WYOMING LABOR FORCE December 2018

TRENDS

Vol. 55 No. 12 Research & Planning

R&P Publishes New Study on Wyoming's Gender Wage Gap

by: Michael Moore, Editor

The purpose of this article is to provide an introduction to* Gender Wage Disparity in Wyoming: Update 2018*, a new report on Wyoming's gender wage gap by the Research & Planning section of the Wyoming Department of Workforce Services. The report and several supplemental materials are available at https://doe.state.wy.us/LMI/WYWageGap2018.htm.

In 2017, the Wyoming Joint Labor, Health, and Social Services Interim and The Joint Minerals, Business, and Economic Development Interim committees tasked the Wyoming Department of Workforce Services (DWS) with completing a study on the state's gender wage gap. House Bill 0209 (2017) provided specific language that directed the efforts of the Research & Planning (R&P) section of DWS, including data and analysis by county and occupation, a comparison of Wyoming data to other state and federal information, identifying the causes of wage disparities, the impacts of wage disparities on Wyoming's economy, possible solutions to the wage gap, and the benefits and costs of eliminating the wage gap.

In October 2018, R&P published *Gender Wage Disparity in Wyoming: Update 2018*, an update to a similar report published in 2003 by the University of Wyoming. In order to address the specific directions of House Bill 0209, R&P selected a multifaceted method based on the availability of data and the analysts on staff. Analysts looked at issues related to wage disparity from multiple angles and then combined the results into a single publication.

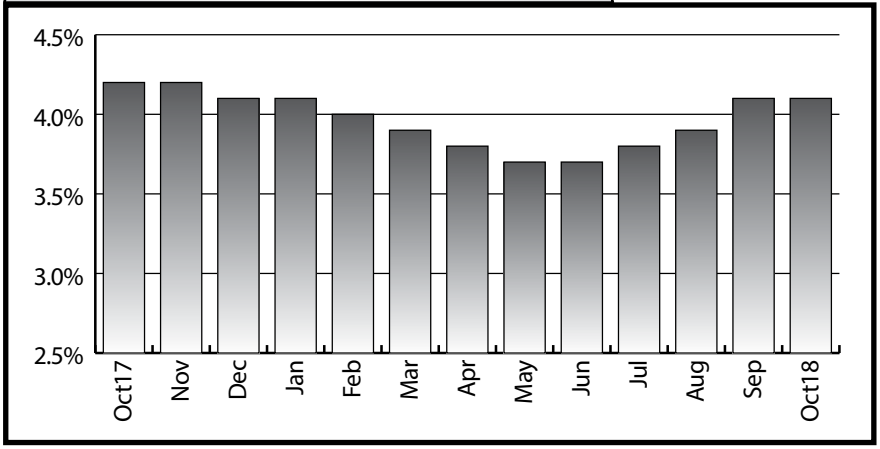
This article is intended to introduce readers to the report, the methodology behind the research, and some of the key findings presented in *Update 2018*.

(Text continued on page 3)

HIGHLIGHTS

- **The number of occupational fatalities in Wyoming fell from 34 in 2016 to 20 in 2017 — a decrease of 14 deaths, or 41.2%, according to the Census of Fatal Occupational Injuries. In 2017, occupational fatalities were at their lowest level since 2009. … *page 19***
- **Nearly one in four (22.5%) persons working in Wyoming in 2018Q1 commuted from another county or state. … *page 20***

Wyoming Unemployment Rate by Month, October 2017 to October 2018 (Seasonally Adjusted)



