4.0%	3.9%	3.3%	3.1%	3.7%	3.4%	3.3%	3.1%	3.3%	3.3%	3.6%
2016	4.6%	4.4%	4.3%	3.6%	3.4%	4.1%	3.8%	3.7%	3.3%	3.4%	3.3%	3.9%
2017	4.6%	4.3%	4.1%	3.6%	3.5%	4.2%	3.8%	3.7%	3.6%	3.7%	4.0%	4.0%

Monthly Unemployment Rate, Beartooth Region



• The lowest monthly unemployment rate was May of 2015. The highest monthly unemployment rate was Jan of 2013.

Data Sources: U.S. Department of Labor. 2018. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Unemployment

What do we measure on this page?

This page describes the average annual unemployment rate and the seasonality of the unemployment rate over time.

The Average Annual Unemployment Rate graph shows the rate of unemployment since 1990. The Monthly Unemployment Rate graph shows the rate of unemployment for each month over the last five years. Note that unemployment figures most often reported are seasonally adjusted.¹⁵ However, the monthly unemployment data shown on this page are not seasonally adjusted so that fluctuations in employment throughout the year can be displayed.

Unemployment Rate: The number of people who are jobless, looking for jobs, and available for work, divided by the labor force.¹⁶

Data begin in 1990 because prior to 1990 the Bureau of Labor Statistics used a different method to calculate the unemployment rate.

Why is it important?

The rate of unemployment is an important indicator of economic well-being. This figure can go up during national recessions and/or more localized downturns. Unemployment may vary significantly by season.

It is important to know how the unemployment rate has changed over time, whether the rate is higher or lower during certain periods of the year, and whether this seasonality of unemployment has changed over time. Places that are heavily dependent on the tourism industry, for example, may show higher rates of unemployment during spring and fall "shoulder seasons." Places that rely heavily on the construction industry, for example, may have lower unemployment rates during the non-winter months.¹⁷

Communities with diverse economies tend to have more stable unemployment rates. This is particularly true of places that are able to attract new residents, retain manufacturing, and support a high-tech economy.¹⁸

Public land agencies sometimes provide seasonal employment and may have an effect on the local rate of unemployment.

Socioeconomic Measures

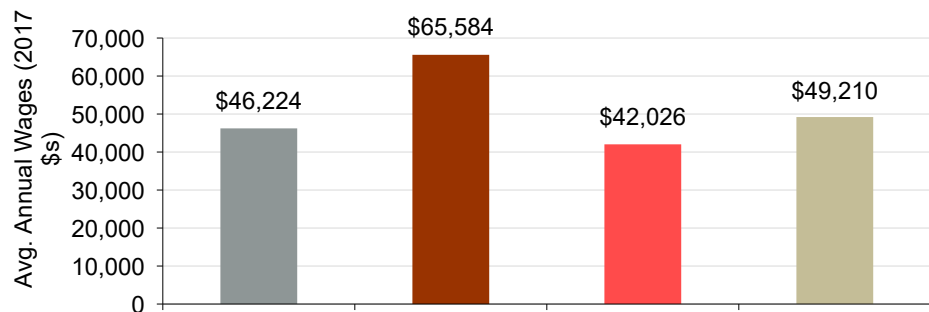
Beartooth Region

Wages by Industry

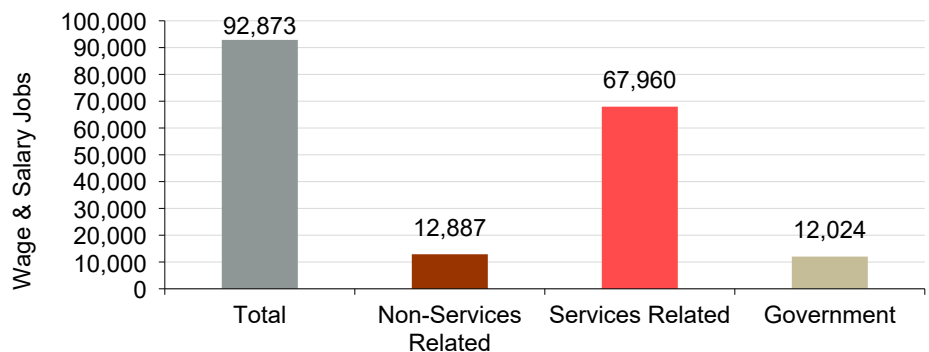
Employment and Wages in 2017	Wage & Salary Employment	% of Total Employment	Avg. Annual Wages (2017 \$s)	% Above or Below Avg.
Total	92,873		\$46,224	
Private	80,847	87.1%	\$45,781	-1.0%
Non-Services Related	12,887	13.9%	\$65,584	41.9%
Natural Resources and Mining	2,020	2.2%	\$75,845	64.1%
Agriculture, forestry, fishing & hunting	679	0.7%	\$46,419	0.4%
Mining (incl. fossil fuels)	946	1.0%	\$84,968	83.8%
Construction	5,508	5.9%	\$54,290	17.4%
Manufacturing (Incl. forest products)	4,077	4.4%	\$65,346	41.4%
Services Related	67,960	73.2%	\$42,026	-9.1%
Trade, Transportation, and Utilities	21,143	22.8%	\$41,389	-10.5%
Information	1,219	1.3%	\$50,595	9.5%
Financial Activities	4,257	4.6%	\$61,842	33.8%
Professional and Business Services	9,274	10.0%	\$50,936	10.2%
Education and Health Services	15,532	16.7%	\$53,968	16.8%
Leisure and Hospitality	12,805	13.8%	\$18,616	-59.7%
Other Services	3,717	4.0%	\$28,560	-38.2%
Unclassified	16	0.0%	\$58,200	25.9%
Government	12,024	12.9%	\$49,210	6.5%
Federal Government	2,295	2.5%	\$74,152	60.4%
State Government	1,693	1.8%	\$45,777	-1.0%
Local Government	8,036	8.7%	\$42,810	-7.4%

Wages & Employment by Industry, Beartooth Region, 2017

- In 2017 non-services related jobs paid the highest wages (\$65,584) and services related jobs paid the lowest (\$42,026).



