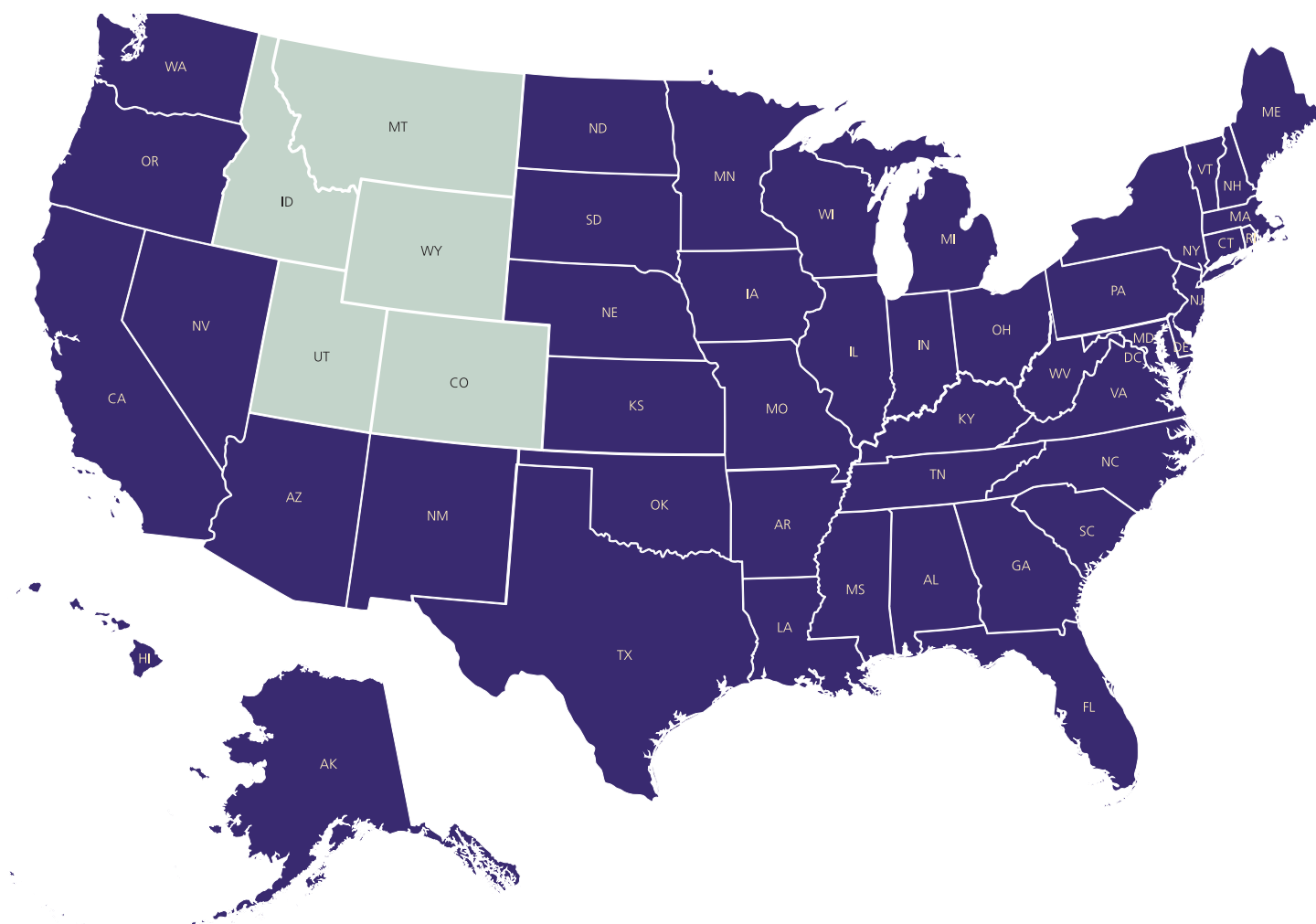
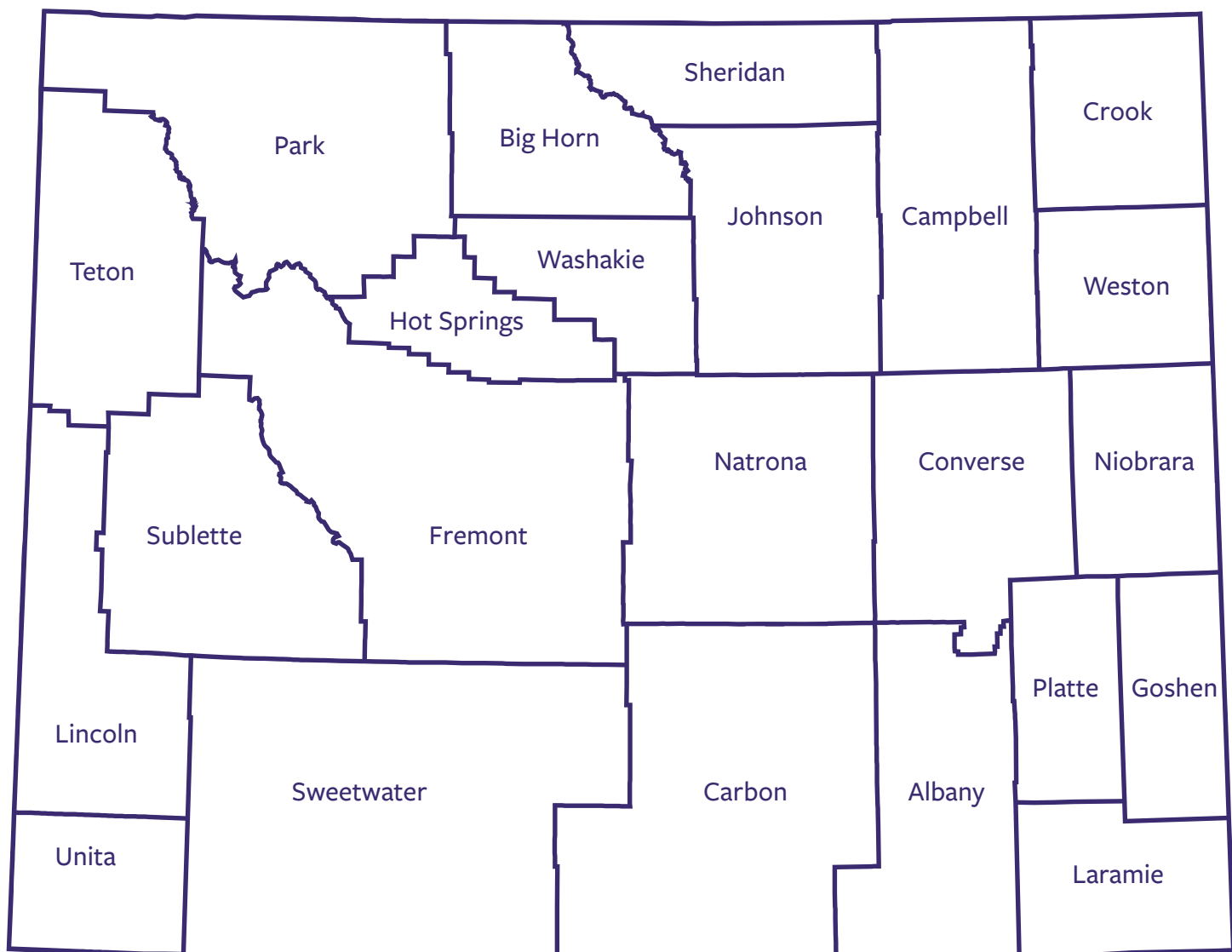


# Evaluating Key Components of Employment Change 2001–2017 for the Rocky Mountain Region, Wyoming, and its Counties

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Wyoming counties

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## INTRODUCTION

Creating and retaining jobs is often a primary aspiration of local economic development efforts. Analyzing employment change through time can provide key insights to a location's economic health. In this report we study employment change from 2001 to 2017. The analysis of this 17 years and 16 periods of change will hopefully provide meaningful information for local community development efforts in Wyoming counties.

Comparing various relevant geographic units is helpful in addition to a chronological analysis of employment change. Considering how your local changes compare to the national, regional, and state trends is important; however, contrasting vastly differently sized units over time can be difficult. Indexing the changes to an initial time frame is one method that allows for such a comparison. In this analysis we used the initial year of 2001 as the base index. This represents the starting point and as such has a 100 percent value. Each subsequent year for a geographic unit is compared to where they started. Values over 100 percent represent growth. Values below 100 means that the place had overall less employment then it began with. Using this approach, we were able to compare the United States, the Rocky Mountain Region, the state of Wyoming, and its 23 counties (see Table 1).

Perhaps the most common way of evaluating employment is to look at a unit's annual percentage change. Table 2 describes these percentage changes for the 16 time periods over 2001–17. We highlight each region's maximum and minimum change and their respective number of periods of growth and decline. We also evaluate how the local change compares to the national results (see Table 3).

Beyond the overall percentage change, assessing a community's economic competitiveness via the forces affecting employment growth or decline (Hustedde, Shaffer and Pulver, 2005) is possible. Shift-Share Analysis provides a method to measure

the movement (shift) of the local economy into faster or slower growth sectors and the community's larger or smaller portion (share) of the growth occurring in a given economic sector. It models the local economy using three basic sources of change. The first source is local change stimulated by national change, the National Growth component. The second force is based on the community's concentration in faster or slower growth economic sectors, the Industrial Mix component. The third and last component is local change arising from the relative competitiveness of firms locally compared to the national average for that sector, the Competitive Share component.

Understanding the meaning of each of the three forces and how they are calculated is important in using this analysis technique. The national growth (NG) component generates the change in employment if the local economy was similar to the national economy. It shows the change in employment due to national economic trends and is calculated by multiplying the base year employment in each sector by the national average employment growth rate, and then summing over all the sectors.

The next two components, industrial mix (IM) and competitive share (CS), attempt to explain key difference in how the local economy's change in employment varies from the national trend. The industrial mix evaluates the community's mix of faster or slower growing industry sectors and is determined by multiplying the local employment in each economic sector by the difference in the national grow rate for that sector and the growth rate for the whole economy. A positive industrial mix indicates the majority of the local employment is in sectors growing faster than national total employment (NG, national growth component). A negative industrial mix indicates the opposite, the majority of the local employment is in sectors growing slower than national total employment.

The competitive share (CS) component evaluates the employment change in each of industry sectors with the national average change in that sector and calculated by multiplying the local employment in each economic sector by the difference in the growth rate of that sector nationally and locally. After doing this for all sectors, the results are summed to give the community's competitive share

A positive competitive share indicates the community gained additional jobs over that due to national growth and its industrial structure. This gain suggests the community is more competitive (efficient) in securing additional employment than the rest of the nation. Conversely, a negative value would be a sign of being less competitive. For this study we evaluated each region's 23 major employment categories (see Figure 1). An in-depth description for these categories is in Appendix 1, Table 5.

We can use a simplified example to illustrate the process (see Figure 2) and specify the region has only two sectors (A & B) and that over this time period gained 18 jobs. The base employment of Sector A is 200 and Sector B is 120. The national average growth rate is 5 percent. We multiply each sector's base employment by this rate to obtain the total change attributed to National Growth (NG), 16 jobs in this example. To get the change attributed to the region's industrial mix, we multiply each sector's base employment by the difference in that sector's national average growth rate and the overall national average growth rate. Our example shows the Industrial Mix (IM) added 2.8 jobs. The region's sector competitiveness is derived by multiplying the base employment by the difference in each local sector's growth rate and the national sector growth rate. Our example finds that 0.8 jobs were lost because of the Competitive Share (CS) component. When we add all three components (NG + IM + CS) we should derive a value that matches the actual employment change experienced in

**Figure 1. Major Employment Categories used in Shift-Share Analysis**

#	TOTAL EMPLOYMENT
1	Farm employment
2	Forestry, fishing, related activities and other employment
3	Mining employment
4	Utilities employment
5	Construction employment
6	Manufacturing employment
7	Wholesale trade employment
8	Retail trade employment
9	Transportation and warehousing employment
10	Information employment
11	Finance and insurance employment
12	Real estate and rental and lease employment
13	Professional and technical services employment
14	Management of companies and enterprises employment
15	Administrative and waste services employment
16	Educational services employment
17	Health care and social assistance employment
18	Arts, entertainment, and recreation employment
19	Accommodation and food services employment
20	Other services, except public administration employment
21	Federal civilian government employment
22	Federal military employment
23	State and local government employment

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.\*)

*\*The employment data in the Woods & Poole database are a complete measure of the number of full- and part-time jobs by place of work. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers.*

the region, i.e., 18 jobs. In conclusion, the region grew slightly faster than the national average because it had an overall positive industrial mix; however, a bit of this growth was lost due to overall weaker competitiveness. Such information can help inform economic development strategies for the region.

### OUTLINE OF REPORT

The analysis report looks at the larger, underlying regions first, starting with a basic evaluation of employment change in the United States overall. Next it looks at the Rocky Mountain Region and includes the comparison with the United States via the Shift-Share Analysis. This is followed by conducting similar analysis for the state of Wyoming. This section compares Wyoming’s results with those of the larger regions of the United States and Rocky Mountain Region. The Wyoming state section adds an analysis of the overall results of the its 23 counties.

The report then conducts the employment analysis on the county level and starts by exploring how the analysis results can be interpreted by discussing results of a generic example county. Using an Example County should allow discussion to focus on results and data rather than performing an in-depth review of any specific Wyoming county. Following this review, the report includes analysis of each of Wyoming’s 23 counties and includes the results of all of the analysis techniques covered in the Wyoming state section. It goes from relative index of the base year to percent change, the range of employment change across all counties, Shift-Share Analysis, and evaluation of the top six employment sectors.

**Figure 2. A Simplified Example of a Shift-Share Analysis**

Sector	Base Employment		National Average Growth Rate			National Growth Component (NG)
A	200	x	5%		=	10.0
B	120	x	5%		=	6.0
Total NG						= 16.0
Sector	Base Employment		National Sector Growth Rate		National Average Growth Rate	Industrial Mix Component (IM)
A	200	x	7%	-	5%	= 4.0
B	120	x	4%	-	5%	= -1.2
Total IM						= 2.8
Sector	Base Employment		Local Sector Growth Rate		National Sector Growth Rate	Competitive Share Component (CS)
A	200	x	6%	-	7%	= -2.0
B	120	x	5%	-	4%	= 1.2
Total CS						= -0.8
Actual Change = NG + IM +CS						= 18.0

**Table 1. Employment 2001–2017 Indexed to 2001 for the United States, Rocky Mountain Region, the state of Wyoming and its Counties**

Region	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
United States	100.0	99.7	100.2	102.0	104.1	106.3	108.5	108.3	104.9	104.5	106.4	108.1	110.2	112.5	115.0	116.8	118.5
Rocky Mountain Region	100.0	99.9	100.3	102.7	106.1	109.7	114.0	114.8	111.3	110.5	112.5	114.6	117.4	120.7	124.1	127.2	130.0
Wyoming	100.0	101.2	102.0	104.1	107.3	112.2	117.7	120.9	117.4	116.6	118.2	120.2	121.3	123.0	122.9	120.5	120.6
Albany County, WY	100.0	99.3	100.6	102.8	102.8	103.4	106.0	106.6	107.2	106.4	108.0	107.8	108.8	108.7	110.7	112.1	111.1
Big Horn County, WY	100.0	99.2	98.2	100.1	101.1	104.8	103.2	105.1	100.7	102.8	103.8	103.5	103.1	105.4	104.9	102.3	101.0
Campbell County, WY	100.0	101.4	100.7	103.1	110.4	121.5	129.7	138.8	136.4	133.5	132.9	135.7	134.7	139.6	137.6	126.6	124.7
Carbon County, WY	100.0	99.7	97.2	97.8	100.6	108.2	116.4	116.1	105.7	102.8	101.8	104.7	107.1	109.5	110.3	107.1	103.6
Converse County, WY	100.0	101.2	99.5	101.5	105.0	106.7	113.5	120.5	119.0	120.4	121.4	129.9	133.4	140.8	139.4	128.1	126.8
Crook County, WY	100.0	102.3	101.1	104.7	107.6	112.9	118.9	121.0	120.0	121.9	125.0	127.4	124.9	127.2	128.6	131.8	133.0
Fremont County, WY	100.0	102.0	100.2	102.2	105.8	108.7	113.9	116.4	114.6	115.5	115.9	117.1	117.2	115.9	114.9	111.9	111.1
Goshen County, WY	100.0	100.4	98.6	97.3	98.8	101.6	105.5	108.8	109.4	109.2	111.4	111.7	110.0	110.0	109.8	109.3	109.5
Hot Springs County, WY	100.0	95.1	91.2	90.1	91.3	93.7	99.0	101.0	99.3	101.4	102.3	103.4	105.0	101.2	98.3	97.0	95.9
Johnson County, WY	100.0	103.1	103.1	106.8	111.6	117.4	122.4	130.1	124.1	123.0	121.9	127.3	128.0	132.1	126.3	131.6	134.3
Laramie County, WY	100.0	103.5	105.7	107.3	109.4	111.3	115.8	118.0	116.8	116.5	119.1	120.5	124.3	125.7	127.1	128.0	128.8
Lincoln County, WY	100.0	102.9	110.4	111.5	113.7	121.8	137.2	131.2	124.6	120.1	121.0	116.9	117.2	120.6	124.0	127.7	130.0
Natrona County, WY	100.0	100.4	102.3	106.0	109.6	114.3	118.4	121.2	116.1	116.4	119.8	124.6	127.2	129.7	128.3	121.0	120.7
Niobrara County, WY	100.0	100.6	96.5	96.1	99.3	98.1	104.0	103.9	104.0	105.4	107.7	113.7	115.4	114.4	109.9	109.4	109.9
Park County, WY	100.0	102.8	103.9	105.8	106.9	109.3	112.8	115.2	114.2	113.9	115.5	118.1	117.6	119.1	120.3	120.4	120.5
Platte County, WY	100.0	100.8	99.4	99.0	98.5	101.7	104.4	102.9	102.9	104.6	107.9	106.7	107.3	107.4	110.3	107.0	109.3
Sheridan County, WY	100.0	103.4	103.4	105.1	106.8	112.0	118.8	121.4	117.4	116.2	115.9	116.9	118.4	121.0	122.5	123.9	124.2
Sublette County, WY	100.0	106.8	114.8	122.2	137.2	157.9	185.3	197.8	192.4	194.1	202.4	192.5	181.4	177.1	165.4	151.6	156.5
Sweetwater County, WY	100.0	97.8	101.5	106.0	112.2	122.2	127.4	131.4	122.3	121.1	125.2	126.8	125.6	123.9	120.4	115.0	115.1
Teton County, WY	100.0	99.6	99.6	101.9	105.3	110.7	116.3	120.6	115.2	113.2	114.5	117.7	123.3	128.7	132.1	138.0	141.2
Uinta County, WY	100.0	102.9	101.1	99.6	101.8	107.0	112.4	117.6	111.8	109.3	106.6	108.0	104.3	105.5	104.2	100.6	100.0
Washakie County, WY	100.0	98.4	98.6	99.2	101.2	102.6	107.0	109.9	108.2	105.5	107.1	105.7	103.7	102.9	102.8	100.0	100.0
Weston County, WY	100.0	97.3	96.7	96.3	98.5	99.2	103.4	106.8	102.2	103.3	100.2	104.2	104.1	108.4	108.4	107.1	106.0

Maximum and Minimum, Columns with gray shading indicates recession years.

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)

**Table 2. Percent Change in Employment 2001–2017 for the United States, Rocky Mountain Region, the state of Wyoming and its Counties**

Region	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
United States	-0.26	0.50	1.76	2.07	2.05	2.09	-0.18	-3.11	-0.42	1.84	1.64	1.87	2.14	2.19	1.60	1.43
Rocky Mountain Region	-0.07	0.35	2.38	3.31	3.43	3.93	0.69	-3.04	-0.77	1.90	1.80	2.51	2.77	2.79	2.50	2.20
Wyoming	1.21	0.79	2.08	3.09	4.50	4.90	2.70	-2.88	-0.62	1.36	1.64	0.93	1.45	-0.10	-1.94	0.07
Albany County, WY	-0.68	1.30	2.15	0.05	0.59	2.52	0.49	0.58	-0.70	1.51	-0.20	0.91	-0.11	1.86	1.23	-0.81
Big Horn County, WY	-0.82	-0.94	1.89	1.02	3.66	-1.53	1.80	-4.16	2.04	0.98	-0.26	-0.37	2.24	-0.48	-2.54	-1.25
Campbell County, WY	1.35	-0.67	2.44	7.08	9.98	6.75	7.03	-1.70	-2.15	-0.46	2.14	-0.73	3.62	-1.41	-8.04	-1.46
Carbon County, WY	-0.26	-2.58	0.61	2.91	7.56	7.56	-0.24	-8.98	-2.75	-0.99	2.93	2.22	2.28	0.74	-2.95	-3.25
Converse County, WY	1.19	-1.65	1.98	3.44	1.65	6.41	6.12	-1.27	1.22	0.82	7.04	2.67	5.55	-0.97	-8.12	-1.05
Crook County, WY	2.30	-1.19	3.54	2.82	4.89	5.36	1.72	-0.80	1.61	2.52	1.93	-2.01	1.89	1.07	2.48	0.95
Fremont County, WY	2.03	-1.81	2.05	3.53	2.67	4.80	2.21	-1.54	0.75	0.37	1.00	0.14	-1.16	-0.87	-2.61	-0.65
Goshen County, WY	0.45	-1.79	-1.42	1.56	2.87	3.87	3.08	0.60	-0.23	2.05	0.23	-1.52	0.00	-0.18	-0.46	0.19
Hot Springs County, WY	-4.95	-4.06	-1.16	1.35	2.59	5.66	1.97	-1.61	2.06	0.94	1.06	1.51	-3.56	-2.90	-1.36	-1.05
Johnson County, WY	3.08	0.06	3.55	4.50	5.20	4.29	6.23	-4.56	-0.90	-0.91	4.40	0.60	3.22	-4.45	4.20	2.07
Laramie County, WY	3.55	2.10	1.47	1.99	1.70	4.09	1.88	-1.01	-0.30	2.25	1.18	3.18	1.10	1.14	0.70	0.60
Lincoln County, WY	2.89	7.28	1.03	1.94	7.11	12.64	-4.34	-5.01	-3.65	0.74	-3.39	0.31	2.85	2.85	2.92	1.85
Natrona County, WY	0.43	1.84	3.60	3.46	4.25	3.60	2.38	-4.21	0.23	2.94	4.01	2.08	2.00	-1.09	-5.67	-0.32
Niobrara County, WY	0.62	-4.11	-0.38	3.34	-1.24	6.03	-0.12	0.12	1.30	2.22	5.61	1.46	-0.91	-3.88	-0.45	0.45
Park County, WY	2.82	1.05	1.84	1.03	2.28	3.13	2.13	-0.86	-0.20	1.32	2.33	-0.48	1.27	1.05	0.10	0.06
Platte County, WY	0.81	-1.40	-0.39	-0.49	3.23	2.58	-1.42	0.04	1.64	3.19	-1.17	0.56	0.12	2.76	-3.04	2.16
Sheridan County, WY	3.39	-0.02	1.66	1.66	4.82	6.08	2.21	-3.35	-1.01	-0.23	0.87	1.31	2.16	1.23	1.12	0.26
Sublette County, WY	6.83	7.51	6.42	12.28	15.05	17.36	6.77	-2.75	0.88	4.29	-4.89	-5.76	-2.37	-6.61	-8.33	3.23
Sweetwater County, WY	-2.25	3.81	4.47	5.80	8.91	4.30	3.15	-6.91	-1.03	3.37	1.34	-0.99	-1.34	-2.83	-4.46	0.05
Teton County, WY	-0.42	0.01	2.29	3.37	5.11	5.12	3.70	-4.48	-1.74	1.14	2.78	4.76	4.34	2.68	4.44	2.32
Uinta County, WY	2.93	-1.80	-1.45	2.18	5.15	5.03	4.57	-4.85	-2.31	-2.44	1.28	-3.35	1.10	-1.20	-3.45	-0.60
Washakie County, WY	-1.61	0.17	0.62	2.08	1.36	4.25	2.73	-1.51	-2.49	1.47	-1.30	-1.93	-0.76	-0.04	-2.75	0.04
Weston County, WY	-2.73	-0.55	-0.47	2.29	0.73	4.20	3.31	-4.33	1.12	-3.03	4.00	-0.13	4.13	0.02	-1.20	-1.04

Maximum and Minimum, Columns with gray shading indicates recession time periods

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)



**Table 3. Percent Change in Employment 2001–2017 Compared to the United States (Local – US) for the Rocky Mountain Region, the state of Wyoming and its Counties**

Region	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
<b>Rocky Mountain Region</b>	0.18	-0.15	0.62	1.24	1.38	<b>1.84</b>	0.88	0.07	<b>-0.34</b>	0.05	0.16	0.64	0.63	0.60	0.90	0.77
<b>Wyoming</b>	1.47	0.29	0.32	1.02	2.45	2.81	<b>2.89</b>	0.23	-0.20	-0.48	0.00	-0.94	-0.70	-2.30	<b>-3.54</b>	-1.36
<b>Albany County, WY</b>	-0.42	0.80	0.39	-2.03	-1.46	0.43	0.67	<b>3.69</b>	-0.28	-0.34	-1.84	-0.96	<b>-2.26</b>	-0.33	-0.37	-2.24
<b>Big Horn County, WY</b>	-0.56	-1.44	0.13	-1.05	1.61	-3.61	1.98	-1.05	<b>2.46</b>	-0.87	-1.90	-2.24	0.10	-2.67	<b>-4.14</b>	-2.68
<b>Campbell County, WY</b>	1.61	-1.17	0.69	5.01	<b>7.93</b>	4.66	7.22	1.41	-1.73	-2.30	0.50	-2.60	1.47	-3.60	<b>-9.64</b>	-2.89
<b>Carbon County, WY</b>	0.00	-3.08	-1.15	0.84	<b>5.51</b>	5.47	-0.06	<b>-5.87</b>	-2.32	-2.83	1.29	0.35	0.14	-1.45	-4.55	-4.68
<b>Converse County, WY</b>	1.45	-2.15	0.22	1.37	-0.40	4.32	<b>6.30</b>	1.84	1.64	-1.03	5.40	0.80	3.40	-3.16	<b>-9.72</b>	-2.48
<b>Crook County, WY</b>	2.56	-1.70	1.78	0.75	2.84	<b>3.27</b>	1.90	2.31	2.03	0.67	0.29	<b>-3.88</b>	-0.26	-1.12	0.87	-0.48
<b>Fremont County, WY</b>	2.29	-2.31	0.29	1.46	0.62	<b>2.71</b>	2.40	1.57	1.17	-1.48	-0.64	-1.73	-3.30	-3.06	<b>-4.21</b>	-2.08
<b>Goshen County, WY</b>	0.70	-2.29	-3.17	-0.51	0.82	1.78	3.27	<b>3.71</b>	0.19	0.21	-1.41	<b>-3.39</b>	-2.14	-2.37	-2.06	-1.24
<b>Hot Springs County, WY</b>	-4.69	-4.57	-2.91	-0.73	0.54	<b>3.57</b>	2.15	1.50	2.48	-0.90	-0.58	-0.36	<b>-5.70</b>	-5.09	-2.97	-2.48
<b>Johnson County, WY</b>	3.34	-0.44	1.79	2.43	3.15	2.20	<b>6.42</b>	-1.44	-0.48	-2.76	2.76	-1.26	1.07	<b>-6.65</b>	2.60	0.64
<b>Laramie County, WY</b>	<b>3.81</b>	1.60	-0.28	-0.08	-0.35	2.00	2.06	2.10	0.12	0.41	-0.46	1.31	-1.05	<b>-1.05</b>	-0.90	-0.83
<b>Lincoln County, WY</b>	3.15	6.78	-0.73	-0.13	5.06	<b>10.55</b>	-4.15	-1.90	-3.22	-1.10	<b>-5.03</b>	-1.56	0.71	0.65	1.32	0.42
<b>Natrona County, WY</b>	0.69	1.34	1.84	1.38	2.20	1.51	2.56	-1.10	0.66	1.09	2.37	0.21	-0.14	-3.28	<b>-7.27</b>	-1.75
<b>Niobrara County, WY</b>	0.87	-4.61	-2.14	1.26	-3.29	3.94	0.07	3.23	1.73	0.38	<b>3.97</b>	-0.41	-3.05	<b>-6.07</b>	-2.05	-0.98
<b>Park County, WY</b>	<b>3.08</b>	0.55	0.08	-1.04	0.23	1.05	2.31	2.25	0.23	-0.52	0.69	<b>-2.35</b>	-0.87	-1.14	-1.51	-1.37
<b>Platte County, WY</b>	1.07	-1.90	-2.15	-2.56	1.18	0.49	-1.24	<b>3.15</b>	2.06	1.34	-2.81	-1.31	-2.02	0.57	<b>-4.64</b>	0.73
<b>Sheridan County, WY</b>	3.65	-0.52	-0.10	-0.41	2.77	<b>3.99</b>	2.39	-0.24	-0.59	<b>-2.07</b>	-0.77	-0.56	0.01	-0.96	-0.48	-1.17
<b>Sublette County, WY</b>	7.09	7.00	4.66	10.21	13.00	<b>15.27</b>	6.95	0.36	1.30	2.45	-6.53	-7.63	-4.52	-8.80	<b>-9.93</b>	1.80
<b>Sweetwater County, WY</b>	-1.99	3.31	2.71	3.73	<b>6.86</b>	2.21	3.33	-3.80	-0.61	1.52	-0.30	-2.86	-3.49	-5.02	<b>-6.07</b>	-1.38
<b>Teton County, WY</b>	-0.16	-0.49	0.53	1.30	3.06	3.03	<b>3.88</b>	<b>-1.37</b>	-1.31	-0.71	1.14	2.89	2.20	0.49	2.84	0.89
<b>Uinta County, WY</b>	3.19	-2.30	-3.20	0.11	3.10	2.94	<b>4.76</b>	-1.74	-1.89	-4.28	-0.36	<b>-5.22</b>	-1.05	-3.39	-5.05	-2.03
<b>Washakie County, WY</b>	-1.35	-0.33	-1.14	0.01	-0.69	2.16	<b>2.92</b>	1.60	-2.07	-0.38	-2.94	-3.80	-2.90	-2.23	<b>-4.35</b>	-1.39
<b>Weston County, WY</b>	-2.48	-1.05	-2.23	0.22	-1.32	2.11	<b>3.50</b>	-1.21	1.54	<b>-4.88</b>	2.36	-2.00	1.99	-2.17	-2.80	-2.47

**Maximum** and **Minimum**, Columns with gray shading indicates recession time periods

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)

**Table 4. Employment Study 2001–2017 Ranking of Key Components for Wyoming Counties**

County	Index			Percent Change			Grew faster than United States			Grew faster than Wyoming		
	Max.	Min.	Fewest Periods <2001	Max.	Min.	Most Increasing Periods	Max.	Min.	Most Periods with Growth > US	Max.	Min.	Most Periods with Growth > WY
<b>Albany</b>	17th	14th	11th (4 way tie)	<b>23rd</b>	<b>1st</b>	9th (2 way tie)	14th	4th	18th (5 way tie)	11th	10th	13th (5 way tie)
<b>Big Horn</b>	22nd	17th	15th (2 way tie)	20th	11th	<b>22nd</b> (2 way tie)	<b>23rd</b>	8th	18th (5 way tie)	17th	21st	<b>23rd</b>
<b>Campbell</b>	4th	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	3rd	20th	17th (5 way tie)	3rd	21st	7th (2 way tie)	5th	17th	4th (4 way tie)
<b>Carbon</b>	15th	20th	17th (4 way tie)	5th	<b>23rd</b>	17th (5 way tie)	7th	16th	14th (3 way tie)	13th	18th	13th (5 way tie)
<b>Converse</b>	3rd	13th	11th (4 way tie)	6th	21st	9th (2 way tie)	6th	22nd	5th (2 way tie)	6th	20th	8th (4 way tie)
<b>Crook</b>	7th	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	11th	5th	2nd (3 way tie)	17th	7th	<b>1st</b> (4 way tie)	7th	6th	<b>1st</b>
<b>Fremont</b>	14th	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	14th	6th	11th (3 way tie)	21st	9th	9th (5 way tie)	22nd	4th	20th (3 way tie)
<b>Goshen</b>	18th	19th	17th (4 way tie)	19th	4th	14th (3 way tie)	13th	6th	14th (3 way tie)	10th	8th	13th (5 way tie)
<b>Hot Springs</b>	<b>23rd</b>	<b>23rd</b>	<b>23rd</b>	10th	16th	17th (5 way tie)	15th	15th	18th (5 way tie)	16th	19th	18th (2 way tie)
<b>Johnson</b>	6th	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	7th	14th	5th (4 way tie)	5th	19th	5th (2 way tie)	4th	14th	4th (4 way tie)
<b>Laramie</b>	10th	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	18th	3rd	<b>1st</b>	12th	<b>1st</b>	9th (5 way tie)	18th	5th	4th (4 way tie)
<b>Lincoln</b>	5th	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	2nd	17th	5th (4 way tie)	2nd	13th	9th (5 way tie)	2nd	<b>23rd</b>	8th (4 way tie)
<b>Natrona</b>	9th	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	15th	18th	5th (4 way tie)	22nd	20th	<b>1st</b> (4 way tie)	19th	9th	8th (4 way tie)
<b>Niobrara</b>	16th	22nd	21st	9th	10th	14th (3 way tie)	10th	18th	9th (5 way tie)	9th	16th	4th (4 way tie)
<b>Park</b>	12th	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	22nd	2nd	2nd (3 way tie)	19th	5th	7th (2 way tie)	20th	3rd	12th
<b>Platte</b>	19th	15th	17th (4 way tie)	21st	8th	11th (3 way tie)	18th	11th	9th (5 way tie)	14th	12th	18th (2 way tie)
<b>Sheridan</b>	11th	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	8th	9th	5th (4 way tie)	9th	3rd	18th (5 way tie)	12th	<b>1st</b>	8th (4 way tie)
<b>Sublette</b>	<b>1st</b>	<b>1st</b> (10 way tie)	<b>1st</b> (10 way tie)	<b>1st</b>	22nd	11th (3 way tie)	<b>1st</b>	<b>23rd</b>	<b>1st</b> (4 way tie)	<b>1st</b>	22nd	2nd (2 way tie)
<b>Sweetwater</b>	8th	18th	11th (4 way tie)	4th	19th	14th (3 way tie)	4th	17th	14th (3 way tie)	8th	11th	13th (5 way tie)
<b>Teton</b>	2nd	11th (2 way tie)	15th (2 way tie)	13th	13th	2nd (3 way tie)	11th	2nd	<b>1st</b> (4 way tie)	3rd	2nd	2nd (2 way tie)
<b>Uinta</b>	13th	11th (2 way tie)	11th (4 way tie)	12th	15th	<b>22nd</b> (2 way tie)	8th	14th	18th (5 way tie)	21st	13th	20th (3 way tie)
<b>Washakie</b>	20th	16th	17th (4 way tie)	16th	7th	17th (5 way tie)	20th	10th	<b>23rd</b>	<b>23rd</b>	7th	20th (3 way tie)
<b>Weston</b>	21st	21st	22nd	17th	12th	17th (5 way tie)	16th	12th	17th	15th	15th	13th (5 way tie)

**First and Last**

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)

## EMPLOYMENT CHANGE 2001–17 — UNITED STATES

Over the 2001–17 time period, the maximum index for the United States was 118.5 in 2017 (see Table 1 and the United States Chart 1, shown below). The minimum index was 99.7 in 2002. Over this 17-year period, the ratio fell below its 2001 value 1 time. The graph clearly illustrates the employment dip occurring during the 2008–10 economic recession.

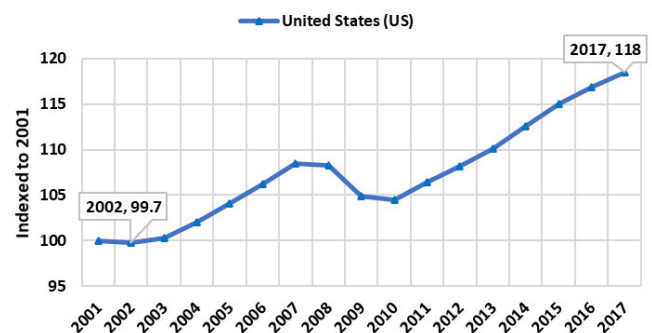
Switching from a comparison of the absolute values compared to 2001, we now turn to the actual percentage adjustment in employment over these 16 periods of change. The maximum percent change for the United States was 2.19 percent in 2014–15 (see Table 2 and United States Chart 2). The minimum change was -3.11 percent in 2008–9. It had 12 periods of increase and 4 periods of decline.

Let's take a deeper look into the data by exploring the change in employment by the major industry sectors. First, we will compare the sectors by using the 2001 Index (see United States Chart 3 and Table United States 1). Over these 17 years, the Mining sector recorded the largest index 198.3 in 2013. Conversely, the smallest index over this time period was 71.5 recorded in 2010 by the Manufacturing sector. Since that time, the MANUFACTURING sector's index has been increasing but still remained below 80 percent of its initial value in 2017 and was the lowest index of all sectors in that year. Besides MANUFACTURING, the FARM and INFORMATION sectors also recorded their largest index in 2001. On the other hand, 12 sectors had their maximum index at the end of the study period (2017).

Next, let's explore the percent change in employment by the major industry sectors (see Chart United States 4 and Table United States 2). Over this 17-year period, the Mining sector recorded the largest change at 24.52 percent; this occurred in the 2011–12 time period. Conversely, the smallest percent change over this entire time period was -12.47 recorded in 2008–9 by the Construction sector. Two sectors (EDUCATIONAL SERVICES and HEALTH CARE) grew in all 16 time periods. The FARM sector had the fewest periods of increase, increasing only five times. The next fewest periods of growth was six times for the INFORMATION sector. The recession of 2008–9 is clearly evident, as over half of the sectors (12) recorded their minimum change in that time period.

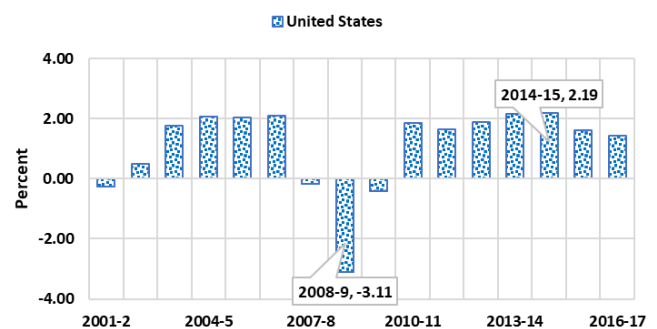
United States Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account

**United States Chart 1**  
**Total Employment 2001-2017**



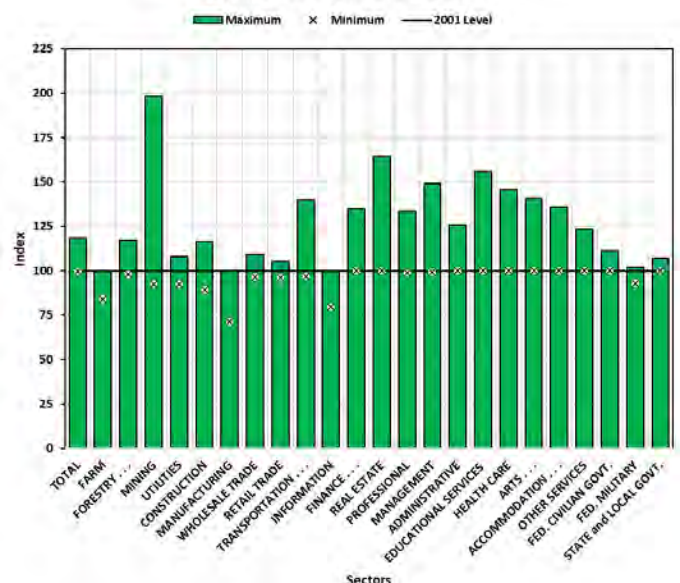
United States Chart 1. Total employment

**United States Chart 2**  
**Percent Employment Change 2001-2017**



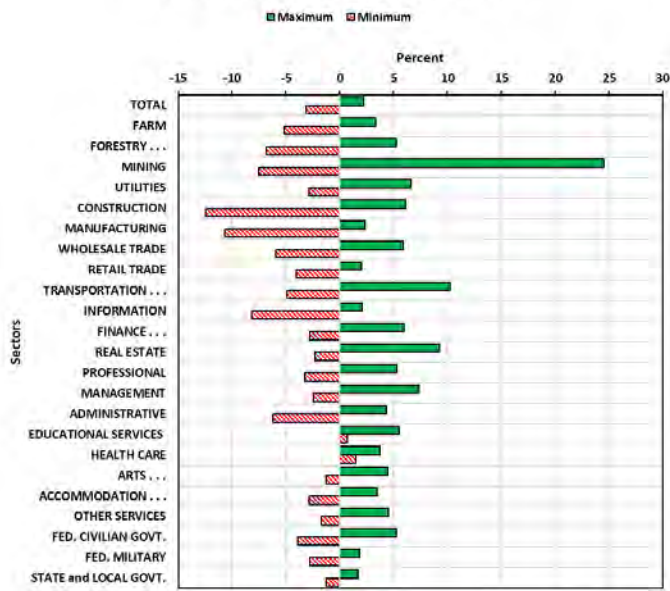
United States Chart 2. Percent employment change

**United States Chart 3. Employment 2001-2017**  
**by Major Sectors Indexed to 2001**



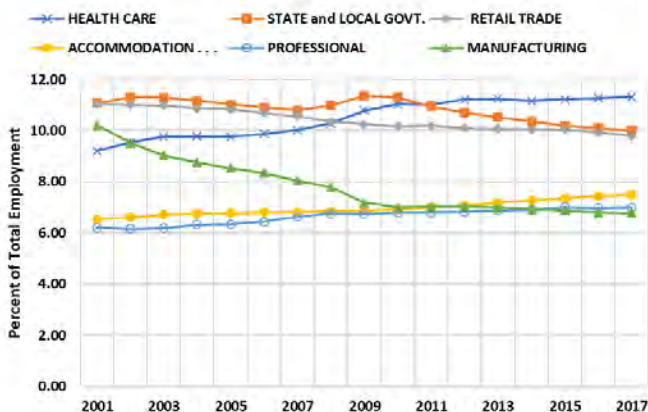
United States Chart 3. Employment by major sectors

United States Chart 4. Employment 2001-2017  
Annual Percent Change by Major Sectors



United States Chart 4. Employment annual percent change by major sectors.

UNITED STATES Chart 5. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages



United States Chart 5. Top employment sectors

for over 50 percent of the employment in the United States. Three key points emerge. First is the large role of STATE and LOCAL government and retail trade employment. Retail trade employment has been on a steady decline over these 17 years. STATE and LOCAL government employment peaked in 2009 and has been on a significant decline since that time.

Second is the dramatic decline in MANUFACTURING employment from 2001 through 2010. Manufacturing employment was the third largest sector in 2001 and only the sixth largest in 2017.

Third is the rise of health care employment. In 2001, it was the fourth highest sector but has grown considerably over this 17-year time period. It became the largest employment sector in 2011 and has widened its gap over the next two sectors since.

## SUMMARY

The United State's total employment from 2001–17 peaked at 118.5 percent of its 2001 level in 2017. It dropped below its starting value 1 time (2002). It had 12 periods of increasing and 4 periods of declining employment.

Exploring the change in employment by the major industry sectors over this 17-year time period found that the mining sector recorded the largest relative growth with an index of 198.3 in 2013. The smallest index over this time period was 71.5 recorded in 2010 by the Manufacturing sector. Looking at percentage change over the 2001–17-time frame found that the mining sector recorded the largest change at 24.52 percent in 2011–12. The smallest percent change (or the largest percent decline) over this entire time period was -12.47 recorded in 2008–9 by the construction sector. Two sectors (EDUCATIONAL SERVICES and HEALTH CARE) grew in all 16 time periods. The FARM sector had the fewest periods of increase, increasing only five times.

Looking at the top six employment sectors (ranked by 2017 values) found that state and local government jobs were the highest proportion of total employment for the United States from 2001–10. Since 2010, HEALTH CARE has been the largest sector. Manufacturing employment was the third largest sector in 2001, but it dropped dramatically from 2001–10. By 2017, it had dropped to become the sixth largest sector. Over these 17 years, the changes in HEALTH CARE and MANUFACTURING appear diametrically opposite of each other.