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Wyoming Labor Force Trends

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ISSN 0512-4409

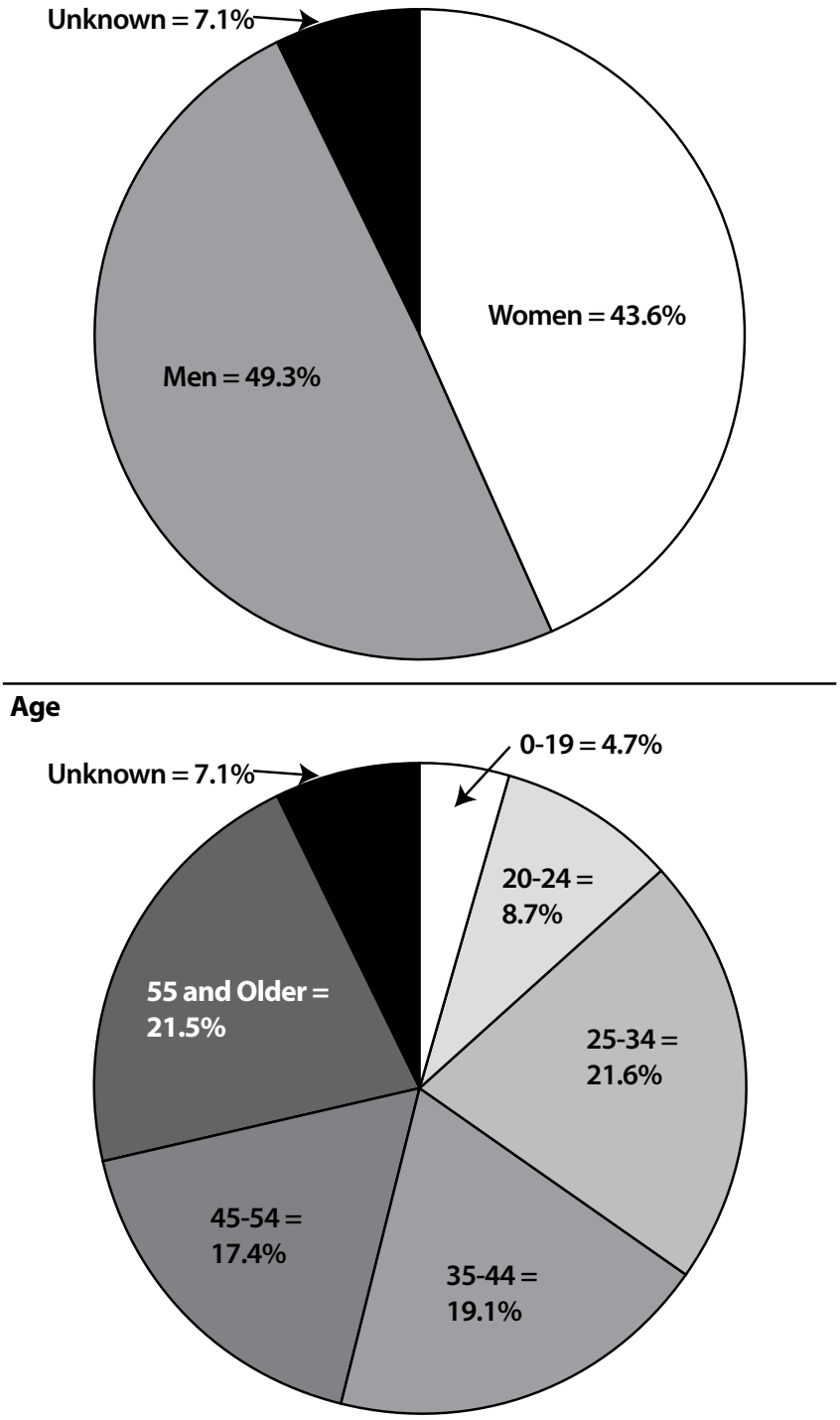
(Text continued from page 1)

The full report and supplemental materials are available online at https://doe.state.wy.us/LMI/WYWageGap2018.htm.

About the Data

The research presented in *Update 2018* utilized administrative data from DWS, the Wyoming Department of Health, Wyoming Community College Commission, University of Wyoming, Wyoming Department of Transportation (WYDOT), and state health care licensing boards. Many of the data sources contained more than 20 years of microdata on Wyoming's labor force. Analysts also used survey data from the U.S. Bureau of Labor Statistics and the U.S. Census Bureau's American Community Survey. It is important to understand that although the data used in this report were extensive, they were also incomplete, as discussed in this section.