- In 2017 trade, transportation, and utilities jobs employed the largest number of people (67,960), and federal government employed the smallest (12,024 jobs).



Data Sources: U.S. Department of Labor. 2018. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Wages by Industry

What do we measure on this page?

This page describes employment and average annual wages by industry. It is sometimes the case that industries that pay well employ few people. Use the table on this page to understand how wages relate to the share of employment contributed by each industry.

Average Annual Wages: Total annual pay divided by total employment.

The data on this page are from the Bureau of Labor Statistics (BLS), which is the most reliable source of national data on average annual wages.^{19, 20, 21} However, unlike the Bureau of Economic Analysis data used in other sections of this report, these data do not include proprietors or the value of benefits and are summarized into slightly different industry categories. As reported by BLS, wages include gross wages and salaries, bonuses, stock options, tips and other gratuities, and the value of meals and lodging.

The table compares level of employment and wages for all sectors of the economy and shows (in the far-right column) whether the sector's wages are above or below the average wage for all industries.

Depending on the areas selected, some data may not be available due to disclosure restrictions.

“Average annual wages” shown on this page is not the same as “average earnings per job” shown earlier in this report. Average annual wages are calculated from BLS data, which do not include proprietors, while earnings per job are calculated from Bureau of Economic Analysis data, which include proprietors.

Why is it important?

It is sometimes assumed, particularly in rural areas, that the only high-wage jobs are in manufacturing and natural resource industries (e.g., timber, fossil fuel energy development, and mining). While these jobs often provide high average wages, some services-related industries also offer high wages (e.g., information, financial activities, and professional and business services).

Nearly all new jobs created since 1990 have been in services-related industries, but they are not equally distributed across the country, and not all areas are able to attract and retain the relatively high-wage service-related jobs. The elements required to attract and keep high-wage service-related workers may include access to reliable transportation including airports, amenities, recreation opportunities, a trained workforce, and good schools.^{22, 23}

In some areas, the highest-paying jobs are in the public sector. During recessions, government jobs may serve as an economic buffer against declining employment and earnings in the private sector.

Socioeconomic Measures

Beartooth Region

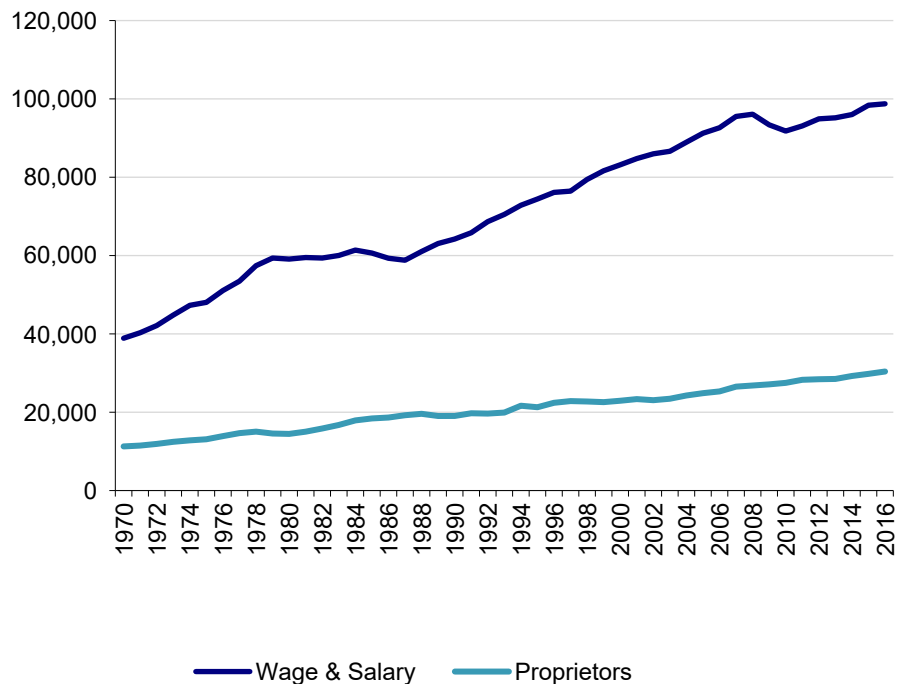
Proprietors (self-employed)

	1970	2000	2016	Change 2000-2016
Total Employment	50,161	106,102	129,142	23,040
Wage and salary jobs	38,891	83,171	98,747	15,576
Number of proprietors	11,270	22,931	30,395	7,464
				% Change 2000-2016
Total Employment				21.7%
Wage and salary jobs	77.5%	78.4%	76.5%	18.7%
Number of proprietors	22.5%	21.6%	23.5%	32.5%

All employment data in the table above are reported by *place of work* and include both full-time and part-time workers.