United States Table 1. Employment 2001–2017 by Major Sectors Indexed to 2001

Sector	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Total employment</b>	<b>100.0</b>	<b>99.7</b>	<b>100.2</b>	<b>102.0</b>	<b>104.1</b>	<b>106.3</b>	<b>108.5</b>	<b>108.3</b>	<b>104.9</b>	<b>104.5</b>	<b>106.4</b>	<b>108.1</b>	<b>110.2</b>	<b>112.5</b>	<b>115.0</b>	<b>116.8</b>	<b>118.5</b>
Farm employment	100.0	94.8	92.7	88.8	86.7	84.2	87.0	85.8	85.7	86.1	86.2	85.6	86.4	86.4	86.5	86.3	85.9
Forestry, fishing, related activities and other employment	100.0	105.2	98.1	101.4	103.7	103.0	105.8	107.5	104.0	106.4	106.9	110.5	113.4	117.4	114.3	116.7	115.4
Mining employment	100.0	92.5	98.9	96.4	103.1	115.0	125.2	149.9	139.2	156.8	153.7	191.4	198.3	197.0	191.7	179.2	186.2
Utilities employment	100.0	97.4	94.6	93.4	92.5	92.6	94.3	97.0	95.8	94.6	93.5	93.8	93.9	94.3	97.0	101.1	107.8
Construction employment	100.0	98.5	100.8	105.3	111.7	116.2	116.1	109.7	96.0	89.4	89.1	91.0	94.1	97.4	100.3	105.2	108.3
Manufacturing employment	100.0	93.1	88.5	87.4	87.0	86.7	85.5	82.6	73.8	71.5	73.2	74.5	75.4	76.3	77.3	77.6	78.7
Wholesale trade employment	100.0	97.9	97.3	99.2	101.6	104.0	105.5	104.5	98.3	96.6	98.7	100.1	101.8	107.8	109.4	103.7	103.9
Retail trade employment	100.0	99.6	99.8	100.6	102.2	103.0	103.9	101.5	97.5	96.2	98.2	99.0	100.6	102.5	104.6	105.2	105.3
Transportation and warehousing employment	100.0	97.7	96.9	98.9	102.2	104.8	108.2	106.3	101.1	99.8	103.5	107.1	109.8	114.8	126.5	135.3	139.9
Information employment	100.0	91.8	88.7	87.8	88.0	87.6	87.9	86.7	81.8	79.6	79.8	79.7	80.7	82.2	81.9	83.6	83.6
Finance and insurance employment	100.0	100.8	101.8	102.9	105.1	107.2	112.7	116.7	121.3	117.9	125.0	124.4	125.8	123.3	126.2	130.6	134.7
Real estate and rental and lease employment	100.0	102.3	108.3	117.3	128.1	134.3	139.7	138.5	135.2	138.6	142.9	141.6	145.2	151.5	156.2	159.8	164.1
Professional and technical services employment	100.0	98.9	99.9	104.0	106.3	110.2	116.0	117.9	114.1	114.4	116.4	118.8	122.1	125.2	129.8	131.4	133.5
Management of companies and enterprises employment	100.0	101.1	99.1	100.7	103.9	107.0	109.5	115.9	113.1	112.7	116.2	121.7	126.5	131.8	135.5	145.4	149.0
Administrative and waste services employment	100.0	100.1	101.6	105.9	108.3	112.4	115.1	112.0	105.0	108.2	111.8	114.9	118.3	122.0	122.5	125.3	125.8
Educational services employment	100.0	105.5	109.1	112.6	117.1	121.5	123.9	127.8	132.1	136.0	137.1	139.7	144.1	149.4	153.2	154.2	155.8
Health care and social assistance employment	100.0	103.1	106.2	108.2	110.4	113.8	118.0	120.9	122.8	125.1	127.2	131.8	134.4	136.4	140.0	143.0	145.6
Arts, entertainment, and recreation employment	100.0	103.2	103.9	107.0	109.2	112.0	117.0	119.8	118.3	119.6	122.3	125.7	127.8	133.4	133.3	137.9	140.8
Accommodation and food services employment	100.0	101.1	103.2	105.7	108.0	110.9	113.2	113.8	110.5	110.8	114.1	117.2	121.2	125.4	129.3	133.2	136.0
Other services, except public administration employment	100.0	103.9	104.9	106.9	107.8	109.4	112.0	111.2	109.2	107.4	112.3	114.3	115.8	119.7	123.1	122.2	123.1
Federal civilian government employment	100.0	103.2	103.4	102.4	102.2	102.0	101.9	103.2	105.7	111.2	106.9	105.3	103.6	102.3	103.0	104.3	104.7
Federal military employment	100.0	101.3	101.9	100.5	97.8	98.5	98.6	100.4	101.0	101.4	100.5	99.3	98.1	95.4	94.4	93.0	93.1
State and local government employment	100.0	101.7	102.1	102.7	103.6	104.4	105.8	107.3	107.4	106.5	105.1	104.5	104.6	105.1	105.6	106.4	106.9

Maximum and Minimum, Columns with gray shading indicates recession years

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)



**United States Table 2. Employment 2001–2017 Annual Percent Change by Major Sectors**

Sector	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
<b>Total employment</b>	<b>-0.26</b>	<b>0.50</b>	<b>1.76</b>	<b>2.07</b>	<b>2.05</b>	<b>2.09</b>	<b>-0.18</b>	<b>-3.11</b>	<b>-0.42</b>	<b>1.84</b>	<b>1.64</b>	<b>1.87</b>	<b>2.14</b>	<b>2.19</b>	<b>1.60</b>	<b>1.43</b>
Farm employment	-5.19	-2.27	-4.19	-2.32	-2.90	3.33	-1.35	-0.19	0.46	0.11	-0.61	0.84	0.00	0.15	-0.23	-0.45
Forestry, fishing, related activities and other employment	5.22	-6.79	3.39	2.27	-0.64	2.65	1.66	-3.27	2.29	0.52	3.35	2.60	3.49	-2.59	2.06	-1.06
Mining employment	-7.55	6.95	-2.50	6.97	11.54	8.88	19.69	-7.10	12.62	-2.00	24.52	3.61	-0.63	-2.71	-6.53	3.91
Utilities employment	-2.64	-2.83	-1.32	-0.96	0.17	1.80	2.91	-1.24	-1.26	-1.21	0.39	0.12	0.42	2.82	4.22	6.65
Construction employment	-1.51	2.40	4.41	6.07	4.08	-0.12	-5.52	-12.47	-6.94	-0.30	2.16	3.40	3.54	2.93	4.84	3.03
Manufacturing employment	-6.94	-4.89	-1.23	-0.45	-0.33	-1.45	-3.39	-10.68	-3.08	2.35	1.77	1.31	1.16	1.30	0.42	1.32
Wholesale trade employment	-2.13	-0.61	1.94	2.48	2.31	1.43	-0.88	-5.93	-1.78	2.24	1.40	1.64	5.91	1.47	-5.15	0.21
Retail trade employment	-0.39	0.18	0.77	1.67	0.73	0.88	-2.26	-4.01	-1.26	2.02	0.82	1.63	1.87	2.04	0.55	0.12
Transportation and warehousing employment	-2.26	-0.90	2.07	3.42	2.54	3.20	-1.78	-4.91	-1.21	3.72	3.46	2.49	4.52	10.25	6.97	3.38
Information employment	-8.21	-3.38	-1.01	0.28	-0.49	0.30	-1.28	-5.71	-2.64	0.20	-0.13	1.22	1.92	-0.32	2.07	-0.01
Finance and insurance employment	0.84	0.99	0.99	2.20	1.98	5.11	3.61	3.93	-2.79	5.94	-0.48	1.18	-1.98	2.33	3.48	3.17
Real estate and rental and lease employment	2.26	5.86	8.33	9.24	4.85	4.01	-0.91	-2.32	2.49	3.08	-0.90	2.55	4.33	3.12	2.30	2.68
Professional and technical services employment	-1.07	1.02	4.03	2.27	3.61	5.31	1.66	-3.28	0.28	1.76	2.09	2.73	2.55	3.64	1.23	1.67
Management of companies and enterprises employment	1.14	-2.02	1.62	3.21	2.98	2.31	5.85	-2.45	-0.28	3.06	4.75	3.93	4.22	2.75	7.35	2.45
Administrative and waste services employment	0.11	1.44	4.31	2.25	3.73	2.49	-2.75	-6.21	3.05	3.34	2.69	3.02	3.10	0.44	2.23	0.46
Educational services employment	5.49	3.46	3.20	3.95	3.81	1.98	3.12	3.32	3.00	0.81	1.89	3.17	3.66	2.51	0.67	1.05
Health care and social assistance employment	3.14	2.94	1.95	1.97	3.13	3.71	2.38	1.60	1.87	1.71	3.57	2.01	1.46	2.66	2.18	1.76
Arts, entertainment, and recreation employment	3.17	0.73	2.98	2.08	2.56	4.47	2.37	-1.26	1.13	2.22	2.81	1.62	4.44	-0.07	3.38	2.14
Accommodation and food services employment	1.06	2.07	2.48	2.19	2.62	2.14	0.46	-2.88	0.31	2.94	2.73	3.43	3.44	3.16	3.01	2.08
Other services, except public administration employment	3.91	0.98	1.83	0.89	1.47	2.36	-0.71	-1.75	-1.70	4.54	1.84	1.32	3.32	2.87	-0.73	0.70
Federal civilian government employment	3.19	0.18	-0.92	-0.25	-0.18	-0.07	1.29	2.38	5.24	-3.89	-1.44	-1.70	-1.20	0.64	1.32	0.35
Federal military employment	1.26	0.62	-1.33	-2.69	0.69	0.10	1.81	0.63	0.38	-0.90	-1.20	-1.17	-2.81	-0.96	-1.48	0.10
State and local government employment	1.69	0.44	0.51	0.89	0.82	1.27	1.47	0.07	-0.86	-1.25	-0.62	0.13	0.47	0.48	0.75	0.49

**Maximum and Minimum**, Columns with gray shading indicates recession years

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)

## ROCKY MOUNTAIN REGION: COLORADO, IDAHO, MONTANA, UTAH, AND WYOMING

From 2001–17, the maximum index for the Rocky Mountain Region was 130.0 in 2017 (see Table 1 and the Rocky Mountain Region Chart 1, shown below). The minimum index was 99.9 in 2002. Its maximum index was 11.5 points higher than the U.S. maximum. Its minimum index was 0.2 points higher than the U.S. minimum. Over this 17-year period, the ratio fell below its 2001 value 1 time(s).

The maximum percent change for the Rocky Mountain Region was 3.93 percent in 2006–7 (see Table 2 and Rocky Mountain Region Chart 2). The minimum change was -3.04 percent in 2008–9. It had 13 periods of increase and 3 periods of decline.

The Rocky Mountain Region grew faster than the United States in 14 time periods (see Table 3) and grew slower in 2 time periods. Its largest growth over the United States rate was 1.84 percent in 2006–7. Its least growth compared to the United States was -0.34 percent in 2009–10.

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Rocky Mountain Region Table 1 and Rocky Mountain Region Chart 3). The largest addition to the Rocky Mountain Region's economy from NG was 158,917 jobs in 2014–15. On the other hand, the largest loss of jobs attributed to NG was -214,589 in 2008–9.

The Rocky Mountain Region had a positive Industrial Mix (IM) in 11 time periods, with a negative IM in 5 time periods. Its largest IM was 11,319 in 2002–3. Its least IM was -6,680 in 2010–11.

The Rocky Mountain Region had a positive Competitive Share (CS) in 14 time periods with a negative CS in 2 time periods. Its largest CS was 114,265 in 2006–7 time period, and its least CS was -27,421 in 2009–10.

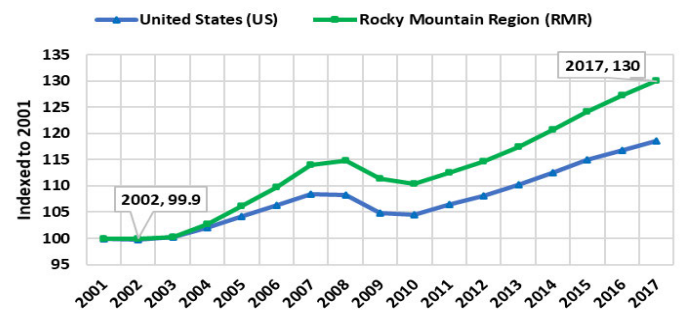
The Rocky Mountain Region had a positive Actual Change (AC) in 13 time periods with a negative AC in 3 time periods. Its largest AC was 258,770 in 2006–7, and its least AC was -209,707 in 2008–9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs. As mentioned previously, the Rocky Mountain Region's largest percentage change compared to the United States was 1.84 percent in

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-15,500	2,594	8,441	-4,465
2002-2003	30,047	11,319	-20,399	20,968
2003-2004	105,935	3,919	33,210	143,064
2004-2005	127,779	8,925	67,646	204,350
2005-2006	130,498	6,370	81,603	218,471
2006-2007	137,694	6,811	114,265	258,770
2007-2008	-12,581	7,576	52,523	47,519
2008-2009	-214,589	-3,669	8,550	-209,707
2009-2010	-28,300	4,491	-27,421	-51,230
2010-2011	122,406	-6,680	10,259	125,985
2011-2012	110,875	5,926	4,651	121,452
2012-2013	128,637	175	43,948	172,760
2013-2014	151,317	-3,644	48,019	195,693
2014-2015	158,917	-6,626	50,020	202,311
2015-2016	119,477	-3,878	70,992	186,591
2016-2017	109,169	2,221	56,305	167,695
Total	1,161,783	35,831	602,613	1,800,227

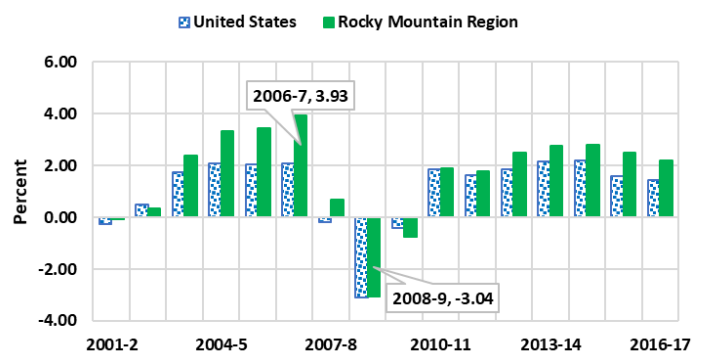
Rocky Mountain Region Table 1. Shift-share analysis

Rocky Mountain Region Chart 1  
Total Employment 2001-2017



Rocky Mountain Region Chart 1. Total employment

Rocky Mountain Region Chart 2  
Percent Employment Change 2001-2017



Rocky Mountain Region Chart 2. Percent employment change

2006–07. During this time, National Growth was positive and added 137,694 jobs. The Industrial Mix was positive and added 6,811 jobs, and the Competitive Share was positive and added 114,265 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Total Change was positive and added 258,770 jobs.

The Rocky Mountain Region’s smallest percentage change compared to the United States was -0.34 percent in 2009–10. During this time, National Growth was negative and modified employment by -28,300 jobs. The Industrial Mix was positive and added 4,491 jobs, and the Competitive Share was negative and altered employment by -27,421 jobs. The summation of these three factors is the Actual Change in jobs in the local

economy. In this time period, the Actual Change was negative and transformed employment by -51,230 jobs.

Looking at the adjustments over the entire 16 periods of change, the Rocky Mountain Region grew faster than the national average by 638,444 jobs, which equals Actual Change (1,800,227) minus National Growth (1,161,783). The Industrial Mix bolstered employment by 35,831 jobs, while the Competitive Share enhanced employment by 602,613 jobs.

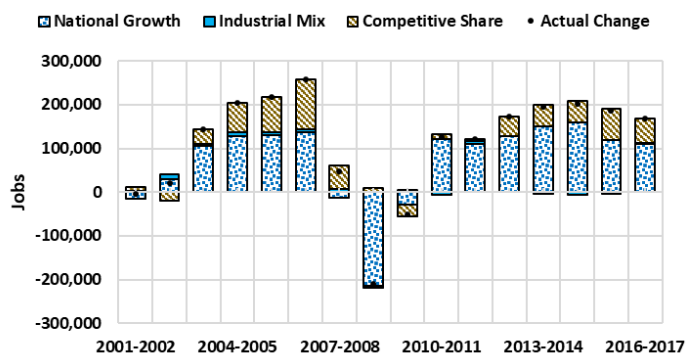
The Rocky Mountain Region’s strong competitiveness (Competitive Share) and generally positive mix of growth industries (Industrial Mix) propelled it to significant growth beyond national trends (National Growth); however, negative national growth was an important factor in the three times that the region lost jobs (2001–2, 2008–9 and 2009–10). The national recession had a delayed, but meaningful, impact on the region.

Let’s take a deeper look into the data by exploring the change in employment by the major industry sectors. First, we will compare the sectors by using the 2001 Index (see Rocky Mountain Region Chart 4 and Rocky Mountain Region Table 2). Over these 17 years, the Mining sector recorded the largest index 216.8 in 2014. Conversely, the smallest index over this time period was 79.8 recorded in 2012 by the Information sector. Since that time, the Information sector’s index has been relatively stagnant, rising slightly in recent years and reaching 85.0 in 2017. This was the lowest index of all sectors in that year.

The MANUFACTURING sector also recorded its largest index in 2001. On the other hand, 15 sectors had their maximum index at the end of the study period (2017).

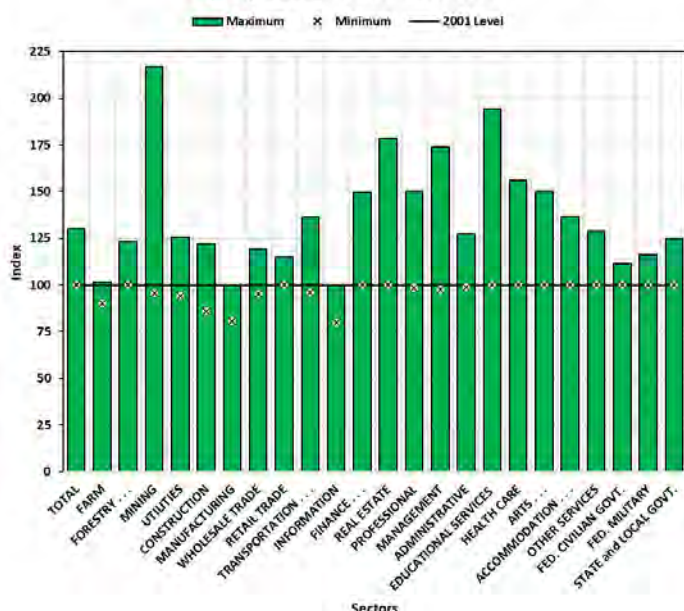
Next, let’s explore the percent change in employment by the major industry sectors (see Rocky Mountain Region Chart 5 and Rocky Mountain Region Table 3). Over this 17-year time period, the MINING sector recorded the largest change at 20.63 percent; this occurred in the 2011–12 time period. Conversely, the smallest percent change over this entire time period was -15.54 recorded in 2008–9 by the CONSTRUCTION sector. Three sectors (EDUCATIONAL SERVICES, HEALTH CARE and STATE and LOCAL GOVERNMENT EMPLOYMENT) grew in all 16 time periods. Two sectors FARM and FEDERAL CIVILIAN GOVERNMENT EMPLOYMENT had the fewest periods of increase, increasing only 7 times. The next fewest periods of growth was 8 times for the INFORMATION sector. The recession of 2008–9 is

**Rocky Mountain Region Chart 3**  
Shift-Share Analysis of 2001-17 Employment Changes



Rocky Mountain Region Chart 3. Shift-share analysis

**Rocky Mountain Region Chart 4. Employment 2001-2017**  
by Major Sectors Indexed to 2001



Rocky Mountain Region Chart 4. Employment by major sectors



clearly evident, as nearly half of the sectors (10) recorded their minimum change in that time period.

Rocky Mountain Region Chart 6 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top 6 sectors account for 50 percent of the employment in the region. State and local government employment and retail trade employment were the top 2 sectors over this entire 17-year time period; however, the trend of declining retail trade employment was also seen in this region.

Similar to the United States, the Rocky Mountain Region experienced a dramatic increase in health care employment since 2001; however, this sector has not increased its share of total employment much since 2010.

Construction employment grew until the beginning of the national recession and then drop dramatically through 2011. Since that time, construction employment has been improving but remains the sixth largest employer, behind both professional services and accommodations/food service employment.

The drop in manufacturing employment is another important change that occurred over this 17-year time period. In 2001, MANUFACTURING was the sixth highest employer for this region. By 2003, the sector had dropped out of the top six. In 2017, MANUFACTURING was the tenth highest sector.

## SUMMARY

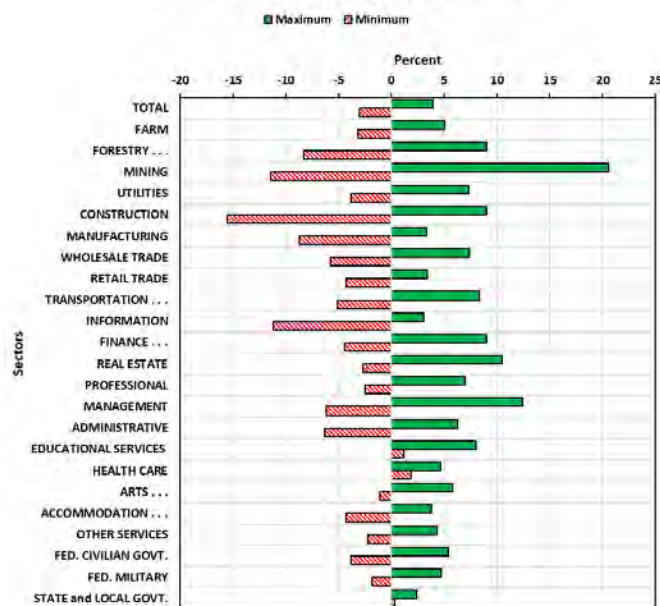
The Rocky Mountain Region's total employment from 2001–17 peaked at 130.0 percent of its 2001 level in 2017. This is higher than the U.S. value (118.5). It dropped below its starting value 1 time (2002). It had 13 periods of increasing and 3 periods of declining employment. It grew faster than the U.S. 14 times. Its mix of industries was positive in 11 of the 16 time periods. Its competitive share was positive 14 times. Over the entire 16 periods of change, the Rocky Mountain Region grew faster than the national average by 638,444 jobs.

Exploring the change in employment by the major industry sectors over this 17-year time period found the mining sector recorded the largest relative growth with an index of 216.8 in 2014. The smallest index over this time period was 79.8 recorded in 2012 by the information sector. Looking at percentage change over the 2001–17 time frame found the mining sector recorded the largest change at 20.63 percent in 2011–12. The smallest percent change (or the largest percent decline) over this entire time period was -15.54 recorded in

2008–9 by the construction sector. EDUCATIONAL SERVICES, HEALTH CARE and STATE and LOCAL GOVERNMENT EMPLOYMENT grew in all 16 time periods. FARM and FEDERAL CIVILIAN GOVERNMENT EMPLOYMENT had the fewest periods of increase, increasing only seven times.

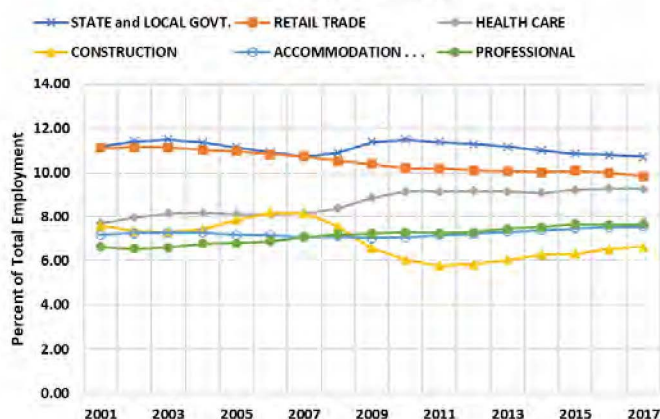
Looking at the top six employment sectors (ranked by 2017 values) found that state and local government jobs were the highest proportion of total employment for the Rocky Mountain Region over almost the entire 17 years of the study.

Rocky Mountain Region Chart 5. Employment 2001-2017  
Annual Percent Change by Major Sectors



Rocky Mountain Region Chart 5. Annual percent change by major sectors

ROCKY Mtn. Region Chart 6. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages



Rocky Mountain Region Chart 6. Top employment sectors

This level of concentration is comparable to the national average for this sector. The next largest sector was retail trade, even though it followed the pattern of decline seen in the United States. Rounding out the remaining top six employment sectors are health care, construction, accommodations and professional services. Similar to the U.S., HEALTH CARE employment in the Rocky Mountain Region grew considerably.

**Rocky Mountain Region Table 2. Employment 2001–2017 by Major Sectors Indexed to 2001**

Sector	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Total employment</b>	100.0	<b>99.9</b>	100.3	102.7	106.1	109.7	114.0	114.8	111.3	110.5	112.5	114.6	117.4	120.7	124.1	127.2	<b>130.0</b>
Farm employment	100.0	98.7	96.6	93.5	91.8	<b>90.1</b>	93.3	94.5	93.5	94.5	96.5	96.2	97.2	96.6	96.3	96.7	<b>101.6</b>
Forestry, fishing, related activities and other employment	100.0	109.0	<b>100.0</b>	104.0	104.4	102.8	108.7	111.6	110.1	111.2	111.7	115.1	117.6	<b>123.5</b>	119.4	122.2	120.4
Mining employment	100.0	<b>95.8</b>	102.3	106.9	118.5	138.1	156.5	180.7	160.0	174.4	177.2	213.8	214.0	<b>216.8</b>	207.0	189.9	200.1
Utilities employment	100.0	96.2	<b>94.1</b>	95.8	97.6	99.9	101.8	105.2	103.5	105.8	104.5	104.9	103.6	105.5	109.7	117.1	<b>125.7</b>
Construction employment	100.0	96.7	96.2	100.4	109.5	118.1	<b>122.1</b>	114.2	96.4	88.0	<b>85.8</b>	88.1	93.6	99.7	103.2	109.2	113.7
Manufacturing employment	<b>100.0</b>	93.4	89.3	89.8	90.6	92.6	94.0	91.7	83.7	<b>80.9</b>	83.5	85.8	88.2	89.7	92.4	94.6	97.2
Wholesale trade employment	100.0	96.9	<b>95.4</b>	97.4	101.3	104.3	107.6	107.9	102.1	99.6	102.3	104.8	107.5	115.4	<b>119.2</b>	112.4	113.2
Retail trade employment	<b>100.0</b>	100.2	100.6	101.8	104.7	106.9	110.2	108.8	104.1	101.5	103.1	104.3	106.5	109.0	112.7	114.4	<b>115.1</b>
Transportation and warehousing employment	100.0	97.2	<b>95.9</b>	97.9	101.6	104.8	109.6	108.6	103.1	100.8	104.6	108.4	111.0	115.5	125.2	131.3	<b>136.3</b>
Information employment	<b>100.0</b>	88.8	84.8	84.4	85.1	84.9	85.0	85.0	81.9	79.9	80.6	<b>79.8</b>	80.8	82.0	81.8	84.3	85.0
Finance and insurance employment	100.0	102.1	103.7	104.7	107.8	110.7	120.7	128.0	135.9	129.9	138.2	136.3	138.1	134.3	138.3	144.4	<b>150.0</b>
Real estate and rental and lease employment	<b>100.0</b>	102.1	107.4	116.5	128.7	137.9	148.1	148.7	144.7	147.9	152.1	150.2	155.4	162.5	168.0	173.2	<b>178.4</b>
Professional and technical services employment	100.0	<b>98.5</b>	99.9	105.0	108.8	113.9	121.9	124.6	121.4	121.5	123.2	126.1	131.8	136.8	143.1	146.3	<b>150.0</b>
Management of companies and enterprises employment	100.0	104.1	<b>97.7</b>	103.3	109.2	115.7	120.7	129.8	125.8	123.2	125.8	131.7	136.9	143.3	149.3	167.9	<b>174.0</b>
Administrative and waste services employment	100.0	<b>98.7</b>	99.5	104.2	107.1	113.9	119.9	117.0	109.6	111.0	112.9	116.5	119.3	121.9	122.3	126.9	<b>127.2</b>
Educational services employment	<b>100.0</b>	107.7	110.6	117.0	126.3	133.6	136.0	142.5	147.6	154.2	156.0	161.1	169.0	178.8	185.5	190.5	<b>194.5</b>
Health care and social assistance employment	<b>100.0</b>	103.5	106.4	109.0	111.8	115.4	120.7	125.2	128.0	131.0	133.4	136.3	139.2	142.5	148.4	153.2	<b>156.1</b>
Arts, entertainment, and recreation employment	<b>100.0</b>	103.8	103.4	106.6	110.7	114.6	120.5	122.9	121.6	122.9	125.8	129.7	131.1	137.9	137.2	145.2	<b>150.0</b>
Accommodation and food services employment	<b>100.0</b>	101.2	101.7	104.0	106.2	109.6	112.5	114.0	109.1	108.9	112.4	115.3	119.7	124.3	129.0	133.3	<b>136.7</b>
Other services, except public administration employment	<b>100.0</b>	104.1	105.5	107.2	109.0	111.3	114.4	114.3	112.1	109.6	113.3	114.7	116.6	121.7	126.0	127.2	<b>128.9</b>
Federal civilian government employment	100.0	105.4	105.9	104.2	103.8	103.6	103.1	103.8	106.6	<b>111.3</b>	107.1	105.3	103.0	101.8	103.3	105.4	105.0
Federal military employment	<b>100.0</b>	101.6	102.7	102.3	103.2	101.4	101.7	104.6	109.5	114.6	<b>116.1</b>	114.0	113.7	112.8	111.3	109.5	110.0
State and local government employment	<b>100.0</b>	102.2	103.3	104.5	106.0	107.3	109.3	111.9	113.4	113.7	114.7	115.7	117.4	118.8	120.5	122.9	<b>124.8</b>

**Maximum** and **Minimum**, Columns with gray shading indicates recession years

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)

**Rocky Mountain Region Table 3. Employment 2001–2017 Annual Percent Change by Major Sectors**

Sector	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
<b>Total employment</b>	-0.07	0.35	2.38	3.31	3.43	3.93	0.69	-3.04	-0.77	1.90	1.80	2.51	2.77	2.79	2.50	2.20
Farm employment	-1.26	-2.20	-3.19	-1.84	-1.84	3.58	1.28	-1.07	1.11	2.11	-0.32	1.03	-0.60	-0.30	0.41	5.07
Forestry, fishing, related activities and other employment	9.02	-8.30	4.02	0.36	-1.48	5.76	2.59	-1.35	1.08	0.38	3.08	2.18	4.99	-3.34	2.40	-1.54
Mining employment	-4.20	6.78	4.52	10.83	16.56	13.33	15.41	-11.43	8.99	1.63	20.63	0.09	1.29	-4.51	-8.25	5.36
Utilities employment	-3.80	-2.14	1.73	1.95	2.31	1.92	3.36	-1.66	2.21	-1.20	0.42	-1.24	1.82	3.99	6.68	7.34
Construction employment	-3.26	-0.55	4.40	9.05	7.87	3.36	-6.52	-15.54	-8.73	-2.48	2.62	6.28	6.49	3.52	5.78	4.13
Manufacturing employment	-6.62	-4.32	0.56	0.88	2.21	1.46	-2.41	-8.75	-3.41	3.33	2.72	2.76	1.71	3.02	2.33	2.81
Wholesale trade employment	-3.08	-1.58	2.12	3.96	3.03	3.13	0.32	-5.37	-2.46	2.72	2.37	2.56	7.43	3.30	-5.77	0.71
Retail trade employment	0.23	0.38	1.16	2.84	2.13	3.05	-1.24	-4.28	-2.54	1.55	1.15	2.12	2.42	3.40	1.47	0.63
Transportation and warehousing employment	-2.78	-1.33	2.07	3.72	3.25	4.49	-0.83	-5.12	-2.26	3.86	3.57	2.38	4.13	8.35	4.89	3.83
Information employment	-11.20	-4.48	-0.53	0.91	-0.27	0.07	0.08	-3.66	-2.50	0.86	-1.01	1.34	1.46	-0.21	3.05	0.77
Finance and insurance employment	2.05	1.63	0.90	2.97	2.71	9.02	6.07	6.21	-4.44	6.37	-1.33	1.33	-2.78	2.98	4.37	3.89
Real estate and rental and lease employment	2.06	5.22	8.49	10.47	7.14	7.44	0.34	-2.67	2.23	2.81	-1.19	3.46	4.56	3.34	3.10	3.03
Professional and technical services employment	-1.47	1.44	5.05	3.65	4.68	7.01	2.18	-2.51	0.09	1.41	2.35	4.47	3.84	4.57	2.25	2.53
Management of companies and enterprises employment	4.12	-6.19	5.81	5.65	5.98	4.32	7.52	-3.08	-2.09	2.15	4.71	3.94	4.69	4.13	12.47	3.66
Administrative and waste services employment	-1.28	0.76	4.80	2.78	6.30	5.27	-2.43	-6.27	1.21	1.74	3.18	2.44	2.19	0.32	3.75	0.25
Educational services employment	7.69	2.67	5.77	8.03	5.73	1.82	4.77	3.55	4.50	1.17	3.24	4.92	5.84	3.75	2.68	2.08
Health care and social assistance employment	3.46	2.82	2.49	2.51	3.21	4.66	3.70	2.22	2.37	1.85	2.18	2.12	2.32	4.15	3.27	1.90
Arts, entertainment, and recreation employment	3.78	-0.39	3.12	3.88	3.49	5.15	2.03	-1.09	1.05	2.34	3.11	1.15	5.17	-0.52	5.81	3.34
Accommodation and food services employment	1.20	0.50	2.23	2.16	3.19	2.60	1.34	-4.31	-0.18	3.24	2.61	3.80	3.83	3.81	3.31	2.54
Other services, except public administration employment	4.09	1.32	1.64	1.64	2.14	2.83	-0.14	-1.89	-2.22	3.32	1.24	1.72	4.34	3.50	0.99	1.32
Federal civilian government employment	5.38	0.52	-1.63	-0.40	-0.22	-0.41	0.67	2.71	4.40	-3.85	-1.62	-2.18	-1.18	1.44	2.05	-0.38
Federal military employment	1.55	1.10	-0.37	0.88	-1.76	0.29	2.85	4.67	4.72	1.25	-1.79	-0.28	-0.78	-1.34	-1.57	0.42
State and local government employment	2.21	1.05	1.16	1.43	1.22	1.85	2.39	1.34	0.31	0.89	0.86	1.45	1.24	1.37	2.03	1.49

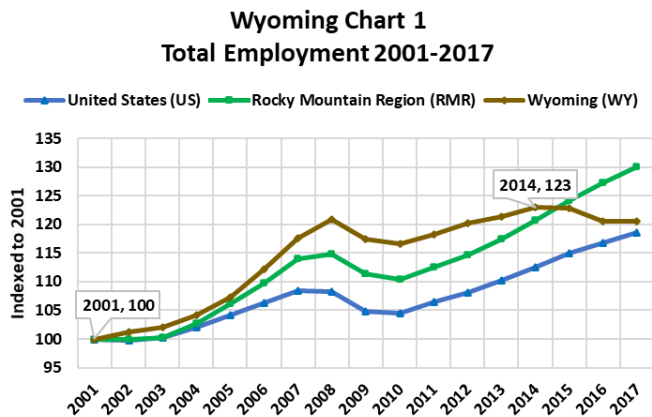
**Maximum** and **Minimum**, Columns with gray shading indicates recession years

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)

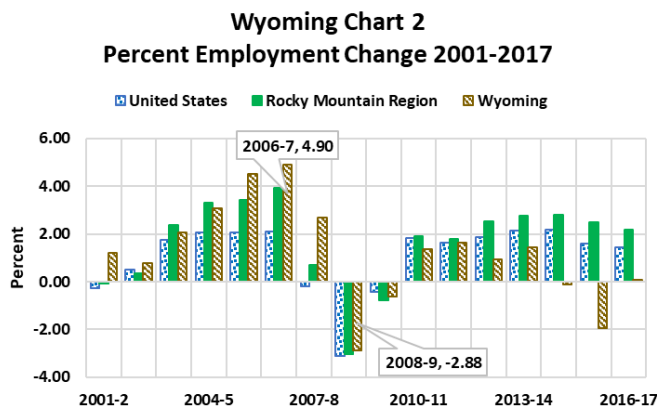
## WYOMING

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-852	-66	4,907	3,989
2002-2003	1,673	2,051	-1,082	2,642
2003-2004	5,923	-1,048	2,118	6,993
2004-2005	7,123	1,110	2,386	10,619
2005-2006	7,259	1,849	6,843	15,951
2006-2007	7,739	1,674	8,735	18,148
2007-2008	-714	5,299	5,910	10,496
2008-2009	-12,416	-1,259	2,181	-11,494
2009-2010	-1,640	2,849	-3,627	-2,418
2010-2011	7,104	-2,551	695	5,248
2011-2012	6,401	5,747	-5,752	6,396
2012-2013	7,415	73	-3,787	3,701
2013-2014	8,588	-1,243	-1,559	5,786
2014-2015	8,903	-1,632	-7,696	-425
2015-2016	6,505	-2,021	-12,337	-7,853
2016-2017	5,686	493	-5,892	287
Total	64,698	11,324	-7,956	68,066

Wyoming Table 1. Shift-share analysis



Wyoming Chart 1. Total employment



Wyoming Chart 2. Percent employment change

During 2001-17, the maximum index for the state of Wyoming was 123.0 in 2014 (see Table 1 and Wyoming Chart 1). This is higher than the U.S. value (118.5) and lower than the Rocky Mountain Region value (130.0). The minimum index was 100.0 in 2001. Its maximum index was 4.5 points higher than the U.S. maximum. Its minimum index was 0.3 points higher than the U.S. minimum. Over this 17-year period, the ratio fell below its 2001 value 0 time(s). Wyoming's maximum index was -6.9 points lower than the Rocky Mountain Region's (RMR) maximum. Its minimum index was 0.1 points higher than the RMR's minimum.

The maximum percent change for the state of Wyoming was 4.90 percent in 2006-7 (see Table 2 and Wyoming Chart 2). The minimum change was -2.88 percent in 2008-9. It had 12 periods of increase and 4 periods of decline.

Wyoming grew faster than the United States in 8 time periods (see Table 3). It grew slower in 8 time periods. Its largest growth over the United States rate was 2.89 percent in 2007-8. Its least growth compared to the United States was -3.54 percent in 2015-16. Wyoming grew faster than the Rocky Mountain Region (RMR) in 7 time periods and grew slower in 9 time periods. Its largest growth over the RMR's rate was 2.01 percent in 2007-8. Its least growth compared to the RMR was -4.44 percent in 2015-16.

Wyoming Chart 3 displays the range and average percent employment change for all of the state's 23 counties. The largest range occurred in 2006-7, having a low of -1.53 percent and a high of 17.36 percent. The smallest range (-3.65 to 2.06 percent) happened in 2009-10. The average was positive 12 time(s).

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Wyoming Table 1 and Wyoming Chart 4). The largest addition to Wyoming's economy from NG was 8,903 jobs, which occurred in the 2014-15 time period. On the other hand, the largest loss of jobs attributed to NG was -12,416 in 2008-9. Wyoming had a positive Industrial Mix (IM) in 9 time periods with a negative IM in 7 time periods. Its largest IM was 5,747 in 2011-12. Its least IM was -2,551 in 2010-11.

Wyoming had a positive Competitive Share (CS) in 8 time periods with a negative CS in 8 time periods. Its largest CS was 8,735 in 2006-7. Its least CS was -12,337 in 2015-16.



Wyoming had a positive Actual Change (AC) in 12 time periods with a negative AC in 4 time periods. Its largest AC was 18,148 in 2006–7. Its least AC was -11,494 in 2008–9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs. As mentioned previously, Wyoming's largest percentage change compared to the United States was 2.89 percent in 2007–08. During this time, National Growth was negative and altered employment by -714 jobs. The Industrial Mix was positive and added 5,299 jobs, and the Competitive Share was positive and added 5,910 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 10,496 jobs.

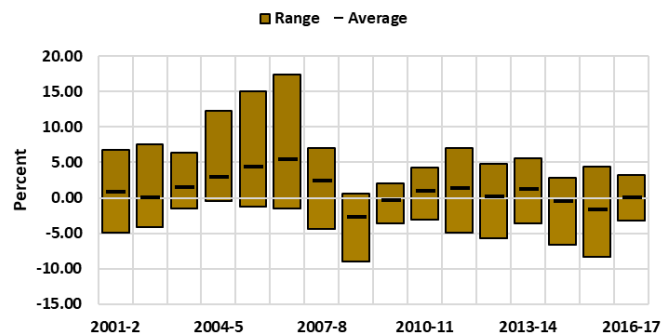
Wyoming's smallest percentage change compared to the United States was -3.54 percent in 2015–16. During this time, National Growth was positive and added 6,505 jobs, while the Industrial Mix was negative and adjusted employment by -2,021 jobs, and the Competitive Share was negative and altered employment by -12,337 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -7,853 jobs.

Looking at the adjustments over the entire 16 periods of change, Wyoming grew faster than the national average by 3,368 jobs, which equals Actual Change (68,066) minus National Growth (64,698). The Industrial Mix bolstered employment by 11,324 jobs, while the Competitive Share lessened employment by -7,956 jobs.

Wyoming's largest growth occurred during times of national growth when it had both a positive industrial mix and competitive share, 2005–6 and 2006–7. Wyoming's greatest employment losses in 2008–9 and 2015–16 appear distinctively different. The loss in 2008–9 is largely a function of declining National Growth, compounded by a slightly negative Industrial Mix and a positive Competitive Share. The losses in the 2015–16 time period are driven mostly by a negative Competitive Share and Industrial Mix. These declines are offset by a positive National Growth during this time period. The Shift-Share Analysis graph clearly illustrates the dominant importance of both national growth and competitiveness. For the most part, the industrial mix displays much less variation.

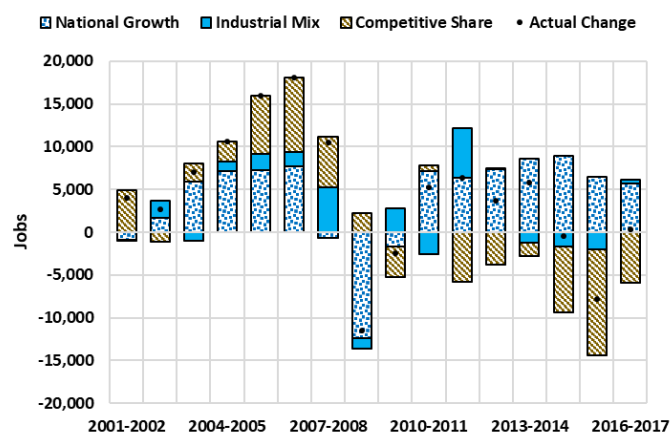
Let's take a deeper look into the data by exploring the change in employment by the major industry sectors. First, we will compare the sectors by using the 2001 Index (see Wyoming

Wyoming Chart 3. Range of Employment Change  
Results for Wyoming Counties 2001-17



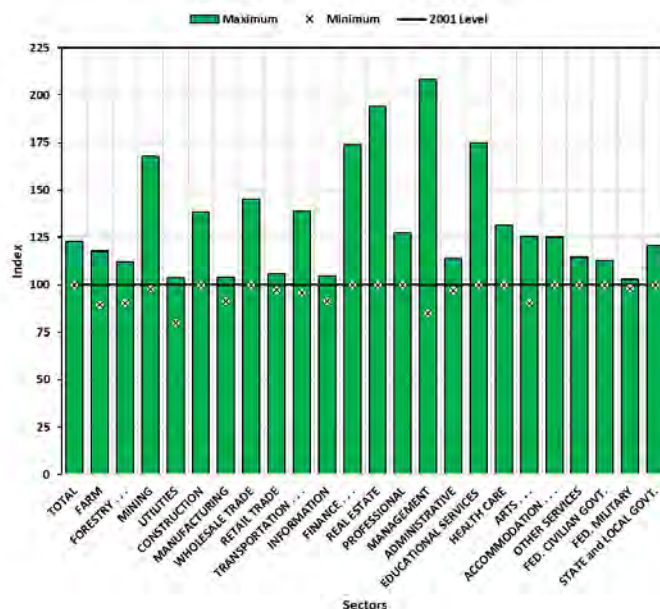
Wyoming Chart 3. Range of employment change

Wyoming Chart 4  
Shift-Share Analysis of 2001-17 Employment Changes



Wyoming Chart 4. Shift-share analysis

Wyoming Chart 5. Employment 2001-2017  
by Major Sectors Indexed to 2001



Wyoming Chart 5. Employment by major sectors

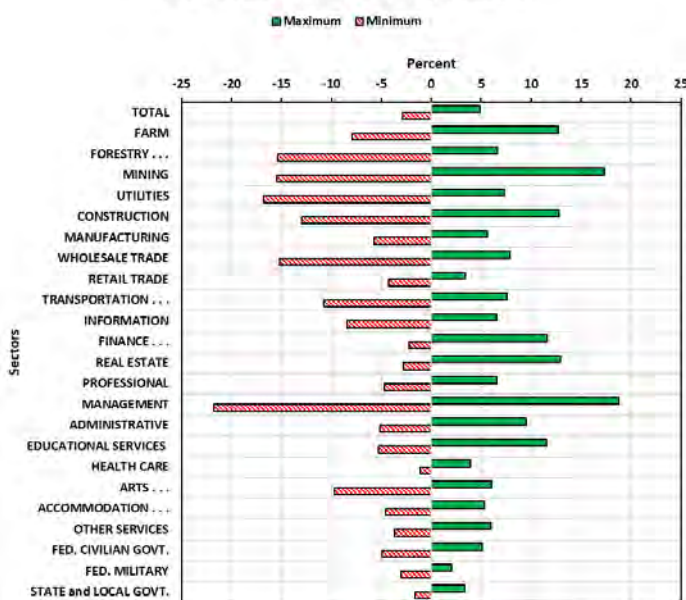
Chart 5 and Wyoming Table 2). Over these 17 years, the Management sector recorded the largest index of 208.3 in 2016. Its 2017 index was slightly smaller (207.4) but remained the highest sector for the year. Conversely, the smallest index over this time period was 79.9 recorded in 2003 by the Utilities sector. In recent years, the UTILITIES sector's index has recovered, reaching 103.6 in 2017. The lowest index of all sectors in 2017 was 97.3 for the Information sector. No sector recorded its largest index in 2001. On the other hand, just six sectors had their maximum index at the end of the study period (2017).

Next, let's explore the percent change in employment by the major industry sectors (see Wyoming Chart 6 and Wyoming Table 3). Over this 17-year time period, the MANAGEMENT sector recorded the largest change at 18.80 percent; this occurred in the 2015–16 time period. Conversely, the smallest percent change over this entire time period was -21.75 recorded in 2002–3 also by the MANAGEMENT sector. No sectors in Wyoming grew in all 16 time periods. The highest number of periods of positive change was 14 and occurred REAL ESTATE, EDUCATIONAL SERVICES, HEALTH CARE, and STATE and LOCAL GOVERNMENT EMPLOYMENT. The RETAIL TRADE, INFORMATION and FEDERAL MILITARY EMPLOYMENT sectors had the fewest periods of increase, increasing only seven times. The recession of 2008–9 is less evident for Wyoming, as only seven sectors recorded their minimum change in that time period; however, this was still double the occurrence of minimum rates found in any of the other sectors over this 17-year time period.

Wyoming Chart 7 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for over 50 percent of the employment in the state. Similar to the United States and Rocky Mountain Region, STATE and LOCAL GOVERNMENT employment and retail trade employment were the top two employment sectors in Wyoming; however, the state's STATE and LOCAL GOVERNMENT employment approached 16 percent of total employment and was a much larger share than both the United States and Rocky Mountain Region. Retail trade employment in Wyoming followed the pattern of decline displayed in both of the earlier regions.

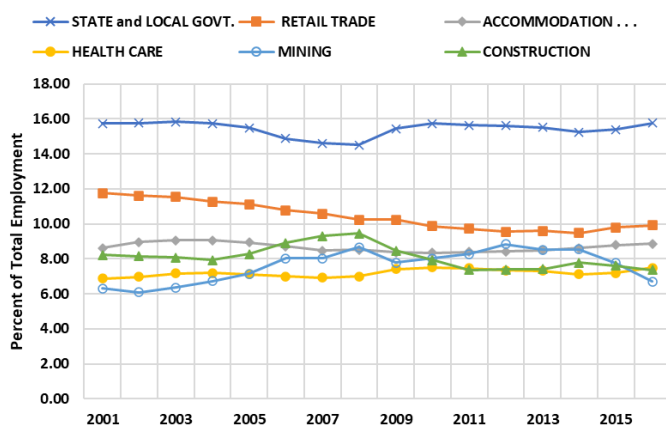
Accommodations/food service was the third largest employer in 2017 and for nearly half of the 17-year time periods. The importance of the Travel and Tourism Industry in Wyoming is probably a key factor for this sector's large share of employment.

**Wyoming Chart 6. Employment 2001-2017  
Annual Percent Change by Major Sectors**



Wyoming Chart 6. Annual percent change

**WYOMING Chart 7. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages**



Wyoming Chart 7. Top employment sectors

The importance of the mining sector is also clearly displayed in this graphic. This sector's share basically rose through 2001–8 and was stable through 2008–14. Since 2014, MINING employments share has declined significantly.

## SUMMARY

Wyoming's total employment from 2001–17 peaked at 120.7 percent of its 2001 level in 2014. This is higher than the U.S. value (118.5) and lower than the Rocky Mountain Region value (130.0). It dropped below its starting value 0 times. It had 12 periods of increasing and 4 periods of declining employment. It grew faster than the U.S. 8 times and Rocky Mountain Region 7 times. Overall, looking at the range and average percent employment change for all Wyoming's 23 counties found a significant degree of variation. The largest range occurred in 2006–7, having a low of -1.53 percent and a high of 17.36 percent. The smallest range (-3.65 to 2.06 percent) happened in 2009–10. Its mix of industries was positive in 9 of the 16 time periods. Its competitive share was positive 8 times. Over the entire 16 periods of change, Wyoming grew faster than the national average by 3,368 jobs.

Exploring the change in employment by the major industry sectors over this 17-year time period found that the management sector recorded the largest relative growth with an index of 208.3, which occurred in 2016. The smallest index over this time period was 79.9 in 2003 by the utilities sector. Looking at percentage change over the 2001–17-time frame found tremendous volatility, especially within small employment sectors. For example, the MANAGEMENT sector recorded the largest change at 18.80 percent in 2015–16. Conversely, the smallest percent change (or the largest percent decline) over this entire time period was -21.75 recorded in 2002–3 also by the MANAGEMENT sector. No sectors in Wyoming grew in all 16 time periods. The highest number of periods of positive change was 14 and occurred in these four sectors: REAL ESTATE, EDUCATIONAL SERVICES, HEALTH CARE, and STATE and LOCAL GOVERNMENT EMPLOYMENT. The RETAIL TRADE, INFORMATION, and FEDERAL MILITARY EMPLOYMENT sectors had the fewest periods of increase, increasing only seven times.