According to Wyoming Unemployment Insurance (UI) Wage Records, there were 272,385 individuals working in Wyoming at any time in 2016. By linking

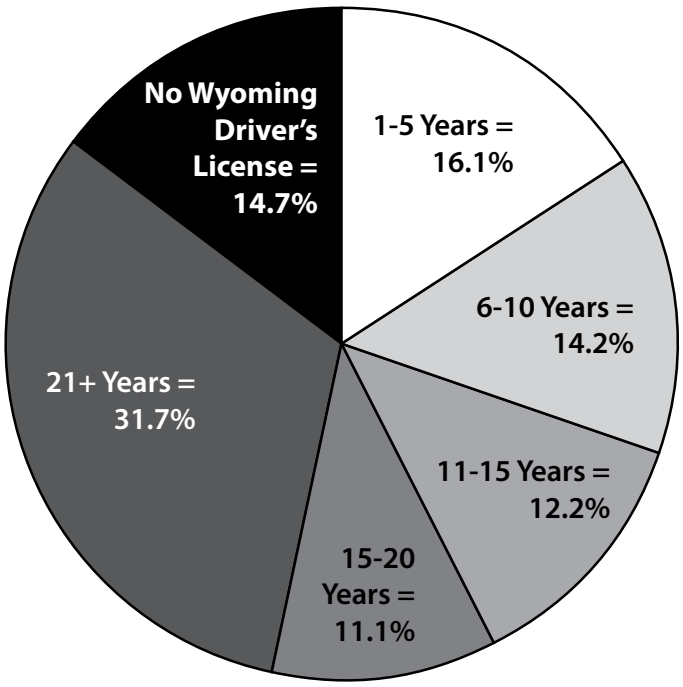


Custom extract from Wage Records and other Research & Planning administrative databases.
Prepared by M. Moore, Research & Planning, WY DWS, 11/26/18.

Figure 1: Total Persons Working in Wyoming by Gender and Age, 2016

Wage Records with other administrative databases, such as driver's license data from WYDOT and UI claims data, R&P analysts were able to identify gender and age for 92.9% of the individuals working in Wyoming in 2016. Gender and age were unknown for the remaining 7.1% of those working in Wyoming. As shown in Figure 1 (see page 3), women accounted for 43.6% of all persons working in Wyoming in 2016, while men accounted for 49.3%. Figure 1 also shows individuals ages 25-34 made up the largest proportion of those working in Wyoming (21.6%), followed by those ages 55 and older (21.5%), 35-44 (19.1%), and 45-54 (17.4%).

Figure 2 illustrates attachment to Wyoming's labor force via a Wyoming driver's license. Of all persons working in Wyoming in 2016, more than half (55.0%) had a Wyoming driver's license for 11 or more years, and nearly a third (31.7%) had one for 21 years or more. An additional 14.7% (40,088) of people working in Wyoming did not have a Wyoming driver's license, the majority of who were likely individuals who commuted to Wyoming for work from another state.