Components of Employment, Beartooth Region

- From 1970 to 2016, wage and salary employment (people who work for someone else) grew from 38,891 to 98,747, a 154% increase.
- From 1970 to 2016, proprietors (the self-employed) grew from 11,270 to 30,395, a 170% increase.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Proprietors (self-employed)

What do we measure on this page?

This page describes the changes in two components of employment: wage and salary employment, and proprietors.

Wage and Salary: This is a measure of the average annual number of full-time and part-time jobs by place of work. All jobs for which wages and salaries are paid are counted. Full-time and part-time jobs are counted with equal weight.²⁴

Proprietors: This term includes the self-employed in nonfarm and farm sectors by place of work. Nonfarm self-employment consists of the number of sole proprietorships and the number of individual business partners not assumed to be limited partners. Farm self-employment is defined as the number of non-corporate farm operators, consisting of sole proprietors and partners.²⁵

For more detailed information about farm employment and earnings, create an EPS Agriculture report at <https://headwaterseconomics.org/eps>.

Why is it important?

A high level of growth in proprietors' employment could be interpreted as a sign of entrepreneurial activity, which is a positive indicator of economic health.²⁶ However, in some areas and particularly in remote rural areas, it is possible that a high proportion of self-employed is an indication that few jobs are available. People may work for themselves because it is the only alternative or they may work for themselves in addition to holding a wage and salary job.

One way to see whether growth and a high level of proprietors' employment is a positive sign for the local economy is to look at the long-term trends in proprietors' personal income. When proprietors' employment and real personal income are both rising, this is a healthy indicator of entrepreneurial activity. On the other hand, rising proprietors' employment and falling real personal income can be a sign of economic stress. The following section of this report examines this relationship.

Socioeconomic Measures

Beartooth Region

Wages and Proprietors' Income

	1970	2000	2016	Change 2000-2016
Earnings by place of work	2,161,694	4,382,967	6,659,345	2,276,378
Wage & salary disbursements	1,486,657	3,134,180	4,571,549	1,437,369
Supplements to wage & salary	191,779	751,804	1,050,332	298,528
Proprietors' income	483,259	496,983	1,037,464	540,481

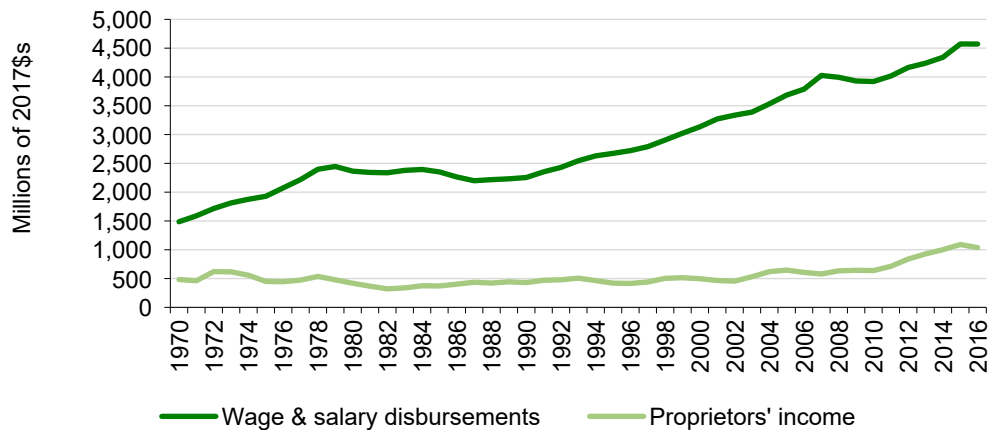
Percent of Total

				% Change 2000- 2016
Earnings by place of work				51.9%
Wage & salary disbursements	68.8%	71.5%	68.6%	45.9%
Supplements to wage & salary	8.9%	17.2%	15.8%	39.7%
Proprietors' income	22.4%	11.3%	15.6%	108.8%

All income data in the table above are reported by *place of work*, which is different than earnings by *place of residence* shown on the following page of this report.

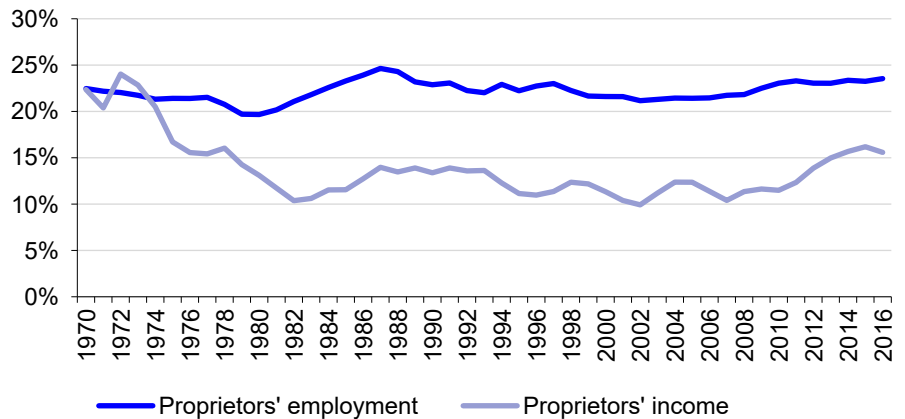
Components of Labor Earnings, Beartooth Region

- From 1970 to 2016, labor earnings from wage and salary employment grew from \$1,486.7 million to \$4,571.5 million (in real terms), a 208% increase.
- From 1970 to 2016, labor earnings from proprietors' employment grew from \$483.3 million to \$1,037.5 million (in real terms), a 115% increase.