Looking at the top six employment sectors (ranked by 2017 values) found that state and local government jobs were the highest proportion of total employment for Wyoming over the entire 17 years of the study. This level of concentration is higher than the national average for this sector. The next largest sector was retail trade, even though it followed the pattern of decline seen in the United States and Rocky Mountain Region. Rounding out the remaining top six employment sectors

are accommodations, health care, mining, and construction. Mining's place as a top six employment sector is a distinctive and important feature of Wyoming's economy.

**Wyoming Table 2. Employment 2001–2017 by Major Sectors Indexed to 2001**

Sector	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Total employment</b>	<b>100.0</b>	<b>101.2</b>	<b>102.0</b>	<b>104.1</b>	<b>107.3</b>	<b>112.2</b>	<b>117.7</b>	<b>120.9</b>	<b>117.4</b>	<b>116.6</b>	<b>118.2</b>	<b>120.2</b>	<b>121.3</b>	<b>123.0</b>	<b>122.9</b>	<b>120.5</b>	<b>120.6</b>
Farm employment	100.0	105.7	97.3	95.0	92.5	89.7	101.2	103.2	102.8	104.8	109.8	112.0	111.3	111.8	114.1	114.4	117.8
Forestry, fishing, related activities and other employment	100.0	106.7	90.2	93.9	92.4	91.9	97.0	101.9	103.5	102.3	102.1	103.7	105.8	111.9	105.2	112.3	108.1
Mining employment	100.0	97.7	102.9	110.9	121.4	142.5	149.8	165.7	144.5	148.2	154.7	168.0	163.5	166.3	151.0	127.7	134.1
Utilities employment	100.0	83.3	79.9	82.6	86.3	88.1	94.6	96.3	93.9	94.8	93.4	93.5	94.0	95.2	97.5	100.5	103.6
Construction employment	100.0	100.3	100.3	100.5	107.8	121.6	133.2	138.7	120.7	112.4	106.0	107.9	109.2	116.3	113.7	107.8	102.6
Manufacturing employment	100.0	98.7	93.2	95.0	98.4	103.0	103.9	101.5	95.8	91.5	96.7	98.8	101.7	102.8	103.9	100.7	103.3
Wholesale trade employment	100.0	101.4	100.7	106.6	112.6	119.1	125.7	129.8	124.6	121.7	127.1	131.3	132.7	143.1	145.3	123.3	118.1
Retail trade employment	100.0	99.9	100.1	99.7	101.5	102.8	105.9	105.2	102.2	97.8	97.6	97.5	98.9	99.0	102.4	101.6	99.1
Transportation and warehousing employment	100.0	95.9	102.1	106.4	113.4	121.7	130.9	131.9	125.1	123.6	129.4	130.5	131.4	137.8	138.7	123.8	122.9
Information employment	100.0	91.6	97.6	102.1	104.7	101.9	100.2	99.4	98.1	97.6	97.8	98.9	98.4	98.7	96.8	98.7	97.3
Finance and insurance employment	100.0	105.5	106.7	107.9	109.4	110.7	122.0	131.3	146.6	144.1	154.2	154.2	158.1	154.6	158.3	168.0	173.9
Real estate and rental and lease employment	100.0	101.6	104.2	113.4	128.1	140.4	155.8	164.2	159.6	166.5	171.0	170.6	178.4	185.7	187.3	188.7	194.0
Professional and technical services employment	100.0	100.4	101.0	107.7	109.6	116.1	123.4	125.9	120.0	120.7	119.6	121.7	123.6	127.0	127.5	124.3	125.7
Management of companies and enterprises employment	100.0	108.9	85.2	97.8	98.2	113.2	114.7	121.4	126.9	134.4	131.4	139.2	153.7	173.0	175.4	208.3	207.4
Administrative and waste services employment	100.0	101.8	103.1	97.8	97.1	104.0	113.9	111.9	107.3	107.3	110.3	109.7	112.0	110.5	107.9	111.0	111.8
Educational services employment	100.0	111.6	112.2	116.9	125.7	133.8	127.6	135.8	145.0	155.2	147.0	147.1	155.6	161.1	166.6	174.4	174.8
Health care and social assistance employment	100.0	102.7	106.7	109.0	111.2	114.3	118.7	123.3	126.7	127.5	128.5	128.5	129.3	127.8	128.8	131.6	131.6
Arts, entertainment, and recreation employment	100.0	90.3	91.3	95.3	97.5	99.1	103.1	104.9	103.5	104.2	107.9	108.8	110.6	115.0	112.6	119.5	125.7
Accommodation and food services employment	100.0	105.3	107.2	109.5	111.2	113.3	115.6	119.4	114.0	113.2	115.2	117.6	119.7	122.9	125.3	123.9	124.4
Other services, except public administration employment	100.0	106.0	105.9	106.8	108.1	112.9	114.9	111.8	108.3	104.3	109.3	112.5	112.8	111.0	111.1	108.9	109.2
Federal civilian government employment	100.0	105.1	106.7	106.2	104.0	101.6	101.3	103.8	108.4	112.8	107.2	105.1	103.4	102.4	102.5	104.8	105.1
Federal military employment	100.0	99.1	100.1	101.6	100.3	99.9	100.1	100.1	102.1	103.0	102.8	100.6	101.8	98.8	98.1	98.1	99.2
State and local government employment	100.0	101.4	102.7	104.0	105.6	106.0	109.3	111.5	115.2	116.7	117.5	119.3	119.5	119.2	120.2	120.6	118.7

**Maximum and Minimum**, Columns with gray shading indicates recession years

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)



**Wyoming Table 3. Employment 2001–2017 Annual Percent Change by Major Sectors**

Sector	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10	2010–11	2011–12	2012–13	2013–14	2014–15	2015–16	2016–17
<b>Total employment</b>	1.21	0.79	2.08	3.09	4.50	<b>4.90</b>	2.70	<b>-2.88</b>	-0.62	1.36	1.64	0.93	1.45	-0.10	-1.94	0.07
Farm employment	5.69	<b>-7.93</b>	-2.37	-2.62	-3.01	<b>12.73</b>	2.03	-0.40	1.92	4.83	2.01	-0.65	0.48	2.00	0.27	3.01
Forestry, fishing, related activities and other employment	6.65	<b>-15.40</b>	4.01	-1.50	-0.63	5.63	4.99	1.60	-1.19	-0.18	1.56	2.06	5.74	-5.95	<b>6.67</b>	-3.74
Mining employment	-2.34	5.33	7.81	9.47	<b>17.37</b>	5.10	10.64	-12.77	2.57	4.39	8.55	-2.66	1.73	-9.21	<b>-15.45</b>	5.03
Utilities employment	<b>-16.75</b>	-4.06	3.40	4.54	2.04	<b>7.34</b>	1.79	-2.44	0.94	-1.51	0.16	0.55	1.25	2.39	3.13	3.11
Construction employment	0.26	0.07	0.17	7.29	<b>12.78</b>	9.50	4.17	<b>-12.95</b>	-6.90	-5.67	1.74	1.22	6.53	-2.28	-5.20	-4.76
Manufacturing employment	-1.26	-5.64	1.94	3.65	4.65	0.87	-2.28	<b>-5.69</b>	-4.44	<b>5.63</b>	2.21	2.90	1.15	1.07	-3.12	2.56
Wholesale trade employment	1.39	-0.66	5.80	5.65	5.83	5.48	3.26	-4.00	-2.32	4.46	3.30	1.05	<b>7.88</b>	1.52	<b>-15.16</b>	-4.19
Retail trade employment	-0.07	0.14	-0.35	1.77	1.25	3.08	-0.69	-2.83	<b>-4.27</b>	-0.22	-0.14	1.39	0.14	<b>3.44</b>	-0.78	-2.49
Transportation and warehousing employment	-4.09	6.43	4.28	6.53	7.29	<b>7.60</b>	0.73	-5.09	-1.26	4.76	0.80	0.74	4.80	0.72	<b>-10.81</b>	-0.67
Information employment	<b>-8.45</b>	<b>6.57</b>	4.64	2.52	-2.64	-1.65	-0.87	-1.27	-0.53	0.26	1.12	-0.55	0.32	-1.96	2.02	-1.41
Finance and insurance employment	5.53	1.09	1.14	1.42	1.15	10.20	7.66	<b>11.64</b>	-1.70	7.03	-0.01	2.50	<b>-2.18</b>	2.34	6.14	3.50
Real estate and rental and lease employment	1.56	2.57	8.90	<b>12.97</b>	9.55	10.99	5.40	<b>-2.82</b>	4.33	2.72	-0.26	4.62	4.09	0.81	0.79	2.81
Professional and technical services employment	0.39	0.63	<b>6.58</b>	1.83	5.93	6.21	2.09	<b>-4.69</b>	0.53	-0.89	1.79	1.58	2.75	0.33	-2.45	1.11
Management of companies and enterprises employment	8.86	<b>-21.75</b>	14.85	0.33	15.31	1.34	5.84	4.54	5.88	-2.25	6.01	10.40	12.52	1.38	<b>18.80</b>	-0.47
Administrative and waste services employment	1.77	1.31	<b>-5.11</b>	-0.79	7.18	<b>9.53</b>	-1.76	-4.14	0.02	2.72	-0.53	2.16	-1.34	-2.40	2.92	0.73
Educational services employment	<b>11.56</b>	0.57	4.22	7.52	6.41	-4.66	6.49	6.75	7.00	<b>-5.25</b>	0.09	5.77	3.54	3.42	4.66	0.24
Health care and social assistance employment	2.69	3.89	2.22	2.01	2.74	3.83	<b>3.92</b>	2.76	0.61	0.78	0.01	0.59	<b>-1.11</b>	0.77	2.20	-0.02
Arts, entertainment, and recreation employment	<b>-9.67</b>	1.03	4.43	2.27	1.65	4.04	1.73	-1.28	0.66	3.53	0.81	1.73	3.90	-2.01	<b>6.06</b>	5.17
Accommodation and food services employment	<b>5.34</b>	1.76	2.19	1.56	1.87	2.04	3.26	<b>-4.56</b>	-0.69	1.82	2.02	1.85	2.68	1.88	-1.10	0.39
Other services, except public administration employment	<b>5.96</b>	-0.05	0.84	1.23	4.44	1.77	-2.71	-3.11	<b>-3.69</b>	4.78	2.95	0.27	-1.66	0.15	-2.05	0.27
Federal civilian government employment	<b>5.15</b>	1.44	-0.47	-2.03	-2.30	-0.26	2.38	4.49	4.02	<b>-4.94</b>	-2.01	-1.56	-0.96	0.11	2.19	0.27
Federal military employment	-0.87	1.01	1.42	-1.27	-0.41	0.28	-0.02	<b>2.01</b>	0.86	-0.17	-2.14	1.19	<b>-3.00</b>	-0.65	-0.05	1.17
State and local government employment	1.40	1.23	1.36	1.51	0.38	3.09	2.01	<b>3.33</b>	1.31	0.69	1.50	0.20	-0.23	0.81	0.36	<b>-1.59</b>

**Maximum** and **Minimum**, Columns with gray shading indicates recession years

Historical Employment Data from the U.S. Department of Commerce, Bureau of Economic Analysis (obtained from Woods & Poole Economics, Inc.)

## WYOMING COUNTIES

Looking at Wyoming's counties, Sublette County had the highest index at 202.4, more than doubling its 2001 level of employment during the 2001–17 time period (see Map 1, Tables 1 and 4). Teton (141.2) and Converse (140.8) counties were the next highest counties. The smallest maximum values were realized by Washakie (109.9), Weston (108.4), Big Horn (105.4), and Hot Springs (105.0) counties.

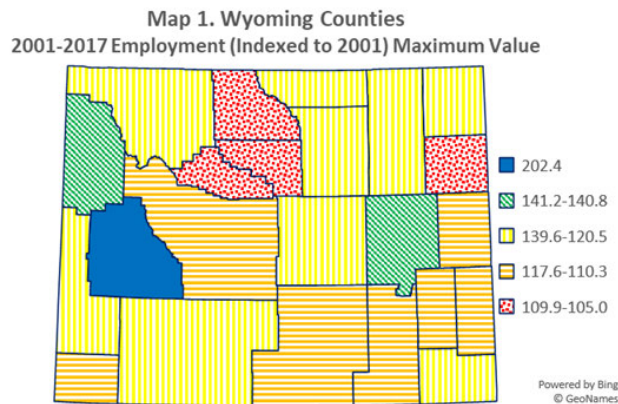
Hot Springs County recorded the lowest index at 90.1 (see Map 2). The next lowest values were Niobrara (96.1), Weston (96.3), Carbon (97.2), Goshen (97.3), and Sweetwater (97.8) counties.

Similar to Wyoming overall, 10 counties stayed above their 2001 Index for the entire period (0 periods <2001, see Map 3), they are Campbell, Crook, Fremont, Johnson, Laramie, Lincoln, Natrona, Park, Sheridan and Sublette counties. Hot Springs County had the most times its value was less than the 2001 Index, 10 times. The next closest counties with multiple values below their 2001 Index were Weston (5) and Niobrara (4) counties.

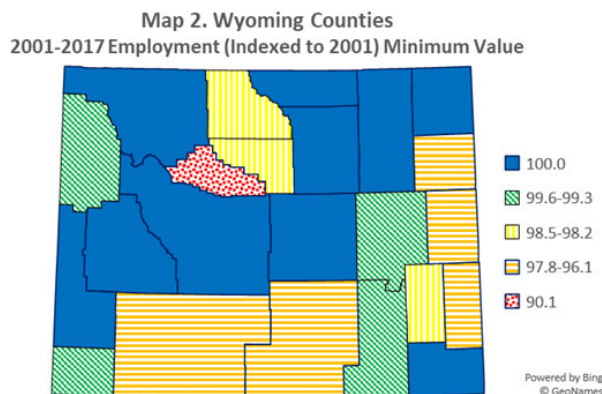
Looking at the change across Wyoming counties shows that the top gains were recorded by Sublette (17.36%) and Lincoln (12.64%). The next highest tier of growth occurred in Campbell, Sweetwater, Carbon, and Converse counties (see Map 4, Tables 2 and 4). The 2006–7 time period was a time of strong growth in Wyoming, as 15 counties recorded their maximum gains. The next most frequent time period for maximum gains was 2005–6 with five counties.

Wyoming's dynamic economy is clearly evident as counties with the greatest increase also had some of the largest declines over this 17-year time frame (see Map 5). The largest decline occurred in Carbon County, as it lost nearly nine percent of its employment (-8.89%). Three other counties declined by over eight percent, they were Sublette (-8.33%), Converse (-8.12%), and Campbell (-8.04%) counties. The largest number of minimum gains were noted in the 2008–9 time period, as 11 counties had their least gains in this time period. The 2015–16 time period was also a tough time for Wyoming, as seven counties registered their minimum value.

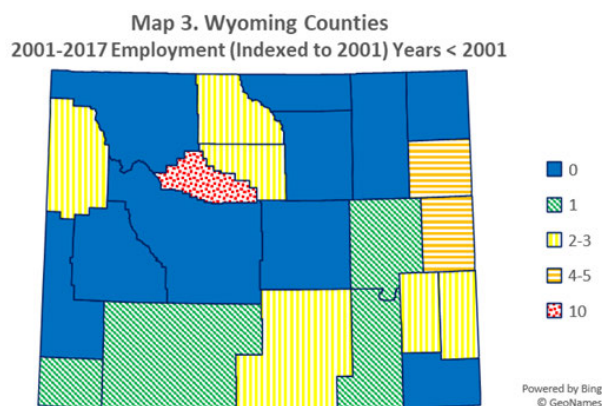
Interestingly, Laramie County had the largest number of period of increases with 14 out of the 16 time periods (see Map 6). Three counties had 13 periods of increase, they are Crook, Park, and Teton countries. The fewest number of periods of increase, seven, were recorded by Big Horn and Uinta counties. Five



Map 1. 2001–2017 employment maximum value



Map 2. 2001–2017 employment minimum value



Map 3. 2001–2017 employment years less than 2001

counties had an even split, recording eight periods of increase and eight periods of decline.

Four counties grew faster than the United States in 11 out of the 16 time periods, they are Crook, Natrona, Sublette, and Teton counties (see Map 7, Tables 3 and 4). Two other counties also record double digit higher growth (10 periods), Converse and Johnson counties. Washakie County recorded the fewest number of times with faster growth than the United States, with four time periods. Five other counties had five faster growing periods.

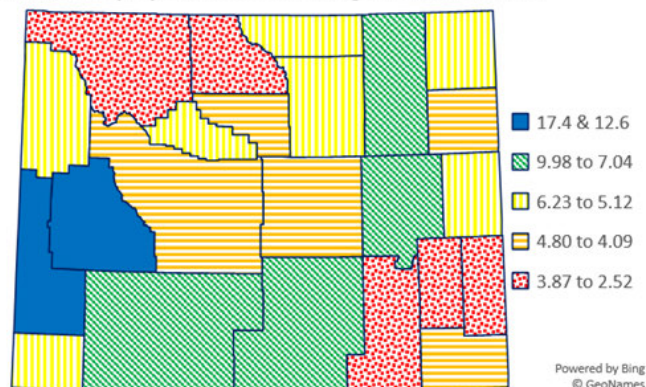
The largest growth compared to the United States was recorded by Sublette (15.27%) and Lincoln counties (10.55%), see Map 8. Five counties' maximum growth fell between 8 and 5 percent. The counties are Campbell (7.93%), Sweetwater (6.86%), Johnson (6.42%), Converse (6.30%), and Carbon (5.51%). Two time periods, 2007–8 (7 counties) and 2006–7 (6 counties) accounted for a significant number of the county maximum growth compared to the United States.

Interestingly, many of the high growth counties also recorded the biggest deficits compared to the United States over this 17-year period (see Map 9). Sublette County recorded the least growth, falling behind the national growth rate by -9.93%. Two other counties also had nearly a double-digit gap, they are Converse (-9.72%) and Campbell (-9.64%) counties. The most frequent time period of minimum growth compared to the United States occurred in 2015–16 (9 counties).

Looking across Wyoming counties, Teton County had the greatest number of positive Industrial Mix (IM) time periods, with 12 out of the 16 (see Map 10, Tables XX to ZZ). Three other counties recorded 10 positive IM periods. They are Hot Springs, Johnson, and Sheridan counties. Albany and Goshen counties had the fewest number of positive IM, each registering just four time periods. The highest Industrial Mix occurred for 10 counties in the 2011–12 time period. The 2007–8 time period had the next highest occurrence with eight counties

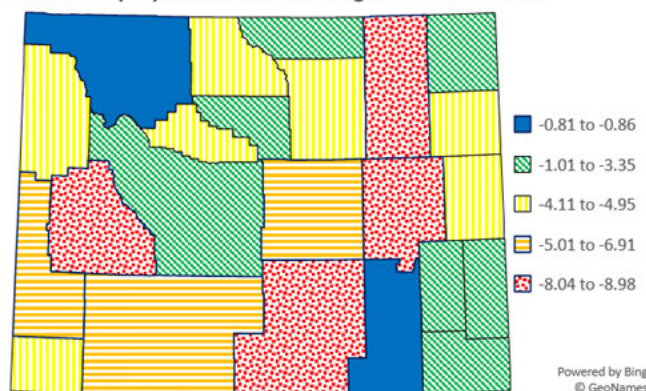
Moving on to examine the Competitive Share (CS) component shows that two counties (Converse and Crook counties) recorded 11 positive time periods (see Map 11, Tables XX to ZZ). Four other counties had 10 positive time periods. They are Johnson, Laramie, Sublette, and Teton counties. Uinta and Washakie counties had the fewest positive CS results with four. Two other counties recorded just five positive CS time periods. They are Hot Springs and Sheridan counties. Two time periods, 2006–7 and 2007–8, recorded the most positive CS time periods, each having six counties with their highest values.

**Map 4. Wyoming Counties**  
2001-2017 Employment Percent Change Maximum Value



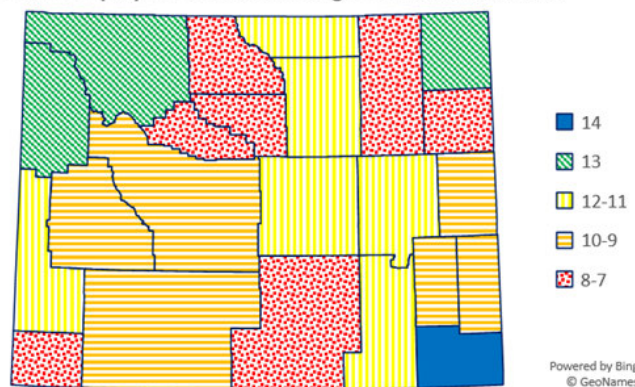
Map 4. 2001–2017 employment percentage change maximum value

**Map 5. Wyoming Counties**  
2001-2017 Employment Percent Change Minimum Value



Map 5. 2001–2017 employment percentage change minimum value

**Map 6. Wyoming Counties**  
2001-2017 Employment Percent Change: Periods of Increase



Map 6. 2001–2017 periods of increase



The report will focus on individual Wyoming county results in the sections that follow. It starts with a discussion of how to use the information by looking at an example set of data, labeled “Example County.” Following that review, there is a separate and unique four-page report of this information for

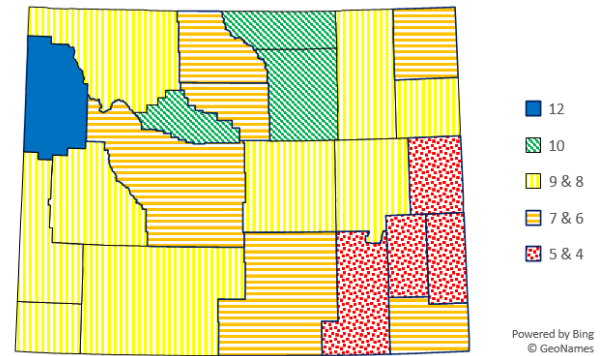
all 23 Wyoming counties. It is hoped this in-depth analysis of county employment change over the 17-year time period of 2001–17 will be a tool for community leaders as they pursue efforts to improve their county economies.

**Map 7. Wyoming Counties**  
2001-2017 Employment Percent Change: Periods of Growth > US



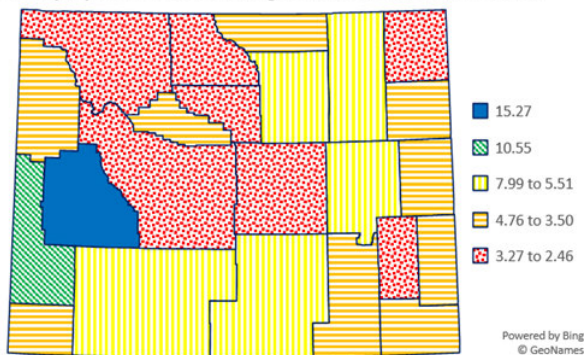
Map 7. 2001–2017 periods of growth greater than the U.S.

**Map 10. Wyoming Counties**  
2001-2017 Employment: Number of Positive Industrial Mix Periods



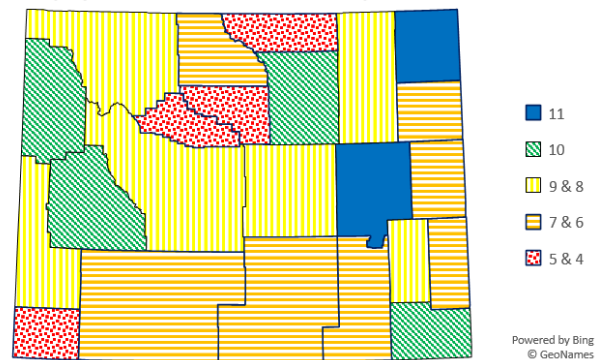
Map 10. 2001–2017 number of positive industrial mix periods

**Map 8. Wyoming Counties**  
2001-2017 Employment Percent Change: Maximum % Growth vs US



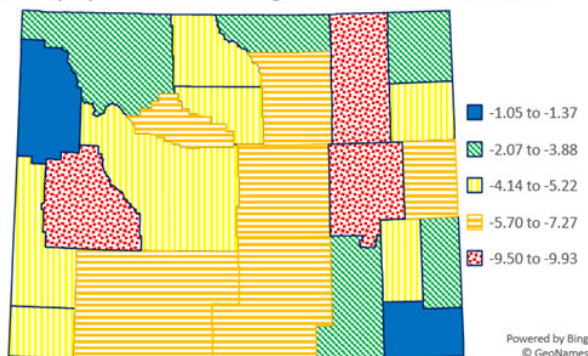
Map 8. 2001–2017 maximum percentage growth versus U.S.

**Map 11. Wyoming Counties**  
2001-2017 Employment: Number of Positive Competitive Share Periods



Map 11. 2001–2017 number of positive competitive share periods

**Map 9. Wyoming Counties**  
2001-2017 Employment Percent Change: Minimum % Growth vs US



Map 9. 2001–2017 minimum percentage growth versus U.S.

## AN EXAMPLE COUNTY

Let's run through the information using an Example County to see what can be learned. Look at Example County Chart 1, which displays employment from 2001 to 2017 indexed to the beginning period (2001) for three vastly different sized places. This allows us to compare the United States (U.S.), the state of Wyoming (WY) and Example County, WY.

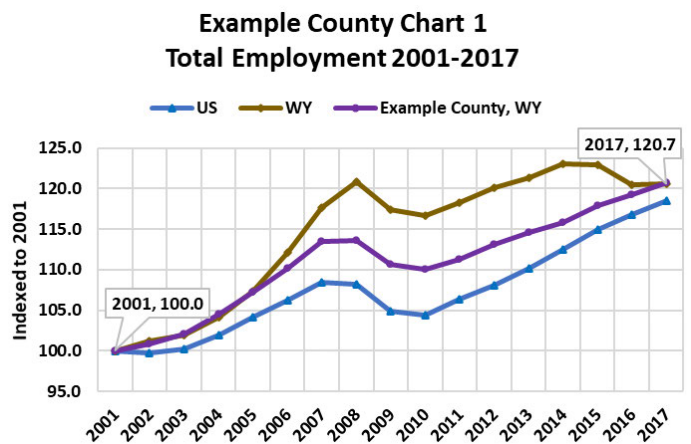
From 2001–17, the maximum index for Example County was 120.7 in 2017. The minimum index was 100.0 in 2001. Its maximum index was 2.2 points higher than the U.S. maximum. Its minimum index was 0.3 points higher than the U.S. minimum. Over this 17-year period, the ratio fell below its 2001 value 0 time(s). Compared to Wyoming, Example County's maximum was -2.3 points lower. Its minimum was 0.0 points different or equal to the state value.

We are encouraged to see that the maximum index for Example County occurred in 2017, and its minimum value was in the base year, 2001. In the early years (2001–5), its employment grew at a pace faster than the U.S. and about equivalent to the pace in Wyoming. From 2006 to 2008, its growth appears to have lagged behind Wyoming's. Since 2011, Example County's growth seems similar to the U.S. and did not follow Wyoming's declines and slow growth that begin in 2014. Interestingly, its comparative level of employment matched Wyoming's and remained higher than the U.S. in the end period (2017). It's positive to see Example County has recorded steadily increasing employment since 2010. The maximum percent change for Example County was 3.03 percent in 2006–7 (see Example County Chart 2). The minimum change was -2.64 percent in 2008–9. It had 14 periods of increase and 2 periods of decline. Example County grew faster than the United States in 8 time periods and grew slower in 8 time periods. Its largest growth over the United States rate was 1.10 percent in 2001–2. Its least growth compared to the United States was -1.07 percent in 2013–14. Example County grew faster than Wyoming in 8 time periods and grew slower in 8 time periods. Its largest growth over Wyoming's rate was 3.05 percent in 2015–16. Its least growth compared to Wyoming was -2.62 percent in 2007–8.

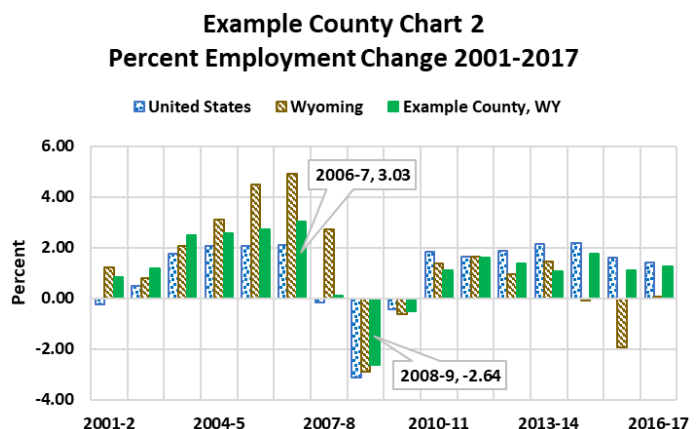
Let's compare the range and average percent change in employment among Wyoming counties (see Example County Chart 3). Example County exceeded the average nine times. It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 2.78 percent in 2015–16. Its least growth to the average was -2.41 percent in 2007–8. While overall these

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-289	338	895	944
2002-2003	565	248	502	1,315
2003-2004	2,009	-163	1,013	2,858
2004-2005	2,427	-2	591	3,015
2005-2006	2,460	-47	854	3,267
2006-2007	2,578	187	975	3,740
2007-2008	-234	181	163	110
2008-2009	-3,960	238	368	-3,353
2009-2010	-524	214	-302	-613
2010-2011	2,274	-359	-549	1,367
2011-2012	2,044	153	-204	1,993
2012-2013	2,367	-44	-566	1,757
2013-2014	2,754	-96	-1,281	1,376
2014-2015	2,844	-209	-358	2,277
2015-2016	2,117	-167	-475	1,475
2016-2017	1,908	-44	-196	1,668
Total	21,341	427	1,428	23,196

Example County Table 1. Shift-share analysis



Example County Chart 1. Total employment 2001–2017



Example County Chart 2. Percent employment change

are relatively positive results for Example County, Wyoming, it does suggest a need to explore the components of change that describe its shift from faster than slower growth than the United States.

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Example County Table 1 and Example County Chart 4). The largest addition to Example County's economy from NG was 2,844 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -3,960 in 2008-9.

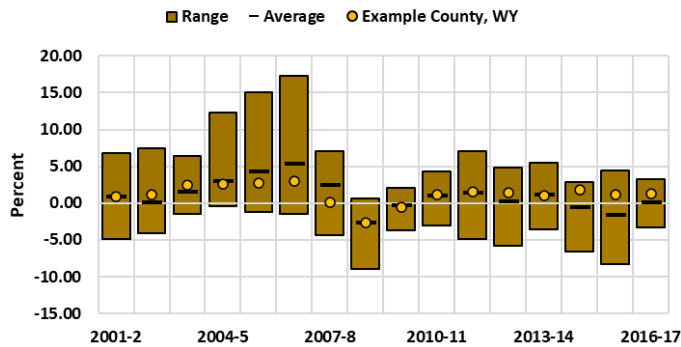
Example County had a positive Industrial Mix (IM) in 7 time periods with a negative IM in 9 time periods. Its largest IM was 338 in 2001-2 and its least IM was -359 in 2010-11.

Example County had a positive Competitive Share (CS) in 8 time periods with a negative CS in 8 time periods. Its largest CS was 1,013 in 2003-4, and its least CS was -1,281 in 2013-14. Example County had a positive Competitive Share (CS) in 8 time periods with a negative CS in 8 time periods. Its largest CS was 1,013 in 2003-4, and its least CS was -1,281 in 2013-14. Example County had a positive Actual Change (AC) in 14 time periods with a negative AC in 2 time periods. Its largest AC was 3,740 in 2006-7, and its least AC was -3,353 in 2008-9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Example County Table 1). As mentioned previously, Example County's largest percentage change compared to the United States was 1.10 percent in 2001-2. During this time, National Growth was negative and altered employment by -289 jobs, while the Industrial Mix was positive and added 338 jobs, and the Competitive Share was positive and added 895 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 944 jobs.

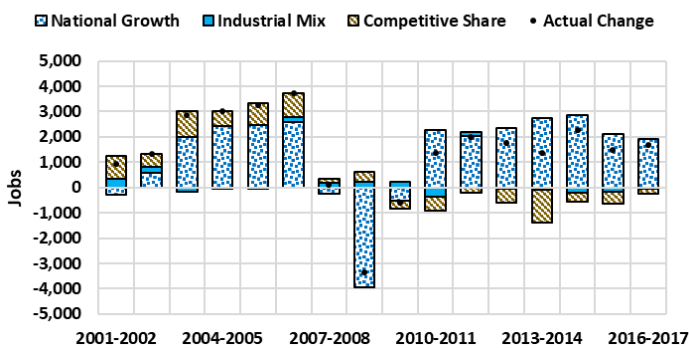
Example County's smallest percentage change compared to the United States was -1.07 percent in 2013-14. During this time, National Growth (NG) was positive and added 2,754 jobs, while the Industrial Mix was negative and adjusted employment by -96 jobs, and the Competitive Share was negative and altered employment by -1,281 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 1,376 jobs.

**Example County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



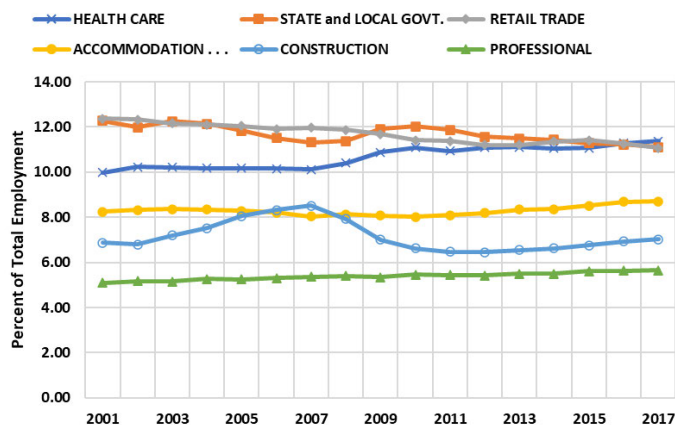
Example County Chart 3. Range of employment change

**Example County Chart 4 Shift-Share Analysis of 2001-17 Employment**



Example County Chart 4. Shift-share analysis

**Example County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Example County Chart 5. Top employment sectors

Looking at the adjustments over the entire 16 periods of change, Example County grew faster than the national average by 1,855 jobs, which equals Actual Change (23,196) minus National Growth (21,341). The Industrial Mix bolstered employment by 427 jobs, while the Competitive Share enhanced employment by 1,428 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding forces of change. Example County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for over 50 percent of the employment in the region.

STATE and LOCAL GOVERNMENT employment and RETAIL TRADE employment were the top two sectors for most of this 17-year time period, dropping below the HEALTH CARE sector beginning in 2016. Similar to the larger regions, the trend of declining RETAIL TRADE employment was also seen in Example County. Again similar to the United States and the Rocky Mountain Region, Example County experienced significant increase in HEALTH CARE employment beginning in 2008; however, this sector has not increased its share of total employment much since 2010. CONSTRUCTION employment grew until the beginning of the national recession and then dropped dramatically through 2011. Since that time, CONSTRUCTION employment has been improving and remains the fifth largest employer, following below ACCOMMODATIONS/FOOD SERVICE employment. The drop in FARM employment is another important change that occurred over this 17-year time period. In 2001 and 2002, the FARM sector was the sixth highest employer for this region. In 2003, the FARM sector dropped out of the top six and ranked ninth in 2017.

## SUMMARY

Example County's total employment from 2001–17 peaked at 120.7 percent of its 2001 level in 2017. This is higher than the U.S. value (118.5) and lower than the Wyoming value (123.0). It dropped below its starting value 0 times. It had 14 periods of increasing and 2 periods of declining employment. It grew faster than the U.S. 8 times and Wyoming 8 times. Overall, its employment change was moderate when compared to all Wyoming counties, exceeding the average 9 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 7 of the 16 time periods. Its competitive share was positive 8 times. Over the entire 16 periods of change, Example County grew faster than the national average by 1,855 jobs. HEALTH CARE, STATE

and LOCAL GOVERNMENT, and RETAIL TRADE were the top employment sectors in 2017 and for all 17 years studied. HEALTH CARE increased from the third highest employment sector in 2001 to become the top sector in 2017. RETAIL TRADE jobs have become a smaller proportion of the county's total employment. The CONSTRUCTION sector grew from 2002–07, then declined until 2011. Since 2011, the CONSTRUCTION sector has been stable to slowly increasing.



## ALBANY COUNTY

From 2001–17, the maximum index for Albany County was 112.1 in 2016 (see Table 1 and Albany County Chart 1). The minimum index was 99.3, which happened in 2002. Its maximum index was -6.4 points lower than the U.S. maximum. Its minimum index was -0.4 points lower than the U.S. minimum. Its maximum index ranked 17th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 14th. Over this 16-year period, the ratio fell below its 2001 value 1 time(s). This ranked 11th (a four-way tie) in fewest occurrences.

Compared to Wyoming, Albany County's maximum was -11.0 points lower. Its minimum was -0.7 points below the state value.

The maximum percent change for Albany County was 2.52 percent in 2006–7 (see Table 2 and Albany County Chart 2). The minimum change was -0.81 percent in 2016–17. It had 11 periods of increase and 5 periods of decline. Its maximum percent change ranked as the 23rd highest among Wyoming's 23 counties (see Table 4). While its minimum percent change ranked as the 1st smallest. Lastly, its number of periods of positive change ranked 9th (a two-way tie) most.

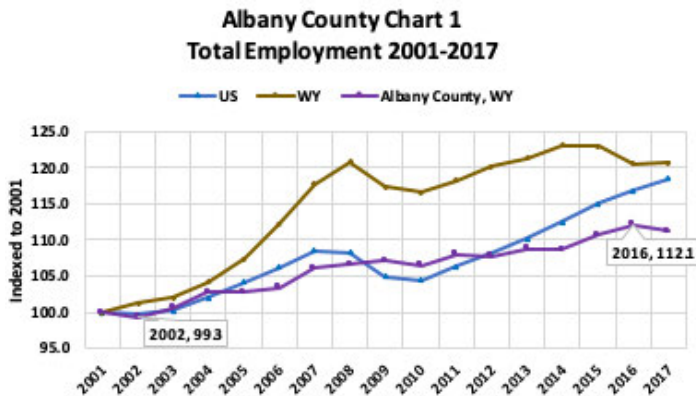
Albany County grew faster than the United States in 5 time periods (see Table 3). It grew slower in 11 time periods. Its largest growth over the United States rate was 3.69 percent in 2008–9. Its least growth compared to the United States was -2.26 percent in 2013–14. Its maximum growth greater than the United States ranked as the 14th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 4th smallest. Its number of periods of growth faster than the U.S. ranked 18th (a five-way tie) most.

Albany County grew faster than Wyoming in 6 time periods. It grew slower in 10 time periods. Its largest growth over Wyoming's rate was 3.46 percent in 2008–9. Its least growth compared to Wyoming was -3.91 percent in 2005–6. Its maximum growth greater than Wyoming ranked as the 11th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 10th smallest. Its number of periods of growth faster than Wyoming ranked 13th (a five-way tie) most.

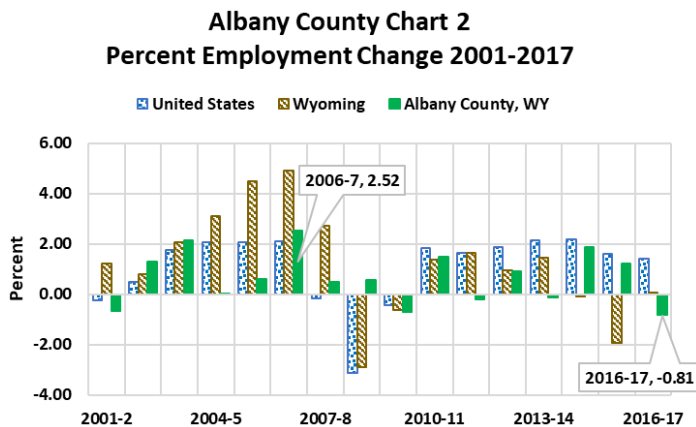
Let's compare the range and average percent change in employment among Wyoming counties (see Albany County Chart 3). Albany County exceeded the average 7 time(s). It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-55	189	-278	-144
2002-2003	106	75	94	275
2003-2004	377	-43	128	462
2004-2005	454	-52	-393	10
2005-2006	449	-63	-256	130
2006-2007	461	-13	108	557
2007-2008	-42	101	51	110
2008-2009	-707	244	594	131
2009-2010	-97	-7	-58	-161
2010-2011	419	-197	120	342
2011-2012	378	-139	-284	-45
2012-2013	430	-90	-129	210
2013-2014	498	-107	-417	-26
2014-2015	508	-105	28	431
2015-2016	379	-50	-38	290
2016-2017	342	-53	-483	-194
Total	3,900	-308	-1,214	2,378

Albany County Table 1. Shift-share analysis



Albany County Chart 1. Total employment



Albany County Chart 2. Percent employment change



23 counties was 3.30 percent in 2008–9. Its least growth to the average was -3.76 percent in 2005–6.

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (Albany County Table 1 and Albany County Chart 4). The largest addition to Albany County's economy from NG was 508 jobs in 2014–15. On the other hand, the largest loss of jobs attributed to NG was -707 in 2008–9.

Albany County had a positive Industrial Mix (IM) in 4 time periods with a negative IM in 12 time periods. Its largest IM was 244 in 2008–9. Its least IM was -197 in 2010–11. Albany County had a positive Competitive Share (CS) in 7 time periods with a negative CS in 9 time periods. Its largest CS was 594 in 2008–9. Its least CS was -483 in 2016–17.

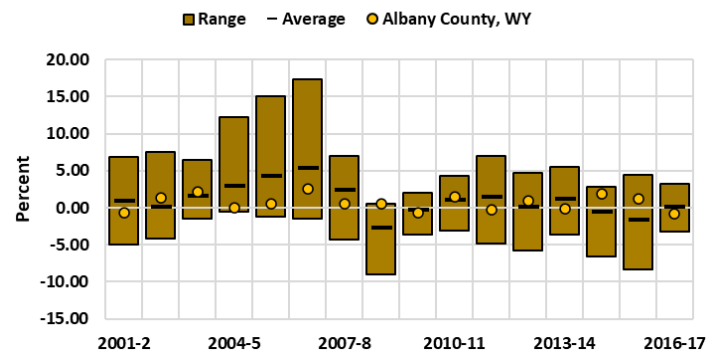
Albany County had a positive Actual Change (AC) in 11 time periods with a negative AC in 5 time periods. Its largest AC was 557 in 2006–7. Its least AC was -194 in 2016–17.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Albany County Table 1). As mentioned previously, Albany County's largest percentage change compared to the United States was 3.69 percent in 2008–9. During this time, National Growth was negative and altered employment by -707 jobs while the Industrial Mix was positive and added 244 jobs, and the Competitive Share was positive and added 594 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 131 jobs.

Albany County's smallest percentage change compared to the United States was -2.26 percent in 2013–14. During this time, National Growth was positive and added 498 jobs, while the Industrial Mix was negative and adjusted employment by -107 jobs, and the Competitive Share was negative and altered employment by -417 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -26 jobs.

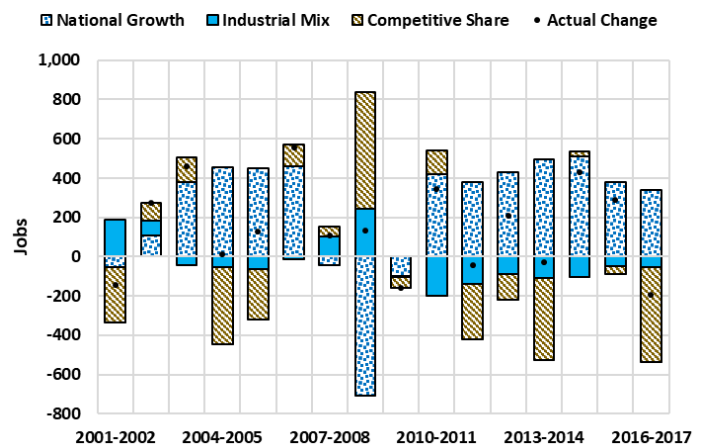
Looking at the adjustments over the entire 16 periods of change, Albany County grew slower than the national average by -1,522 jobs, which equals Actual Change (2,378) minus National Growth (3,900). The Industrial Mix diminished

**Albany County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



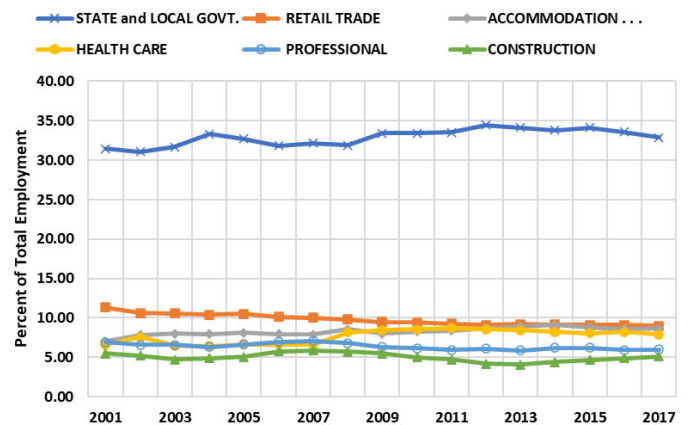
Albany County Chart 3. Range of employment change

**Albany County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Albany County Chart 4. Shift-share analysis

**Albany County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Albany County Chart 5. Top employment sectors

employment by -308 jobs, while the Competitive Share lessened employment by -1,214 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Albany County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for nearly 70 percent of the employment in the county.

Similar to the larger regions, STATE and LOCAL GOVERNMENT employment and RETAIL TRADE employment were the top two sectors during this 17-year time. Similar to the larger regions, the trend of declining RETAIL TRADE employment was also seen in Albany County.

Perhaps the most noteworthy feature of this Chart is its illustration of the extremely large proportion of State and local government employment present in Albany County. Its level of employment is more than triple that found in the United States and Rocky Mountain Region and twice the proportion for the state of Wyoming. This sector dwarfs the levels found in all of the remaining top six employment sectors. This level of concentration is a defining feature for the county's economy.

Again, similar to the United States and the Rocky Mountain Region, Albany County experienced significant increase in HEALTH CARE employment beginning in 2008; however, this sector has not increased its share of total employment much since 2011.

## SUMMARY

Albany County's total employment from 2001–17 peaked at 112.1 percent of its 2001 level in 2016. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 1 time (2002). It had 11 periods of increasing and 5 periods of declining employment. Its maximum percent change ranked as the 23rd highest among Wyoming's 23 counties (see Table 4) while its minimum percent change ranked as the 1st smallest. It grew faster than the U.S. 5 times and Wyoming 6 times. Overall, its employment change was moderate when compared to all Wyoming counties, exceeding the average 7 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 4 of the 16 time periods. Its competitive share was positive 7 times. Over the entire 16 periods of change, Albany County grew slower than the national average by -1,522 jobs. Its economy is highly concentrated in STATE and LOCAL GOVERNMENT jobs. Around 1 in 3 jobs in the county are in this sector, a

rate much higher than both the national and state levels. The relative stability/slow growth in the STATE and LOCAL GOVERNMENT sector is likely a key factor in the moderate employment changes experienced by Albany County. This helps explain why the county ranked the lowest in its maximum percent change and first in the having the smallest negative percent change (see Table 4).

## BIG HORN COUNTY

From 2001–17, the maximum index for Big Horn County was 105.4 in 2014 (see Table 1 and Big Horn County Chart 1). The minimum index was 98.2 in 2003. Its maximum index was -13.1 points lower than the U.S. maximum. Its minimum index was -1.5 points lower than the U.S. minimum. Its maximum index ranked 22nd among Wyoming's 23 counties (see Table 4). Its minimum index ranked 17th. Over this 16-year period, the ratio fell below its 2001 value 2 two time(s). This ranked 15th (a two-way tie) in fewest occurrences.

Compared to Wyoming, Big Horn County's maximum was -17.6 points lower. Its minimum was -1.8 points below the state value.

The maximum percent change for Big Horn County was 3.66 percent in 2005–6 (see Table 2 and Big Horn County Chart 2). The minimum change was -4.16 percent in 2008–9. It had 7 periods of increase and 9 periods of decline. Its maximum percent change ranked as the 20th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 11th smallest. Lastly, its number of periods of positive change ranked 22nd (a two-way tie) most.