Proprietors' Employment Share of Employment & Proprietors' Income Share of Labor Earnings, Beartooth Region

- In 1970, proprietors represented 22% of total employment. By 2016, proprietors represented 24% of total employment.
- In 1970, proprietors represented 22% of total labor earnings. By 2016, proprietors represented 16% of total labor earnings.



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C., reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Wages and Proprietors' Income

What do we measure on this page?

This page describes the components of labor earnings (in real terms): income from wage and salary, and proprietors' employment. It also looks more closely at proprietors, comparing long-term trends in proprietors' employment and personal income.

Earnings by Place of Work: This represents net earnings by place of work.

Wage and Salary Disbursements: This is a measure of the average annual number of full-time and part-time jobs in each area by place of work. All jobs for which wages and salaries are paid are counted. Full-time and part-time jobs are counted with equal weight.

Proprietors' Income: This term includes the self-employed in nonfarm and farm sectors. Nonfarm self-employment consists of the number of sole proprietorships and the number of individual business partners not assumed to be limited partners. Farm self-employment is defined as the number of non-corporate farm operators, consisting of sole proprietors and partners.

For more detailed information about farm employment and earnings, create an EPS Agriculture report at <https://headwaterseconomics.org/eps>.

Why is it important?

The table and figures can be used to compare the relative importance, and change in importance, of wage and salary jobs and proprietors as a source of employment and earnings.

Rapid growth and/or high proportions of proprietors' employment and income can be a sign of a healthy economy that is attracting entrepreneurs and stimulating business development, especially when paired with population growth and low unemployment. However, if labor earnings are flat or declining, high levels of proprietors may indicate a lack of opportunity.

Socioeconomic Measures

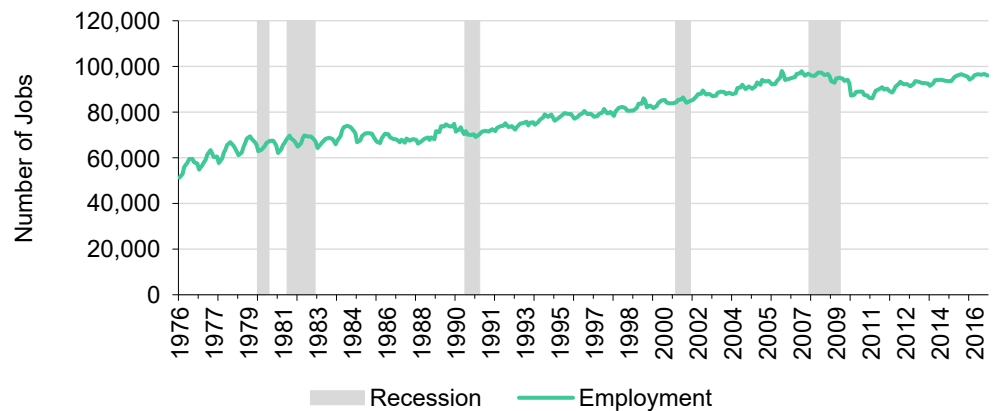
Beartooth Region

Employment During National Recessions

National Recessions, 1976-2016	Jan '80 - July '80	July '81 - Nov '82	July '90 - Mar '91	Mar '01 - Nov '01	Dec '07 - June '09
Employment Change (Net Jobs)	3,384	-255	-1,607	480	-1,382
Employment Change (Monthly % Change)	0.8%	0.0%	-0.2%	0.1%	-0.1%

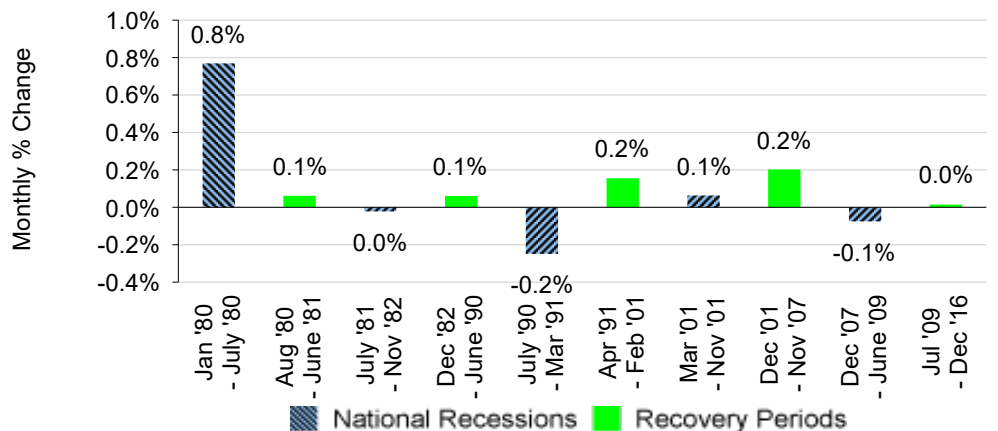
Recovery from National Recessions, 1976-2016	Aug '80 - June '81	Dec '82 - June '90	Apr '91 - Feb '01	Dec '01 - Nov '07	Jul '09 - Dec '16
Employment Change (Net Jobs)	457	3,676	13,067	12,291	1,222
Employment Change (Monthly % Change)	0.1%	0.1%	0.2%	0.2%	0.0%

Employment & National Recessions, Beartooth Region



- From December of 1976 to December of 2016, employment grew from 57,484 to 96,038 jobs, a 67% increase.

Monthly Rate of Change in Employment During Recessions & Recovery Periods, Beartooth Region



- In the recovery period (Dec '82-Jun '90) following the 1981-1982 recession, employment grew by 3,676 jobs, a 0.1% monthly increase.

Blue vertical bars in the figures above represent the last five recession periods: January 1980 to July 1980; July 1981 to November 1982; July 1990 to March 1991; March 2001 to November 2001; and December 2007 to June 2009. The green columns in the figure above represent the intervening recovery periods.

Data Sources: U.S. Department of Labor. 2018. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.; National Bureau of Economic Research. 2009. U.S. Business Cycle Expansions and Contractions, Cambridge, MA, reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Employment During National Recessions

What do we measure on this page?

This page describes long-term trends in employment during national recessions and recovery periods.^{32, 33}

The Employment and National Recessions graph shows long-term change in employment against periods of national recession (blue bars) and recovery. The Employment During Recessions and Recovery Periods graph shows the percent gain or loss in employment during periods of national recession (blue bars) and recovery (green bars).

Recession: According to the National Bureau of Economic Research: "A recession is a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales. A recession begins just after the economy reaches a peak of activity and ends as the economy reaches its trough. Between trough and peak, the economy is in an expansion."

The U.S. Bureau of Labor Statistics changed methodology related to unemployment rates in 1990. Caution should be used comparing pre-1990 estimates of unemployment rates with those from 1990 forward.³⁴

Why is it important?

One measure of economic well-being is the resilience of the local economy during periods of national recession. It is a positive sign if local employment continues to grow (or does not decline) during a recession.³⁵

Another sign of economic well-being is how well the local economy recovers from a recession, measured as growth of employment from the trough (at the depth of the recession) to the peak (just before the next period of decline).

As the economy of a place diversifies, it can become more resilient to economic downturns. Places that attract new residents, retain manufacturing, and support a high-tech economy tend to be less affected by economic downturns.

Government employment is more stable and can help to absorb some of the losses in private sector economic activity during a recession.

Socioeconomic Measures

Beartooth Region

Comparisons

Indicators		Beartooth Region	U.S.	Ratio of Beartooth Region vs. U.S.
Trends	Population, % change, 2000-2016	19.3%	14.5%	
	Employment, % change, 2000-2016	21.7%	17.1%	
	Personal Income, % change, 2000-2016	54.1%	32.1%	
	Average Earnings per Job, % change, 2000-2016	24.8%	4.7%	
	Per Capita Income, % change, 2000-2016	29.2%	15.4%	
Prosperity	Avg. Earnings per Job, 2016	\$51,566	\$59,598	
	Per Capita Income, 2016	\$46,707	\$50,280	
	Services, Avg. Annual Wages, 2016	\$41,661	\$52,806	
	Non-Services, Avg. Annual Wages, 2016	\$65,932	\$63,393	
	Government, Avg. Annual Wages, 2016	\$47,758	\$55,359	
Stress	Unemployment Rate, change 2000-2016	-0.8%	0.9%	
	Unemployment Rate, 2016	3.8%	4.9%	
Structure	Proprietors, % of Jobs, 2016	23.5%	22.6%	
	Non-Labor Income, % of Pers. Income, 2016	36.6%	36.8%	
	Services, % of Jobs, 2016	71.5%	72.9%	
	Non-Services, % of Jobs, 2016	15.8%	14.5%	
	Government, % of Jobs, 2016	10.6%	12.5%	
	Net inflow of labor earnings of inter-county commuters*	-0.5%	0.0%	

* Displayed only when comparing a county to a benchmark county.

-300% -200% -100% 0% 100% 200%

Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Labor. 2018. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.; U.S. Department of Labor. 2018. Bureau of Labor Statistics, Quarterly Census of Employment and Wages, Washington, D.C.; reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Comparisons

What do we measure on this page?

This page compares key performance indicators for the selected location(s) to the selected benchmark area. (If no custom benchmark area was selected, EPS defaults to benchmarking against the U.S.) Performance indicators are organized by groups (Trends, Prosperity, Stress, and Structure) that highlight potential competitive strengths and weaknesses.

The percent, or relative, difference between the selected geography and the benchmark is calculated by dividing the difference between the values by the arithmetic mean of the values.

In some cases it may be appropriate to compare a local economy to the U.S. economy. In most cases, however, it will be more useful to compare county or regional economies to similar county or regional economies. For example, if the county being analyzed is small and rural, it should be compared to similar counties because comparing against the U.S. will include data from large metropolitan areas.

Some indicators require a judgment call to decide whether they represent a positive or negative indicator of well-being. For example, a high percentage of personal income in the form of non-labor income could mean the location has done a good job of attracting retirees and investment income. However, it could also mean that there is very little labor income so non-labor income is relatively larger.

The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).

Why is it important?

A number of indicators determine the economic health of a place. No single indicator should be used by itself. Rather, a range of indicators should be analyzed to derive a comprehensive view of the economy.

The indicators in this report can be used to gauge both standard of living (through factors such as earnings per job and per capita income) and growth (through factors such as change in population, employment, and personal income). When comparing performance among places, it may be important to consider additional measures that are not provided in this report, such as leisure time, crime rate, health statistics, sense of well-being, and other factors that represent quality of life.

Detailed data on a range of topics, including in-depth reports on individual industries, can be obtained by creating other EPS reports at <https://headwaterseconomics.org/eps>.