Big Horn County grew faster than the United States in 5 time periods (see Table 3). It grew slower in 11 time periods. Its largest growth over the United States rate was 2.46 percent in 2009–10. Its least growth compared to the United States was -4.14 percent in 2015–16. Its maximum growth greater than the United States ranked as the 23rd highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the eighth smallest. Its number of periods of growth faster than the U.S. ranked 18th (a five-way tie) most.

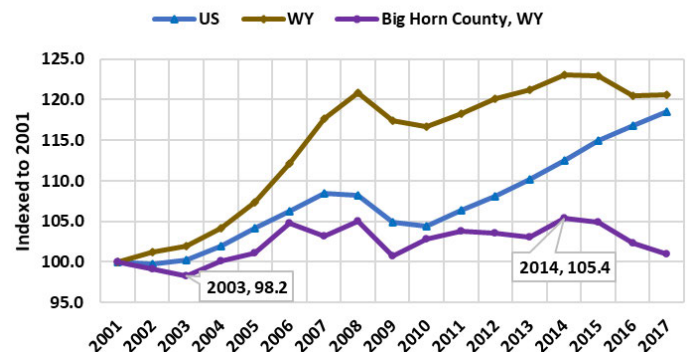
Big Horn County grew faster than Wyoming in 2 time periods and grew slower in 14 time periods. Its largest growth over Wyoming's rate was 2.66 percent in 2009–10. Its least growth compared to Wyoming was -6.43 percent in 2006–7. Its maximum growth greater than Wyoming ranked as the 17th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 21st smallest. Its number of periods of growth faster than Wyoming ranked 23rd most.

Let's compare the range and average percent change in employment among Wyoming counties (see Big Horn County Chart 3). Big Horn County exceeded the average 4 time(s). It recorded the counties' maximum 0 time(s) and the minimum 1 time(s). Its greatest growth compared to the average for all

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-17	-75	38	-54
2002-2003	33	30	-123	-61
2003-2004	113	-82	91	122
2004-2005	136	10	-79	67
2005-2006	136	45	62	243
2006-2007	144	65	-313	-105
2007-2008	-12	123	12	122
2008-2009	-215	-20	-52	-287
2009-2010	-28	51	112	135
2010-2011	125	-71	13	66
2011-2012	112	109	-239	-18
2012-2013	127	-13	-139	-25
2013-2014	145	-47	54	152
2014-2015	152	-66	-119	-33
2015-2016	110	-58	-228	-175
2016-2017	96	-12	-168	-84
Total	1,157	-11	-1,081	65

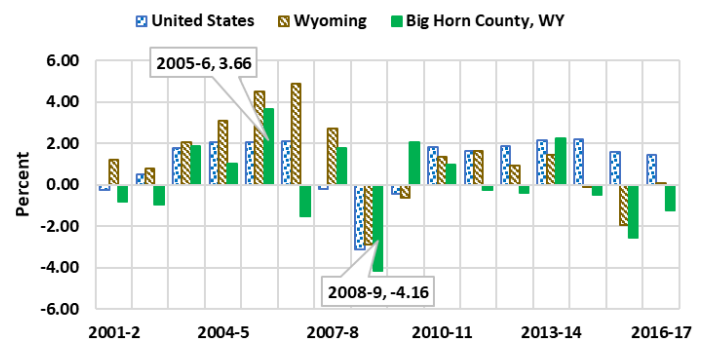
Big Horn County Table 1. Shift-share analysis

**Big Horn County Chart 1  
Total Employment 2001-2017**



Big Horn County Chart 1. Total employment

**Big Horn County Chart 2  
Employment Change 2001-2017**



Big Horn County Chart 2. Percent employment change

23 counties was 2.33 percent in 2009–10. Its least growth to the average was -6.92 percent in 2006–7.

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Big Horn County Table 1 and Big Horn County Chart 4). The largest addition to Big Horn County's economy from NG was 152 jobs in the 2014–15 time period. On the other hand, the largest loss of jobs attributed to NG was -215 in the 2008–9 time period.

Big Horn County had a positive Industrial Mix (IM) in 7 time periods with a negative IM in 9 time periods. Its largest IM was 123 in 2007–8, and its least IM was -82 in 2003–4. Big Horn County had a positive Competitive Share (CS) in 7 time period with a negative CS in 9 time periods. Its largest CS was 112 in 2009–10. Its least CS was -313 in 2006–7.

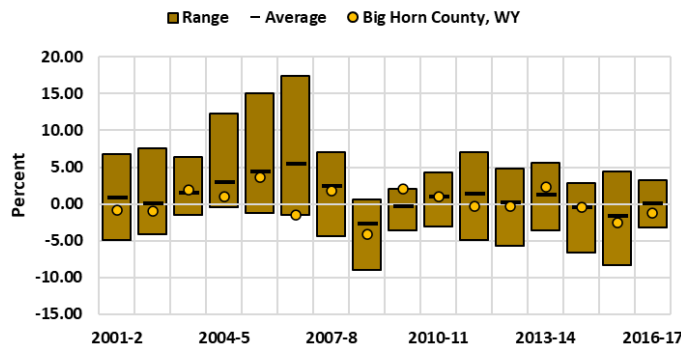
Big Horn County had a positive Actual Change (AC) in 7 time periods with a negative AC in 9 time periods. Its largest AC was 243, occurring in the 2005–6 time period. Its least AC was -287 in 2008–9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Big Horn County Table 1). As mentioned previously, Big Horn County's largest percentage change compared to the United States was 2.46 percent in 2009–10. During this time, National Growth was negative and altered employment by -28 jobs, while the Industrial Mix was positive and added 51 jobs, and the Competitive Share was positive and added 112 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 135 jobs.

Big Horn County's smallest percentage change compared to the United States was -4.14 percent in 2015–16. During this time, National Growth was positive and added 110 jobs, while the Industrial Mix was negative and adjusted employment by -58 jobs, and the Competitive Share was negative and altered employment by -228 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -175 jobs.

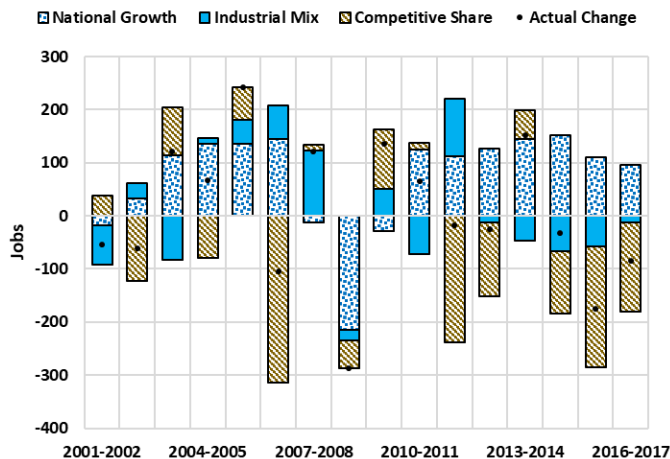
Looking at the adjustments over the entire 16 periods of change, Big Horn County grew slower than the national average by -1,092 jobs, which equals Actual Change (65) minus National

**Big Horn County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



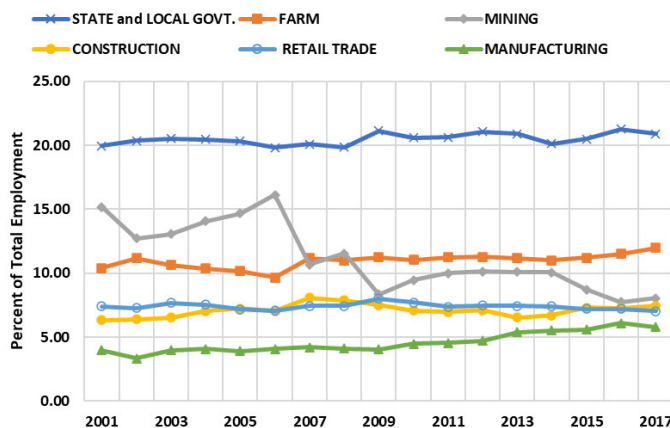
Big Horn County Chart 3. Range of employment change

**Big Horn County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Big Horn County Chart 4. Shift-share analysis

**Big Horn County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Big Horn County Chart 5. Top employment sectors

Growth (1,157). The Industrial Mix diminished employment by -11 jobs, while the Competitive Share lessened employment by -1,081 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Big Horn County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for over 60 percent of the employment in the county.

STATE and LOCAL GOVERNMENT employment was the top sector over this 17-year period. It accounts for 1 one in 5 five jobs in the county.

From 2001–06, MINING was the second largest employment category. FARM employment has been the second largest category since 2007. The dynamic nature of MINING employment, ranging from boom and bust, is also present in Big Horn County's economy. In contrast to many regions, Big Horn County's manufacturing employment has been stable to slowly increasing over this time period. The two remaining top sectors are CONSTRUCTION and RETAIL TRADE. These sectors have also been relatively stable.

## SUMMARY

Big Horn County's total employment from 2001–17 peaked at 105.4 percent of its 2001 level in 2014. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value in 2002 and 2003? It had 7 periods of increasing and 9 periods of declining employment. This number of increasing periods tied for the lowest in the state (see Table 4). It grew faster than the U.S. 5 times and Wyoming twice. Overall, its employment change was slow when compared to all Wyoming counties, exceeding the average 4 times and recording 0 top and 1 bottom (2006–7) percentage changes. Its mix of industries was positive in 7 of the 16 time periods. Its competitive share was positive 7 times. Over the entire 16 periods of change, Big Horn County grew slower than the national average by -1,092 jobs. Its economy is highly concentrated in STATE and LOCAL GOVERNMENT jobs. Around 1 in 5 jobs in the county are in this sector, a rate higher than both the national and state levels. FARM and MINING jobs are the next two sectors, with the MINING sector generating some dramatic swings in employment.



## CAMPBELL COUNTY

From 2001–17, the maximum index for Campbell County was 139.6 in 2014 (see Table 1 and Campbell County Chart 1). The minimum index was 100.0 in 2001. Its maximum index was 21.1 points higher than the U.S. maximum. Its minimum index was 0.3 points higher than the U.S. minimum. Its maximum index ranked 4th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Campbell County's maximum was 16.5 points higher. Its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Campbell County was 9.98 percent in 2005–6 (see Table 2 and Campbell County Chart 2). The minimum change was -8.04 percent in 2015–16. It had 8 periods of increase and 8 periods of decline. Its maximum percent change ranked as the 3rd highest among Wyoming's 23 counties (see Table 4) while its minimum percent change ranked as the 20th smallest. Lastly, its number of periods of positive change ranked 17th (a five-way tie) most.

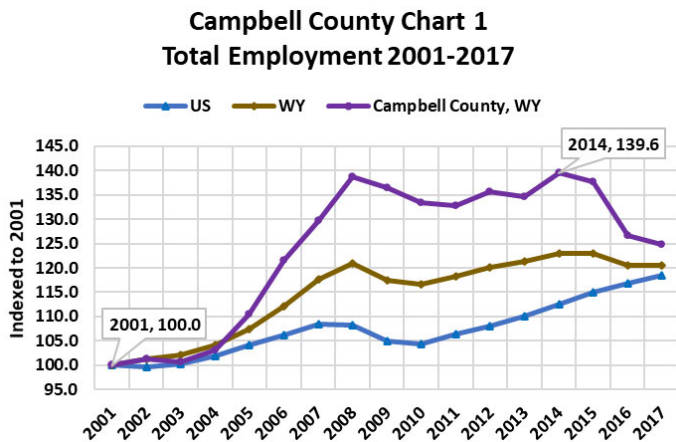
Campbell County grew faster than the United States in 9 time periods (see Table 3). It grew slower in 7 time periods. Its largest growth over the United States rate was 7.93 percent in 2005–6. Its least growth compared to the United States was -9.64 percent in 2015–16. Its maximum growth greater than the United States ranked as the 3rd highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 21st smallest. Its number of periods of growth faster than the US ranked 7th (a two-way tie) most.

Campbell County grew faster than Wyoming in 9 time periods and grew slower in 7 time periods. Its largest growth over Wyoming's rate was 5.48 percent in 2005–6. Its least growth compared to Wyoming was -6.10 percent in 2015–16. Its maximum growth greater than Wyoming ranked as the 5th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 17th smallest. Its number of periods of growth faster than Wyoming ranked 4th (a four-way tie) most.

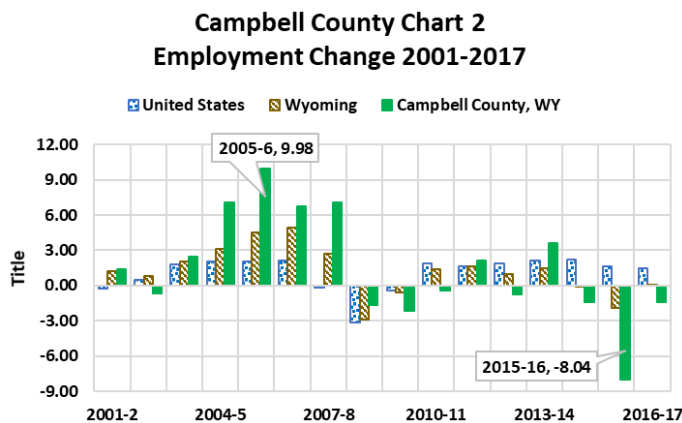
Let's compare the range and average percent change in employment among Wyoming counties (see Campbell County Chart 3). Campbell County exceeded the average 9 time(s). It recorded the counties' maximum 1 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 5.63 percent in 2005–6. Its least growth to the

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-70	-427	865	368
2002-2003	138	498	-821	-185
2003-2004	482	-249	437	670
2004-2005	582	403	1,004	1,989
2005-2006	616	722	1,663	3,001
2006-2007	691	533	1,007	2,231
2007-2008	-65	1,528	1,020	2,483
2008-2009	-1,176	-720	1,253	-643
2009-2010	-157	876	-1,518	-799
2010-2011	671	-435	-401	-166
2011-2012	593	2,024	-1,845	773
2012-2013	691	164	-1,125	-271
2013-2014	787	-177	717	1,326
2014-2015	833	-403	-964	-534
2015-2016	601	-706	-2,905	-3,011
2016-2017	492	174	-1,169	-502
Total	5,709	3,804	-2,782	6,730

Campbell County Table 1. Shift-share analysis



Campbell Chart 1. Total employment



Campbell County Chart 2. Percent employment change

average was -6.37 percent; this happened in the 2015–16 time period.

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Campbell County Table 1 and Campbell County Chart 4). The largest addition to Campbell County's economy from NG was 833 jobs in 2014–15. On the other hand, the largest loss of jobs attributed to NG was -1,176 in 2008–9.

Campbell County had a positive Industrial Mix (IM) in 9 time periods with a negative IM in 7 time periods. Its largest IM was 2,024 in 2011–12. Its least IM was -720 in 2008–9. Campbell County had a positive Competitive Share (CS) in 8 time periods with a negative CS in 8 time periods. Its largest CS was 1,663 in 2005–6. Its least CS was -2,905 in 2015–16.

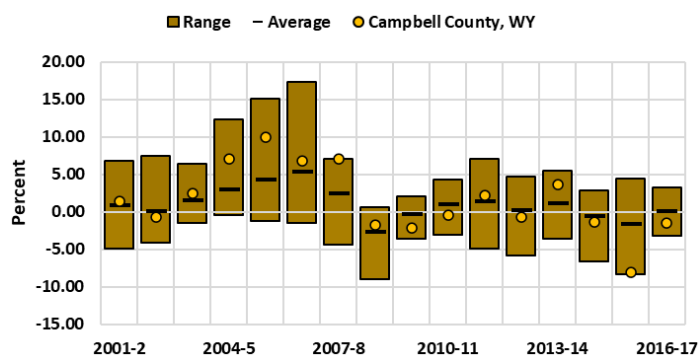
Campbell County had a positive Actual Change (AC) in 8 time periods with a negative AC in 8 time periods. Its largest AC was 3,001 in 2005–6. Its least AC was -3,011 in 2015–16.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Campbell County Table 1). As mentioned previously, Campbell County's largest percentage change compared to the United States was 7.93 percent in 2005–06. During this time, National Growth was positive and added 616 jobs, while the Industrial Mix was positive and added 722 jobs, and the Competitive Share was positive and added 1,663 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 3,001 jobs.

Campbell County's smallest percentage change compared to the United States was -9.64 percent in 2015–16. During this time, National Growth was positive and added 601 jobs, while the Industrial Mix was negative and adjusted employment by -706 jobs, and the Competitive Share was negative and altered employment by -2,905 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -3,011 jobs.

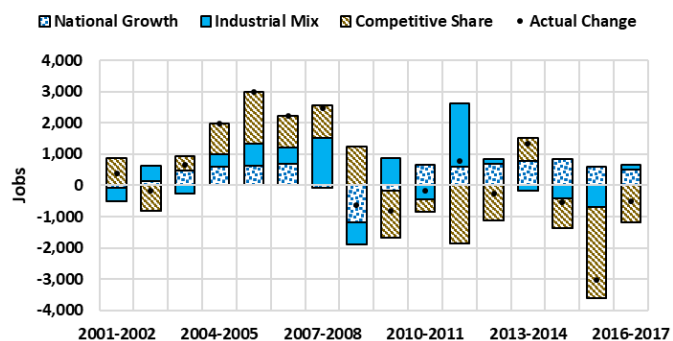
Looking at the adjustments over the entire 16 periods of change, Campbell County grew faster than the national average by 1,021 jobs, which equals Actual Change (6,730) minus National Growth (5,709). The Industrial Mix bolstered

**Campbell County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



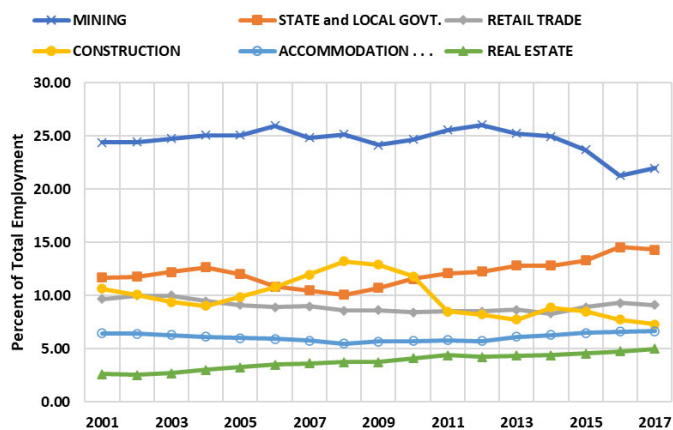
Campbell County Chart 3. Range of employment change

**Campbell County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Campbell County Chart 4. Shift-share analysis

**Campbell County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017**



Campbell County Chart 5. Top employment sectors

employment by 3,804 jobs. While the Competitive Share lessened employment by -2,782 jobs.

GOVERNMENT and RETAIL TRADE jobs are often the next two top employment sectors.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Campbell County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for about two-thirds of the employment in the county.

MINING is by far the top sector in Campbell County. For most of the 17 years, MINING was relatively stable and accounted for 1 in 4 jobs in the county. Starting in 2013, these jobs began to slowly decline. The rate of loss accelerated in 2015 and 2016. A small increase was then experienced in 2017.

STATE and LOCAL GOVERNMENT employment was the second largest sector for most of the years, only eclipsed in 2007–10 by the CONSTRUCTION sector. By the end of this time period, CONSTRUCTION employment had dropped below both government and RETAIL TRADE employment.

In contrast to many regions, Campbell County's RETAIL TRADE employment has been relatively stable. One sector that has grown significantly since 2001 is REAL ESTATE. At the beginning, this sector was not even in the top 10. In 2017, it had become the sixth largest employment sector. Another interesting contrast of Campbell County with the larger regions studied is the lack of HEALTH CARE as a top employment sector.

## SUMMARY

Campbell County's total employment from 2001–17 peaked at 139.6 percent of its 2001 level in 2014. This is higher than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 0 times. It had 8 periods of increasing and 8 periods of declining employment. Its maximum percent increase rank as the third highest in the state (see Table 4). It grew faster than the U.S. 9 times and Wyoming 9 times. Overall, its employment change was dynamic when compared to all Wyoming counties, exceeding the average 9 times and recording 1 top (2007–8) and 0 bottom percentage changes. Its mix of industries was positive in 9 of the 16 time periods. Its competitive share was positive 8 times. Over the entire 16 periods of change, Campbell County grew faster than the national average by 1,021 jobs. Its economy is highly concentrated in MINING jobs. Prior to 2015, around 1 in 4 jobs in the county were in this sector. With the decline in CONSTRUCTION jobs beginning in 2009, STATE and LOCAL



## CARBON COUNTY

From 2001–17, the maximum index for Carbon County was 116.4 in 2007 (see Table 1 and Carbon County Chart 1). The minimum index was 97.2, which happened in 2003. Its maximum index was -2.1 points lower than the U.S. maximum. Its minimum index was -2.6 points lower than the U.S. minimum. Its maximum index ranked 15th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 20th. Over this 16-year period, the ratio fell below its 2001 value 3 time(s). This ranked 17th (a four-way tie) in fewest occurrences.

Compared to Wyoming, Carbon County's maximum was -6.6 points lower. Its minimum was -2.8 points below the state value.

The maximum percent change for Carbon County was 7.56 percent and this in 2006–7 (see Table 2 and Carbon County Chart 2). The minimum change was -8.98 percent, occurring in 2008–9. It had 8 periods of increase and 8 periods of decline. Its maximum percent change ranked as the 5th highest among Wyoming's 23 counties (see Table 4). While its minimum percent change ranked as the 23rd smallest. Lastly, its number of periods of positive change ranked 17th (a five-way tie) most.

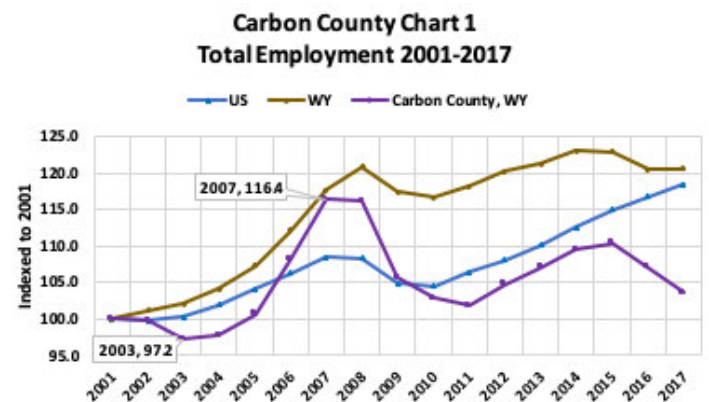
Carbon County grew faster than the United States in 7 time periods (see Table 3). It grew slower in 9 time periods. Its largest growth over the United States rate was 5.51 percent, occurring in the 2005–6 time period. Its least growth compared to the United States was -5.87 percent in 2008–9. Its maximum growth greater than the United States ranked as the 7th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 16th smallest. Its number of periods of growth faster than the U.S. ranked 14th (a three-way tie) most.

Carbon County grew faster than Wyoming in 6 time periods and grew slower in 10 time periods. Its largest growth over Wyoming's rate was 3.06 percent in 2005–6, and its least growth compared to Wyoming was -6.10 percent in 2008–9. Its maximum growth greater than Wyoming ranked as the 13th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 18th smallest. Its number of periods of growth faster than Wyoming ranked 13th (a five-way tie) most.

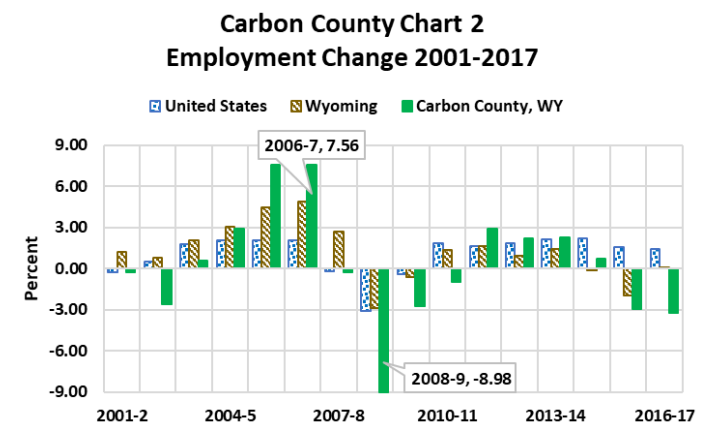
Let's compare the range and average percent change in employment among Wyoming counties (see Carbon County Chart 3). Carbon County exceeded the average 6 time(s). It recorded the counties' maximum 0 time(s) and the minimum 2 time(s). Its greatest growth compared to the average for all

2001-2002	-24	12	-12	-24
2002-2003	47	5	-291	-240
2003-2004	160	-34	-70	55
2004-2005	189	-4	81	266
2005-2006	192	-5	522	710
2006-2007	211	-4	556	764
2007-2008	-20	13	-19	-26
2008-2009	-337	-85	-552	-974
2009-2010	-42	29	-258	-271
2010-2011	177	-66	-206	-95
2011-2012	156	47	75	278
2012-2013	183	-11	45	217
2013-2014	214	-26	39	228
2014-2015	224	-16	-132	76
2015-2016	165	0	-469	-304
2016-2017	143	1	-468	-325
Total	1,638	-142	-1,161	335

Carbon County Table 1. Shift-share analysis



Carbon Chart 1. Total employment



Carbon County Chart 2. Percent employment change

23 counties was 3.20 percent in 2005–6. Its least growth to the average was -6.26 percent in 2008–9.

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Carbon County Table 1 and Carbon County Chart 4). The largest addition to Carbon County's economy from NG was 224 jobs in 2014–15. On the other hand, the largest loss of jobs attributed to NG was -337 in 2008–9.

Carbon County had a positive Industrial Mix (IM) in 7 time periods with a negative IM in 9 time periods. Its largest IM was 47 in 2011–12, and its least IM was -85 in 2008–9. Carbon County had a positive Competitive Share (CS) in 6 time periods with a negative CS in 10 time periods. Its largest CS was 556 in 2006–7, and its least CS was -552 in 2008–9.

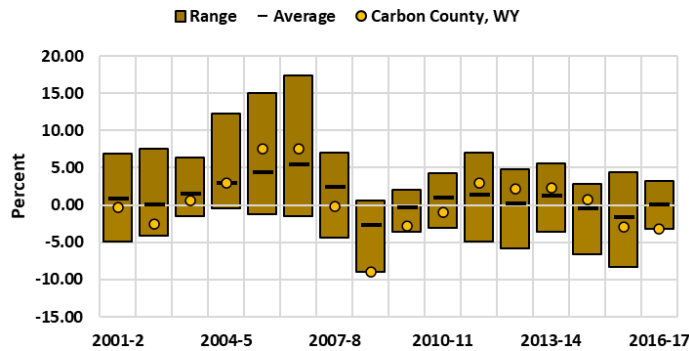
Carbon County had a positive Actual Change (AC) in 8 time periods and a negative AC in 8 time periods. Its largest AC was 764 in 2006–7, and its least AC was -974 in 2008–9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Carbon County Table 1). As mentioned previously, Carbon County's largest percentage change compared to the United States was 5.51 percent in 2005–06. During this time, National Growth was positive and added 192 jobs, while the Industrial Mix was negative and modified employment by -5 jobs, and the Competitive Share was positive and added 522 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 710 jobs.

Carbon County's smallest percentage change compared to the United States was -5.87 percent in 2008–09. During this time, National Growth was negative and modified employment by -337 jobs, while the Industrial Mix was negative and adjusted employment by -85 jobs, and the Competitive Share was negative and altered employment by -552 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -974 jobs.

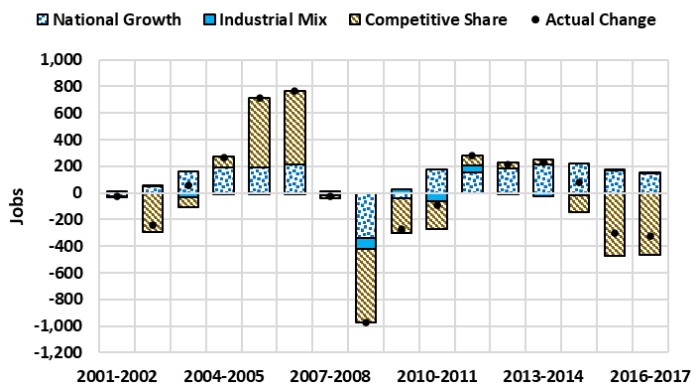
Looking at the adjustments over the entire 16 periods of change, Carbon County grew slower than the national average by -1,303 jobs, which equals Actual Change (335) minus National Growth (1,638). The Industrial Mix diminished

**Carbon County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



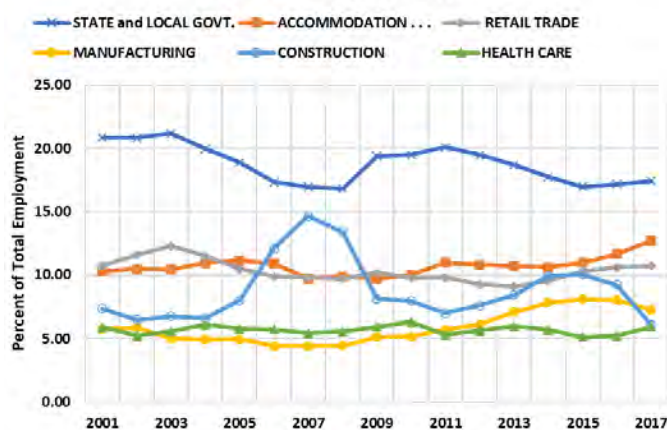
Carbon County Chart 3. Range of employment change

**Carbon County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Carbon County Chart 4. Shift-share analysis

**Carbon County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Carbon County Chart 5. Top employment sectors

employment by -142 jobs, while the Competitive Share lessened employment by -1,161 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Carbon County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for about 60 percent of the employment in the county.

STATE and LOCAL GOVERNMENT employment was the top employer for this entire 17-year time period. From 2001–3, it provided 1 in 5 jobs. A decline in this sector occurred from 2004–8. It rose and fell again in the second half of this time period. This volatility is largely a reflection of growth and decline in other sectors, such as CONSTRUCTION.

ACCOMMODATIONS and RETAIL TRADE were the next top sectors for much of the time period; however, there was a dramatic rise in CONSTRUCTION employment from 2005–7. This rapid growth fell off dramatically in 2008–9. CONSTRUCTION started a slow rise in 2011–15 but drops off dramatically again in 2016 and 2017.

Carbon County did experience a steady rise in MANUFACTURING employment from 2008 until 2015. It did record small declines in 2016 and 2017. This is a rather interesting contrast to the limited and declining role of MANUFACTURING in the larger regions studied.

## SUMMARY

Carbon County's total employment from 2001–17 peaked at 116.4 percent of its 2001 level in 2007. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 3 times, the latest time being in 2004. It had 8 periods of increasing and 8 periods of declining employment and recorded the highest level of decline in the state (see Table 4). It grew faster than the U.S. 7 times and Wyoming 6 times. Overall, its employment change was slow when compared to all Wyoming counties, exceeding the average 6 times and recording 0 top and 2 bottom (2008–9 and 2016–17) percentage changes. Its mix of industries was positive in 7 of the 16 time periods. Its competitive share was positive 6 times. Over the entire 16 periods of change, Carbon County grew slower than the national average by -1,303 jobs. Its economy has a concentration in STATE and LOCAL GOVERNMENT jobs; however, this level varies with the dynamic changes experienced in the CONSTRUCTION sector. Generally

speaking, ACCOMMODATIONS and RETAIL TRADE are often the next two largest employment sectors.

## CONVERSE COUNTY

From 2001–17, the maximum index for Converse County was 140.8 in 2014 (see Table 1 and Converse County Chart 1). The minimum index was 99.5, which happened in 2003. Its maximum index was 22.3 points higher than the U.S. maximum. Its minimum index was -0.2 points lower than the U.S. minimum. Its maximum index ranked 3rd among Wyoming's 23 counties (see Table 4). Its minimum index ranked 13th. Over this 16-year period, the ratio fell below its 2001 value 1 time(s). This ranked 11th (a four-way tie) in fewest occurrences.

Compared to Wyoming, Converse County's maximum was 17.8 points higher. Its minimum was -0.5 points below the state value.

The maximum percent change for Converse County was 7.04 percent, and this occurred in 2011–12 (see Table 2 and Converse County Chart 2). The minimum change was -8.12 percent in 2015–16. It had 11 periods of increase and 5 periods of decline. Its maximum percent change ranked as the 6th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 21st smallest. Lastly, its number of periods of positive change ranked 9th (a two-way tie) most.

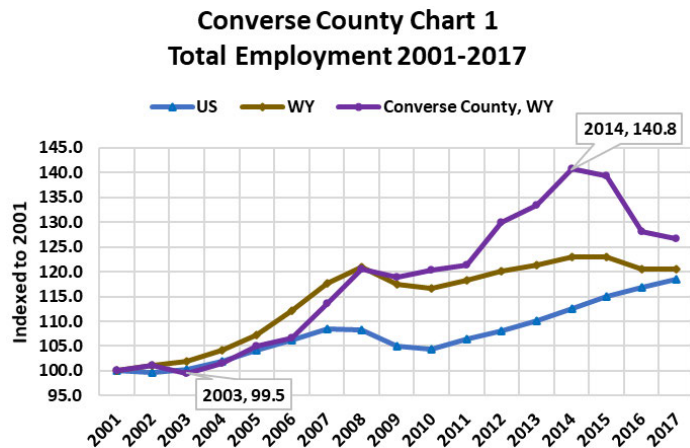
Converse County grew faster than the United States in 10 time periods (see Table 3). It grew slower in 6 time periods. Its largest growth over the United States rate was 6.30 percent in the 2007–8 time period. Its least growth compared to the United States was -9.72 percent in the 2015–16 time period. Its maximum growth greater than the United States ranked as the 6th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 22nd smallest. Its number of periods of growth faster than the U.S. ranked 5th (a two-way tie) most.

Converse County grew faster than Wyoming in 8 time periods and grew slower in 8 time periods. Its largest growth over Wyoming's rate was 5.40 percent in 2011–12, and its least growth compared to Wyoming was -6.18 percent in 2015–16. Its maximum growth greater than Wyoming ranked as the 6th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 20th smallest. Its number of periods of growth faster than Wyoming ranked 8th (a four-way tie) most.

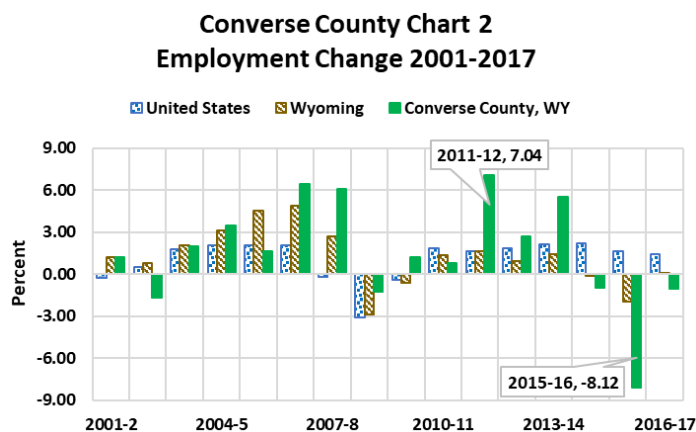
Let's compare the range and average percent change in employment among Wyoming counties (see Converse County Chart 3). Converse County exceeded the average 10 time(s). It recorded the counties' maximum 2 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-18	-46	145	81
2002-2003	35	37	-185	-114
2003-2004	119	-54	69	134
2004-2005	143	23	72	238
2005-2006	146	46	-75	118
2006-2007	152	57	257	466
2007-2008	-14	173	314	473
2008-2009	-255	-63	215	-104
2009-2010	-34	96	38	99
2010-2011	151	-97	13	67
2011-2012	136	286	160	582
2012-2013	165	15	56	236
2013-2014	195	-58	367	504
2014-2015	210	-75	-229	-93
2015-2016	152	-115	-809	-771
2016-2017	125	36	-253	-92
Total	1,408	260	156	1,824

Converse County Table 1. Shift-share analysis



Converse Chart 1. Total employment



Converse County Chart 2. Percent employment change



23 counties was 5.61 percent in 2011–12. Its least growth to the average was -6.45 percent in the 2015–16 time period.

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Converse County Table 1 and Converse County Chart 4). The largest addition to Converse County's economy from NG was 210 jobs in 2014–15. On the other hand, the largest loss of jobs attributed to NG was -255 in 2008–9.

Converse County had a positive Industrial Mix (IM) in 9 time periods with a negative IM in 7 time periods. Its largest IM was 286 in 2011–12, and its least IM was -115 in 2015–16. Converse County had a positive Competitive Share (CS) in 11 time period with a negative CS in 5 time periods. Its largest CS was 367 in 2013–14, and its least CS was -809 in 2015–16.

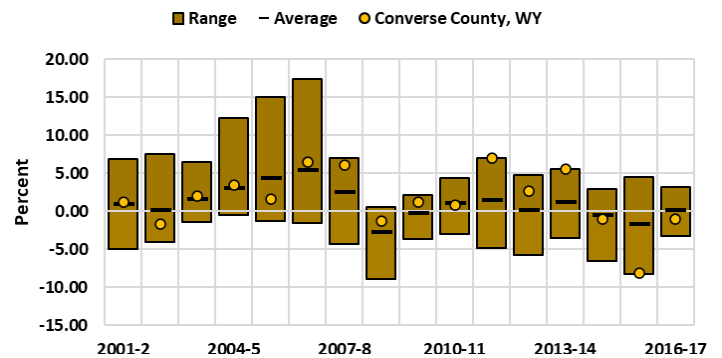
Converse County had a positive Actual Change (AC) in 11 time periods with a negative AC in 5 time periods. Its largest AC was 582 in 2011–12. Its least AC was -771 in 2015–16.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Converse County Table 1). As mentioned previously, Converse County's largest percentage change compared to the United States was 6.30 percent in 2007–08. During this time, National Growth was negative and altered employment by -14 jobs, while the Industrial Mix was positive and added 173 jobs, and the Competitive Share was positive and added 314 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. The Actual Change was positive and added 473 jobs in this time period.

Converse County's smallest percentage change compared to the United States was -9.72 percent in 2015–16. During this time, National Growth was positive and added 152 jobs, while the Industrial Mix was negative and adjusted employment by -115 jobs, and the Competitive Share was negative and altered employment by -809 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. The Actual Change was negative and transformed employment by -771 jobs in this time period.

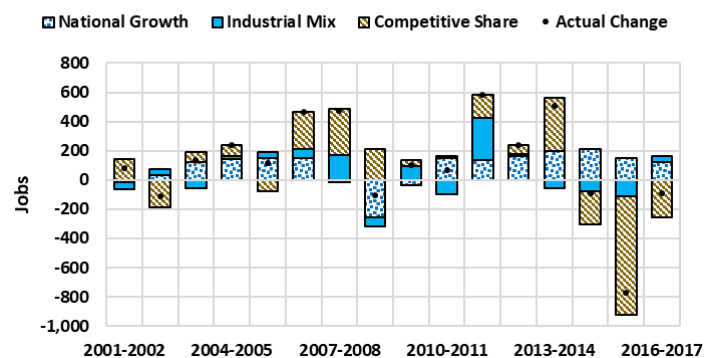
Looking at the adjustments over the entire 16 periods of change, Converse County grew faster than the national average by 416 jobs, which equals Actual Change (1,824) minus National Growth (1,408). The Industrial Mix bolstered employment by

**Converse County Chart 3. Range of Employment Change  
Results for Wyoming Counties 2001-17**



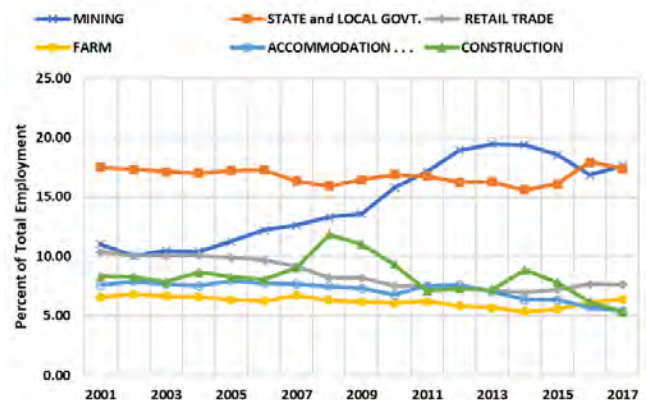
Converse County Chart 3. Range of employment change

**Converse County Chart 4  
Shift-Share Analysis of 2001-17 Employment Changes**



Converse County Chart 4. Shift-share analysis

**Converse County Chart 5. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages**



Converse County Chart 5. Top employment sectors



260 jobs, while the Competitive Share enhanced employment by 156 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Converse County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for approximately 60 percent of the employment in the county.

STATE and LOCAL GOVERNMENT employment was the top employer from 2001–10. In 2011, the rapid growth in MINING that started in 2005 allowed it to become the top employer in the county. MINING reached its highest share of employment in 2013 and then began to decline through 2015, falling below government employment in 2016. MINING employment's share of total employment grew again in 2017, again claiming the role as top employment sector. Over much of this 17-year time period, RETAIL TRADE employment has been the third highest employer; however, similar to the trends of the larger regions, its share has declined steadily over time.

CONSTRUCTION employment is perhaps the most dynamic employment sector in Converse County. It grew dramatically between 2007 and 2008, dropped significantly in 2009–11, and then increased again in 2014. CONSTRUCTION employment in the county appears related to the boom in the MINING sector.

## SUMMARY

Converse County's total employment from 2001–17 peaked at 140.8 percent of its 2001 level in 2014, the third highest in the state (see Table 4). This is higher than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 1 time (2003). It had 11 periods of increasing and 5 periods of declining employment. It grew faster than the U.S. 10 times and Wyoming 8 times. Overall, its employment change was dynamic when compared to all Wyoming counties, exceeding the average 10 times and recording 2 top (2011–12 and 2013–14) and 0 bottom percentage changes. Its mix of industries was positive in 9 of the 16 time periods, and its competitive share was positive 11 times. Over the entire 16 periods of change, Converse County grew faster than the national average by 416 jobs. The MINING sector has been the top employment sector for most of the 2011–17 time period. Prior to this time, STATE and LOCAL GOVERNMENT was the top sector. RETAIL TRADE and FARM jobs are the next two top sectors.

## CROOK COUNTY

From 2001–17, the maximum index for Crook County was 133.0 and this occurred in 2017 (see Table 1 and Crook County Chart 1). The minimum index was 100.0, which happened in 2001. Its maximum index was 14.5 points higher than the U.S. maximum. Its minimum index was 0.3 points higher than the U.S. minimum. Its maximum index ranked 7th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Crook County's maximum was 10.0 points higher. Its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Crook County was 5.36 percent in 2006–7 (see Table 2 and Crook County Chart 2). The minimum change was -2.01 percent in 2012–13. It had 13 periods of increase and 3 periods of decline. Its maximum percent change ranked as the 11th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 5th smallest. Lastly, its number of periods of positive change ranked 2nd (a three-way tie) most.

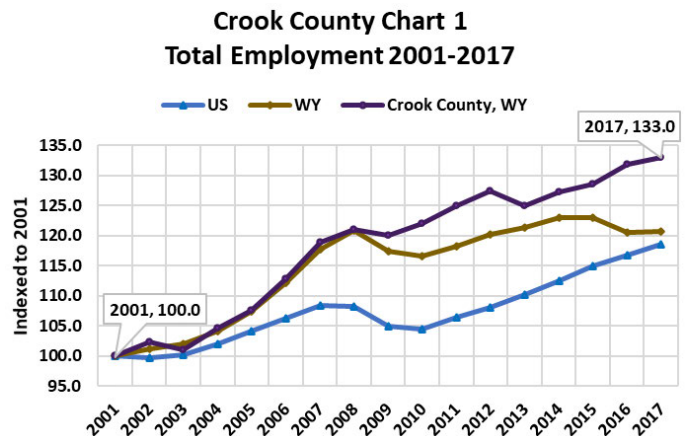
Crook County grew faster than the United States in 11 time periods (see Table 3). It grew slower in 5 time periods. Its largest growth over the United States rate was 3.27 percent in 2006–7. Its least growth compared to the United States was -3.88 percent in 2012–13. Its maximum growth greater than the United States ranked as the 17th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 7th smallest. Its number of periods of growth faster than the U.S. ranked 1st (a four-way tie) most.

Crook County grew faster than Wyoming in 12 time periods and grew slower in 4 time periods. Its largest growth over Wyoming's rate was 4.41 percent in 2015–16. Its least growth compared to Wyoming was -2.94 percent in 2012–13. Its maximum growth greater than Wyoming ranked as the 7th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 6th smallest. Its number of periods of growth faster than Wyoming ranked 1st most.

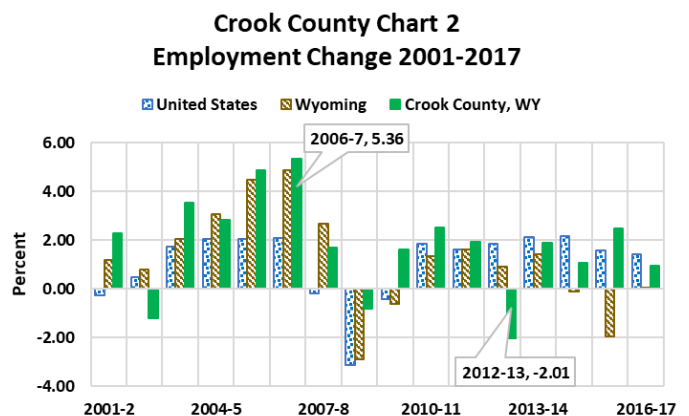
Let's compare the range and average percent change in employment among Wyoming counties (see Crook County Chart 3). Crook County exceeded the average 11 time(s). It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 4.14 percent in 2015–16. Its least growth to the average was -2.20 percent in 2012–13.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-9	-23	114	81
2002-2003	18	-6	-55	-43
2003-2004	63	-36	99	126
2004-2005	76	-1	29	104
2005-2006	78	1	107	185
2006-2007	83	17	113	213
2007-2008	-8	59	21	72
2008-2009	-132	-15	114	-34
2009-2010	-18	34	51	68
2010-2011	79	-41	70	108
2011-2012	72	64	-51	85
2012-2013	84	-2	-172	-90
2013-2014	94	-26	14	83
2014-2015	98	-38	-12	48
2015-2016	73	-38	78	112
2016-2017	66	3	-25	44
Total	717	-49	494	1,162

Crook County Table 1. Shift-share analysis



Crook Chart 1. Total employment



Crook County Chart 2. Percent employment change

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Crook County Table 1 and Crook County Chart 4). The largest addition to Crook County's economy from NG was 98 jobs, which occurred in 2014–15. On the other hand, the largest loss of jobs attributed to NG was -132 in 2008–9.

Crook County had a positive Industrial Mix (IM) in 6 time periods with a negative IM in 10 time periods. Its largest IM was 64 in 2011–12. Its least IM was -41 in 2010–11. Crook County had a positive Competitive Share (CS) in 11 time periods with a negative CS in 5 time periods. Its largest CS was 114, occurring in the 2008–9 time period. Its least CS was -172 in 2012–13.

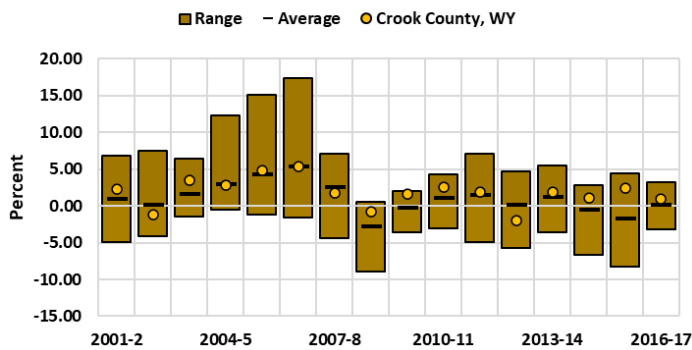
Crook County had a positive Actual Change (AC) in 13 time periods and a negative AC in 3 time periods. Its largest AC was 213 in 2006–7, and its least AC was -90 in 2012–13.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Crook County Table 1). As mentioned previously, Crook County's largest percentage change compared to the United States was 3.27 percent, occurring in the 2006–07 time period. During this time, National Growth was positive and added 83 jobs, while the Industrial Mix was positive and added 17 jobs, and the Competitive Share was positive and added 113 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. Actual Change was positive and added 213 jobs in this time period.

Crook County's smallest percentage change compared to the United States was -3.88 percent in 2012–13. National Growth was positive and added 84 jobs during this time. While the Industrial Mix was negative and adjusted employment by -2 jobs and the Competitive Share was negative and altered employment by -172 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -90 jobs.

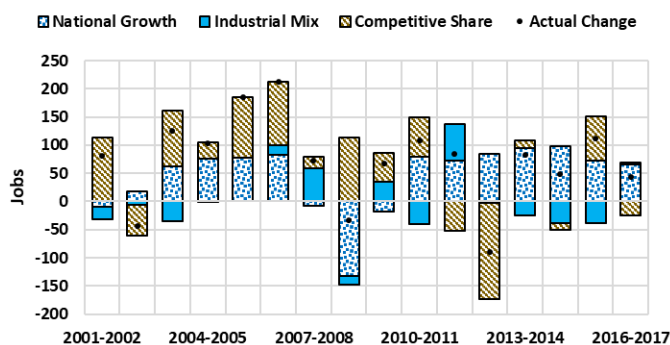
Looking at the adjustments over the entire 16 periods of change, Crook County grew faster than the national average by 445 jobs, which equals Actual Change (1,162) minus National Growth (717). The Industrial Mix diminished employment by -49 jobs, while the Competitive Share enhanced employment by 494 jobs.

**Crook County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



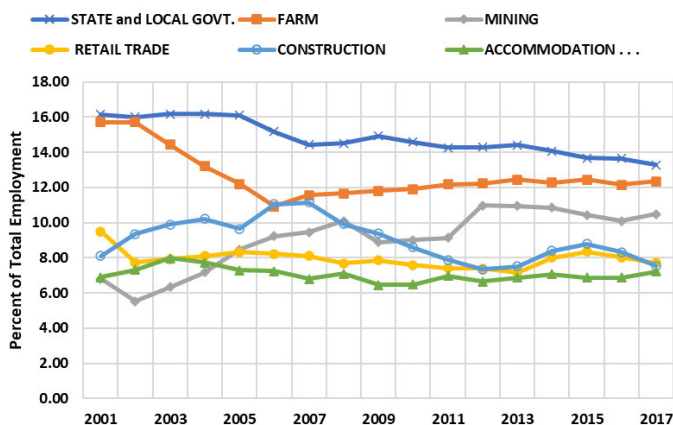
Crook County Chart 3. Range of employment change

**Crook County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Crook County Chart 4. Shift-share analysis

**Crook County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Crook County Chart 5. Top employment sectors

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Crook County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for roughly 60 percent of the employment in the county.

Despite experiencing significant declines since 2005, local and state government employment remained the top employer in the county over this 17-year period. Its share of total employment has been relatively stable since 2007.

In 2001 and 2017, FARM employment was a close second in providing jobs in the county. The FARM employment proportion dropped significantly from 2002 through 2006 but has been fairly stable since.

MINING employment's share of total employment has risen markedly over this time period. It has risen from sixth to third place in employment share for Crook County. As is typically the case, CONSTRUCTION employment grew during the early stages of MINING development, then dropped off and became generally stable.

The two remaining top sectors, RETAIL TRADE and ACCOMMODATIONS, have been rather steady over this time period. Maintaining RETAIL TRADE employment is a direct contrast to the declining trends seen in the larger regions studied.

## SUMMARY

Crook County's total employment from 2001–17 peaked at 133.0 percent of its 2001 level in 2017. This is higher than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 0 times. It had 13 periods of increasing and 3 periods of declining employment. Its number of periods of positive change ranked 2nd (a three-way tie, see Table 4). It grew faster than the U.S. 11 times and Wyoming 12 times. Its number of periods of growth faster than the U.S. ranked 1st (a four-way tie). Its number of periods of growth faster than Wyoming ranked 1st. Overall, its employment change was steadily growing when compared to all Wyoming counties, exceeding the average 11 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 6 of the 16 time periods. Its competitive share was positive 11 times. Over the entire 16 periods of change, Crook County grew faster than the national average by 445 jobs. STATE and LOCAL GOVERNMENT and FARM jobs have been the top sectors; however, both of these sectors' share of total

employment has declined with the dynamic growth in MINING and CONSTRUCTION jobs.

## FREMONT COUNTY

From 2001–17, the maximum index for Fremont County was 117.2 in 2013 (see Table 1 and Fremont County Chart 1). The minimum index was 100.0, which happened in 2001. Its maximum index was -1.3 points lower than the U.S. maximum. Its minimum index was 0.3 points higher than the U.S. minimum. Its maximum index ranked 14th among Wyoming's 23 counties (see Table 4) and its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Fremont County's maximum was -5.8 points lower. Its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Fremont County was 4.80 percent in 2006–7 (see Table 2 and Fremont County Chart 2). The minimum change was -2.61 percent in 2015–16. It had 10 periods of increase and 6 periods of decline. Its maximum percent change ranked as the 14th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 6th smallest. Lastly, its number of periods of positive change ranked 11th (a three-way tie) most.

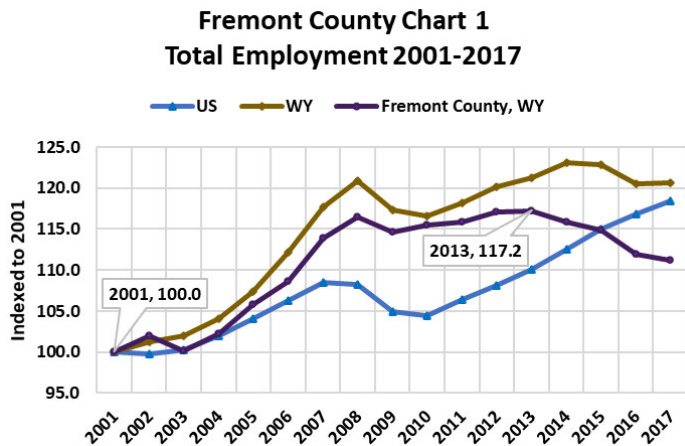
Fremont County grew faster than the United States in 8 time periods (see Table 3) and grew slower in 8 time periods. Its largest growth over the United States rate was 2.71 percent in 2006–7. Its least growth compared to the United States was -4.21 percent in the 2015–16 time period. Its maximum growth greater than the United States ranked as the 21st highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 9th smallest. Its number of periods of growth faster than the US ranked 9th (a five-way tie) most.

Fremont County grew faster than Wyoming in 4 time periods and grew slower in 12 time periods. Its largest growth over Wyoming's rate was 1.37 percent in 2009–10. Its least growth compared to Wyoming was -2.60 percent in the 2013–14 time period. Its maximum growth greater than Wyoming ranked as the 22nd highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 4th smallest. Its number of periods of growth faster than Wyoming ranked 20th (a three-way tie) most.

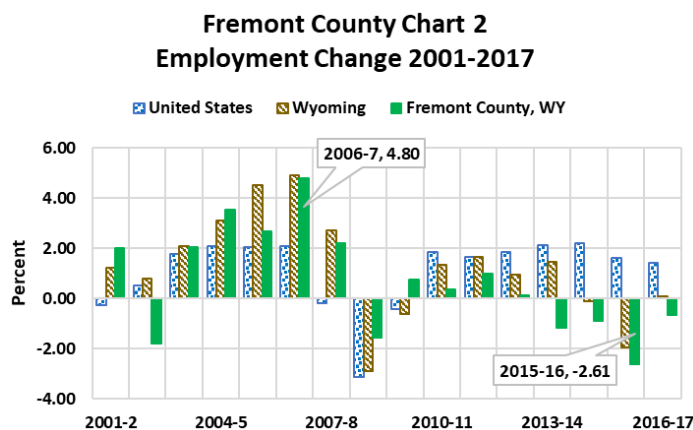
Let's compare the range and average percent change in employment among Wyoming counties (see Fremont County Chart 3). Fremont County exceeded the average 5 time(s). It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-55	78	406	429
2002-2003	108	82	-581	-391
2003-2004	373	-83	146	435
2004-2005	448	-11	327	764
2005-2006	459	-7	147	598
2006-2007	480	48	576	1,104
2007-2008	-44	202	376	533
2008-2009	-766	99	289	-379
2009-2010	-103	111	173	181
2010-2011	451	-200	-161	90
2011-2012	402	127	-283	246
2012-2013	463	-50	-378	35
2013-2014	532	-102	-716	-287
2014-2015	537	-129	-622	-214
2015-2016	390	-126	-896	-633
2016-2017	338	-39	-455	-155
Total	4,013	-1	-1,655	2,356

Fremont County Table 1. Shift-share analysis



Fremont County Chart 1. Total employment



Fremont County Chart 2. Percent employment change



23 counties was 1.18 percent, which occurred in 2008–9. Its least growth to the average was -2.36 percent in 2013–14.

Next let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Fremont County Table 1 and Fremont County Chart 4). The largest addition to Fremont County's economy from NG was 537 jobs in 2014–15. On the other hand, the largest loss of jobs attributed to NG was -766, which happened in the 2008–9 time period.

Fremont County had a positive Industrial Mix (IM) in 7 time periods and a negative IM in 9 time periods. Its largest IM was 202 in 2007–8. Its least IM was -200 in 2010–11. Fremont County had a positive Competitive Share (CS) in 8 time periods with a negative CS in 8 time periods. Its largest CS was 576 in 2006–7, and its least CS was -896 in 2015–16.

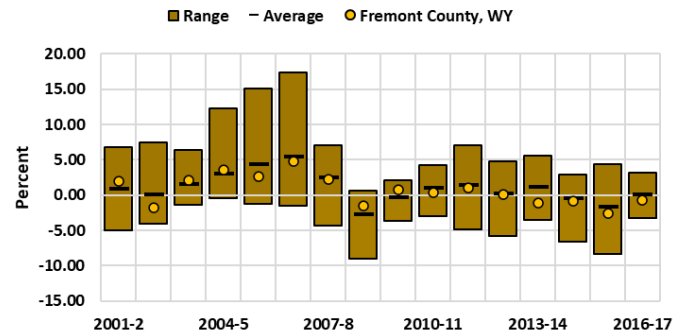
Fremont County had a positive Actual Change (AC) in 10 time periods with a negative AC in 6 time periods. Its largest AC was 1,104 in 2006–7, and its least AC was -633 in 2015–16.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Fremont County Table 1). As mentioned previously, Fremont County's largest percentage change compared to the United States was 2.71 percent in 2006–07. During this time, National Growth was positive and added 480 jobs. While the Industrial Mix was positive and added 48 jobs, and the Competitive Share was positive and added 576 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period the Actual Change was positive and added 1,104 jobs.

Fremont County's smallest percentage change compared to the United States was -4.21 percent, in 2015–16. During this time, National Growth was positive and added 390 jobs. While the Industrial Mix was negative and adjusted employment by -126 jobs, and the Competitive Share was negative and altered employment by -896 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -633 jobs.

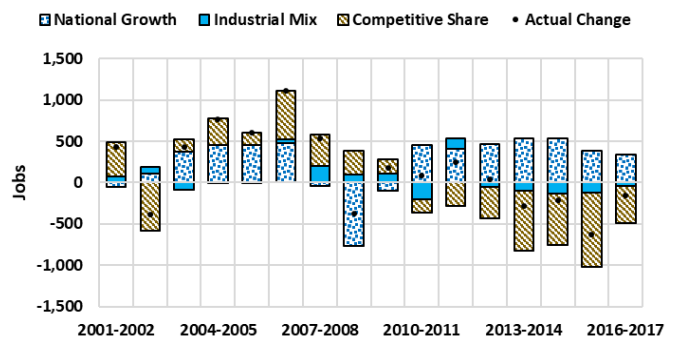
Looking at the adjustments over the entire 16 periods of change, Fremont County grew slower than the national average by -1,657 jobs, which equals Actual Change (2,356) minus National Growth (4,013). The Industrial Mix diminished

**Fremont County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



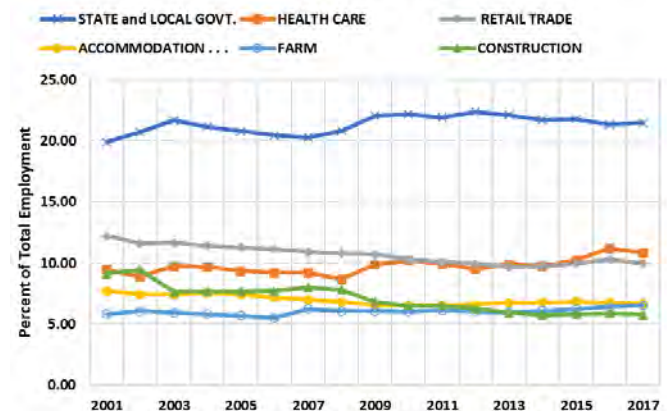
Fremont County Chart 3. Range of employment change

**Fremont County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Fremont County Chart 4. Shift-share analysis

**Fremont County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Fremont County Chart 5. Top employment sectors

employment by -1 jobs, while the Competitive Share lessened employment by -1,655 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Fremont County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for over 60 percent of the employment in the county.

Similar to the larger regions, STATE and LOCAL GOVERNMENT employment and RETAIL TRADE employment were the top two sectors during most of this 17-year time. Also, not unlike the larger regions, the trend of declining RETAIL TRADE employment was also seen in Fremont County.

Perhaps the most striking feature of the Chart is the clear and dominant role government employment plays in Fremont County. The concentration in this sector in the county is much higher than that found in the United States and Rocky Mountain Region. It is also larger than the level found in the state of Wyoming.

In 2016 HEALTH CARE employment became the second highest share of total employment. Again, this is similar to the trends found in the larger regions studied.

CONSTRUCTION employment was the next largest sector in 2001 through 2009. ACCOMMODATIONS employment has eclipsed CONSTRUCTION employment since 2010.

## SUMMARY

Fremont County's total employment from 2001–17 peaked at 117.2 percent of its 2001 level in 2013. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 0 times. It had 10 periods of increasing and 6 periods of declining employment. It grew faster than the US 8 times and Wyoming 4 times. Overall, its employment change was moderate when compared to all Wyoming counties, exceeding the average 5 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 7 of the 16 time periods. Its competitive share was positive 8 times. Over the entire 16 periods of change, Fremont County grew slower than the national average by -1,657 jobs. Its economy is highly concentrated in STATE and LOCAL GOVERNMENT jobs. Over one out every five jobs in the county are in this sector, a rate higher than both the national and state levels. HEALTH CARE and RETAIL TRADE are the next two top sectors.

## GOSHEN COUNTY

From 2001–17, the maximum index for Goshen County was 111.7 in 2012 (see Table 1 and Goshen County Chart 1). The minimum index was 97.3 in 2004. Its maximum index was -6.8 points lower than the U.S. maximum. Its minimum index was -2.5 points lower than the U.S. minimum. Its maximum index ranked 18th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 19th. Over this 16-year period, the ratio fell below its 2001 value 3 time(s). This ranked 17th (a four-way tie) in fewest occurrences. Compared to Wyoming, Goshen County's maximum was -11.3 points lower, and its minimum was -2.7 points below the state value.

The maximum percent change for Goshen County was 3.87 percent in 2006–7 (see Table 2 and Goshen County Chart 2). The minimum change was -1.79 percent in 2002–3. It had 9 periods of increase and 7 periods of decline. Its maximum percent change ranked as the 19th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 4th smallest. Lastly, its number of periods of positive change ranked 14th (a three-way tie) most.

Goshen County grew faster than the United States in 7 time periods (see Table 3) and slower in 9 time periods. Its largest growth over the United States rate was 3.71 percent, occurring in the 2008–9 time period. Its least growth compared to the United States was -3.39 percent in 2012–13. Its maximum growth greater than the United States ranked as the 13th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 6th smallest. Its number of periods of growth faster than the U.S. ranked 14th (a three-way tie) most.

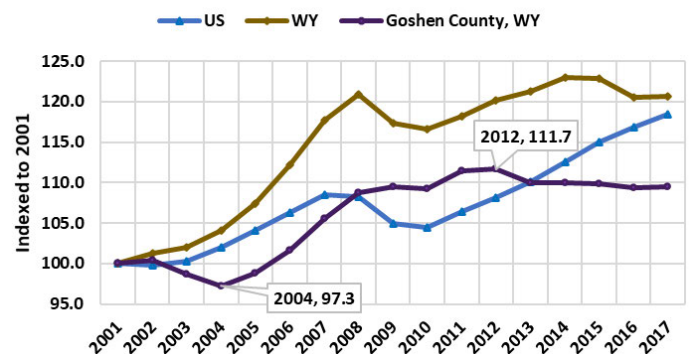
Goshen County grew faster than Wyoming in 6 time periods and slower in 10 time periods. Its largest growth over Wyoming's rate was 3.48 percent in 2008–9. Its least growth compared to Wyoming was -3.49 percent in 2003–4. Its maximum growth greater than Wyoming ranked as the 10th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 8th smallest. Its number of periods of growth faster than Wyoming ranked 13th (a five-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Goshen County Chart 3). Goshen County exceeded the average 7 time(s). It recorded the counties' maximum 1 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 3.32 percent, which occurred in 2008–9. Its least growth to the average was -3.00 percent in 2003–4.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-17	15	32	30
2002-2003	34	-5	-150	-121
2003-2004	117	-42	-170	-95
2004-2005	136	-31	-2	102
2005-2006	136	-42	96	191
2006-2007	143	8	115	265
2007-2008	-13	0	231	218
2008-2009	-228	36	236	44
2009-2010	-31	-10	24	-17
2010-2011	136	-46	62	151
2011-2012	123	-25	-81	17
2012-2013	141	-25	-230	-114
2013-2014	159	-33	-126	0
2014-2015	162	-29	-146	-13
2015-2016	119	-23	-130	-34
2016-2017	105	-23	-69	14
Total	1,220	-275	-307	638

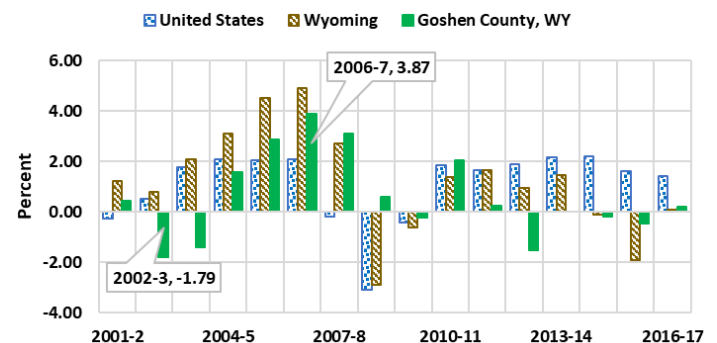
Goshen County Table 1. Shift-share analysis

**Goshen County Chart 1  
Total Employment 2001-2017**



Goshen County Chart 1. Total employment

**Goshen County Chart 2  
Employment Change 2001-2017**



Goshen County Chart 2. Percent employment change

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Goshen County Table 1 and Goshen County Chart 4). The largest addition to Goshen County's economy from NG was 162 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -228 in 2008-9.

Goshen County had a positive Industrial Mix (IM) in 4 time periods, with a negative IM in 12 time periods. Its largest IM was 36 in 2008-9, and its least IM was -46 in 2010-11. Goshen County had a positive Competitive Share (CS) in 7 time periods with a negative CS in 9 time periods. Its largest CS was 236, in 2008-9. Its least CS was -230 in 2012-13.

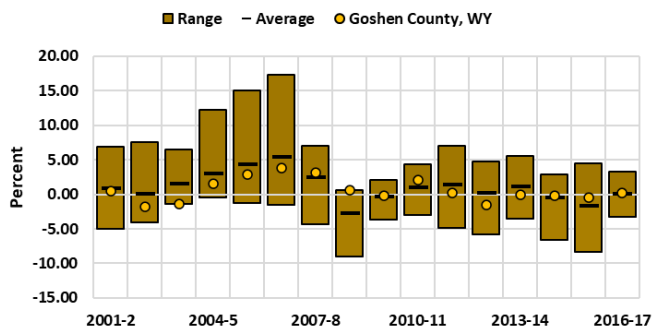
Goshen County had a positive Actual Change (AC) in 9 time periods with a negative AC in 7 time periods. Its largest AC was 265 in 2006-7, and its least AC was -121 in 2002-3.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Goshen County Table 1). As mentioned previously, Goshen County's largest percentage change compared to the United States was 3.71 percent in 2008-09. During this time, National Growth was negative and altered employment by -228 jobs, while the Industrial Mix was positive and added 36 jobs, and the Competitive Share was positive and added 236 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 44 jobs.

Goshen County's smallest percentage change compared to the United States was -3.39 percent in 2012-13. During this time, National Growth was positive and added 141 jobs, while the Industrial Mix was negative and adjusted employment by -25 jobs, and the Competitive Share was negative and altered employment by -230 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -114 jobs.

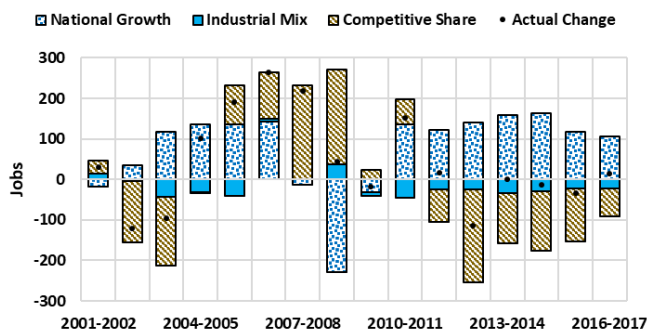
Looking at the adjustments over the entire 16 periods of change, Goshen County grew slower than the national average by -582 jobs, which equals Actual Change (638) minus National Growth (1,220). The Industrial Mix diminished employment by -275 jobs, while the Competitive Share lessened employment by -307 jobs.

**Goshen County Chart 3. Range of Employment Change  
Results for Wyoming Counties 2001-17**



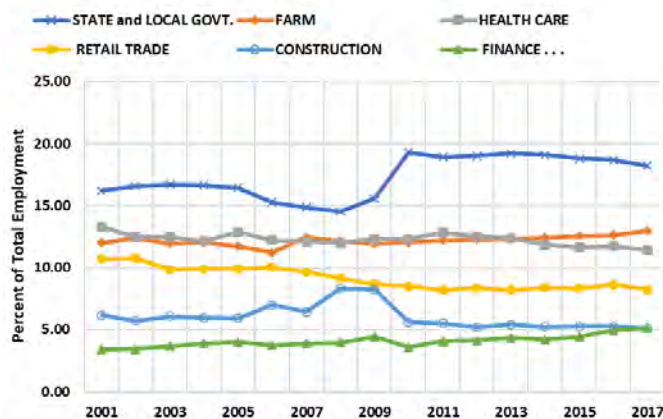
Goshen County Chart 3. Range of employment change

**Goshen County Chart 4  
Shift-Share Analysis of 2001-17 Employment Changes**



Goshen County Chart 4. Shift-share analysis

**Goshen County Chart 5. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages**



Goshen County Chart 5. Top employment sectors

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Goshen County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for around 60 percent of the employment in the county.

Similar to other regions, STATE and LOCAL GOVERNMENT employment is the top employer in the county. Its share of total employment rose dramatically in 2010. Its proportion since that time has even exceeded the rate for the state of Wyoming.

In contrast to the larger regions studied, FARM jobs play a larger role in Goshen County and have been the second largest employer since 2014. HEALTH CARE is the next largest employer. These two sectors have been the second and third highest employers over this entire 17-year period.

Similar to the other regions studied, RETAIL TRADE is another important sector in the county. It, too, has followed the national trend of a declining share of total jobs over this time period.

## SUMMARY

Goshen County's total employment from 2001–17 peaked at 111.7 percent of its 2001 level in 2012. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 3 times, the latest time being in 2005. It had 9 periods of increasing and 7 periods of declining employment. It grew faster than the U.S. 7 times and Wyoming 6 times. Overall, its employment change was moderate when compared to all Wyoming counties, exceeding the average 7 times and recording 1 top (2008–9) and 0 bottom percentage changes. Its mix of industries was positive in 4 of the 16 time periods, and its competitive share was positive 7 times. Over the entire 16 periods of change, Goshen County grew slower than the national average by -582 jobs. Its economy is concentrated in STATE and LOCAL GOVERNMENT jobs. This sector's share of total employment rose dramatically in 2010. Since then, it has provided nearly 1 in 5 jobs in the county. FARM and HEALTH CARE employment are the next two top sectors.



## HOT SPRINGS COUNTY

From 2001–17, the maximum index for Hot Springs County was 105.0 in 2013 (see Table 1 and Hot Springs County Chart 1). The minimum index was 90.1, which happened in 2004. Its maximum index was -13.5 points lower than the U.S. maximum. Its minimum index was -9.6 points lower than the U.S. minimum. Its maximum index ranked 23rd among Wyoming's 23 counties (see Table 4). Its minimum index ranked 23rd. Over this 16-year period, the ratio fell below its 2001 value 10 time(s). This ranked 23rd in fewest occurrences. Compared to Wyoming, Hot Springs County's maximum was -18.1 points lower. Its minimum was -9.9 points below the state value.

The maximum percent change for Hot Springs County was 5.66 percent in 2006–7 (see Table 2 and Hot Springs County Chart 2). The minimum change was -4.95 percent in 2001–2. It had 8 periods of increase and 8 periods of decline. Its maximum percent change ranked as the 10th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 16th smallest. Lastly, its number of periods of positive change ranked 17th (a five-way tie) most.

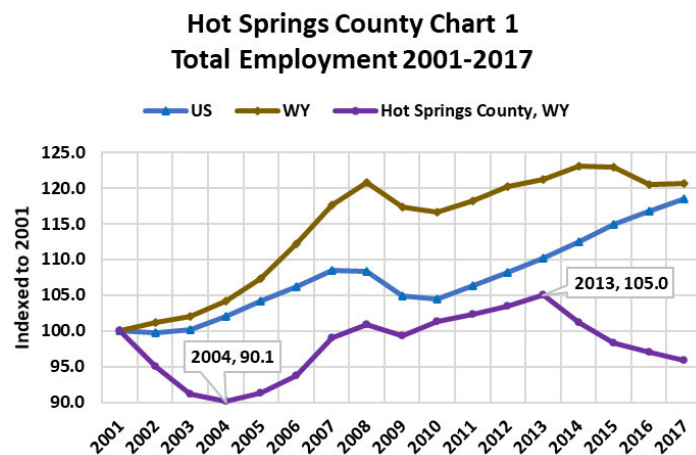
Hot Springs County grew faster than the United States in 5 time periods (see Table 3) and grew slower in 11 time periods. Its largest growth over the United States rate was 3.57 percent in 2006–7. Its least growth compared to the United States was -5.70 percent in 2013–14. Its maximum growth greater than the United States ranked as the 15th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 15th smallest. Its number of periods of growth faster than the U.S. ranked 18th (a five-way tie) most.

Hot Springs County grew faster than Wyoming in 5 time periods and grew slower in 11 time periods. Its largest growth over Wyoming's rate was 2.68 percent in 2009–10. Its least growth compared to Wyoming was -6.16 percent in 2001–2. Its maximum growth greater than Wyoming ranked as the 16th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 19th smallest. Its number of periods of growth faster than Wyoming ranked 18th (a two-way tie) most.

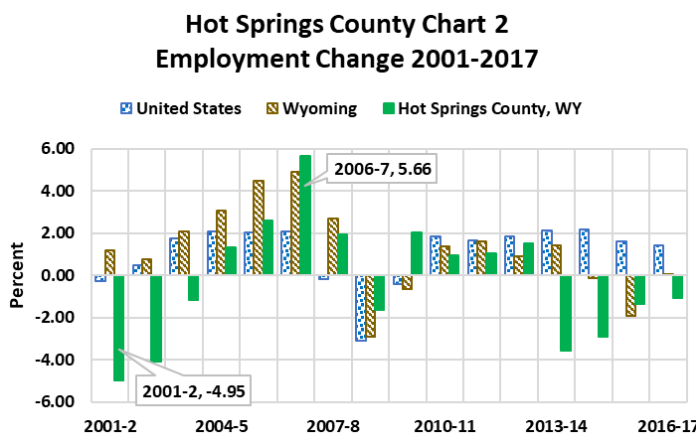
Let's compare the range and average percent change in employment among Wyoming counties (see Hot Springs County Chart 3). Hot Springs County exceeded the average 5 time(s). It recorded the counties' maximum 1 time(s) and the minimum 2 time(s). Its greatest growth compared to the average for all 23 counties was 2.34 percent, which occurred in 2009–10. Its least growth to the average was -5.86 percent in 2001–2.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-8	2	-149	-155
2002-2003	15	19	-155	-121
2003-2004	50	-15	-68	-33
2004-2005	58	-3	-18	38
2005-2006	59	6	9	74
2006-2007	61	16	89	166
2007-2008	-6	53	14	61
2008-2009	-98	10	38	-51
2009-2010	-13	24	54	64
2010-2011	59	-21	-7	30
2011-2012	53	61	-79	34
2012-2013	61	0	-12	49
2013-2014	71	-10	-177	-117
2014-2015	70	-17	-144	-92
2015-2016	49	-20	-72	-42
2016-2017	43	2	-77	-32
Total	523	105	-755	-127

Hot Springs County Table 1. Shift-share analysis



Hot Springs County Chart 1. Total employment



Hot Springs County Chart 2. Percent employment change

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Hot Springs County Table 1 and Hot Springs County Chart 4). The largest addition to Hot Springs County's economy from NG was 71 jobs in 2013-14. On the other hand, the largest loss of jobs attributed to NG was -98, which happened in the 2008-9 time period.

Hot Springs County had a positive Industrial Mix (IM) in 10 time periods with a negative IM in 6 time periods. Its largest IM was 61 in 2011-12, and its least IM was -21 in 2010-11. Hot Springs County had a positive Competitive Share (CS) in 5 time periods with a negative CS in 11 time periods. Its largest CS was 89, occurring in the 2006-7 time period. Its least CS was -177 in 2013-14.

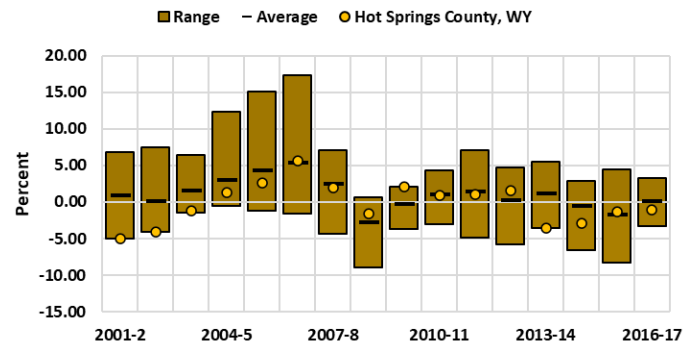
Hot Springs County had a positive Actual Change (AC) in 8 time periods with a negative AC in 8 time periods. Its largest AC was 166, occurring in 2006-7. Its least AC was -155 in 2001-2.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Hot Springs County Table 1). As mentioned previously, Hot Springs County's largest percentage change compared to the United States was 3.57 percent, occurring in the 2006-07 time period. During this time, National Growth was positive and added 61 jobs, while the Industrial Mix was positive and added 16 jobs, and the Competitive Share was positive and added 89 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 166 jobs.

Hot Springs County's smallest percentage change compared to the United States was -5.70 percent in 2013-14. During this time, National Growth was positive and added 71 jobs, while the Industrial Mix was negative and adjusted employment by -10 jobs, and the Competitive Share was negative and altered employment by -177 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -117 jobs.

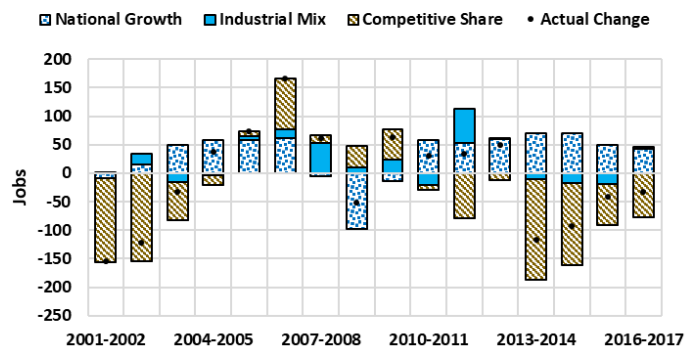
Looking at the adjustments over the entire 16 periods of change, Hot Springs County grew slower than the national average by -650 jobs, which equals Actual Change (-127) minus National Growth (523). The Industrial Mix bolstered

Hot Springs County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17



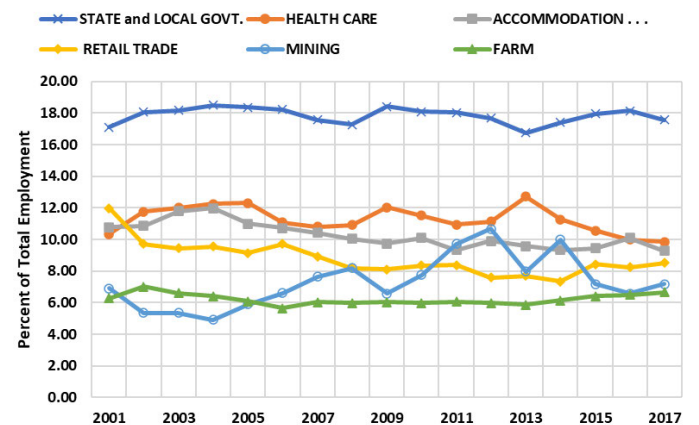
Hot Springs County Chart 3. Range of employment change

Hot Springs County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes



Hot Springs County Chart 4. Shift-share analysis

Hot Springs County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages



Hot Springs County Chart 5. Top employment sectors

employment by 105 jobs, while the Competitive Share lessened employment by -755 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Hot Springs County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for about 60 percent of the employment in the county.

STATE and LOCAL GOVERNMENT account for the greatest share of total employment by a significant degree over this entire 17-year time period. Its share has also remained relatively stable.

The next largest sector is HEALTH CARE. It reached a peak in 2013 and has been declining since that time.

The dynamic nature of the MINING sector is clearly visible in the Chart. It has experienced three distinct periods of rapid growth in this 17-year time frame.

ACCOMMODATIONS, RETAIL TRADE and FARM employment are also top sectors for Hot Springs County; however, RETAIL TRADE has displayed the same trend of decline noted in the larger regions studied.

## SUMMARY

Hot Springs County's total employment from 2001–17 peaked at 105.0 percent of its 2001 level in 2013. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 10 times, most recently in 2017. Its index values ranked as the worst in the state (see Table 4). It had 8 periods of increasing and 8 periods of declining employment. It grew faster than the U.S. 5 times and Wyoming 5 times. Overall, its employment change was weak when compared to all Wyoming counties, exceeding the average 5 times and recording 1 top (2009–10) and 2 bottom (2001–2 and 2013–14) percentage changes. Its mix of industries was positive in 10 of the 16 time periods. Its competitive share was positive 5 times. Over the entire 16 periods of change, Hot Springs County grew slower than the national average by -650 jobs. STATE and LOCAL GOVERNMENT jobs is the top sector. Its level of concentration in this sector is very similar to the Wyoming level. Other than during the boom in MINING employment of 2011–14, HEALTH CARE and ACCOMMODATION jobs have been the next two largest sectors.

## JOHNSON COUNTY

From 2001–17, the maximum index for Johnson County was 134.3 in 2017 (see Table 1 and Johnson County Chart 1). The minimum index was 100.0, which happened in 2001. Its maximum index was 15.8 points higher than the U.S. maximum. Its minimum index was 0.3 points higher than the U.S. minimum. Its maximum index ranked 6th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Johnson County's maximum was 11.3 points higher. Its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Johnson County was 6.23 percent in 2007–8 (see Table 2 and Johnson County Chart 2). The minimum change was -4.56 percent, occurring in 2008–9. It had 12 periods of increase and 4 periods of decline. Its maximum percent change ranked as the 7th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 14th smallest. Lastly, its number of periods of positive change ranked 5th (a four-way tie) most.

Johnson County grew faster than the United States in 10 time periods (see Table 3). It grew slower in 6 time periods. Its largest growth over the United States rate was 6.42 percent in 2007–8. Its least growth compared to the United States was -6.65 percent in 2014–15. Its maximum growth greater than the United States ranked as the 5th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 19th smallest. Its number of periods of growth faster than the U.S. ranked 5th (a two-way tie) most.

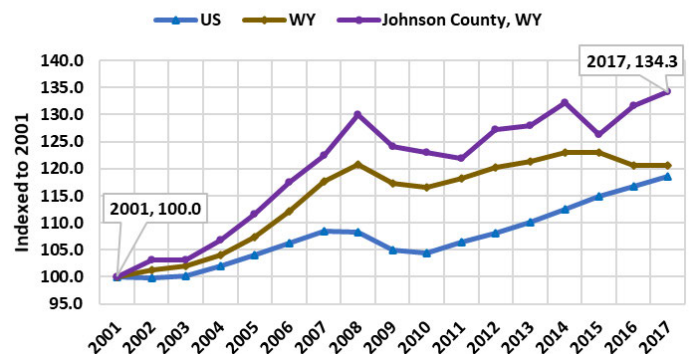
Johnson County grew faster than Wyoming in 9 time periods and grew slower in 7 time periods. Its largest growth over Wyoming's rate was 6.13 percent in 2015–16. Its least growth compared to Wyoming was -4.35 percent in 2014–15. Its maximum growth greater than Wyoming ranked as the 4th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 14th smallest. Its number of periods of growth faster than Wyoming ranked 4th (a four-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Johnson County Chart 3). Johnson County exceeded the average 10 time(s). It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 5.86 percent in 2015–16. Its least growth to the average was -3.95 percent in 2014–15.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-12	1	159	148
2002-2003	25	21	-42	3
2003-2004	87	-21	109	176
2004-2005	106	17	106	230
2005-2006	110	18	151	279
2006-2007	118	27	97	242
2007-2008	-11	85	293	367
2008-2009	-195	-24	-66	-285
2009-2010	-25	44	-72	-54
2010-2011	109	-37	-126	-54
2011-2012	96	57	105	258
2012-2013	114	4	-81	37
2013-2014	132	-15	81	198
2014-2015	139	-30	-392	-283
2015-2016	97	-23	180	255
2016-2017	90	5	35	131
Total	982	129	537	1,648

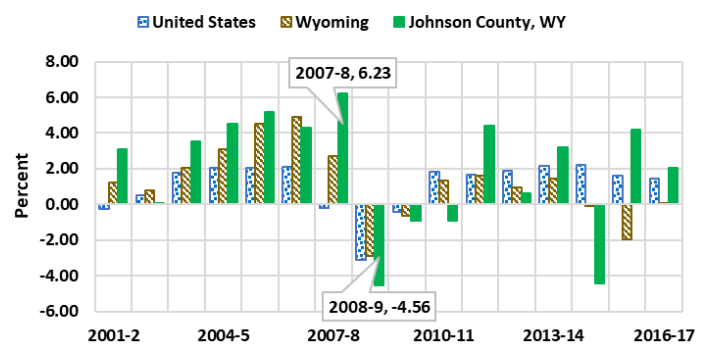
Johnson County Table 1. Shift-share analysis

**Johnson County Chart 1  
Total Employment 2001-2017**



Johnson County Chart 1. Total employment

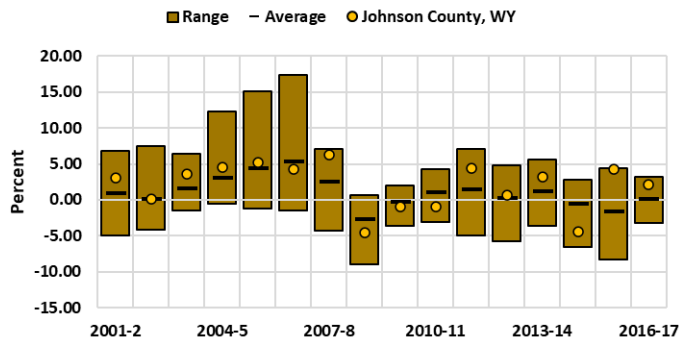
**Johnson County Chart 2  
Employment Change 2001-2017**



Johnson County Chart 2. Percent employment change

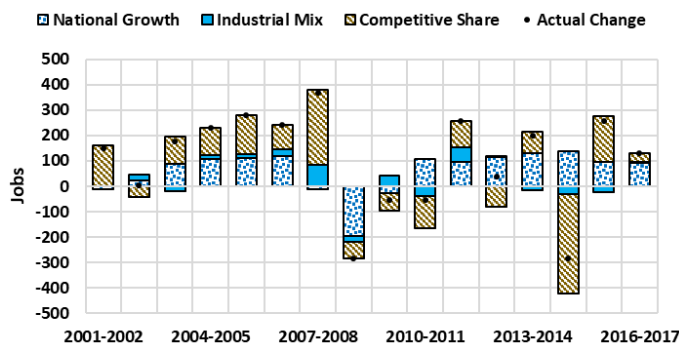


**Johnson County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



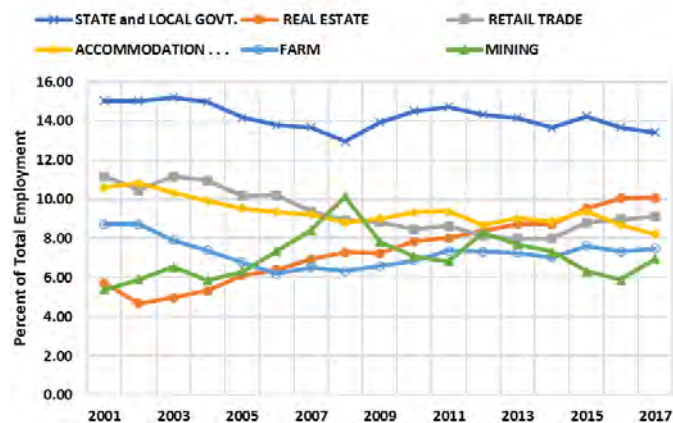
Johnson County Chart 3. Range of employment change

**Johnson County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Johnson County Chart 4. Shift-share analysis

**Johnson County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Johnson County Chart 5. Top employment sectors

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Johnson County Table 1 and Johnson County Chart 4). The largest addition to Johnson County's economy from NG was 139 jobs, which occurred in the 2014-15 time period. On the other hand, the largest loss of jobs attributed to NG was -195 in 2008-9.

Johnson County had a positive Industrial Mix (IM) in 10 time periods with a negative IM in 6 time periods. Its largest IM was 85 in 2007-8. Its least IM was -37 in 2010-11. Johnson County had a positive Competitive Share (CS) in 10 time periods with a negative CS in 6 time periods. Its largest CS was 293, occurring in 2007-8, and its least CS was -392 in 2014-15.

Johnson County had a positive Actual Change (AC) in 12 time periods, with a negative AC in 4 time periods. Its largest AC was 367 in 2007-8, and its least AC was -285 in 2008-9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Johnson County Table 1). As mentioned previously, Johnson County's largest percentage change compared to the United States was 6.42 percent in 2007-08. During this time, National Growth was negative and altered employment by -11 jobs, while the Industrial Mix was positive and added 85 jobs, and the Competitive Share was positive and added 293 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 367 jobs.

Johnson County's smallest percentage change compared to the United States was -6.65 percent in 2014-15. During this time, National Growth was positive and added 139 jobs. While the Industrial Mix was negative and adjusted employment by -30 jobs, and the Competitive Share was negative and altered employment by -392 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -283 jobs.

Looking at the adjustments over the entire 16 periods of change, Johnson County grew faster than the national average by 666 jobs, which equals Actual Change (1,648) minus National Growth (982). The Industrial Mix bolstered employment by 129 jobs, while the Competitive Share enhanced employment by 537 jobs.



Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Johnson County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for roughly 55 percent of the employment in the county.

STATE and LOCAL GOVERNMENT employment is the top employer for the entire 17-year period, although its share has declined slightly over time.

The next largest sector in 2017 is REAL ESTATE employment. Its share of total employment has rose substantially since 2001.

RETAIL TRADE sector's share of employment has been declining for most of the time until 2015. It and ACCOMMODATIONS and FARM employment make up the next group of key sectors.

The MINING sector has been dynamic in Johnson County. Its share of employment grew quickly from 2001 to 2008. Since that time, it has declined a bit but remains one of the key sectors in the county.

## SUMMARY

Johnson County's total employment from 2001–17 peaked at 134.3 percent of its 2001 level in 2017. This is higher than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 0 times. It had 12 periods of increasing and 4 periods of declining employment. It grew faster than the U.S. 10 times and Wyoming 9 times. Overall, its employment change was robust when compared to all Wyoming counties, exceeding the average 10 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 10 of the 16 time periods. Its competitive share was positive 10 times. Over the entire 16 periods of change, Johnson County grew faster than the national average by 666 jobs. STATE and LOCAL GOVERNMENT jobs is the top employment sector, but the concentration is less than the Wyoming level. REAL ESTATE jobs have risen to become the second largest sector in 2017. RETAIL TRADE and ACCOMMODATIONS are also top sectors in the county. MINING employment peaked in 2008, and its share has been up and down since.

## LARAMIE COUNTY

From 2001–17, the maximum index for Laramie County was 128.8 in 2017 (see Table 1 and Laramie County Chart 1). The minimum index was 100.0, which happened in 2001. Its maximum index was 10.3 points higher than the U.S. maximum, and its minimum index was 0.3 points higher than the U.S. minimum. Its maximum index ranked 10th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Laramie County's maximum was 5.7 points higher. Its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Laramie County was 4.09 percent in 2006–7 (see Table 2 and Laramie County Chart 2). The minimum change was -1.01 percent in 2008–9. It had 14 periods of increase and 2 periods of decline. Its maximum percent change ranked as the 18th highest among Wyoming's 23 counties (see Table 4). While its minimum percent change ranked as the 3rd smallest. Lastly, its number of periods of positive change ranked 1st most.

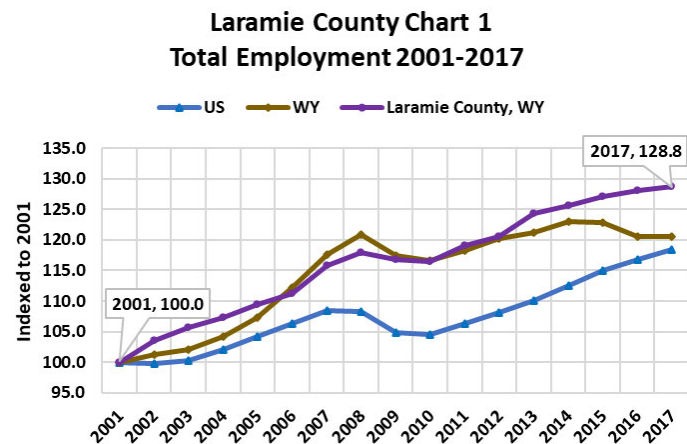
Laramie County grew faster than the United States in 8 time periods (see Table 3). It grew slower in 8 time periods. Its largest growth over the United States rate was 3.81 percent in 2001–2. Its least growth compared to the United States was -1.05 percent in 2014–15. Its maximum growth greater than the United States ranked as the 12th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 1st smallest. Its number of periods of growth faster than the U.S. ranked 9th (a five-way tie) most.

Laramie County grew faster than Wyoming in 9 time periods and grew slower in 7 time periods. Its largest growth over Wyoming's rate was 2.64 percent in 2015–16. Its least growth compared to Wyoming was -2.80 percent in 2005–6. Its maximum growth greater than Wyoming ranked as the 18th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 5th smallest. Its number of periods of growth faster than Wyoming ranked 4th (a four-way tie) most.