Socioeconomic Measures

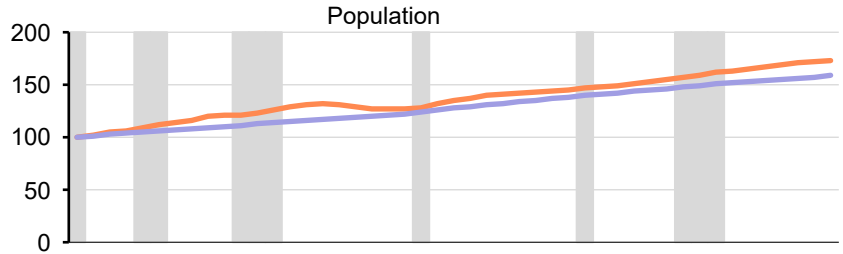
Beartooth Region

Comparisons

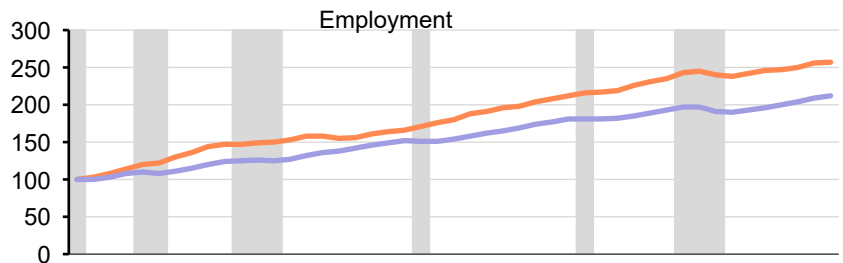
Beartooth Region compared to the U.S.

Recession Beartooth Region U.S.

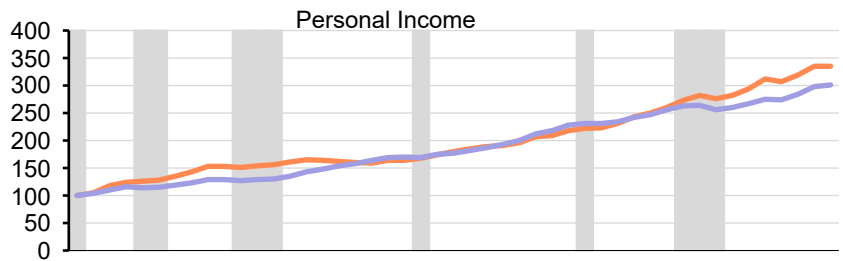
- From 1970 to 2016, population in Beartooth Region grew by 73% compared to 59% for the U.S..



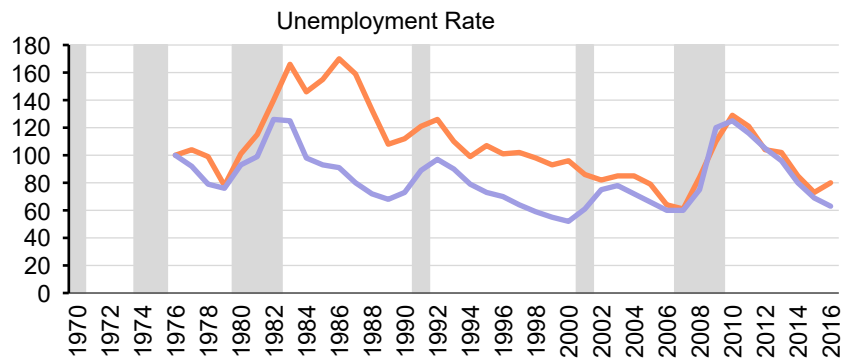
- From 1970 to 2016, employment in Beartooth Region grew by 157% compared to 112% for the U.S..



- From 1970 to 2016, personal income in Beartooth Region grew by 235% compared to 201% for the U.S..



- From 1976 to 2016, the unemployment rate in Beartooth Region shrank by 20% compared to -37% for the U.S..



Data Sources: U.S. Department of Commerce. 2017. Bureau of Economic Analysis, Regional Economic Accounts, Washington, D.C.; U.S. Department of Labor. 2018. Bureau of Labor Statistics, Local Area Unemployment Statistics, Washington, D.C.; reported by Headwaters Economics' Economic Profile System, headwaterseconomics.org/eps.

Socioeconomic Measures

Beartooth Region

Comparisons

What do we measure on this page?

This page describes trends in key performance indicators (change in population, employment, real personal income, and the unemployment rate) for the selected area and compared to the benchmark area. Gray vertical bars indicate periods of national recession.

Data are indexed to the start year for each indicator so that data from areas of different sizes can be compared. The charts are useful for showing the relative difference in the rate of change for each indicator.

The term "benchmark" in this report should not be construed as having the same meaning as in the National Forest Management Act (NFMA).

Information for a range of locations and measures can be obtained by creating additional EPS reports at <https://headwaterseconomics.org/eps>.

Why is it important?

This page shows long-term economic performance at a glance. It enables the reader to compare performance between places, and evaluate how performance was impacted by national business cycles.