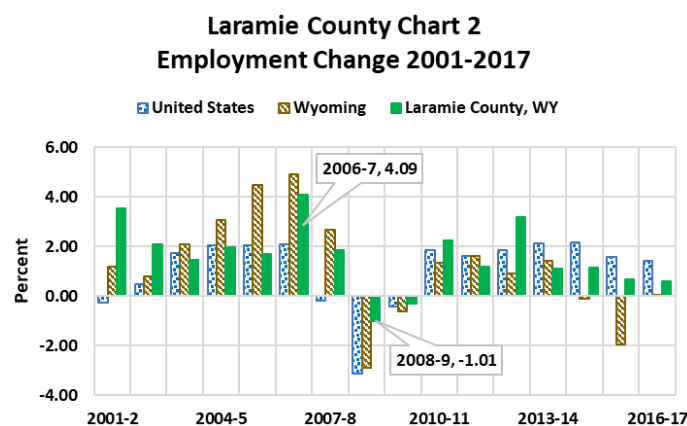
Let's compare the range and average percent change in employment among Wyoming counties (see Laramie County Chart 3). Laramie County exceeded the average 8 time(s). It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 2.99 percent, which occurred in 2012–13. Its least growth to the average was -2.65 percent in 2005–6.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-136	348	1,660	1,872
2002-2003	273	128	744	1,145
2003-2004	981	-140	-19	822
2004-2005	1,173	-161	114	1,126
2005-2006	1,182	-129	-71	982
2006-2007	1,227	-112	1,288	2,403
2007-2008	-112	67	1,192	1,147
2008-2009	-1,937	381	927	-629
2009-2010	-261	8	69	-184
2010-2011	1,134	-331	582	1,385
2011-2012	1,030	-321	30	739
2012-2013	1,188	-241	1,075	2,022
2013-2014	1,407	-307	-380	720
2014-2015	1,453	-21	-677	755
2015-2016	1,075	27	-631	471
2016-2017	965	-36	-523	406
Total	10,642	-842	5,382	15,182

Laramie County Table 1. Shift-share analysis



Laramie County Chart 1. Total employment



Laramie County Chart 2. Percent employment change

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Laramie County Table 1 and Laramie County Chart 4). The largest addition to Laramie County's economy from NG was 1,453 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -1,937, which happened in the 2008-9 time period.

Laramie County had a positive Industrial Mix (IM) in 6 time periods, with a negative IM in 10 time periods. Its largest IM was 381 in 2008-9, and its least IM was -331 in 2010-11. Laramie County had a positive Competitive Share (CS) in 10 time periods, with a negative CS in 6 time periods. Its largest CS was 1,660 in 2001-2. Its least CS was -677 in 2014-15.

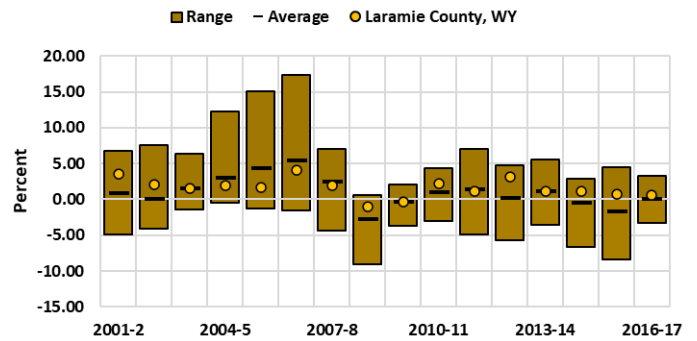
Laramie County had a positive Actual Change (AC) in 14 time periods, with a negative AC in 2 time periods. Its largest AC was 2,403 in 2006-7, and its least AC was -629 in 2008-9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Laramie County Table 1). As mentioned previously, Laramie County's largest percentage change compared to the United States was 3.81 percent in 2001-02. During this time, National Growth was negative and altered employment by -136 jobs, while the Industrial Mix was positive and added 348 jobs, and the Competitive Share was positive and added 1,660 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 1,872 jobs.

Laramie County's smallest percentage change compared to the United States was -1.05 percent in 2014-15. During this time, National Growth was positive and added 1,453 jobs, while the Industrial Mix was negative and adjusted employment by -21 jobs, and the Competitive Share was negative and altered employment by -677 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 755 jobs.

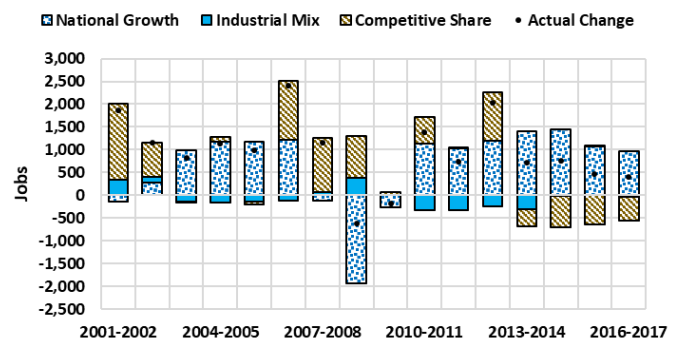
Looking at the adjustments over the entire 16 periods of change, Laramie County grew faster than the national average by 4,540 jobs, which equals Actual Change (15,182) minus National Growth (10,642). The Industrial Mix diminished employment by -842 jobs. While the Competitive Share enhanced employment by 5,382 jobs.

**Laramie County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



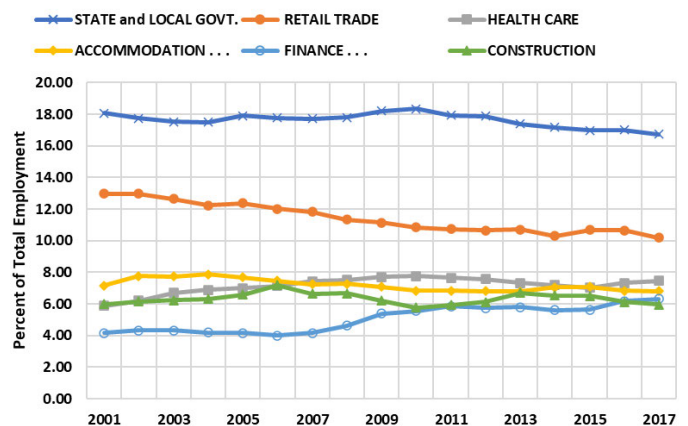
Laramie County Chart 3. Range of employment change

**Laramie County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Laramie County Chart 4. Shift-share analysis

**Laramie County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Laramie County Chart 5. Top employment sectors

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Laramie County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for nearly 55 percent of the employment in the county.

STATE and LOCAL GOVERNMENT employment is by far the top sector in Laramie County. Its share is slightly higher than the overall state rate, but the proportion has been dropping since 2010.

The RETAIL TRADE sector is the second largest employer. Although, similar to national and regional trends, employment in this sector has been steadily declining over this 17-year time period. HEALTH CARE became the third largest employment sector for most of the years in this time period. Of the remaining top three sectors, FINANCE generated the greatest gains. As with other regions studied, CONSTRUCTION is a key sector but displays a significant amount of volatility.

## SUMMARY

Laramie County's total employment from 2001–17 peaked at 128.8 percent of its 2001 level in 2017. This is higher than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 0 time (2002). It had 14 periods of increasing and 2 periods of declining employment. It grew faster than the U.S. 8 times and Wyoming 9 times. Overall, its employment change was measured and steady when compared to all Wyoming counties, exceeding the average 8 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 6 of the 16 time periods. Its competitive share was positive 10 times. Over the entire 16 periods of change, Laramie County grew faster than the national average by 4,540 jobs. The STATE and LOCAL GOVERNMENT sector is the top employer. However, its proportion of employment in this sector is just slightly higher than the state level. The next top employment sector is RETAIL TRADE, but this sector's share has been declining over the 17-year period. HEALTH CARE jobs were often the third largest employment group over the study period.

## LINCOLN COUNTY

From 2001–17, the maximum index for Lincoln County was 137.2 in 2007 (see Table 1 and Lincoln County Chart 1). The minimum index was 100.0, which happened in 2001. Its maximum index was 18.7 points higher than the U.S. maximum. Its minimum index was 0.3 points higher than the U.S. minimum. Its maximum index ranked 5th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Lincoln County's maximum was 14.1 points higher. Its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Lincoln County was 12.64 percent in 2006–7 (see Table 2 and Lincoln County Chart 2). The minimum change was -5.01 percent in 2008–9. It had 12 periods of increase and 4 periods of decline. Its maximum percent change ranked as the 2nd highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 17th smallest. Lastly, its number of periods of positive change ranked 5th (a four-way tie) most.

Lincoln County grew faster than the United States in 8 time periods (see Table 3 and grew slower in 8 time periods. Its largest growth over the United States rate was 10.55 percent in 2006–7, and its least growth compared to the United States was -5.03 percent in 2011–12. Its maximum growth greater than the United States ranked as the 2nd highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 13th smallest. Its number of periods of growth faster than the U.S. ranked 9th (a five-way tie) most.

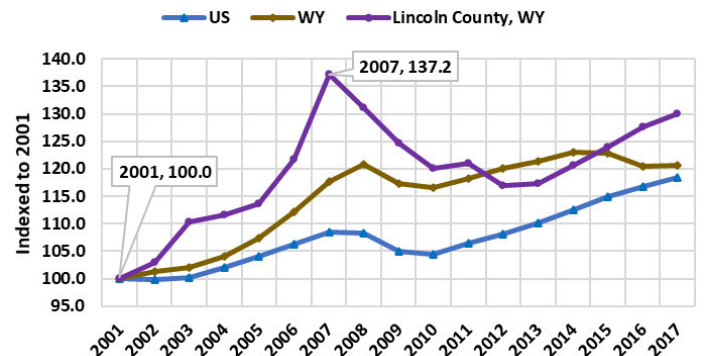
Lincoln County grew faster than Wyoming in 8 time periods and grew slower in 8 time periods. Its largest growth over Wyoming's rate was 7.74 percent in 2006–7. Its least growth compared to Wyoming was -7.04 percent in 2007–8. Its maximum growth greater than Wyoming ranked as the 2nd highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 23rd smallest. Its number of periods of growth faster than Wyoming ranked 8th (a four-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Lincoln County Chart 3). Lincoln County exceeded the average 9 time(s). It recorded the counties' maximum 1 time(s) and the minimum 2 time(s). Its greatest growth compared to the average for all 23 counties was 7.24 percent in 2006–7. Its least growth to the average was -6.83 percent in 2007–8.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-21	-42	300	237
2002-2003	42	37	534	613
2003-2004	159	-36	-30	93
2004-2005	189	44	-56	177
2005-2006	191	38	433	662
2006-2007	208	21	1,031	1,260
2007-2008	-21	47	-514	-487
2008-2009	-334	-111	-93	-538
2009-2010	-43	34	-363	-372
2010-2011	181	-90	-18	73
2011-2012	162	138	-636	-336
2012-2013	179	-2	-147	30
2013-2014	206	-37	105	274
2014-2015	216	-51	116	281
2015-2016	163	-41	176	297
2016-2017	149	17	27	193
Total	1,627	-34	864	2,457

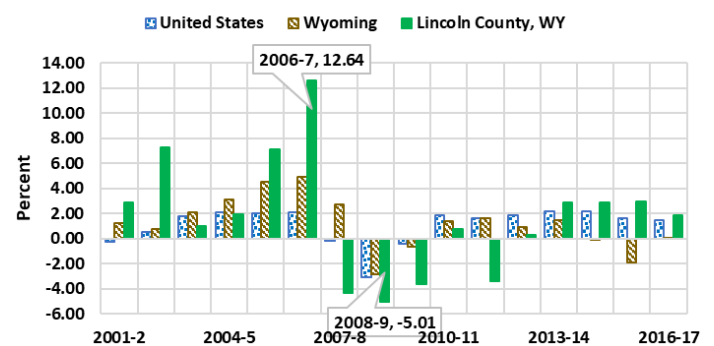
Lincoln County Table 1. Shift-share analysis

Lincoln County Chart 1  
Total Employment 2001-2017



Lincoln County Chart 1. Total employment

Lincoln County Chart 2  
Employment Change 2001-2017



Lincoln County Chart 2. Percent employment change



Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Lincoln County Table 1 and Lincoln County Chart 4). The largest addition to Lincoln County's economy from NG was 216 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -334 in 2008-9.

Lincoln County had a positive Industrial Mix (IM) in 8 time periods, with a negative IM in 8 time periods. Its largest IM was 138 in 2011-12. Its least IM was -111 in 2008-9. Lincoln County had a positive Competitive Share (CS) in 8 time periods with a negative CS in 8 time periods. Its largest CS was 1,031 in 2006-7, and its least CS was -636 in 2011-12.

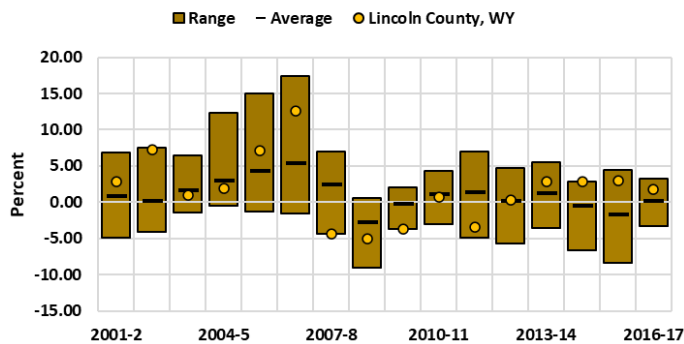
Lincoln County had a positive Actual Change (AC) in 12 time periods with a negative AC in 4 time periods. Its largest AC was 1,260 in 2006-7, and its least AC was -538 in 2008-9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Lincoln County Table 1). As mentioned previously, Lincoln County's largest percentage change compared to the United States was 10.55 percent in 2006-07. During this time, National Growth was positive and added 208 jobs, while the Industrial Mix was positive and added 21 jobs, and the Competitive Share was positive and added 1,031 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 1,260 jobs.

Lincoln County's smallest percentage change compared to the United States was -5.03 percent in 2011-12. During this time, National Growth was positive and added 162 jobs, while the Industrial Mix was positive and added 138 jobs, and the Competitive Share was negative and altered employment by -636 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -336 jobs.

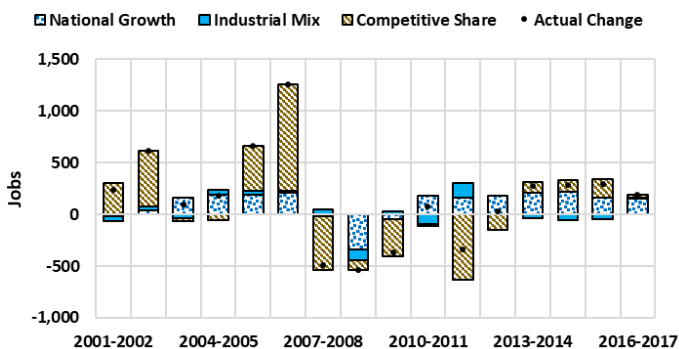
Looking at the adjustments over the entire 16 periods of change, Lincoln County grew faster than the national average by 830 jobs, which equals Actual Change (2,457) minus National Growth (1,627). The Industrial Mix diminished employment by -34 jobs, while the Competitive Share enhanced employment by 864 jobs.

**Lincoln County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



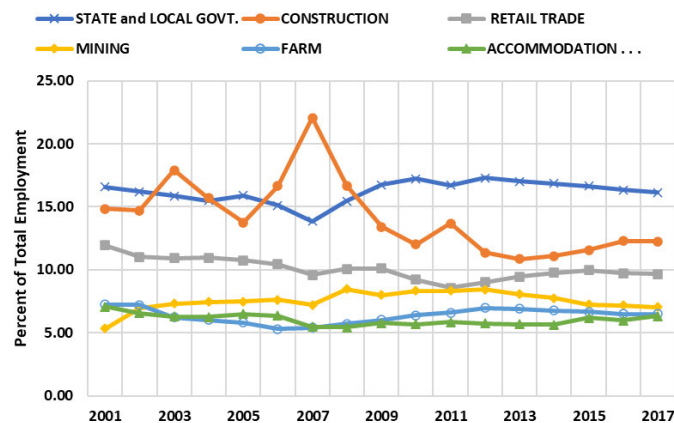
Lincoln County Chart 3. Range of employment change

**Lincoln County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Lincoln County Chart 4. Shift-share analysis

**Lincoln County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Lincoln County Chart 5. Top employment sectors

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Lincoln County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for roughly 60 percent of the employment in the county.

The CONSTRUCTION sector has been a large and dynamic part of Lincoln County’s employment; it peaked during the 2006–8 time period.

Similar to many other regions, the top employment sector for most of the years was STATE and LOCAL GOVERNMENT employment. The county’s proportion is similar to the state level.

RETAIL TRADE was the third largest employer during this 17-year time period, although it generally decreased from 2001 to 2011; since then it has remained relative stable.

Both MINING and FARM employment have played a significant role in Lincoln County’s economy. With the MINING sector displaying a degree of volatility typically also found in other regions.

## SUMMARY

Lincoln County’s total employment from 2001–17 peaked at 137.2 percent of its 2001 level in 2007. This is higher than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 0 times. It had 12 periods of increasing and 4 periods of declining employment. Its maximum percent change ranked as the 2nd highest in the state (see Table 4). It grew faster than the U.S. 8 times and Wyoming 8 times. Overall, its employment change was dynamic when compared to all Wyoming counties, exceeding the average 9 times and recording 1 top (2002–3) and 2 bottom (2007–8 and 2009–10) percentage changes. Its mix of industries was positive in 8 of the 16 time periods. Its competitive share was positive 8 times. Over the entire 16 periods of change, Lincoln County grew faster than the national average by 830 jobs. For most of the 17 years studied, the STATE and LOCAL GOVERNMENT sector provided the highest proportion of jobs; however, Lincoln County’s proportion in this sector was very similar to the state level. The most dynamic change in employment occurred in the CONSTRUCTION sector. RETAIL TRADE, the third largest sector, was relatively stable.

## NATRONA COUNTY

From 2001–17, the maximum index for Natrona County was 129.7 in 2014 (see Table 1 and Natrona County Chart 1). The minimum index was 100.0 in 2001. Its maximum index was 11.2 points higher than the U.S. maximum and its minimum index was 0.3 points higher than the U.S. minimum. Its maximum index ranked 9th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Natrona County's maximum was 6.7 points higher and its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Natrona County was 4.25 percent in 2005–6 (see Table 2 and Natrona County Chart 2). The minimum change was -5.67 percent in 2015–16. It had 12 periods of increase and 4 periods of decline. Its maximum percent change ranked as the 15th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 18th smallest. Lastly, its number of periods of positive change ranked 5th (a four-way tie) most.

Natrona County grew faster than the United States in 11 time periods (see Table 3). It grew slower in 5 time periods. Its largest growth over the United States rate was 2.56 percent in the 2007–8 time period. Its least growth compared to the United States was -7.27 percent in the 2015–16 time period. Its maximum growth greater than the United States ranked as the 22nd highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 20th smallest. Its number of periods of growth faster than the U.S. ranked 1st (a four-way tie) most.

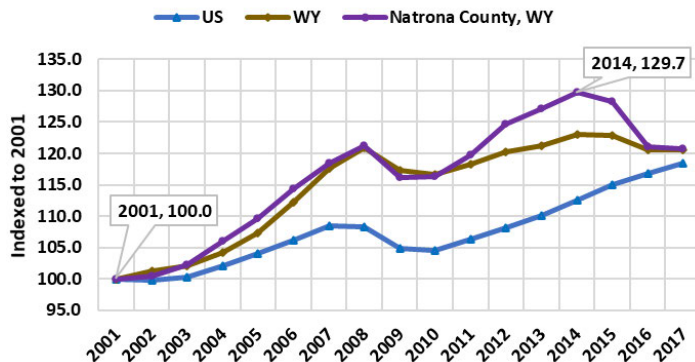
Natrona County grew faster than Wyoming in 8 time periods and grew slower in 8 time periods. Its largest growth over Wyoming's rate was 2.37 percent in 2011–12. Its least growth compared to Wyoming was -3.73 percent in 2015–16. Its maximum growth greater than Wyoming ranked as the 19th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 9th smallest and its number of periods of growth faster than Wyoming ranked 8th (a four-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Natrona County Chart 3). Natrona County exceeded the average 8 time(s). It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 2.57 percent in 2011–12. Its least growth to the average was -4.01 percent in 2015–16.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-115	-35	341	191
2002-2003	224	359	241	824
2003-2004	801	-24	864	1,641
2004-2005	978	297	356	1,631
2005-2006	1,000	467	608	2,075
2006-2007	1,064	363	405	1,831
2007-2008	-97	870	482	1,255
2008-2009	-1,680	-273	-321	-2,275
2009-2010	-219	457	-117	121
2010-2011	956	-183	750	1,523
2011-2012	875	1,124	137	2,137
2012-2013	1,037	121	-5	1,153
2013-2014	1,215	-44	-37	1,134
2014-2015	1,266	-220	-1,677	-630
2015-2016	916	-445	-3,710	-3,239
2016-2017	770	121	-1,063	-172
Total	8,993	2,954	-2,747	9,200

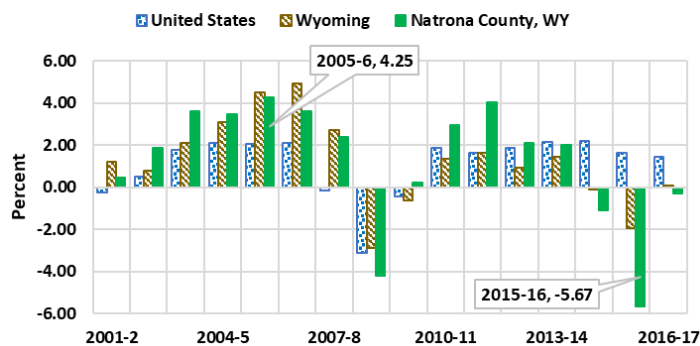
Natrona County Table 1. Shift-share analysis

**Natrona County Chart 1  
Total Employment 2001-2017**



Natrona County Chart 1. Total employment

**Natrona County Chart 2  
Employment Change 2001-2017**



Natrona County Chart 2. Percent employment change

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Natrona County Table 1 and Natrona County Chart 4). The largest addition to Natrona County's economy from NG was 1,266 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -1,680 in 2008-9.

Natrona County had a positive Industrial Mix (IM) in 9 time periods with a negative IM in 7 time periods. Its largest IM was 1,124 in 2011-12. Its least IM was -445 in 2015-16. Natrona County had a positive Competitive Share (CS) in 9 time periods with a negative CS in 7 time periods. Its largest CS was 864 in 2003-4. Its least CS was -3,710 in 2015-16.

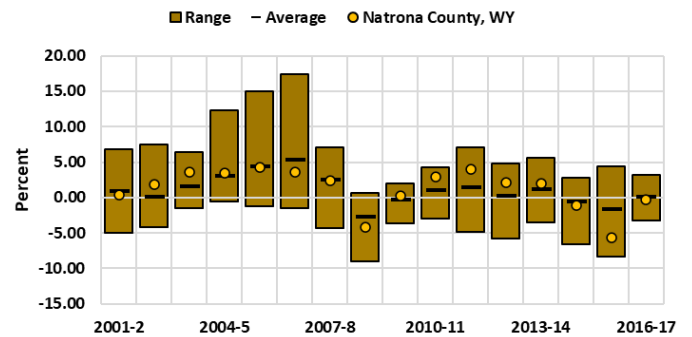
Natrona County had a positive Actual Change (AC) in 12 time periods with a negative AC in 4 time periods. Its largest AC was 2,137 in 2011-12 and its least AC was -3,239 in 2015-16.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Natrona County Table 1). As mentioned previously, Natrona County's largest percentage change compared to the United States was 2.56 percent in 2007-08. During this time, National Growth was negative and altered employment by -97 jobs, while the Industrial Mix was positive and added 870 jobs, and the Competitive Share was positive and added 482 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 1,255 jobs.

Natrona County's smallest percentage change compared to the United States was -7.27 percent in 2015-16. During this time, National Growth was positive and added 916 jobs, while the Industrial Mix was negative and adjusted employment by -445 jobs, and the Competitive Share was negative and altered employment by -3,710 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -3,239 jobs.

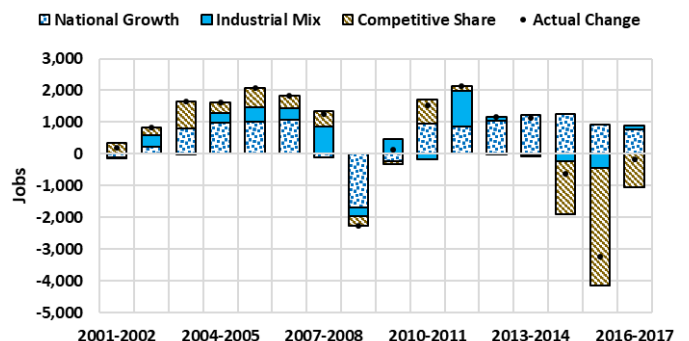
Looking at the adjustments over the entire 16 periods of change, Natrona County grew faster than the national average by 207 jobs, which equals Actual Change (9,200) minus National Growth (8,993). The Industrial Mix bolstered employment by 2,954 jobs while the Competitive Share lessened employment by -2,747 jobs.

**Natrona County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



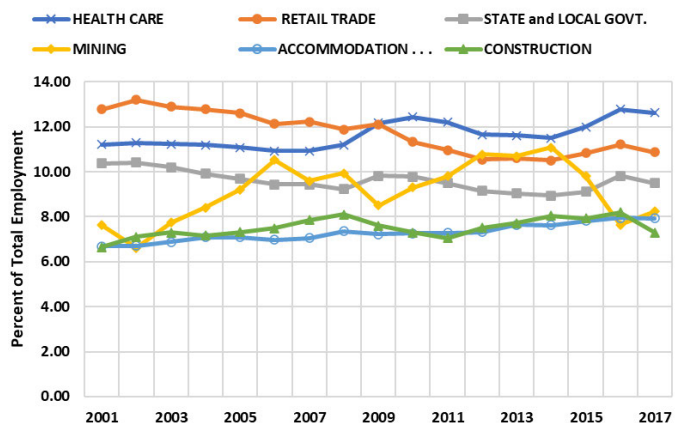
Natrona County Chart 3. Range of employment change

**Natrona County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Natrona County Chart 4. Shift-share analysis

**Natrona County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Natrona County Chart 5. Top employment sectors

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Natrona County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for about 55 percent of the employment in the county.

RETAIL TRADE and HEALTH CARE have been the top employment sectors 14 of the 17 years of this study period. Similar to national and regional trends of declining employment in RETAIL TRADE, it also dropped in Natrona County. This allowed HEALTH CARE to become the top employer starting in 2009.

Similar to other regions, STATE and LOCAL GOVERNMENT is a key employment sector; however, perhaps the most striking feature displayed in the Chart is the significant and dynamic role that MINING employment has in the county. MINING reached a peak in 2014 and then dropped substantially in 2015 and 2016.

CONSTRUCTION employment is another top employment sector for Natrona County. In contrast to most other regions, this employment sector has been rather stable in this county.

## SUMMARY

Natrona County's total employment from 2001–17 peaked at 129.7 percent of its 2001 level in 2014. This is higher than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 0 times, and it had 12 periods of increasing and 4 periods of declining employment. It grew faster than the U.S. 11 times and Wyoming 8 times. Its number of periods of growth faster than the US ranked 1st (a four-way tie) most. Overall, its employment change was dynamic when compared to all Wyoming counties, exceeding the average 8 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 9 of the 16 time periods. Its competitive share was positive 9 times. Over the entire 16 periods of change, Natrona County grew faster than the national average by 207 jobs. HEALTH CARE and RETAIL TRADE were the most frequent top two employment sectors. The MINING sector was the most dynamic and volatile feature of Natrona County's economy. During lulls in the MINING sector, STATE and LOCAL GOVERNMENT jobs were the third highest employment component.



## NIOBRARA COUNTY

From 2001–17, the maximum index for Niobrara County was 115.4 in 2013 (see Table 1 and Niobrara County Chart 1). The minimum index was 96.1 in 2004. Its maximum index was -3.1 points lower than the U.S. maximum. Its minimum index was -3.6 points lower than the U.S. minimum. Its maximum index ranked 16th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 22nd. Over this 16-year period, the ratio fell below its 2001 value 4 time(s). This ranked 21st in fewest occurrences. Compared to Wyoming, Niobrara County's maximum was -7.6 points lower. Its minimum was -3.9 points below the state value.

The maximum percent change for Niobrara County was 6.03 percent in 2006–7 (see Table 2 and Niobrara County Chart 2). The minimum change was -4.11 percent in 2002–3. It had 9 periods of increase and 7 periods of decline. Its maximum percent change ranked as the 9th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 10th smallest. Lastly, its number of periods of positive change ranked 14th (a three-way tie) most.

Niobrara County grew faster than the United States in 8 time periods (see Table 3 and grew slower in 8 time periods. Its largest growth over the United States rate was 3.97 percent in 2011–12. Its least growth compared to the United States was -6.07 percent in 2014–15. Its maximum growth greater than the United States ranked as the 10th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 18th smallest. Its number of periods of growth faster than the U.S. ranked 9th (a five-way tie) most.

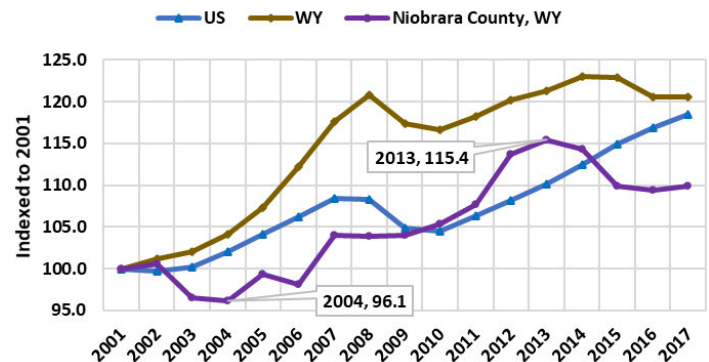
Niobrara County grew faster than Wyoming in 9 time periods and grew slower in 7 time periods. Its largest growth over Wyoming's rate was 3.97 percent in 2011–12. Its least growth compared to Wyoming was -5.74 percent in 2005–6. Its maximum growth greater than Wyoming ranked as the 9th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 16th smallest. Its number of periods of growth faster than Wyoming ranked 4th (a four-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Niobrara County Chart 3). Niobrara County exceeded the average 9 time(s) and recorded the counties' maximum 0 time(s) and the minimum 2 time(s). Its greatest growth compared to the average for all 23 counties was 4.18 percent in 2011–12. Its least growth to the average was -5.59 percent, this happened in the 2005–6 time period.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-4	-16	30	10
2002-2003	8	-13	-62	-67
2003-2004	28	-21	-12	-6
2004-2005	32	-8	27	52
2005-2006	33	-8	-45	-20
2006-2007	33	4	58	96
2007-2008	-3	19	-18	-2
2008-2009	-52	10	44	2
2009-2010	-7	7	22	22
2010-2011	32	-18	24	38
2011-2012	29	6	63	98
2012-2013	34	-5	-3	27
2013-2014	40	-13	-44	-17
2014-2015	41	-13	-100	-72
2015-2016	29	-15	-21	-8
2016-2017	25	-3	-14	8
Total	297	-86	-49	161

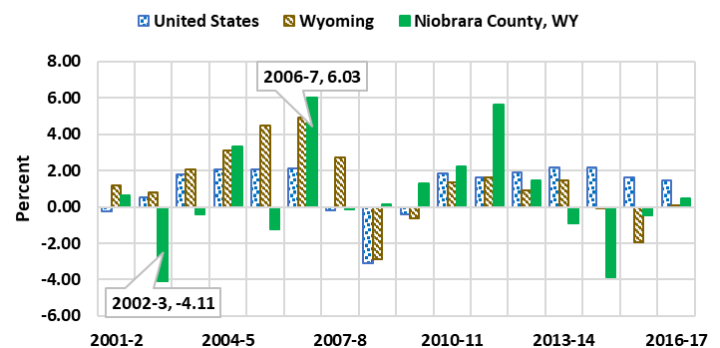
Niobrara County Table 1. Shift-share analysis

**Niobrara County Chart 1  
Total Employment 2001-2017**



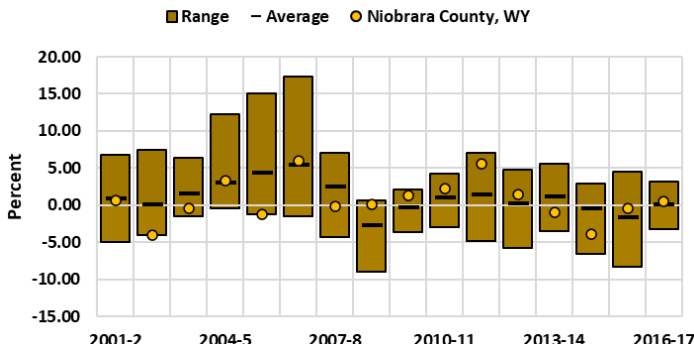
Niobrara County Chart 1. Total employment

**Niobrara County Chart 2  
Employment Change 2001-2017**



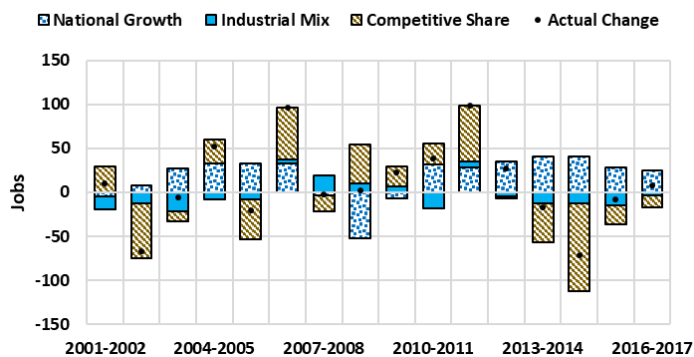
Niobrara County Chart 2. Percent employment change

**Niobrara County 3. Chart Range of Employment Change  
Results for Wyoming Counties 2001-17**



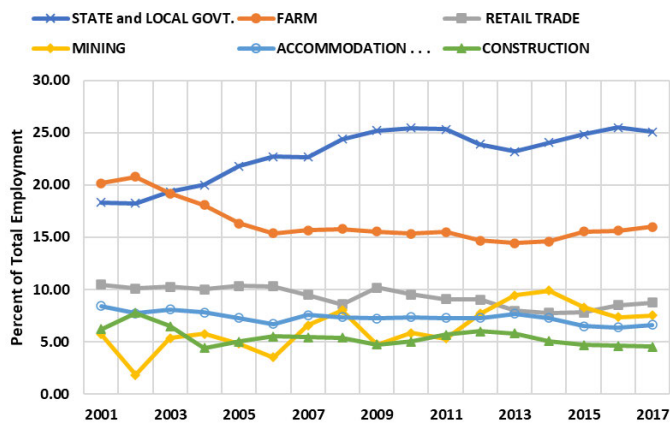
Niobrara County Chart 3. Range of employment change

**Niobrara County Chart 4  
Shift-Share Analysis of 2001-17 Employment Changes**



Niobrara County Chart 4. Shift-share analysis

**Niobrara County Chart 5. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages**



Niobrara County Chart 5. Top employment sectors

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Niobrara County Table 1 and Niobrara County Chart 4). The largest addition to Niobrara County's economy from NG was 41 jobs, which occurred in the 2014-15 time period. On the other hand, the largest loss of jobs attributed to NG was -52 in 2008-9.

Niobrara County had a positive Industrial Mix (IM) in 5 time periods, with a negative IM in 11 time periods. Its largest IM was 19 in 2007-8 and its least IM was -21 in 2003-4. Niobrara County had a positive Competitive Share (CS) in 7 time periods and a negative CS in 9 time periods. Its largest CS was 63, occurring in the 2011-12 time period. Its least CS was -100 in 2014-15.

Niobrara County had a positive Actual Change (AC) in 9 time periods with a negative AC in 7 time periods. Its largest AC was 98 in 2011-12 and its least AC was -72 in 2014-15.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Niobrara County Table 1). As mentioned previously, Niobrara County's largest percentage change compared to the United States was 3.97 percent in 2011-12. During this time, National Growth was positive and added 29 jobs, while the Industrial Mix was positive and added 6 jobs and the Competitive Share was positive and added 63 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 98 jobs.

Niobrara County's smallest percentage change compared to the United States was -6.07 percent in 2014-15. During this time, National Growth was positive and added 41 jobs, while the Industrial Mix was negative and adjusted employment by -13 jobs, and the Competitive Share was negative and altered employment by -100 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -72 jobs.

Looking at the adjustments over the entire 16 periods of change, Niobrara County grew slower than the national average by -136 jobs, which equals Actual Change (161) minus National Growth (297). The Industrial Mix diminished employment by -86 jobs, while the Competitive Share lessened employment by -49 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Niobrara County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for nearly 70 percent of the jobs in the county.

In stark contrast to most of the regions studied, FARM employment was the top sector in 2001–2 and remained the second highest sector in the remaining 15 years.

STATE and LOCAL GOVERNMENT was the top employment sector beginning in 2003. This sector's share has grown significantly over the 17-year time period in this study. From the majority of years, government employment accounted for about 1 in 4 jobs. RETAIL TRADE employment was the third highest employment sector for most of the years studied; however, the MINING sector has been a dynamic force in the county. It was the third highest employer in 2013–15.

## SUMMARY

Niobrara County's total employment from 2001–17 peaked at 115.4 percent of its 2001 level in 2013. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 4 times, most recently in 2006. It had 9 periods of increasing and 7 periods of declining employment and grew faster than the U.S. 8 times and Wyoming 9 times. Overall, its employment change was mixed when compared to all Wyoming counties, exceeding the average 9 times and recording 0 top and 2 bottom (2002–3 and 2005–6) percentage changes. Its mix of industries was positive in 5 of the 16 time periods and its competitive share was positive 7 times.

Over the entire 16 periods of change, Niobrara County grew slower than the national average by -136 jobs. For most of the 17 years studied, STATE and LOCAL GOVERNMENT was the top employment sector. Since 2009, STATE and LOCAL GOVERNMENT employment accounted for 1 in 4 jobs. FARM jobs were the second highest employment sector. As FARM jobs dropped from 2002–5, the proportion of government jobs rose dramatically. The MINING sector was the most dynamic and volatile feature of Niobrara County's economy.

## PARK COUNTY

From 2001–17, the maximum index for Park County was 120.5 in 2017 (see Table 1 and Park County Chart 1). The minimum index was 100.0 in 2001. Its maximum index was 2.0 points higher than the U.S. maximum and its minimum index was 0.3 points higher than the U.S. minimum. Its maximum index ranked 12th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Park County's maximum was -2.5 points lower. Its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Park County was 3.13 percent in 2006–7 (see Table 2 and Park County Chart 2). The minimum change was -0.86 percent in 2008–9. It had 13 periods of increase and 3 periods of decline. Its maximum percent change ranked as the 22nd highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 2nd smallest. Lastly, its number of periods of positive change ranked 2nd (a three-way tie) most.

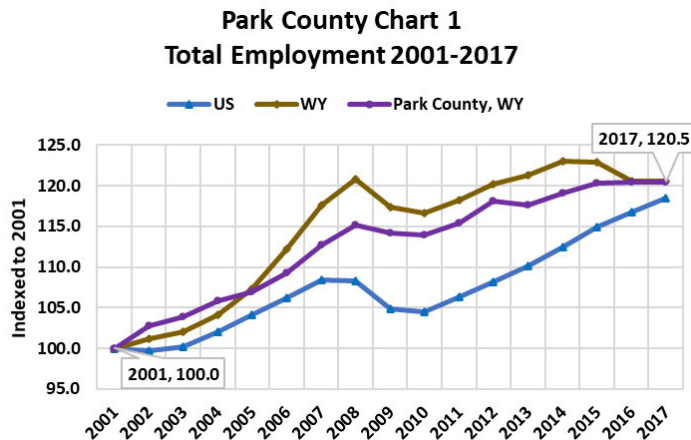
Park County grew faster than the United States in 9 time periods (see Table 3) and grew slower in 7 time periods. Its largest growth over the United States rate was 3.08 percent in the 2001–2 time period. Its least growth compared to the United States was -2.35 percent in 2012–13. Its maximum growth greater than the United States ranked as the 19th highest among Wyoming's 23 counties (see Table 4 and its least growth ranked as the 5th smallest. Its number of periods of growth faster than the U.S. ranked 7th (a two-way tie) most.

Park County grew faster than Wyoming in 7 time periods and slower in 9 time periods. Its largest growth over Wyoming's rate was 2.03 percent in 2015–16. Its least growth compared to Wyoming was -2.23 percent in the 2005–6. Its maximum growth greater than Wyoming ranked as the 20th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 3rd smallest. Its number of periods of growth faster than Wyoming ranked 12th most.

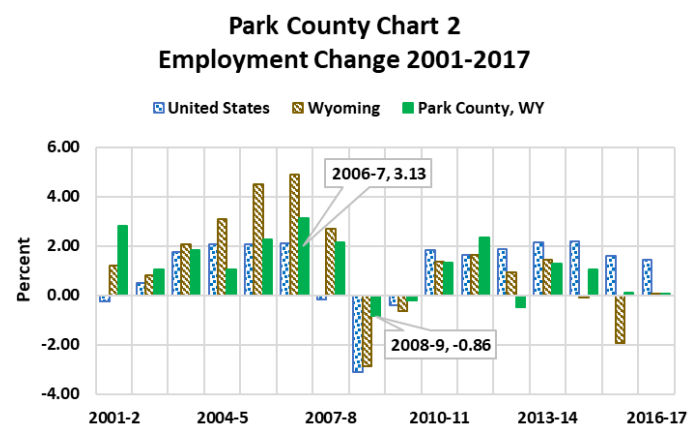
Let's compare the range and average percent change in employment among Wyoming counties (see Park County Chart 3). Park County exceeded the average 10 time(s). It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 1.91 percent in 2001–2. Its least growth to the average was -2.26 percent in 2006–7.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-46	52	496	502
2002-2003	92	73	28	192
2003-2004	325	-54	69	340
2004-2005	390	11	-208	194
2005-2006	390	-1	44	433
2006-2007	407	22	181	610
2007-2008	-37	113	351	427
2008-2009	-638	7	454	-176
2009-2010	-86	71	-25	-40
2010-2011	374	-115	9	268
2011-2012	337	126	15	478
2012-2013	393	-7	-487	-101
2013-2014	449	-52	-131	266
2014-2015	464	-84	-158	223
2015-2016	343	-43	-280	21
2016-2017	306	1	-294	13
Total	3,464	122	64	3,650

Park County Table 1. Shift-share analysis



Park County Chart 1. Total employment



Park County Chart 2. Percent employment change

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Park County Table 1 and Park County Chart 4). The largest addition to Park County's economy from NG was 464 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -638 in 2008-9.

Park County had a positive Industrial Mix (IM) in 9 time periods with a negative IM in 7 time periods. Its largest IM was 126 in 2011-12 and its least IM was -115 in 2010-11. Park County had a positive Competitive Share (CS) in 9 time periods, with a negative CS in 7 time periods. Its largest CS was 496 in 2001-2. Its least CS was -487 in 2012-13.

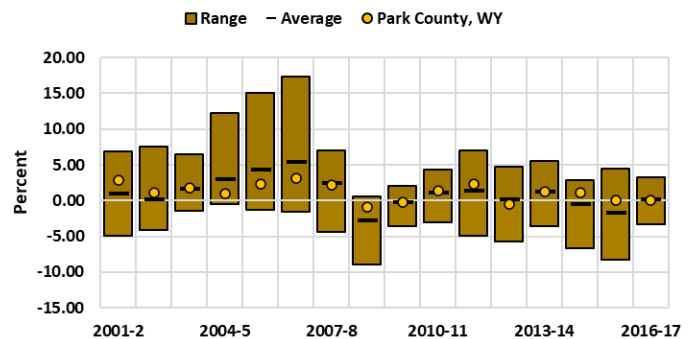
Park County had a positive Actual Change (AC) in 13 time periods with a negative AC in 3 time periods. Its largest AC was 610 in 2006-7. Its least AC was -176 in 2008-9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Park County Table 1). As mentioned previously, Park County's largest percentage change compared to the United States was 3.08 percent in 2001-02. During this time, National Growth was negative and altered employment by -46 jobs, while the Industrial Mix was positive and added 52 jobs, and the Competitive Share was positive and added 496 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 502 jobs.

Park County's smallest percentage change compared to the United States was -2.35 percent in 2012-13. During this time, National Growth was positive and added 393 jobs, while the Industrial Mix was negative and adjusted employment by -7 jobs, and the Competitive Share was negative and altered employment by -487 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -101 jobs.

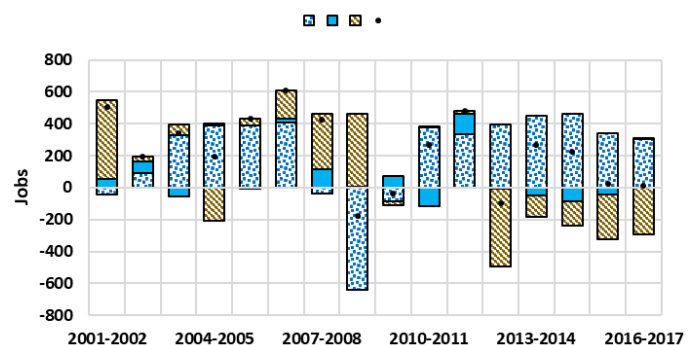
Looking at the adjustments over the entire 16 periods of change, Park County grew faster than the national average by 186 jobs, which equals Actual Change (3,650) minus National Growth (3,464). The Industrial Mix bolstered employment by 122 jobs, while the Competitive Share enhanced employment by 64 jobs.

**Park County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



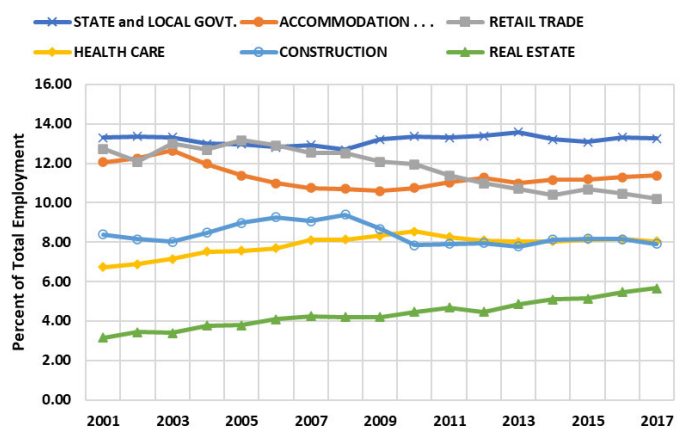
Park County Chart 3. Range of employment change

**Park County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Park County Chart 4. Shift-share analysis

**Park County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Park County Chart 5. Top employment sectors



Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Park County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for over 55 percent of the employment in the county.

STATE and LOCAL GOVERNMENT employment was the top sector for most of the years in this study; however, its share in Park County is below the state rate.

The ACCOMMODATIONS and RETAIL TRADE sectors were the next two key sectors for the county. Similar to national and regional trends, the county also experienced a decline in RETAIL TRADE employment

The HEALTH CARE sector's share of total employment rose from 2001 to 2010, remaining relatively stable since then. CONSTRUCTION increased in the first half of the 17-year time period, then dropped in 2009–10. The sixth sector, REAL ESTATE employment, increased steadily over the years of this study.

## SUMMARY

Park County's total employment from 2001–17 peaked at 120.5 percent of its 2001 level in 2017. This is higher than the U.S. value (118.5) but slightly lower than Wyoming (123.0) value. It never dropped below its starting value. It had 13 periods of increasing and 3 periods of declining employment. Its number of periods of positive change ranked 2nd (a three-way tie) in the state (see Table 4). The county's employment has been rather stable, as its maximum percent change ranked as the 22nd highest in the state and its minimum percent change ranked as the 2nd smallest in the state. It grew faster than the U.S. 9 times and Wyoming 7 times. Overall, its employment change was measured and steady when compared to all Wyoming counties, exceeding the average 10 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 9 of the 16 time periods and its competitive share was positive 9 times. Over the entire 16 periods of change, Park County grew faster than the national average by 186 jobs. STATE and LOCAL GOVERNMENT, ACCOMMODATIONS and RETAIL TRADE are the top employment sectors. The next two greatest employers were HEALTH CARE and CONSTRUCTION; however, REAL ESTATE employment was the fastest growing sector.

## PLATTE COUNTY

From 2001–17, the maximum index for Platte County was 110.3 in 2015 (see Table 1 and Platte County Chart 1). The minimum index was 98.5 in 2005, and its maximum index was -8.1 points lower than the U.S. maximum. Its minimum index was -1.2 points lower than the U.S. minimum, and its maximum index ranked 19th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 15th. Over this 16-year period, the ratio fell below its 2001 value 3 time(s). This ranked 17th (a four-way tie) in fewest occurrences. Compared to Wyoming, Platte County's maximum was -12.7 points lower. Its minimum was -1.5 points below the state value.

The maximum percent change for Platte County was 3.23 percent in 2005–6 (see Table 2 and Platte County Chart 2). The minimum change was -3.04 percent in 2015–16. It had 10 periods of increase and 6 periods of decline. Its maximum percent change ranked as the 21st highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 8th smallest. Lastly, its number of periods of positive change ranked 11th (a three-way tie) most.

Platte County grew faster than the United States in 8 time periods (see Table 3) and grew slower in 8 time periods. Its largest growth over the United States rate was 3.15 percent in 2008–9. Its least growth compared to the United States was -4.64 percent in 2015–16. Its maximum growth greater than the United States ranked as the 18th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 11th smallest. Its number of periods of growth faster than the U.S. ranked 9th (a five-way tie) most.

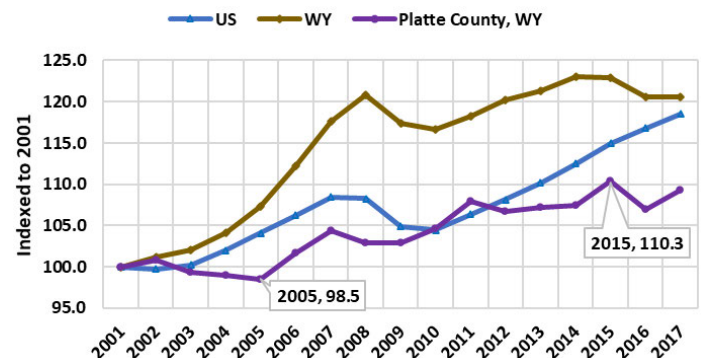
Platte County grew faster than Wyoming in 5 time periods and grew slower in 11 time periods. Its largest growth over Wyoming's rate was 2.92 percent in 2008–9. Its least growth compared to Wyoming was -4.12 percent in 2007–8. Its maximum growth greater than Wyoming ranked as the 14th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 12th smallest. Its number of periods of growth faster than Wyoming ranked 18th (a two-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Platte County Chart 3). Platte County exceeded the average 6 time(s). It recorded the counties' maximum 0 time(s) and the minimum 1 time(s). Its greatest growth compared to the average for all 23 counties was 3.26 percent in 2014–15. Its least growth to the average was -3.91 percent in 2007–8.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-14	0	58	44
2002-2003	27	-1	-102	-76
2003-2004	94	-31	-84	-21
2004-2005	111	-13	-124	-26
2005-2006	109	-19	82	172
2006-2007	115	14	13	142
2007-2008	-10	27	-96	-80
2008-2009	-173	35	140	2
2009-2010	-24	17	97	91
2010-2011	104	-35	110	180
2011-2012	96	-1	-163	-68
2012-2013	108	-8	-68	32
2013-2014	124	-13	-105	7
2014-2015	127	-15	48	160
2015-2016	96	5	-281	-181
2016-2017	83	-5	47	125
Total	973	-42	-427	503

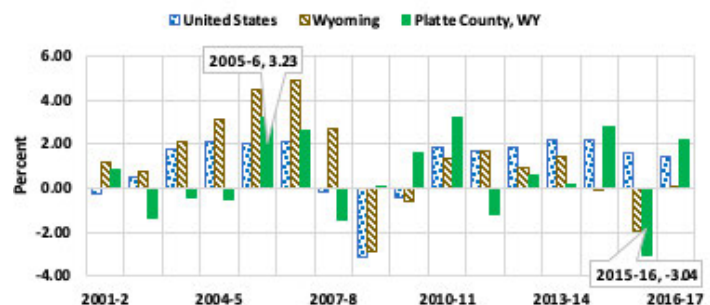
Platte County Table 1. Shift-share analysis

**Platte County Chart 1  
Total Employment 2001-2017**



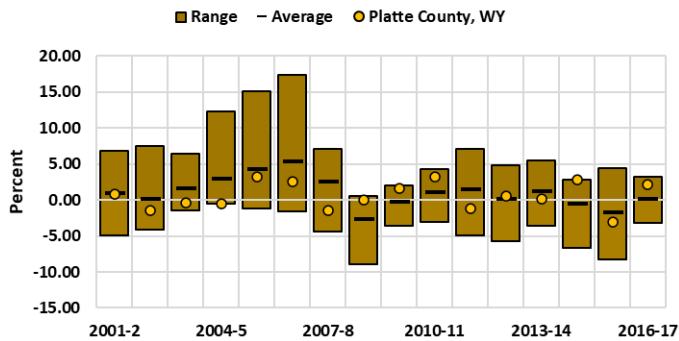
Platte County Chart 1. Total employment

**Platte County Chart 2  
Employment Change 2001-2017**



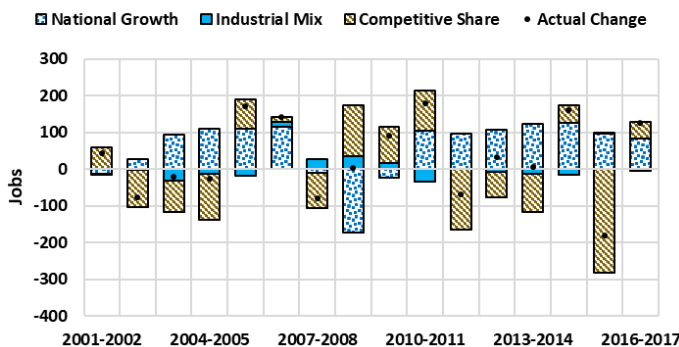
Platte County Chart 2. Percent employment change

**Platte County Chart 3. Range of Employment Change  
Results for Wyoming Counties 2001-17**



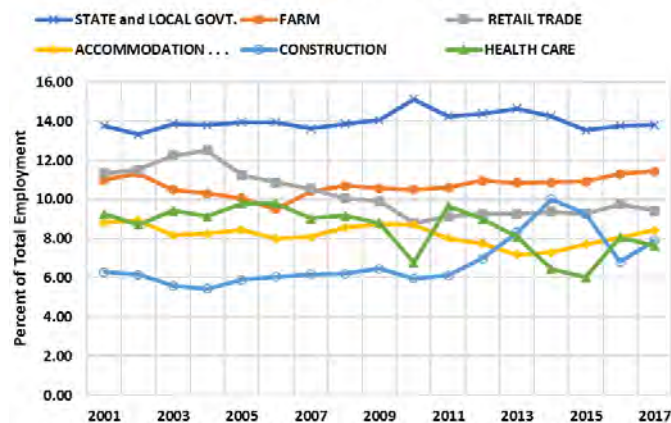
Platte County Chart 3. Range of employment change

**Platte County Chart 4  
Shift-Share Analysis of 2001-17 Employment Changes**



Platte County Chart 4. Shift-share analysis

**Platte County Chart 5. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages**



Platte County Chart 5. Top employment sectors

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Platte County Table 1 and Platte County Chart 4). The largest addition to Platte County's economy from NG was 127 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -173 in 2008-9.

Platte County had a positive Industrial Mix (IM) in 5 time periods with a negative IM in 11 time periods. Its largest IM was 35 in 2008-9. Its least IM was -35 in 2010-11. Platte County had a positive Competitive Share (CS) in 8 time periods with a negative CS in 8 time periods. Its largest CS was 140 in 2008-9. Its least CS was -281 in 2015-16.

Platte County had a positive Actual Change (AC) in 10 time periods. With a negative AC in 6 time periods. Its largest AC was 180 in the 2010-11 and its least AC was -181 in the 2015-16.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Platte County Table 1). As mentioned previously, Platte County's largest percentage change compared to the United States was 3.15 percent in 2008-09. During this time, National Growth was negative and altered employment by -173 jobs, while the Industrial Mix was positive and added 35 jobs, and the Competitive Share was positive and added 140 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 2 jobs.

Platte County's smallest percentage change compared to the United States was -4.64 percent in 2015-16. During this time, National Growth was positive and added 96 jobs, while the Industrial Mix was positive and added 5 jobs, and the Competitive Share was negative and altered employment by -281 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -181 jobs.

Looking at the adjustments over the entire 16 periods of change, Platte County grew slower than the national average by -470 jobs, which equals Actual Change (503) minus National Growth (973). The Industrial Mix diminished employment by -42 jobs, while the Competitive Share lessened employment by -427 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Platte County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for nearly 60 percent of the employment in the county.

STATE and LOCAL GOVERNMENT employment was the top sector in Platte County; however, its relative share is less than the state rate.

For most of the 17 years studied, FARM employment was the second largest sector. RETAIL TRADE is a key sector for the county, but similar to other regions it has declined dramatically over the years.

The HEALTH CARE sector is also a key employer for Platte County, but it has displayed a much larger degree of volatility than found in the other regions studied. CONSTRUCTION employment is another top sector. Its portion of total employment grew markedly from 2011–14.

## SUMMARY

Platte County's total employment from 2001–17 peaked at 110.3 percent of its 2001 level in 2015. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 3 times, most recently in 2005. It had 10 periods of increasing and 6 periods of declining employment. It grew faster than the U.S. 8 times and Wyoming 5 times. Overall, its employment change was mixed when compared to all Wyoming counties, exceeding the average 6 times and recording 0 top and 1 bottom (2004–5) percentage changes. Its mix of industries was positive in 5 of the 16 time periods. Its competitive share was positive 8 times. Over the entire 16 periods of change, Platte County grew slower than the national average by -470 jobs. The STATE and LOCAL GOVERNMENT sector was the top employer over the entire 17 years of the study. Its share is lower than the state average and has remained relatively stable. FARM and RETAIL TRADE employment are the next two top sectors. RETAIL TRADE's share of total employment declined from 2004–10 but has been fairly stable since. Of the top six employment sectors, HEALTH CARE and CONSTRUCTION have been the most dynamic and volatile.

## SHERIDAN COUNTY

From 2001–17, the maximum index for Sheridan County was 124.2 in 2017 (see Table 1 and Sheridan County Chart 1). The minimum index was 100.0, which happened in 2001. Its maximum index was 5.7 points higher than the U.S. maximum. Its minimum index was 0.3 points higher than the U.S. minimum. Its maximum index ranked 11th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Sheridan County's maximum was 1.1 points higher. Its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Sheridan County was 6.08 percent in 2006–7 (see Table 2 and Sheridan County Chart 2). The minimum change was -3.35% in 2008–9. It had 12 periods of increase and 4 periods of decline. Its maximum percent change ranked as the 8th highest among Wyoming's 23 counties (see Table 4). While its minimum percent change ranked as the 9th smallest. Lastly, its number of periods of positive change ranked 5th (a four-way tie) most.

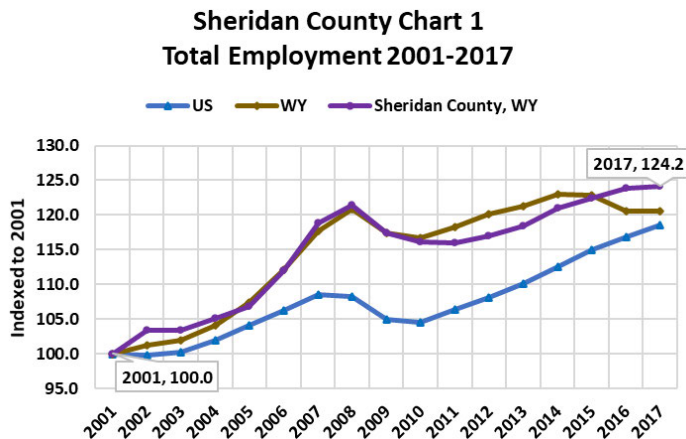
Sheridan County grew faster than the United States in 5 time periods (see Table 3). It grew slower in 11 time periods. Its largest growth over the United States rate was 3.99 percent in 2006–7. Its least growth compared to the United States was -2.07 percent in 2010–11. Its maximum growth greater than the United States ranked as the 9th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 3rd smallest. Its number of periods of growth faster than the U.S. ranked 18th (a five-way tie) most.

Sheridan County grew faster than Wyoming in 8 time periods and grew slower in 8 time periods. Its largest growth over Wyoming's rate was 3.06 percent in 2015–16. Its least growth compared to Wyoming was -1.59 percent in 2010–11. Its maximum growth greater than Wyoming ranked as the 12th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 1st smallest. Its number of periods of growth faster than Wyoming ranked 8th (a four-way tie) most.

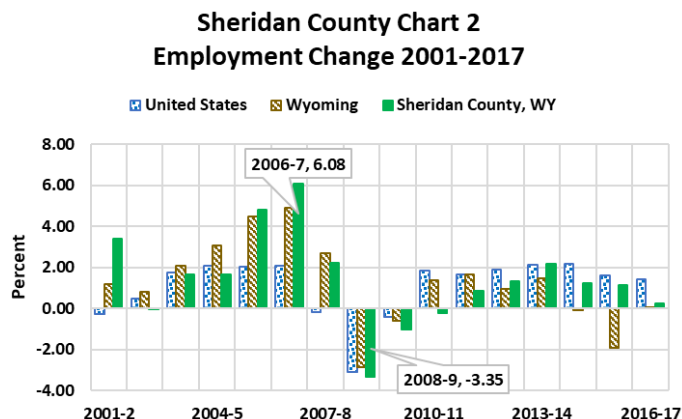
Let's compare the range and average percent change in employment among Wyoming counties (see Sheridan County Chart 3). Sheridan County exceeded the average 9 time(s). It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 2.78 percent in 2015–16. Its least growth to the average was -1.34 percent in 2003–4.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-44	78	537	572
2002-2003	87	80	-170	-3
2003-2004	307	0	-16	290
2004-2005	367	48	-120	295
2005-2006	369	24	475	869
2006-2007	395	50	703	1,148
2007-2008	-37	126	352	442
2008-2009	-637	1	-50	-686
2009-2010	-84	58	-174	-200
2010-2011	362	-93	-314	-45
2011-2012	321	59	-209	170
2012-2013	369	-14	-96	258
2013-2014	429	-38	40	431
2014-2015	447	-35	-161	251
2015-2016	331	-25	-75	232
2016-2017	299	10	-254	55
Total	3,280	330	469	4,079

Sheridan County Table 1. Shift-share analysis



Sheridan County Chart 1. Total employment



Sheridan County Chart 2. Percent employment change



Next let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Sheridan County Table 1 and Sheridan County Chart 4). The largest addition to Sheridan County's economy from NG was 447 jobs, which occurred in the 2014-15 time period. On the other hand, the largest loss of jobs attributed to NG was -637 in 2008-9.

Sheridan County had a positive Industrial Mix (IM) in 10 time periods with a negative IM in 6 time periods. Its largest IM was 126 in 2007-8. Its least IM was -93 in 2010-11.

Sheridan County had a positive Competitive Share (CS) in 5 time periods with a negative CS in 11 time periods. Its largest CS was 703 in 2006-7. Its least CS was -314 in 2010-11.

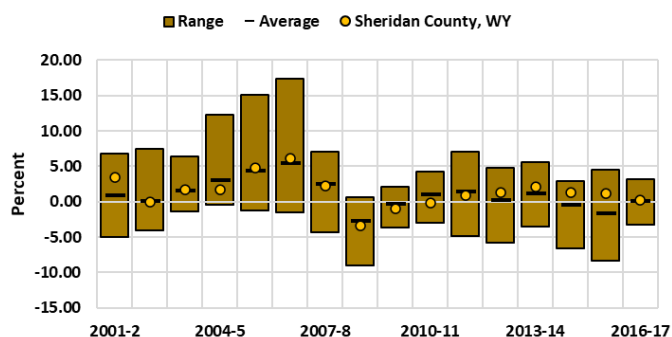
Sheridan County had a positive Actual Change (AC) in 12 time periods with a negative AC in 4 time periods. Its largest AC was 1,148 in 2006-7. Its least AC was -686 in 2008-9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Sheridan County Table 1). As mentioned previously, Sheridan County's largest percentage change compared to the United States was 3.99 percent in 2006-07. During this time, National Growth was positive and added 395 jobs, while the Industrial Mix was positive and added 50 jobs, and the Competitive Share was positive and added 703 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 1,148 jobs.

Sheridan County's smallest percentage change compared to the United States was -2.07 percent in 2010-11. During this time, National Growth was positive and added 362 jobs, while the Industrial Mix was negative and adjusted employment by -93 jobs, and the Competitive Share was negative and altered employment by -314 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -45 jobs.

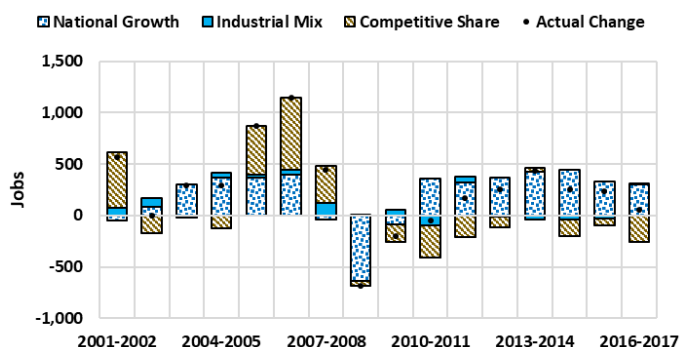
Looking at the adjustments over the entire 16 periods of change, Sheridan County grew faster than the national average by 799 jobs, which equals Actual Change (4,079) minus National Growth (3,280). The Industrial Mix bolstered employment by 330 jobs, while the Competitive Share enhanced employment by 469 jobs.

**Sheridan County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



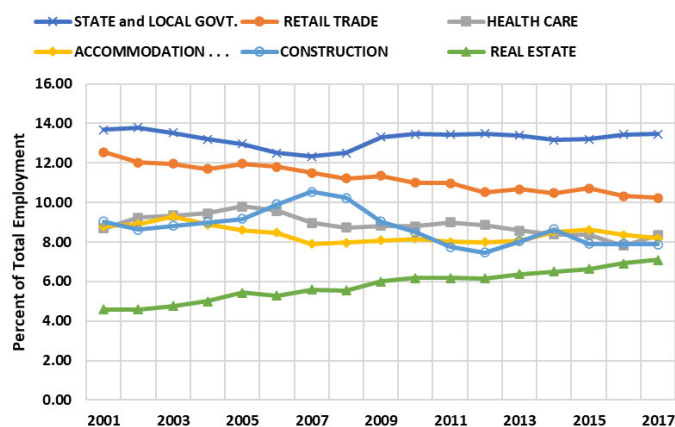
Sheridan County Chart 3. Range of employment change

**Sheridan County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Sheridan County Chart 4. Shift-share analysis

**Sheridan County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Sheridan County Chart 5. Top employment sectors

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Sheridan County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for around 55 percent of the employment in the county.

STATE and LOCAL GOVERNMENT employment was the largest sector over the entire 17-year study period. Its proportion declined from 2002–7 then grew back the next two years and has been relatively stable since; however, the county proportion is less than that found for the state.

RETAIL TRADE was the second largest sector for the entire study period; however, similar to national and regional trends, it declined consistently over the 17-years. CONSTRUCTION employment is a key, yet volatile sector. It grew steadily from 2001–7, then declined for five years. In recent years, its share of total employment has been more stable.

The HEALTH CARE sector is a key employer in Sheridan County. It was the third largest sector for many of the years studied.

The sixth largest sector in 2017 was REAL ESTATE employment. This sector's share of total employment has risen substantially over the years.

## SUMMARY

Sheridan County's total employment from 2001–17 peaked at 124.2 percent of its 2001 level in 2017. This is higher than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 0 times. It had 12 periods of increasing and 4 periods of declining employment. It grew faster than the U.S. 5 times and Wyoming 8 times. Overall, its employment change was measured and steady when compared to all Wyoming counties, exceeding the average 9 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 10 of the 16 time periods. Its competitive share was positive 5 times. Over the entire 16 periods of change, Sheridan County grew faster than the national average by 799 jobs. STATE and LOCAL GOVERNMENT and RETAIL TRADE are the top two employment sectors. Its RETAIL TRADE sector has experienced decline similar to most of the larger regions studied. The next three sectors are bunched in the middle and include HEALTH CARE, ACCOMMODATIONS and CONSTRUCTION. The last of the top six employers is the REAL ESTATE sector. It rose dramatically over this 17-year time period and became the sixth highest employer in 2009.

## SUBLETTE COUNTY

From 2001–17, the maximum index for Sublette County was 202.4 in 2011 (see Table 1 and Sublette County Chart 1). The minimum index was 100.0, which happened in 2001. Its maximum index was 83.9 points higher than the U.S. maximum. Its minimum index was 0.3 points higher than the U.S. minimum, and its maximum index ranked 1st among Wyoming’s 23 counties (see Table 4). Its minimum index ranked 1st (ten-way tie). Over this 16-year period, the ratio fell below its 2001 value 0 time(s). This ranked 1st (a ten-way tie) in fewest occurrences. Compared to Wyoming, Sublette County’s maximum was 79.4 points higher. Its minimum was 0.0 points different or equal to the state value.

The maximum percent change for Sublette County was 17.36 percent in 2006–7 (see Table 2 and Sublette County Chart 2). The minimum change was -8.33 percent in 2015–16. It had 10 periods of increase and 6 periods of decline. Its maximum percent change ranked as the 1st highest among Wyoming’s 23 counties (see Table 4), while its minimum percent change ranked as the 22nd smallest. Lastly, its number of periods of positive change ranked 11th (a three-way tie) most.

Sublette County grew faster than the United States in 11 time periods (see Table 3) and grew slower in 5 time periods. Its largest growth over the United States rate was 15.27 percent in 2006–7. Its least growth compared to the United States was -9.93 percent in 2015–16. Its maximum growth greater than the United States ranked as the 1st highest among Wyoming’s 23 counties (see Table 4). Its least growth ranked as the 23rd smallest. Its number of periods of growth faster than the U.S. ranked 1st (a four-way tie) most.

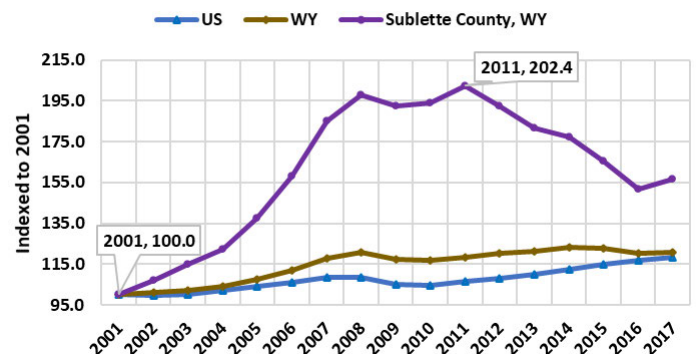
Sublette County grew faster than Wyoming in 11 time periods and grew slower in 5 time periods. Its largest growth over Wyoming’s rate was 12.46 percent in 2006–7. Its least growth compared to Wyoming was -6.69 percent in 2012–13. Its maximum growth greater than Wyoming ranked as the 1st highest among Wyoming’s 23 counties (see Table 4). Its least growth ranked as the 22nd smallest. Its number of periods of growth faster than Wyoming ranked 2nd (a two-way tie) most.

Let’s compare the range and average percent change in employment among Wyoming counties (see Sublette County Chart 3). Sublette County exceeded the average 10 time(s). It recorded the counties’ maximum 8 time(s) and the minimum 4 time(s). Its greatest growth compared to the average for all 23 counties was 11.96 in 2006–7. Its least growth to the average was -6.67 percent in 2015–16.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-11	-24	322	287
2002-2003	22	19	296	337
2003-2004	85	-28	253	310
2004-2005	106	43	482	631
2005-2006	118	73	677	868
2006-2007	139	74	939	1,152
2007-2008	-14	337	205	527
2008-2009	-259	-127	156	-229
2009-2010	-34	226	-121	71
2010-2011	150	-109	309	350
2011-2012	140	466	-1,021	-416
2012-2013	151	37	-654	-466
2013-2014	164	-34	-310	-181
2014-2015	163	-70	-585	-492
2015-2016	111	-74	-617	-579
2016-2017	91	20	95	206
Total	1,123	828	425	2,376

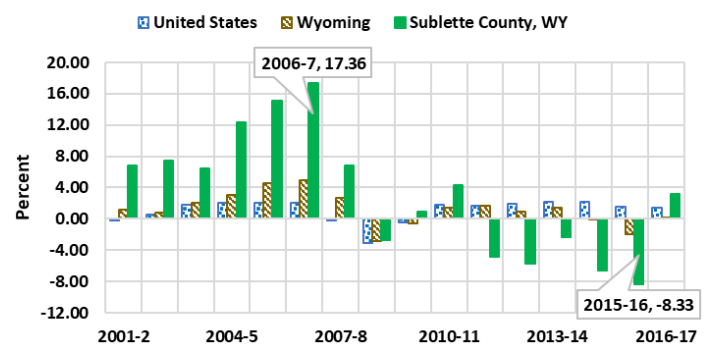
Sublette County Table 1. Shift-share analysis

**Sublette County Chart 1  
Total Employment 2001-2017**



Sublette County Chart 1. Total employment

**Sublette County Chart 2  
Employment Change 2001-2017**



Sublette County Chart 2. Percent employment change

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Sublette County Table 1 and Sublette County Chart 4). The largest addition to Sublette County's economy from NG was 164 jobs, which occurred in the 2013–14 time period. On the other hand, the largest loss of jobs attributed to NG was -259 in 2008–9.

Sublette County had a positive Industrial Mix (IM) in 9 time periods, with a negative IM in 7 time periods. Its largest IM was 466 in 2011–12 and its least IM was -127 in 2008–9. Sublette County had a positive Competitive Share (CS) in 10 time periods with a negative CS in 6 time periods. Its largest CS was 939, occurring in the 2006–7 time period. Its least CS was -1,021 in 2011–12.

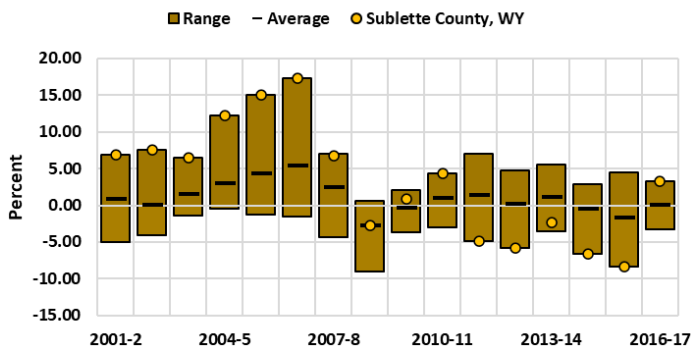
Sublette County had a positive Actual Change (AC) in 10 time periods with a negative AC in 6 time periods. Its largest AC was 1,152, occurring in the 2006–7 time period and its least AC was -579 in 2015–16.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Sublette County Table 1). As mentioned previously, Sublette County's largest percentage change compared to the United States was 15.27 percent in 2006–07. During this time, National Growth was positive and added 139 jobs, while the Industrial Mix was positive and added 74 jobs, and the Competitive Share was positive and added 939 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 1,152 jobs.

Sublette County's smallest percentage change compared to the United States was -9.93 percent in 2015–16. During this time, National Growth was positive and added 111 jobs, while the Industrial Mix was negative and adjusted employment by -74 jobs, and the Competitive Share was negative and altered employment by -617 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -579 jobs.

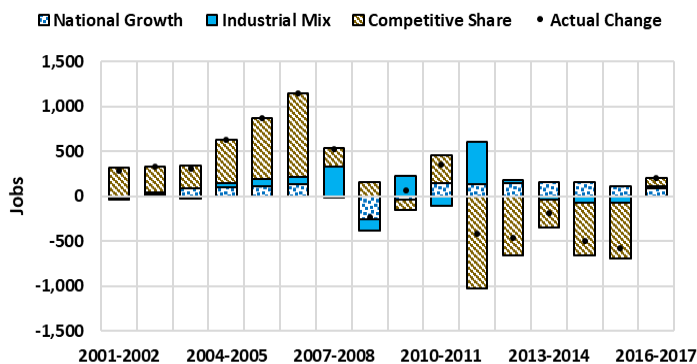
Looking at the adjustments over the entire 16 periods of change, Sublette County grew faster than the national average by 1,253 jobs, which equals Actual Change (2,376) minus National Growth (1,123). The Industrial Mix bolstered

**Sublette County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



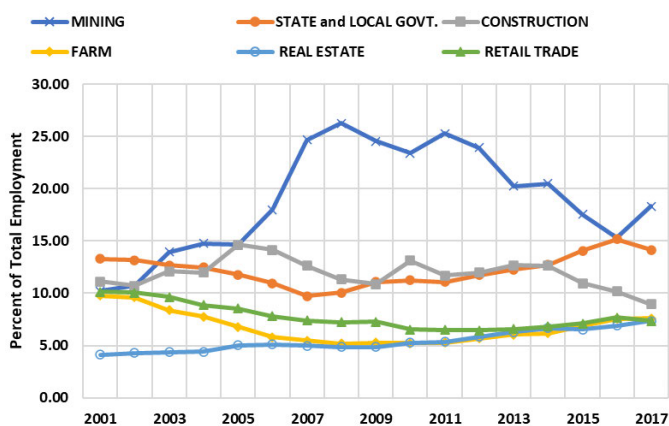
Sublette County Chart 3. Range of employment change

**Sublette County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Sublette County Chart 4. Shift-share analysis

**Sublette County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Sublette County Chart 5. Top employment sectors

employment by 828 jobs while the Competitive Share enhanced employment by 425 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Sublette County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for over 60 percent of the employment in the county.

The MINING sector has become the dominant employment sector. It grew rapidly from 2005–8; however, its share of total employment dropped substantially since 2011.

CONSTRUCTION employment is also an important sector for a majority of the 17 years studied. This sector seems strongly linked with the MINING sector. As such, it has dropped off remarkably since 2014. STATE and LOCAL GOVERNMENT employment is another significant sector. It was the second largest category during periods of weak CONSTRUCTION activity.

Prior to the MINING boom, FARM jobs accounted for a significant share of total employment. Similar to other regions, the RETAIL TRADE employment sector's proportion has been declining. REAL ESTATE employment has been a growing part of employment in the county.

## SUMMARY

Sublette County's total employment from 2001–17 peaked at 202.4 percent of its 2001 level in 2011. This is higher than both the U.S. (118.5) and Wyoming (123.0) values and ranked 1st in the state (see Table 4). It dropped below its starting value 0 times. It had 10 periods of increasing and 6 periods of declining employment. Its maximum percent change ranked 1st in the state. It grew faster than the U.S. 11 times and Wyoming 11 times. Its maximum percent growth versus the U.S. and Wyoming was 1st in the state. Its number of periods of growth faster than the U.S. ranked 1st (a four-way tie) most. Its number of periods of growth faster than Wyoming ranked 2nd (a two-way tie) most; however, its minimum growth was near the bottom on all of these measures, meaning its level of negative change was very large. Overall, its employment change was dynamic when compared to all Wyoming counties, exceeding the average 10 times and recording 8 top (the most recent time being in 2016–17) and 4 bottom (the most recent time being in 2015–16) percentage changes. Its mix of industries was positive in 9 of the 16 time periods. Its competitive share was positive 10 times. Over the entire 16 periods of change, Sublette County

grew faster than the national average by 1,253 jobs. Since 2003, MINING employment has been the driving force in Sublette County's economy. It grew considerably from 2001–8, then began a steady and later dramatic decline lasting through 2016. The next two top employment sectors are state/local government and CONSTRUCTION employment. Of these six top employment categories, the REAL ESTATE sector has recorded the most sustained growth.



## SWEETWATER COUNTY

From 2001–17, the maximum index for Sweetwater County was 131.4 in 2008 (see Table 1 and Sweetwater County Chart 1). The minimum index was 97.8 in 2002. Its maximum index was 12.9 points higher than the U.S. maximum, and its minimum index was -2.0 points lower than the U.S. minimum. Its maximum index ranked 8th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 18th. Over this 16-year period, the ratio fell below its 2001 value 1 time(s). This ranked 11th (a four-way tie) in fewest occurrences. Compared to Wyoming, Sweetwater County's maximum was 8.4 points higher. Its minimum was -2.2 points below the state value.

The maximum percent change for Sweetwater County was 8.91 percent in 2005–6 (see Table 2 and Sweetwater County Chart 2). The minimum change was -6.91 percent in 2008–9. It had 9 periods of increase and 7 periods of decline. Its maximum percent change ranked as the 4th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 19th smallest. Lastly, its number of periods of positive change ranked 14th (a three-way tie) most.

Sweetwater County grew faster than the United States in 7 time periods (see Table 3) and grew slower in 9 time periods. Its largest growth over the United States rate was 6.86 percent in 2005–6. Its least growth compared to the United States was -6.07 percent in 2015–16. Its maximum growth greater than the United States ranked as the 4th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 17th smallest, and its number of periods of growth faster than the U.S. ranked 14th (a three-way tie) most.

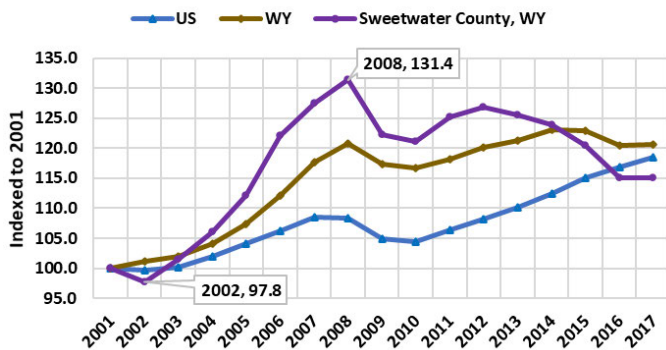
Sweetwater County grew faster than Wyoming in 6 time periods and grew slower in 10 time periods. Its largest growth over Wyoming's rate was 4.41 percent in 2005–6, and its least growth compared to Wyoming was -4.03 percent in 2008–9. Its maximum growth greater than Wyoming ranked as the 8th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 11th smallest. Its number of periods of growth faster than Wyoming ranked 13th (a five-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Sweetwater County Chart 3). Sweetwater County exceeded the average 6 time(s). It recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 4.56 percent in 2005–6. Its least growth to the average was -4.19 percent in 2008–9.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-62	-261	-221	-544
2002-2003	118	279	503	901
2003-2004	432	-169	835	1,097
2004-2005	531	263	693	1,488
2005-2006	556	470	1,392	2,418
2006-2007	618	335	320	1,272
2007-2008	-57	1,084	-58	970
2008-2009	-989	-448	-761	-2,198
2009-2010	-125	627	-808	-306
2010-2011	540	-293	739	987
2011-2012	497	1,359	-1,451	405
2012-2013	574	95	-973	-304
2013-2014	652	-148	-912	-408
2014-2015	657	-217	-1,286	-847
2015-2016	467	-382	-1,385	-1,300
2016-2017	398	141	-525	14
Total	4,805	2,736	-3,896	3,645

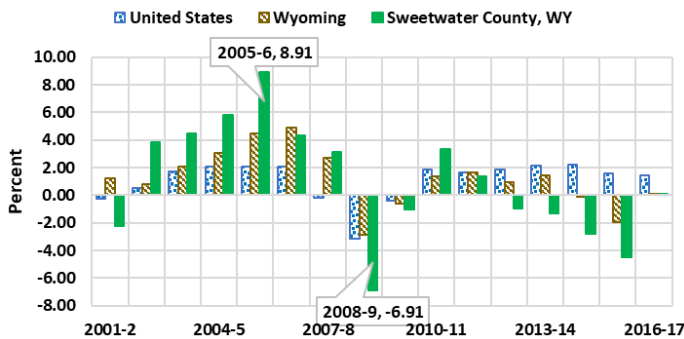
Sweetwater County Table 1. Shift-share analysis

**Sweetwater County Chart 1  
Total Employment 2001-2017**



Sweetwater County Chart 1. Total employment

**Sweetwater County Chart 2  
Employment Change 2001-2017**



Sweetwater County Chart 2. Percent employment change

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Sweetwater County Table 1 and Sweetwater County Chart 4). The largest addition to Sweetwater County's economy from NG was 657 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -989 in 2008-9.

Sweetwater County had a positive Industrial Mix (IM) in 9 time periods, with a negative IM in 7 time periods. Its largest IM was 1,359 in 2011-12. Its least IM was -448 in 2008-9. Sweetwater County had a positive Competitive Share (CS) in 6 time periods with a negative CS in 10 time periods. Its largest CS was 1,392 in 2005-6, and its least CS was -1,451. This occurred in 2011-12.

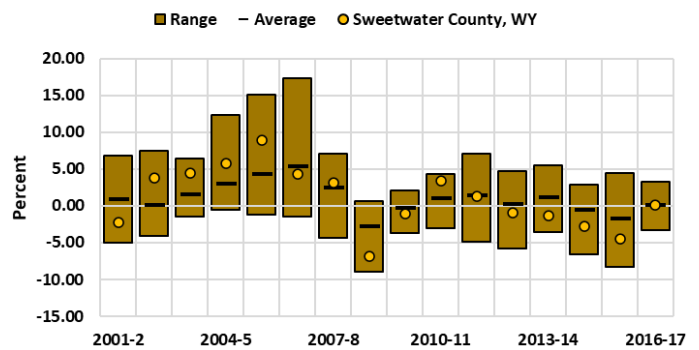
Sweetwater County had a positive Actual Change (AC) in 9 time periods with a negative AC in 7 time periods. Its largest AC was 2,418 in 2005-6 and its least AC was -2,198 in 2008-9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Sweetwater County Table 1). As mentioned previously, Sweetwater County's largest percentage change compared to the United States was 6.86 percent in 2005-06. During this time, National Growth was positive and added 556 jobs, while the Industrial Mix was positive and added 470 jobs, and the Competitive Share was positive and added 1,392 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 2,418 jobs.

Sweetwater County's smallest percentage change compared to the United States was -6.07 percent in 2015-16. During this time, National Growth was positive and added 467 jobs, while the Industrial Mix was negative and adjusted employment by -382 jobs, and the Competitive Share was negative and altered employment by -1,385 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -1,300 jobs.

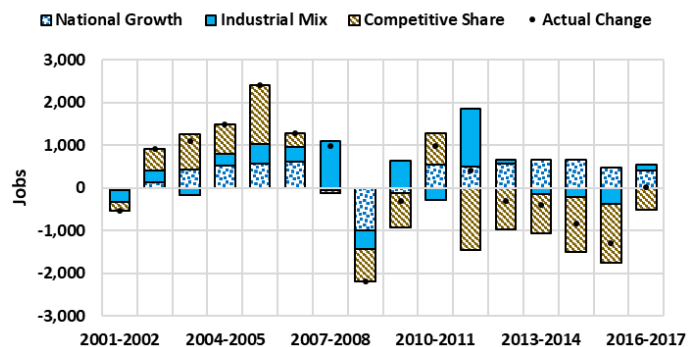
Looking at the adjustments over the entire 16 periods of change, Sweetwater County grew slower than the national average by -1,160 jobs, which equals Actual Change (3,645) minus National Growth (4,805). The Industrial Mix bolstered employment by 2,736 jobs, while the Competitive Share lessened employment by -3,896 jobs.

**Sweetwater County Chart 3. Range of Employment Change  
Results for Wyoming Counties 2001-17**



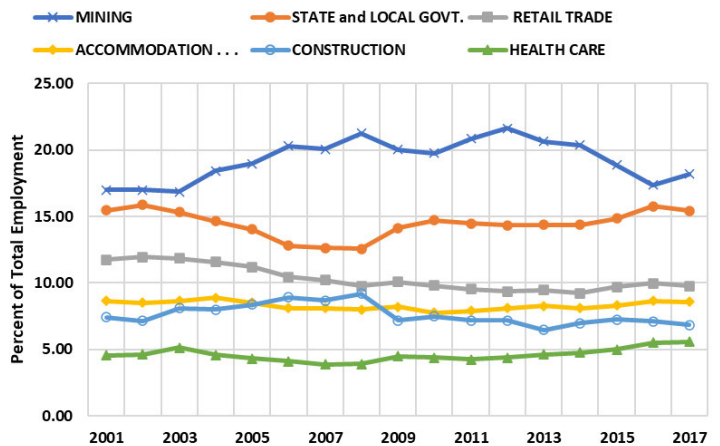
Sweetwater County Chart 3. Range of employment change

**Sweetwater County Chart 4  
Shift-Share Analysis of 2001-17 Employment Changes**



Sweetwater County Chart 4. Shift-share analysis

**Sweetwater County Chart 5. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages**



Sweetwater County Chart 5. Top employment sectors

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Sweetwater County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for nearly 65 percent of the employment in the county.

MINING employment is the top sector in the county for the entire 17 years of the study; however, its share peaked in 2012 and then declined through 2016.

STATE and LOCAL GOVERNMENT is the second largest employer. Its share declined during the MINING boom, but has been slowly increasing back with the drop in MINING employment

RETAIL TRADE is the third largest sector. It declined from 2001–08 but has been relatively stable since. ACCOMMODATIONS, CONSTRUCTION and HEALTH CARE comprise the remaining top employment sectors.

## SUMMARY

Sweetwater County's total employment from 2001–17 peaked at 131.4 percent of its 2001 level in 2008. This is higher than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 1 time (2002). It had 9 periods of increasing and 7 periods of declining employment. It grew faster than the U.S. 7 times and Wyoming 6 times. Overall, its employment change was dynamic when compared to all Wyoming counties, exceeding the average 6 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 9 of the 16 time periods. Its competitive share was positive 6 times. Over the entire 17-year period, Sweetwater County grew slower than the national average by -1,160 jobs. Its economy is highly concentrated in MINING jobs, and this sector was the top employer over the entire 17-year time period. The MINING sector often accounted for around 1 in 5 jobs in the county (2006–14). STATE and LOCAL GOVERNMENT and RETAIL TRADE jobs were the next two top employment sectors. With the STATE and LOCAL GOVERNMENT proportion rising as the MINING sector declined.

## TETON COUNTY

From 2001–17, the maximum index for Teton County was 141.2 in 2017 (see Table 1 and Teton County Chart 1). The minimum index was 99.6, which happened in 2002. Its maximum index was 22.7 points higher than the U.S. maximum. Its minimum index was -0.2 points lower than the U.S. minimum and its maximum index ranked 2nd among Wyoming's 23 counties (see Table 4). Its minimum index ranked 11th (2-way tie). Over this 16-year period, the ratio fell below its 2001 value 2 time(s). This ranked 15th (a two-way tie) in fewest occurrences. Compared to Wyoming, Teton County's maximum was 18.2 points higher. Its minimum was -0.4 points below the state value.

The maximum percent change for Teton County was 5.12 percent in 2006–7 (see Table 2 and Teton County Chart 2). The minimum change was -4.48 percent in 2008–9. It had 13 periods of increase and 3 periods of decline. Its maximum percent change ranked as the 13th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 13th smallest. Lastly, its number of periods of positive change ranked 2nd (a three-way tie) most.

Teton County grew faster than the United States in 11 time periods (see Table 3) and grew slower in 5 time periods. Its largest growth over the United States rate was 3.88 percent in 2007–8, and its least growth compared to the United States was -1.37 percent in 2008–9. Its maximum growth greater than the United States ranked as the 11th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 2nd smallest, and its number of periods of growth faster than the US ranked 1st (a four-way tie) most.

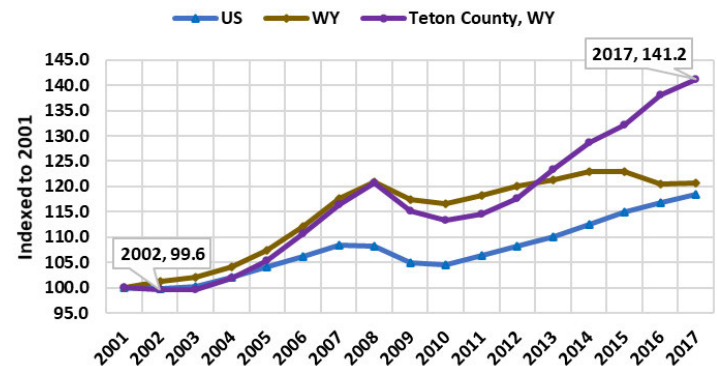
Teton County grew faster than Wyoming in 11 time periods and grew slower in 5 time periods. Its largest growth over Wyoming's rate was 6.38 percent in 2015–16. Its least growth compared to Wyoming was -1.63 percent in 2001–2. Its maximum growth greater than Wyoming ranked as the 3rd highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 2nd smallest, and its number of periods of growth faster than Wyoming ranked 2nd (a two-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Teton County Chart 3). Teton County exceeded the average 11 time(s). It recorded the counties' maximum 2 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 6.11 percent, which occurred in 2015–16. Its least growth to the average was -1.76 percent in 2008–9.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-60	160	-198	-98
2002-2003	116	228	-342	2
2003-2004	407	206	-83	530
2004-2005	490	190	116	797
2005-2006	501	130	618	1,250
2006-2007	537	73	705	1,316
2007-2008	-50	-32	1,081	999
2008-2009	-872	-65	-319	-1,256
2009-2010	-113	-2	-350	-465
2010-2011	485	83	-269	299
2011-2012	436	-27	332	741
2012-2013	511	111	680	1,302
2013-2014	615	110	519	1,244
2014-2015	655	76	71	802
2015-2016	492	202	670	1,364
2016-2017	458	122	165	745
Total	4,609	1,566	3,397	9,572

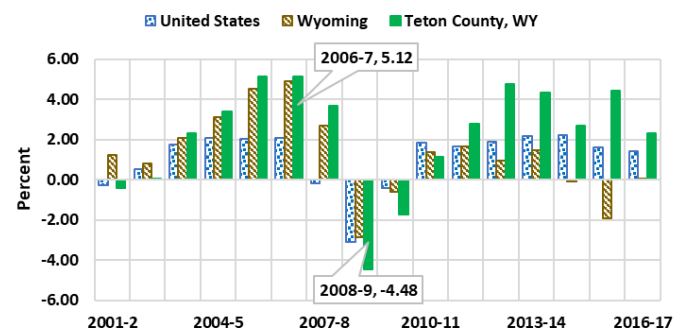
Teton County Table 1. Shift-share analysis

**Teton County Chart 1  
Total Employment 2001-2017**



Teton County Chart 1. Total employment

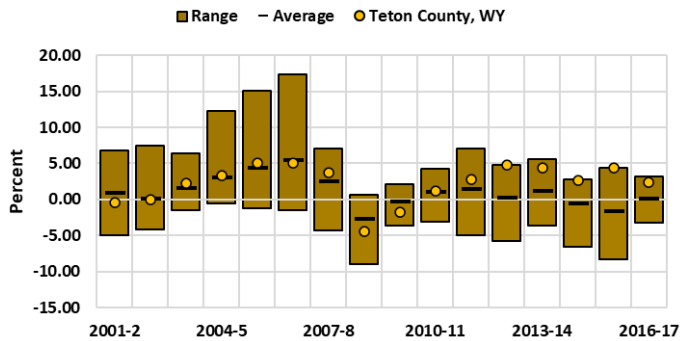
**Teton County Chart 2  
Employment Change 2001-2017**



Teton County Chart 2. Percent employment change

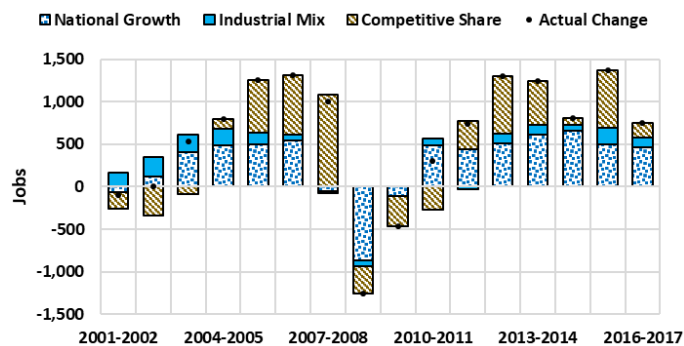


**Teton County Chart 3. Range of Employment Change  
Results for Wyoming Counties 2001-17**



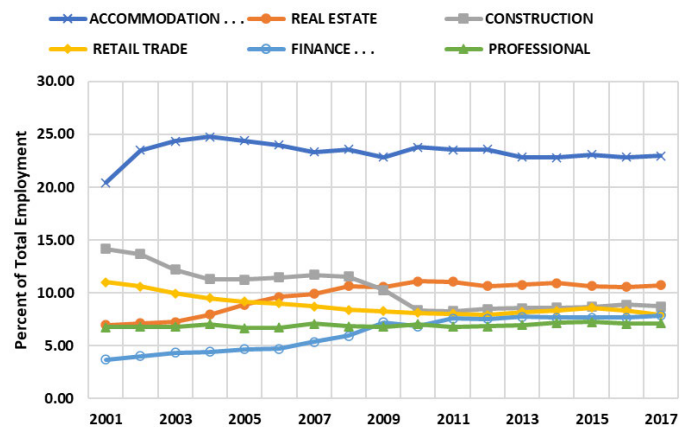
Teton County Chart 3. Range of employment change

**Teton County Chart 4  
Shift-Share Analysis of 2001-17 Employment Changes**



Teton County Chart 4. Shift-share analysis

**Teton County Chart 5. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages**



Teton County Chart 5. Top employment sectors

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Teton County 1 and Teton County Chart 4). The largest addition to Teton County's economy from NG was 655 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -872 in the 2008-9 time period.