Socioeconomic Measures

Beartooth Region

Data Sources & Methods

This Socioeconomic Measures report uses national statistics from public government sources. All data used in EPS can be readily verified with the original sources:

- **Regional Economic Information System**
Bureau of Economic Analysis, U.S. Department of Commerce
<http://bea.gov/bea/regional/data.htm>
Tel. 202-606-9600
- **Local Area Unemployment Statistics**
Bureau of Labor Statistics, U.S. Department of Labor
<http://www.bls.gov/lau>
Tel. 202-691-6392
- **Quarterly Census of Employment and Wages**
Bureau of Labor Statistics, U.S. Department of Labor
<http://www.bls.gov/cew>
Tel. 202-691-6567
- **Population Division**
Census Bureau, U.S. Department of Commerce
<http://www.census.gov/population/www/>
Tel. 866-758-1060
- **National Bureau of Economic Research**
<http://www.nber.org/cycles/recessions.html>
Tel. 617-868-3900

EPS core approaches

EPS is designed to focus on long-term trends across a range of important measures. Trend analysis provides a more comprehensive view of changes than spot data for select years. We encourage users to focus on major trends rather than absolute numbers. EPS displays detailed industry-level data to show changes in the composition of the economy over time and the mix of industries at points in time. EPS employs cross-sectional benchmarking – comparing smaller areas such as counties to larger regions, states, and the nation – to give a sense of relative performance. EPS allows users to aggregate data for multiple locations to allow for more sophisticated cross-sectional comparisons.

Industrial Classifications

Industry data reported in EPS come from data sources that use standard industry classification systems. Starting in the 1930s, the Standard Industrial Classification (SIC) system served as the structure for the collection, aggregation, presentation, and analysis of industry data. Under SIC, which used a four-digit coding structure, an industry consisted of a group of establishments primarily engaged in producing or handling the same product or group of products or in rendering the same services. As the U.S. economy shifted from a primary emphasis on manufacturing to a more complex services economy, SIC became less useful for describing the economy's changing industrial composition.

The North American Industry Classification System (NAICS), developed using a production-oriented conceptual framework, groups establishments into industries based on the activity in which they are primarily engaged. NAICS uses a six-digit hierarchical coding system to classify all economic activity into 20 industry sectors. Five sectors are mainly goods-producing sectors and 15 are entirely services-producing sectors.

Adjusting dollar figures for inflation

Because a dollar in the past was worth more than a dollar today, data reported in current dollar terms should be adjusted for inflation. The U.S. Department of Commerce reports personal income figures in terms of current dollars. All income data in EPS are adjusted to real (or constant) dollars using the Consumer Price Index. Figures are adjusted to the latest date for which the annual Consumer Price Index is available.

Data gaps and estimation

Some data are withheld by the federal government to avoid the disclosure of potentially confidential information. Headwaters Economics uses supplemental data from the U.S. Department of Commerce to estimate these data gaps. These are indicated with tildes (~) in tables. Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.

Socioeconomic Measures

Beartooth Region

Endnotes

- 1 - In addition to the U.S. Census Bureau county classifications offered here, several other county classification systems are available: the Economic Research Service of the U.S. Department of Agriculture offers a county classification system based on economic dependence on particular sectors (for example, "Farming-dependent," "Mining-dependent"), economic activity ("Non-metro recreation"), and policy type (for example, "Housing-stress" or "Persistent poverty"). The Economic Research Service's "Rural-Urban Continuum Codes" codes with explanation can be found at <https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/>. Headwaters Economics developed a "Three Wests" county typology for all counties in the 11 contiguous western U.S. states based on access to markets via highway or air travel. Its web site (<https://headwaterseconomics.org/economic-development/trends-performance/three-wests-explained/>) offers sortable county data, a journal article on the subject, and an interactive tool that allows users to compare economic and demographic data for "Metro," "Connected," and "Isolated" counties across the West.
- 2 - Population and Housing Unit Estimates. U.S. Census Bureau. <https://www.census.gov/programs-surveys/popest/about.html>.
- 3 - The U.S. Census Bureau provides a tool for mapping migration flows into and out of all counties in the country: <https://flowsmapper.geo.census.gov/map.html>.
- 4 - For a comprehensive cost of living index, see <http://livingwage.mit.edu/pages/about>.
- 5 - A 2006 study documented that workers would accept lower wages in order to live closer to environmental amenities. See: Schmidt L and Courant PN. 2006. Sometimes Close is Good Enough: The Value of Nearby Environmental Amenities. *Journal of Regional Science* 46(5):931-951. See also: Deller SC, Tsai T-H, Marcouiller DW, and English DBK. 2001. The Role of Amenities and Quality of Life in Rural Economic Growth. *American Journal of Agricultural Economics* 83(2): 352-365.
- 6 - The Occupational Outlook Handbook, published by the Bureau of Labor Statistics, contains descriptions of all occupations, median pay, and the education and training required for each: <https://www.bls.gov/ooh/>.
- 7 - To see the possible impact of non-labor income sources on per capita income, see previous sections of this report that show the percent contribution of non-labor to total personal income, or create an EPS Non-Labor Income report at <https://headwaterseconomics.org/eps>.
- 8 - A 2014 study analyzed the impact of types of non-labor income on socioeconomic performance. See: Lawson MM, Rasker R, and Gude PH. 2014. The importance of non-labor income: An analysis of socioeconomic performance in western counties by type of non-labor income. *Journal of Regional Analysis and Policy* 44(2): 175-190.
- 9 - For online SIC and NAICS manuals and definitions of industry codes, see <https://www.census.gov/eos/www/naics/> and https://www.osha.gov/pls/imis/sic_manual.html.
- 10 - Documentation explaining methods developed by Headwaters Economics for estimating disclosure gaps is available at <https://headwaterseconomics.org/eps>.
- 11 - According to estimates by the U.S. Department of Labor, from 2008 through 2018 "goods-producing" employment in the U.S. (mining, construction, and manufacturing) will not grow. By 2018, goods-producing sectors will account for 12.9 percent of all jobs, down from 14.2 percent in 2008. In contrast, "service-producing" sectors are expected to account for 96 percent of the growth in new jobs. The fastest growing are projected to be professional and business services, and health care and social assistance. See: Bartsch KJ. 2009. The employment projections for 2008-18. *Monthly Labor Review Online* 132(11): 3-10. <https://www.bls.gov/opub/mlr/2009/11/art1full.pdf>.