Teton County had a positive Industrial Mix (IM) in 12 time periods with a negative IM in 4 time periods. Its largest IM was 228 in 2002-3, and its least IM was -65. This occurred in 2008-9. Teton County had a positive Competitive Share (CS) in 10 time periods with a negative CS in 6 time periods. Its largest CS was 1,081 in 2007-8. Its least CS was -350 in 2009-10.

Teton County had a positive Actual Change (AC) in 13 time periods with a negative AC in 3 time periods. Its largest AC was 1,364 in 2015-16, and its least AC was -1,256 in 2008-9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Teton County Table 1). As mentioned previously, Teton County's largest percentage change compared to the United States was 3.88 percent in 2007-08. During this time, National Growth was negative and altered employment by -50 jobs, while the Industrial Mix was negative and modified employment by -32 jobs, and the Competitive Share was positive and added 1,081 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 999 jobs.

Teton County's smallest percentage change compared to the United States was -1.37 percent in 2008-09. During this time, National Growth was negative and modified employment by -872 jobs, while the Industrial Mix was negative and adjusted employment by -65 jobs, and the Competitive Share was negative and altered employment by -319 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -1,256 jobs.

Looking at the adjustments over the entire 16 periods of change, Teton County grew faster than the national average by 4,963 jobs, which equals Actual Change (9,572) minus National Growth (4,609). The Industrial Mix bolstered employment by 1,566 jobs, while the Competitive Share enhanced employment by 3,397 jobs.



Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Teton County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for about 65 percent of the employment in the county.

The ACCOMMODATION sector is by far the top employer for the entire 17 years studied. Its share has been remarkably stable since 2003 and accounts for almost 1 in 4 jobs in the county.

From 2001 to 2008, the CONSTRUCTION sector was the second largest employer. Since 2009, REAL ESTATE employment has been the second largest sector.

RETAIL TRADE, FINANCE and PROFESSIONAL SERVICES round out the remaining top six employment sectors. During this time, RETAIL TRADE has declined a bit while FINANCE employment has been rising.

## SUMMARY

Teton County's total employment from 2001–17 peaked at 141.2 percent of its 2001 level in 2017. This is higher than both the U.S. (118.5) and Wyoming (123.0) values. Its maximum index ranked 2nd highest in the state (see Table 4). It dropped below its starting value 2 times (2002, 2003). It had 13 periods of increasing and 3 periods of declining employment. Its number of periods of positive change ranked 2nd (a three-way tie) most in the state. It grew faster than the U.S. 11 times and Wyoming 11 times. Its number of periods of growth faster than the U.S. ranked 1st (a four-way tie) most in the state, while its number of periods of growth faster than Wyoming ranked 2nd (a two-way tie) most. Overall, its employment change was substantial when compared to all Wyoming counties, exceeding the average 11 times and recording 2 top (2012–3 and 2015–16) and 0 bottom percentage changes. Its mix of industries was positive in 12 of the 16 time periods, and its competitive share was positive 10 times. Over the entire 16 periods of change, Teton County grew faster than the national average by 4,963 jobs. The ACCOMMODATIONS sector is by far the largest employer, accounting for nearly one out every four in the county. The proportion of total employment in REAL ESTATE jobs has risen significantly over this 17-year period. It became the second highest employment sector in 2009.

## UINTA COUNTY

From 2001–17, the maximum index for Uinta County was 117.6 in 2008 (see Table 1 and Uinta County Chart 1). The minimum index was 99.6, which happened in 2004. Its maximum index was -0.9 points lower than the U.S. maximum. Its minimum index was -0.1 points lower than the U.S. minimum. Its maximum index ranked 13th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 11th (2-way tie). Over this 16-year period, the ratio fell below its 2001 value 1 time(s). This ranked 11th (a four-way tie) in fewest occurrences. Compared to Wyoming, Uinta County's maximum was -5.5 points lower, and its minimum was -0.4 points below the state value.

The maximum percent change for Uinta County was 5.15 percent in 2005–6 (see Table 2 and Uinta County Chart 2). The minimum change was -4.85 percent in 2008–9. It had 7 periods of increase and 9 periods of decline. Its maximum percent change ranked as the 12th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 15th smallest. Lastly, its number of periods of positive change ranked 22nd (a two-way tie) most.

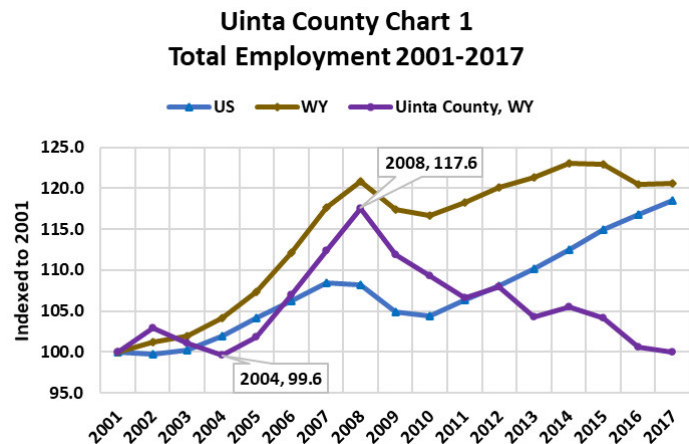
Uinta County grew faster than the United States in 5 time periods (see Table 3) and grew slower in 11 time periods. Its largest growth over the United States rate was 4.76 percent, in 2007–8. Its least growth compared to the United States was -5.22 percent in 2012–13. Its maximum growth greater than the United States ranked as the 8th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 14th smallest. Its number of periods of growth faster than the U.S. ranked 18th (a five-way tie) most.

Uinta County grew faster than Wyoming in 4 time periods and grew slower in 12 time periods. Its largest growth over Wyoming's rate was 1.87 percent in 2007–8. Its least growth compared to Wyoming was -4.29 percent in 2012–13. Its maximum growth greater than Wyoming ranked as the 21st highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 13th smallest. Its number of periods of growth faster than Wyoming ranked 20th (a three-way tie) most.

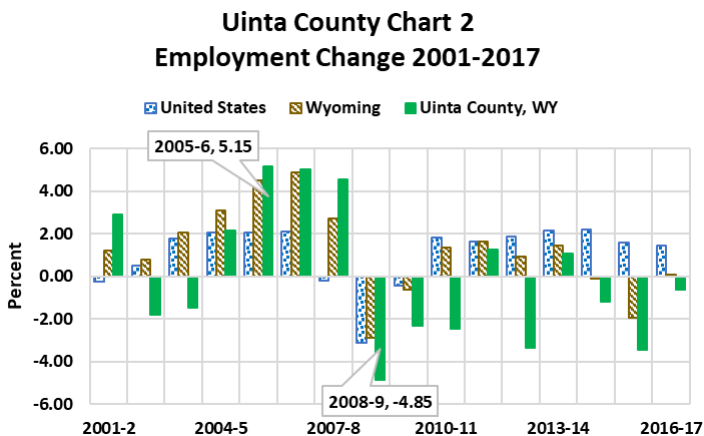
Let's compare the range and average percent change in employment among Wyoming counties (see Uinta County Chart 3). Uinta County exceeded the average 3 time(s). It recorded the counties' maximum 0 time(s) and the minimum 1 time(s). Its greatest growth compared to the average for all

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-30	-6	379	343
2002-2003	60	84	-362	-217
2003-2004	208	-27	-352	-171
2004-2005	242	43	-30	254
2005-2006	244	61	309	614
2006-2007	262	42	327	630
2007-2008	-24	170	456	602
2008-2009	-428	-115	-125	-668
2009-2010	-55	54	-301	-303
2010-2011	236	-98	-450	-312
2011-2012	205	132	-177	160
2012-2013	236	6	-666	-424
2013-2014	262	-30	-98	134
2014-2015	271	-33	-385	-148
2015-2016	196	-24	-593	-421
2016-2017	168	7	-246	-71
Total	2,051	266	-2,316	2

Uinta County Table 1. Shift-share analysis



Uinta County Chart 1. Total employment



Uinta County Chart 2. Percent employment change

23 counties was 2.08 percent, which occurred in 2007–8. Its least growth to the average was -3.55 percent in 2012–13.

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Uinta County Table 1 and Uinta County Chart 4). The largest addition to Uinta County's economy from NG was 271 jobs in 2014–15. On the other hand, the largest loss of jobs attributed to NG was -428 in 2008–9.

Uinta County had a positive Industrial Mix (IM) in 9 time periods, with a negative IM in 7 time periods. Its largest IM was 170 in 2007–8, and its least IM was -115. This occurred in the 2008–9 time period. Uinta County had a positive Competitive Share (CS) in 4 time periods with a negative CS in 12 time periods. Its largest CS was 456 in 2007–8. Its least CS was -666 in 2012–13.

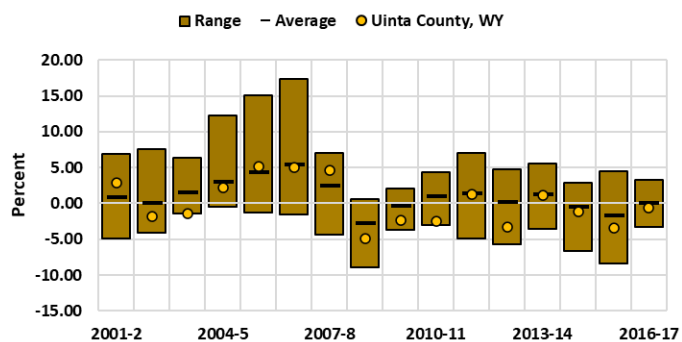
Uinta County had a positive Actual Change (AC) in 7 time periods with a negative AC in 9 time periods. Its largest AC was 630 in 2006–7, and its least AC was -668 in 2008–9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Uinta County Table 1). As mentioned previously, Uinta County's largest percentage change compared to the United States was 4.76 percent in 2007–08. During this time, National Growth was negative and altered employment by -24 jobs, while the Industrial Mix was positive and added 170 jobs, and the Competitive Share was positive and added 456 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 602 jobs.

Uinta County's smallest percentage change compared to the United States was -5.22 percent in 2012–13. During this time, National Growth was positive and added 236 jobs, while the Industrial Mix was positive and added 6 jobs, and the Competitive Share was negative and altered employment by -666 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -424 jobs.

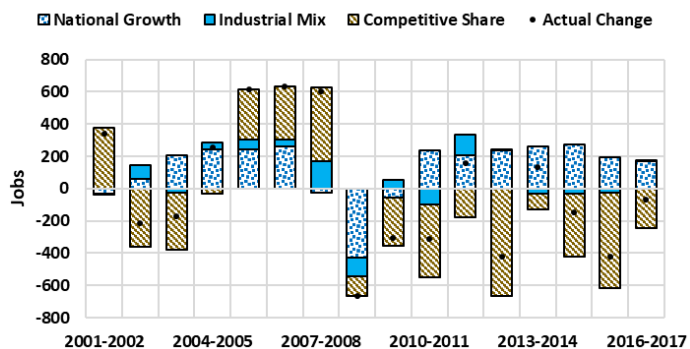
Looking at the adjustments over the entire 16 periods of change, Uinta County grew slower than the national average by -2,049 jobs, which equals Actual Change (2) minus National Growth (2,051). The Industrial Mix bolstered employment by

**Uinta County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



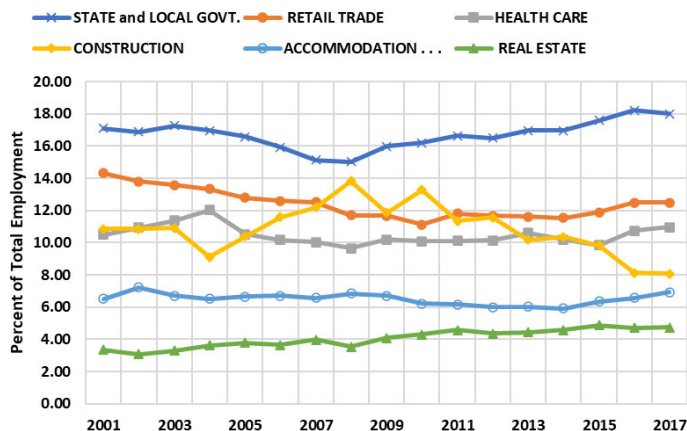
Uinta County Chart 3. Range of employment change

**Uinta County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Uinta County Chart 4. Shift-share analysis

**Uinta County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Uinta County Chart 5. Top employment sectors

266 jobs, while the Competitive Share lessened employment by -2,316 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Uinta County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for approximately 60 percent of the employment in the county.

STATE and LOCAL GOVERNMENT employment was the top sector for the entire 17 years studied. Although its share declined in the first half of the years studied, it has been increasing steadily since 2008.

RETAIL TRADE was the second largest sector for most of the years. The CONSTRUCTION boom from 2004 through 2011 made it the second largest sector in 2008–10.

HEALTH CARE jobs account for the third most jobs in 2016–17. This sector's share has been relatively stable over the study years.

ACCOMMODATIONS and REAL ESTATE are the remaining top employment sectors. REAL ESTATE employment has grown steadily over this 17-year time period.

## SUMMARY

Uinta County's total employment from 2001–17 peaked at 117.6 percent of its 2001 level in 2008. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 1 time (2004). It had 7 periods of increasing and 9 periods of declining employment. Its number of periods of positive change ranked 22nd (a two-way tie) in the state (see Table 4). It grew faster than the U.S. 5 times and Wyoming 4 times. Overall, its employment change was slow when compared to all Wyoming counties, exceeding the average 3 times and recording 0 top and 1 bottom (2003–4) percentage changes. Its mix of industries was positive in 9 of the 16 time periods. Its competitive share was positive 4 times. Over the entire 16 periods of change, Uinta County grew slower than the national average by -2,049 jobs. Uinta County's top employment sector is STATE and LOCAL GOVERNMENT; however, its level of concentration in this sector is similar to the level found for the state. Other than times of peak employment in the CONSTRUCTION sector, RETAIL TRADE and HEALTH CARE were the next two top employment sectors.

## WASHAKIE COUNTY

From 2001–17, the maximum index for Washakie County was 109.9 in 2008 (see Table 1 and Washakie County Chart 1). The minimum index was 98.4 in 2002. Its maximum index was -8.6 points lower than the U.S. maximum, and its minimum index was -1.3 points lower than the U.S. minimum. Its maximum index ranked 20th among Wyoming's 23 counties (see Table 4). Its minimum index ranked 16th. Over this 16-year period, the ratio fell below its 2001 value 3 time(s). This ranked 17th (a four-way tie) in fewest occurrences. Compared to Wyoming, Washakie County's maximum was -13.1 points lower, and its minimum was -1.6 points below the state value.

The maximum percent change for Washakie County was 4.25 percent in 2006–7 (see Table 2 and Washakie County Chart 2). The minimum change was -2.75 percent in 2015–16. It had 8 periods of increase and 8 periods of decline. Its maximum percent change ranked as the 16th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 7th smallest. Lastly, its number of periods of positive change ranked 17th (a five-way tie) most.

Washakie County grew faster than the United States in 4 time periods (see Table 3) and grew slower in 12 time periods. Its largest growth over the United States rate was 2.92 percent in 2007–8. Its least growth compared to the United States was -4.35 percent in 2015–16. Its maximum growth greater than the United States ranked as the 20th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 10th smallest. Its number of periods of growth faster than the U.S. ranked 23rd most.

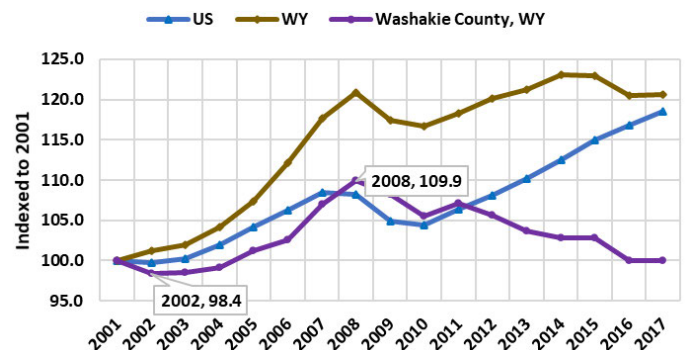
Washakie County grew faster than Wyoming in 4 time periods and grew slower in 12 time periods. Its largest growth over Wyoming's rate was 1.37 percent in 2008–9. Its least growth compared to Wyoming was -3.14 percent in 2005–6. Its maximum growth greater than Wyoming ranked as the 23rd highest among Wyoming's 23 counties (see Table 4), and its least growth ranked as the 7th smallest. Its number of periods of growth faster than Wyoming ranked 20th (a three-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Washakie County Chart 3). Washakie County exceeded the average 5 time(s) and recorded the counties' maximum 0 time(s) and the minimum 0 time(s). Its greatest growth compared to the average for all 23 counties was 1.21 percent, which occurred in 2008–9. Its least growth to the average was -2.99 percent in 2005–6.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-14	-14	-56	-84
2002-2003	26	7	-23	9
2003-2004	91	-31	-28	32
2004-2005	108	1	0	108
2005-2006	109	4	-41	72
2006-2007	112	13	103	228
2007-2008	-10	50	113	153
2008-2009	-179	-12	104	-87
2009-2010	-24	10	-127	-141
2010-2011	102	-27	6	81
2011-2012	92	29	-193	-73
2012-2013	103	-5	-205	-107
2013-2014	116	-13	-144	-41
2014-2015	118	-17	-103	-2
2015-2016	86	-18	-216	-148
2016-2017	75	-2	-70	2
Total	910	-27	-882	2

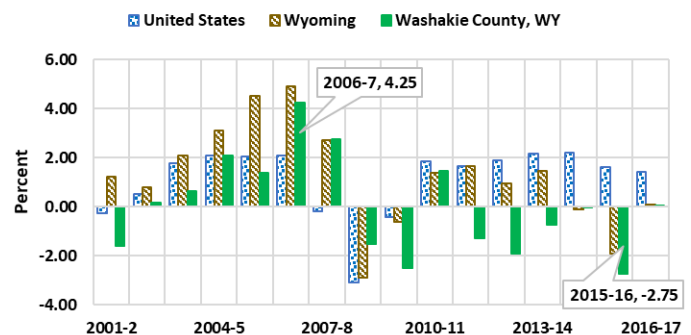
Washakie County Table 1. Shift-share analysis

**Washakie County Chart 1  
Total Employment 2001-2017**



Washakie County Chart 1. Total employment

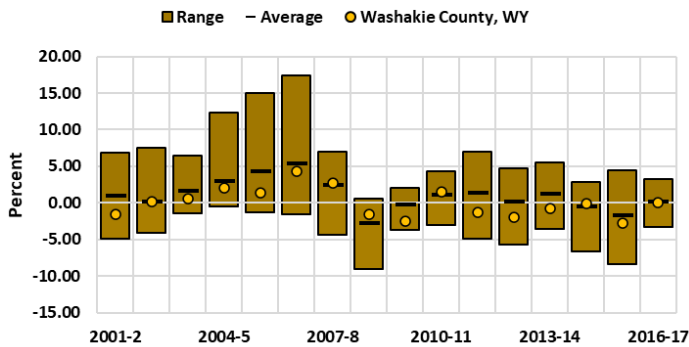
**Washakie County Chart 2  
Employment Change 2001-2017**



Washakie County Chart 2. Percent employment change

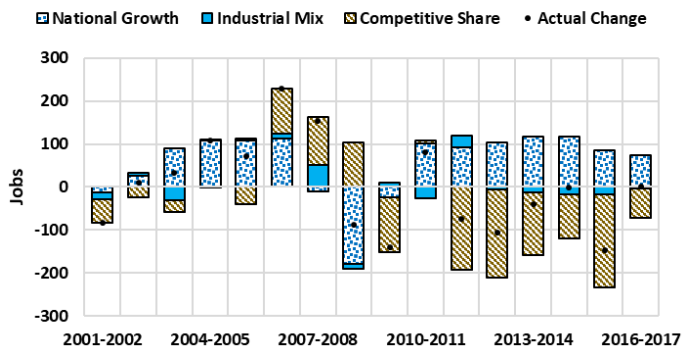


**Washakie County Chart 3. Range of Employment Change  
Results for Wyoming Counties 2001-17**



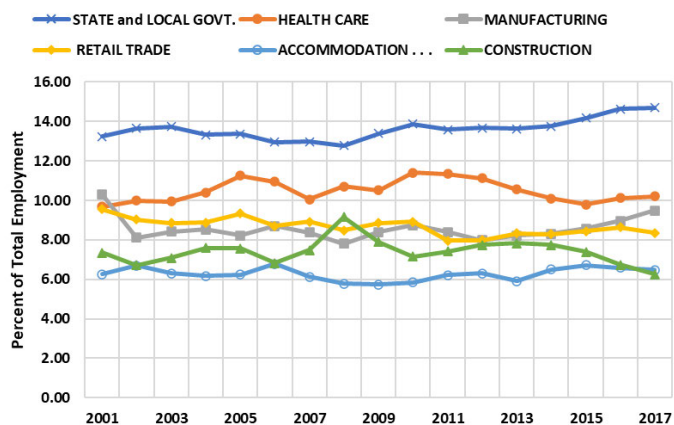
Washakie County Chart 3. Range of employment change

**Washakie County Chart 4  
Shift-Share Analysis of 2001-17 Employment Changes**



Washakie County Chart 4. Shift-share analysis

**Washakie County Chart 5. Top Employment Sectors 2001-17  
Ranked by 2017 Percentages**



Washakie County Chart 5. Top employment sectors

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Washakie County Table 1 and Washakie County Chart 4). The largest addition to Washakie County's economy from NG was 118 jobs in 2014-15. On the other hand, the largest loss of jobs attributed to NG was -179 in 2008-9.

Washakie County had a positive Industrial Mix (IM) in 7 time periods, with a negative IM in 9 time periods, and its largest IM was 50 in 2007-8. Its least IM was -31 in 2003-4.

Washakie County had a positive Competitive Share (CS) in 4 time periods, with a negative CS in 12 time periods. Its largest CS was 113 in 2007-8. Its least CS was -216 in 2015-16.

Washakie County had a positive Actual Change (AC) in 8 time periods with a negative AC in 8 time periods. Its largest AC was 228, occurring in the 2006-7 time period, and its least AC was -148 in 2015-16.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Washakie County Table 1). As mentioned previously, Washakie County's largest percentage change compared to the United States was 2.92 percent in 2007-08. During this time, National Growth was negative and altered employment by -10 jobs, while the Industrial Mix was positive and added 50 jobs, and the Competitive Share was positive and added 113 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 153 jobs.

Washakie County's smallest percentage change compared to the United States was -4.35 percent in 2015-16. During this time, National Growth was positive and added 86 jobs, while the Industrial Mix was negative and adjusted employment by -18 jobs, and the Competitive Share was negative and altered employment by -216 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -148 jobs.

Looking at the adjustments over the entire 16 periods of change, Washakie County grew slower than the national average by -908 jobs, which equals Actual Change (2) minus National Growth (910). The Industrial Mix diminished employment by -27 jobs. While the Competitive Share lessened employment by -882 jobs.

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Washakie County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for about 55 percent of the employment in the county.

STATE and LOCAL GOVERNMENT was the largest employment sector for the entire 17-year time period. It has grown slowly since 2008.

The HEALTH CARE sector is the second largest sector. It reached its peak in 2010 and then declined until 2015. It grew a bit in 2016 and 2017.

In stark contrast to most of the other regions studied, MANUFACTURING employment is a key sector for Washakie County. Recent growth in this sector's share of total employment is rather remarkable given national and regional trends.

RETAIL TRADE, ACCOMMODATIONS and CONSTRUCTION round out the remaining top employment sectors. Similar to other regions, the CONSTRUCTION sector displays a larger degree of variability.

## SUMMARY

Washakie County's total employment from 2001–17 peaked at 109.9 percent of its 2001 level in 2008. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 3 times, with the most recent time being in 2004. It had 8 periods of increasing and 8 periods of declining employment. It grew faster than the U.S. 4 times and Wyoming 4 times. Overall, its employment change was weak when compared to all Wyoming counties, exceeding the average 5 times and recording neither a top nor bottom percentage change. Its mix of industries was positive in 7 of the 16 time periods. Its competitive share was positive 4 times. Over the entire 16 periods of change, Washakie County grew slower than the national average by -908 jobs. The highest proportion of jobs were in the STATE and LOCAL GOVERNMENT sector, but the concentration is less than the level found in the state overall. HEALTH CARE, MANUFACTURING and RETAIL TRADE are the next highest sectors. This level of MANUFACTURING employment is important and rather unique.

## WESTON COUNTY

From 2001–17, the maximum index for Weston County was 108.4 in 2015 (see Table 1 and Weston County Chart 1). The minimum index was 96.3 in 2004. Its maximum index was -10.1 points lower than the U.S. maximum. Its minimum index was -3.5 points lower than the U.S. minimum. Its maximum index ranked 21st among Wyoming's 23 counties (see Table 4). Its minimum index ranked 21st. Over this 16-year period, the ratio fell below its 2001 value 5 time(s). This ranked 22nd in fewest occurrences. Compared to Wyoming, Weston County's maximum was -14.6 points lower. Its minimum was -3.7 points below the state value.

The maximum percent change for Weston County was 4.20 percent in 2006–7 (see Table 2 and Weston County Chart 2). The minimum change was -4.33 percent in 2008–9. It had 8 periods of increase and 8 periods of decline. Its maximum percent change ranked as the 17th highest among Wyoming's 23 counties (see Table 4), while its minimum percent change ranked as the 12th smallest. Lastly, its number of periods of positive change ranked 17th (a five-way tie) most.

Weston County grew faster than the United States in 6 time periods (see Table 3), and it grew slower in 10 time periods. Its largest growth over the United States rate was 3.50 percent in 2007–8. Its least growth compared to the United States was -4.88 percent in 2010–11. Its maximum growth greater than the United States ranked as the 16th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 12th smallest. Its number of periods of growth faster than the U.S. ranked 17th most.

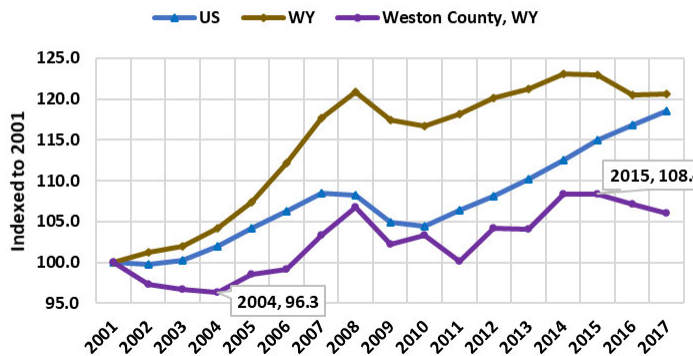
Weston County grew faster than Wyoming in 6 time periods and grew slower in 10 time periods. Its largest growth over Wyoming's rate was 2.69 percent in 2013–14. Its least growth compared to Wyoming was -4.39 percent in 2010–11. Its maximum growth greater than Wyoming ranked as the 15th highest among Wyoming's 23 counties (see Table 4). Its least growth ranked as the 15th smallest. Its number of periods of growth faster than Wyoming ranked 13th (a five-way tie) most.

Let's compare the range and average percent change in employment among Wyoming counties (see Weston County Chart 3). Weston County exceeded the average 6 time(s) and recorded the counties' maximum 0 time(s) and the minimum 1 time(s). Its greatest growth compared to the average for all 23 counties was 2.93 percent in 2013–14 and its least growth to the average was -4.08 percent in 2010–11.

Date	National Growth	Industrial Mix	Competitive Share	Actual Change
2001-2002	-10	-33	-61	-103
2002-2003	18	17	-55	-20
2003-2004	64	-32	-49	-17
2004-2005	75	2	5	83
2005-2006	76	17	-66	27
2006-2007	78	23	56	157
2007-2008	-7	85	52	129
2008-2009	-125	-5	-44	-174
2009-2010	-16	34	26	43
2010-2011	72	-33	-157	-118
2011-2012	62	44	45	151
2012-2013	73	-6	-73	-5
2013-2014	84	-24	102	162
2014-2015	89	-22	-66	1
2015-2016	65	-29	-85	-49
2016-2017	58	5	-105	-42
Total	657	43	-475	225

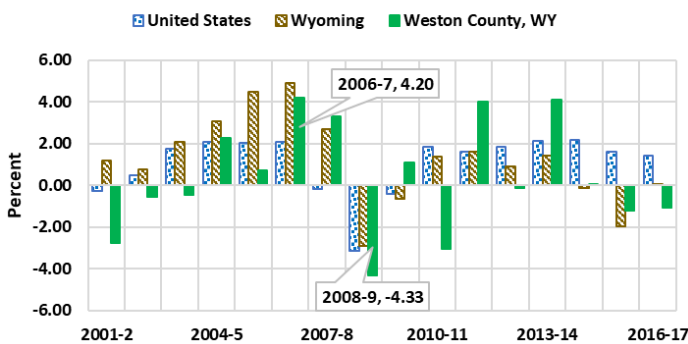
Weston County Table 1. Shift-share analysis

**Weston County Chart 1  
Total Employment 2001-2017**



Weston County Chart 1. Total employment

**Weston County Chart 2  
Employment Change 2001-2017**



Weston County Chart 2. Percent employment change

Next, let's use the Shift-Share Analysis to evaluate these changes to employment. The National Growth (NG) Component was positive in 12 periods and negative in 4 periods (see Weston County Table 1 and Weston County Chart 4). The largest addition to Weston County's economy from NG was 89 jobs in 2014–15. On the other hand, the largest loss of jobs attributed to NG was -125 in 2008–9.

Weston County had a positive Industrial Mix (IM) in 8 time periods, with a negative IM in 8 time periods. Its largest IM was 85 in 2007–8, and its least IM was -33 in 2001–2. Weston County had a positive Competitive Share (CS) in 6 time periods with a negative CS in 10 time periods. Its largest CS was 102 in 2013–14, and its least CS was -157. This occurred in the 2010–11 time period.

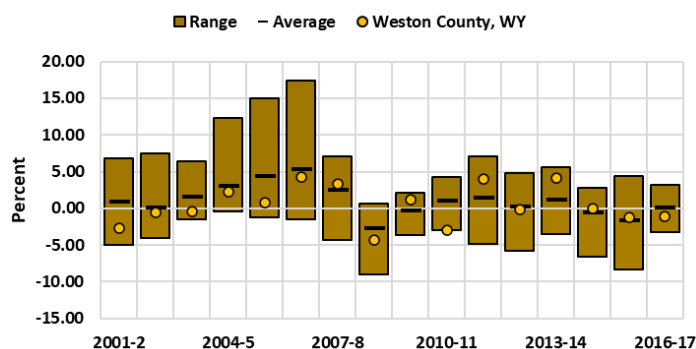
Weston County had a positive Actual Change (AC) in 8 time periods with a negative AC in 8 time periods. Its largest AC was 162 in 2013–14, and its least AC was -174 in 2008–9.

Let's look at the largest and smallest growth compared to the United States and use the Shift-Share Analysis formula to see what this means in terms of actual jobs (see Weston County Table 1). As mentioned previously, Weston County's largest percentage change compared to the United States was 3.50 percent in 2007–08. During this time, National Growth was negative and altered employment by -7 jobs, while the Industrial Mix was positive and added 85 jobs, and the Competitive Share was positive and added 52 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was positive and added 129 jobs.

Weston County's smallest percentage change compared to the United States was -4.88 percent in 2010–11. During this time, National Growth was positive and added 72 jobs, while the Industrial Mix was negative and adjusted employment by -33 jobs, and the Competitive Share was negative and altered employment by -157 jobs. The summation of these three factors is the Actual Change in jobs in the local economy. In this time period, the Actual Change was negative and transformed employment by -118 jobs.

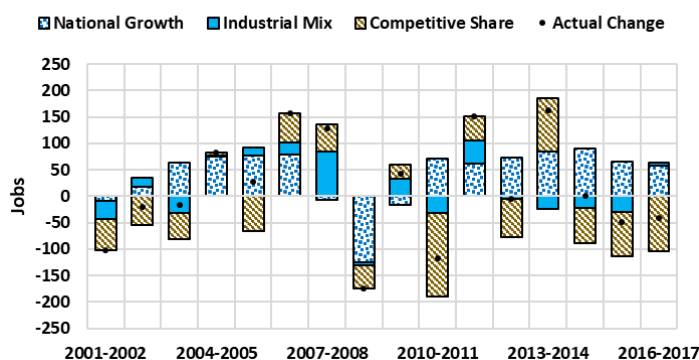
Looking at the adjustments over the entire 16 periods of change, Weston County grew slower than the national average by -432 jobs, which equals Actual Change (225) minus National Growth (657). The Industrial Mix bolstered employment by 43 jobs, while the Competitive Share lessened employment by -475 jobs.

**Weston County Chart 3. Range of Employment Change Results for Wyoming Counties 2001-17**



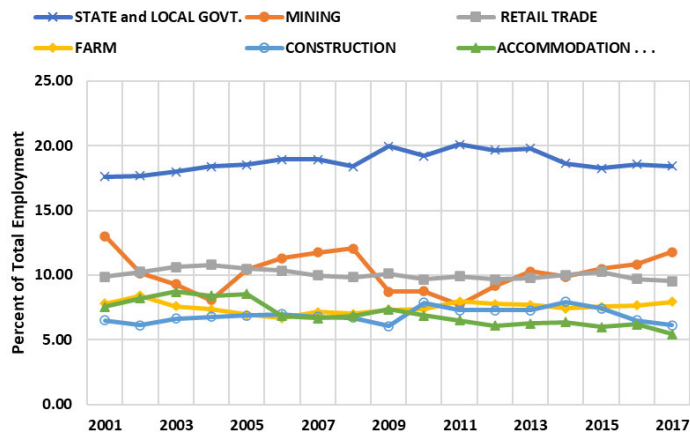
Weston County Chart 3. Range of employment change

**Weston County Chart 4 Shift-Share Analysis of 2001-17 Employment Changes**



Weston County Chart 4. Shift-share analysis

**Weston County Chart 5. Top Employment Sectors 2001-17 Ranked by 2017 Percentages**



Weston County Chart 5. Top employment sectors

Shifting the focus from total employment to the changes occurring in the individual industrial sectors enhances our understanding of forces of change. Weston County Chart 5 displays the relative proportion of employment by the top six sectors (ranked with 2017 data) over the 2001–17 time period. The top six sectors account for about 60 percent of the employment in the region.

STATE and LOCAL GOVERNMENT employment was the largest sector by a substantial degree over the entire 17 years studied. This sector accounts for nearly 1 in 5 jobs in the county.

MINING is the second largest sector in 2017. The dynamic nature of this sector is reflected in relative share of total employment.

RETAIL TRADE is the next largest sector. This sector has been relatively stable. FARM, CONSTRUCTION and ACCOMMODATION employment complete the list of top six employer sectors. It is notable to see the key role that FARM jobs play in Weston County's economy.

## SUMMARY

Weston County's total employment from 2001–17 peaked at 108.4 percent of its 2001 level in 2015. This is lower than both the U.S. (118.5) and Wyoming (123.0) values. It dropped below its starting value 5 times, the latest time being in 2006. It had 8 periods of increasing and 8 periods of declining employment. It grew faster than the U.S. 6 times and Wyoming 6 times. Overall, its employment change was weak when compared to all Wyoming counties, exceeding the average 6 times and recording 0 top and 1 bottom (2010–11) percentage changes. Its mix of industries was positive in 8 of the 16 time periods. Its competitive share was positive 6 times. Over the entire 16 periods of change, Weston County grew slower than the national average by -432 jobs. STATE and LOCAL GOVERNMENT employment is by far the top sector in the county. MINING, RETAIL TRADE and FARM jobs round out the next three top employment sectors.

## REFERENCES

Hustedde, Ronald J., Shaffer, R., and Pulver, G., 2005. Community Economic Analysis: A How to Manual. North Central Regional Center for Rural Development, Iowa State University, 108 Curtiss Hall, Ames, IA 50011.



## APPENDIX I

**Table 5. Description of Major Employment Categories by Woods & Poole Economics, Inc.**

#	Category
<b>1 FARM</b>	Establishments such as farms, orchards, greenhouses, and nurseries primarily engaged in the production of crops, plants, vines, trees (excluding forestry operations), and specialties such as Christmas trees, sod, bulbs, and flower seed. It also includes establishments such as ranches, dairies, feedlots, egg production facilities, and poultry hatcheries, primarily engaged in the keeping, grazing, or feeding of cattle, hogs, sheep, goats, poultry of all kinds, and special animals such as horses, bees, pets, fish farming, and animals raised for fur.
<b>2 FORESTRY, FISHING, RELATED ACTIVITIES and OTHER</b>	Establishments primarily engaged in harvesting timber and harvesting fish and other animals from their natural habitats. The sector also includes agricultural support establishments that perform one or more activities associated with farm operations, such as soil preparation, planting, harvesting, and management, on a contract or fee basis.
<b>3 MINING</b>	Establishments that extract naturally occurring mineral solids (e.g., coal and ores), liquid minerals (e.g., crude petroleum), and gases (e.g., natural gas.) Mining includes quarrying, well operations, beneficiating (e.g., crushing, screening, washing, and flotation), and other preparation customarily performed at the mine site or as a part of mining activity.
<b>4 UTILITIES</b>	Establishments engaged in the provision of electric power, natural gas, steam supply, water supply, and sewage removal. Utilities include electric power generation, electric power transmission, electric power distribution, natural gas distribution, steam supply provision, steam supply distribution, water treatment, water distribution, sewage collection, sewage treatment, and disposal of waste through sewer systems and sewage treatment facilities.
<b>5 CONSTRUCTION</b>	Establishments primarily engaged in building new structures and roads, alterations, additions, reconstruction, installations, and repairs. It includes general contractors engaged in building residential and nonresidential structures; contractors engaged in heavy construction, such as bridges, roads, tunnels, and pipelines; and special trade contracting, such as plumbing, electrical work, masonry, and carpentry.
<b>6 MANUFACTURING</b>	Establishments engaged in the mechanical, physical, or chemical transformation of materials, substances, or components into new products. The assembling of component parts of manufactured products is considered manufacturing, except in cases where the component parts are associated with structures. Manufacturing establishments can be plants, factories, or mills as well as bakeries, candy stores, and custom tailors. Manufacturing establishments may either process materials or may contract with other establishments to process their materials for them.
<b>7 WHOLESALE TRADE</b>	Establishments engaged in wholesaling merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. The merchandise described in this sector includes the outputs of agriculture, mining, manufacturing, and certain information industries, such as publishing. Wholesale establishments are primarily engaged in selling merchandise to retailers or to industrial, commercial, institutional, farm, construction contractors or to professional business users or to other wholesalers or brokers.

**Table 5. Description of Major Employment Categories by Woods & Poole Economics, Inc.**

#	Category
<b>8</b>	<b>RETAIL TRADE</b> Establishments engaged in retailing merchandise, generally without transformation, and rendering services incidental to the sale of merchandise. Retail trade includes store retailers such as motor vehicle and parts dealers including automobile, motorcycle and boat dealers as well as tire and automobile parts stores; furniture and home furnishing stores; electronics and appliance stores; food and beverage stores, including supermarkets, convenience stores, butchers, and bakeries; health and personal care stores such as pharmacies and optical goods stores; gasoline stations; clothing and clothing accessory stores; sporting goods, hobby, book and music stores; department stores; and miscellaneous establishments, including office supply stores, mobile home dealers, thrift shops, florists, tobacco stores, and pet shops.
<b>9</b>	<b>TRANSPORTATION and WAREHOUSING</b> Industries providing transportation of passengers and cargo and warehousing and storage for goods. Establishments in these industries use transportation equipment or transportation related facilities as a productive asset. Transportation includes railroads, highway passenger transportation, trucking, shipping, air transportation, pipelines, and transportation services.
<b>10</b>	<b>INFORMATION</b> Establishments engaged in producing and distributing information and cultural products; providing the means to transmit or distribute these products as well as data or communications; and processing data. The main components of this sector are the publishing industries, including software publishing, and both traditional publishing and publishing exclusively on the Internet; the motion picture and sound recording industries; movie theaters; the broadcasting industries, including traditional broadcasting and those broadcasting exclusively over the Internet; the telecommunications industries; the industries known as Internet service providers and Web search portals; data processing industries; and the information services industries.
<b>11</b>	<b>FINANCE and INSURANCE</b> Establishments primarily either engaged in or facilitating financial transactions (e.g., transactions involving the creation, liquidation, or change in ownership of financial assets.) Establishments include depository institutions, such as commercial banks, credit unions savings and loans, and foreign banks; credit institutions; credit card processing; investment companies; brokers and dealers in securities and commodity contracts; security and commodity exchanges; carriers of all types of insurance; insurance agents and insurance brokers. Also included are central banks and monetary authorities charged with monetary control.
<b>12</b>	<b>REAL ESTATE and RENTAL and LEASE</b> Establishments primarily engaged in renting, leasing, or otherwise allowing the use of tangible or intangible assets, and establishments providing related services. Real estate includes real estate leasing establishments, real estate agencies and brokerages, property management establishments, appraisals establishments, and escrow agencies. Rental and leasing include car and truck rental, consumer goods rentals such as video stores and formal wear rental stores, and commercial equipment renting and leasing construction, transportation, office and farm equipment. Also included are establishments that lease nonfinancial and noncopyrighted intangible assets such as patents and trademarks.

**Table 5. Description of Major Employment Categories by Woods & Poole Economics, Inc.**

#	Category
13	<p><b>PROFESSIONAL and TECHNICAL SERVICES</b></p> <p>Establishments that specialize in performing professional, scientific, and technical activities for others. These activities include legal advice and representation; accounting, bookkeeping, and payroll services; architectural, engineering, and specialized design services; computer services; consulting services; research services; advertising services; photographic services; translation and interpretation services; veterinary services; and other professional, scientific, and technical services.</p>
14	<p><b>MANAGEMENT of COMPANIES and ENTERPRISES</b></p> <p>Includes bank holding establishments, other holding establishments, corporate management establishments as well as regional and subsidiary management establishments. Company or enterprise headquarters are included.</p>
15	<p><b>ADMINISTRATIVE and WASTE SERVICES</b></p> <p>Establishments engaged in office administration, hiring and placing of personnel, document preparation and similar clerical services, solicitation, collection, security and surveillance services, cleaning, and waste disposal services. Among many other establishments administrative includes call centers, telemarketers, janitorial services, armored cars, temporary employment agencies, locksmiths, landscaping, and travel agencies. Waste management includes, among other establishments, solid waste collections and disposal, landfill operations and septic tank maintenance.</p>
16	<p><b>EDUCATIONAL SERVICES</b></p> <p>Includes private elementary schools, junior colleges, colleges, universities, and professional schools. Also included are trade and vocational schools, business and secretarial schools, computer training services, language schools, fine arts training, sports training establishments, driving schools, flight schools and establishments that provide test preparation and tutoring.</p>
17	<p><b>HEALTH CARE and SOCIAL ASSISTANCE</b></p> <p>Includes establishments providing health care and social assistance for individuals. Health care establishments include ambulatory care services (e.g., physician offices, dentists, specialists, HMOs, dialysis centers, blood banks, ambulance services), hospitals, and nursing and residential care facilities. Social assistance establishments include individual and family services (e.g., adoption agencies and youth centers) and community services such as food banks and homeless shelters.</p>
18	<p><b>ARTS, ENTERTAINMENT, and RECREATION</b></p> <p>Includes establishments involved in producing, promoting, or participating in live performances, events, or exhibits intended for public viewing; establishments that preserve and exhibit objects and sites of historical, cultural, or educational interest; and establishments that operate facilities or provide services that enable patrons to participate in recreational activities or pursue amusement, hobby, and leisure time interests. The sector includes establishments engaged in the performing arts, sporting events, museums, zoos, amusement and theme parks, golf courses, marinas, casinos, and gambling establishments.</p>
19	<p><b>ACCOMMODATION and FOOD SERVICES</b></p> <p>Includes hotels, motels, casino hotels, bed and breakfasts, campgrounds and recreational vehicle parks and other lodging places as well as eating and drinking places, including restaurants, bars, and take-out stands. Also included are caterers and food service contractors.</p>

**Table 5. Description of Major Employment Categories by Woods & Poole Economics, Inc.**

#	Category
<b>20</b>	<b>OTHER SERVICES, EXCEPT PUBLIC ADMINISTRATION</b> Includes churches and establishments engaged in equipment and machinery repairing, promoting or administering religious activities, grant-making, advocacy, and establishments providing dry cleaning and laundry services, personal care services, death care services, pet care services, photofinishing services, temporary parking services, and dating services. Private households that engage in employing workers on or about the premises in activities primarily concerned with the operation of the household are included in this sector.
<b>21</b>	<b>FEDERAL CIVILIAN GOVERNMENT</b> Includes all federal government workers regardless of their establishment classification. Federal civilian employment includes executive offices and legislative bodies; courts; public order and safety; correctional institutions; taxation; administration and delivery of human resource programs, such as health, education, and public assistance services; housing and urban development programs; environmental programs; regulators, including air traffic controllers and public service commissions; the U.S. Postal Service; and other federal government agencies.
<b>22</b>	<b>FEDERAL MILITARY</b> Includes Air Force, Army, Coast Guard, Marine Corps, Merchant Marine, National Guard, and Navy. Personnel deployed abroad are counted in their home base or port. Reserves who receive regular training are included.
<b>23</b>	<b>STATE and LOCAL GOVERNMENT</b> Defined the same as federal civilian except that the activities are run by state and local governments. At the local level, this includes all public schools as well as police and fire departments; at the state level, it includes all public junior colleges, colleges, and universities.
*The employment data in the Woods & Poole database are a complete measure of the number of full- and part-time jobs by place of work. The employment data include wage and salary workers, proprietors, private household employees, and miscellaneous workers. Earnings of employees are the sum of wages and salaries, other labor income, and proprietors' income. Earnings also include personal contributions for social insurance, but does not include residence adjustment.	







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