Endnotes (cont.)

- 12 - The Bureau of Labor Statistics provides industry employment projections to 2024: <https://www.bls.gov/opub/mlr/2015/article/industry-employment-and-output-projections-to-2024.htm>.
- 13 - For an overview of how historical changes in employment have affected rural America, see Whitenar, LA and McGranahan DA. 2003. Rural America: Opportunities and Challenges. *Amber Waves* 1(1):1-8 available at https://www.agclassroom.org/teen/ars_pdf/social/amber/rural_america.pdf.
- 14 - The Economic Research Service of the U.S. Department of Agriculture is a good source for articles and data on the rural economy: <https://www.ers.usda.gov/topics/rural-economy-population/>.
- 15 - See the Bureau of Labor Statistics' explanation of seasonal adjustments at <https://www.bls.gov/cps/seasfaq.htm>.

- 16 - For more information on unemployment, see related Bureau of Labor Statistics resources available at <https://www.bls.gov/cps/faq.htm>.
- 17 - The U.S. Department of Labor offers an explanation of seasonal and part-time employment: <https://www.dol.gov/general/topic/workhours/seasonalemployment>.
- 18 - For research findings on economic resiliency, see Chapple K and Lester TW. 2010. The resilient regional labour market? The U.S. case. *Cambridge Journal of Regions, Economy and Society* 3(1):85-104.
- 19 - For an overview of how the Bureau of Labor Statistics treats employment, see <https://www.bls.gov/bls/employment.htm>.
- 20 - For an overview of how the Bureau of Labor Statistics treats pay and benefits, see <https://www.bls.gov/bls/wages.htm>.
- 21 - Employment and wage estimates for more than 800 occupations are available from the Bureau of Labor Statistics. It is helpful to look at services by occupation rather than by sector or industry because wages vary dramatically across occupations associated with different services. For more information, see <https://www.bls.gov/oes/>.

- 22 - For a review of the role of public lands amenities and transportation in economic development, see Rasker R, Gude PH, Gude JA, van den Noort J. 2009. The Economic Importance of Air Travel in High-Amenity Rural Areas. *Journal of Rural Studies* 25: 343-353. https://headwaterseconomics.org/wp-content/uploads/3wests/Rasker_et_al_2009_Three_Wests.pdf.
- 23 - This article specifically captures the idea that amenity values are capitalized into wages: Knapp TA and Graves PE. 1989. On the Role of Amenities in Models of Migration and Regional Development. *Journal of Regional Science* 29(1):71-87.
- 24 - Glossary. Bureau of Economic Analysis. https://www.bea.gov/glossary/glossary_a.htm.
- 25 - Regional Economic Accounts: Regional Definitions. Bureau of Economic Analysis. <https://www.bea.gov/regional/definitions/>.
- 26 - For an example of an academic study where proprietors' employment is considered an indication of entrepreneurial activity, see Mack E, Grubestic TH, and Kessler E. 2007. Indices of Industrial Diversity and Regional Economic Composition. *Growth and Change* 38(3):474-509.
- 27 - Regional Economic Accounts. Bureau of Economic Analysis. <https://www.bea.gov/iTable/definitions.cfm?did=2360&reqld=70>.
- 28 - For a glossary of terms used by the Bureau of Economic Analysis with definitions, see <https://bea.gov/regional/definitions/>.
- 29 - The Decennial Census also reports the number of workers commuting between counties, see <https://www.census.gov/topics/employment/commuting.html>.

Endnotes (cont.)

- 30 - According to the Bureau of Economic Analysis: "Estimates of gross commuters' earnings inflow and outflow are derived from the residence adjustment estimates, which are the estimates of the net inflow of the earnings of inter-area commuters. In the personal income accounts, the residence adjustment estimates are added to place-of-work earnings estimates to yield place-of-residence earnings estimates. This conversion process is an important part of the local area economic accounts because personal income is a place-of-residence measure, whereas the data used to estimate over 60 percent of personal income is reported on a place-of-work basis."

- 31 - For a study documenting a negative residential adjustment that is considered a positive indicator, see Mack E, Grubestic TH, and Kessler E. 2007. Indices of Industrial Diversity and Regional Economic Composition. *Growth and Change* 38(3):474-509.

- 32 - For a definition of recession and recovery periods, see the National Bureau of Economic Research: Business Cycle Dating Committee available at www.nber.org/cycles/recessions.html.

- 33 - For a list of national recessions and recovery periods, see www.nber.org/cycles/cyclesmain.html.

- 34 - For information regarding data collection and methodology for labor force statistics compiled by the Bureau of Labor Statistics, see <https://www.bls.gov/lau/laumthd.htm>. Please note that Local Area Unemployment Statistics data prior to 1990 are no longer supported by the Bureau of Labor Statistics.

- 35 - For research findings on economic resiliency, see: Chapple K and Lester TW. 2010. The resilient regional labour market? The U.S. case. *Cambridge Journal of Regions, Economy and Society* 3(1):85-104.