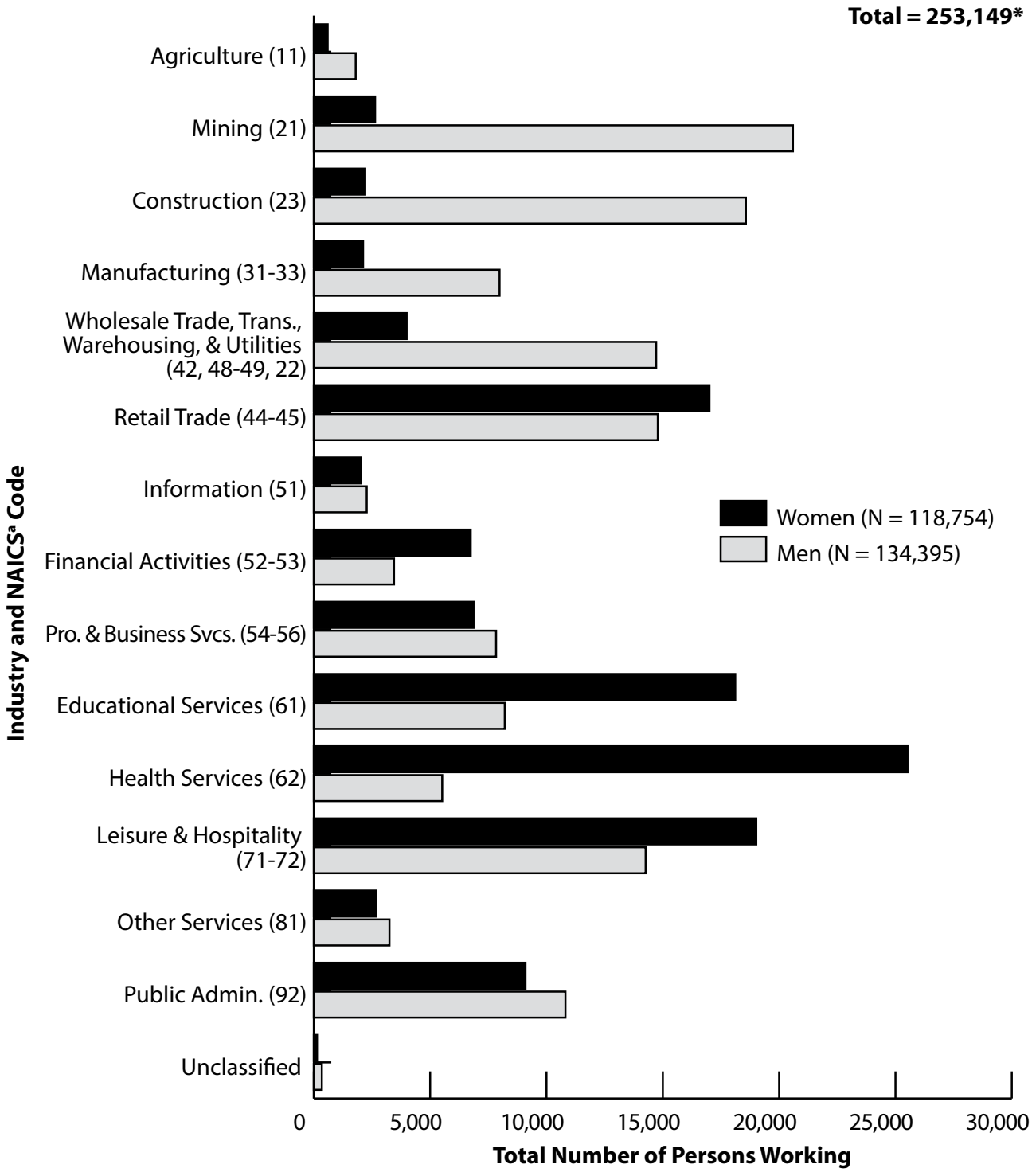
Custom extract from Wage Records and other Research & Planning administrative databases.
Prepared by M. Moore, Research & Planning, WY DWS, 11/26/18.

Figure 2: **Number of Years with a Wyoming Driver's License for Persons Working in Wyoming, 2016**

Figure 3 (see page 5) shows the primary industry of employment over the lifetime of the individuals working in Wyoming in 2016 by gender. Figure 3 illustrates the difference in labor force behavior between men and women in Wyoming. Over the course of their lifetime, men tend to work in goods-producing industries such as mining, construction, and manufacturing, along with the service-providing industries of wholesale trade, transportation, warehousing, & utilities. Conversely, women tend to work in service-providing industries such as educational services, health services, and leisure & hospitality. The importance of industry of employment with regard to Wyoming's gender wage gap will be discussed in the key findings section of this article.

R&P has enrollment and graduation data from

(Text continued on page 6)



*Excludes 19,236 with unknown gender.
[a]North American Industry Classification System.
Source: Custom extract from Wage Records and other Research & Planning databases.
Prepared by T. Glover, Research & Planning, WY DWS, 11/26/18.

Figure 3: **Number of Persons Working in Wyoming in 2016 by Gender and Primary Lifetime Industry of Employment**

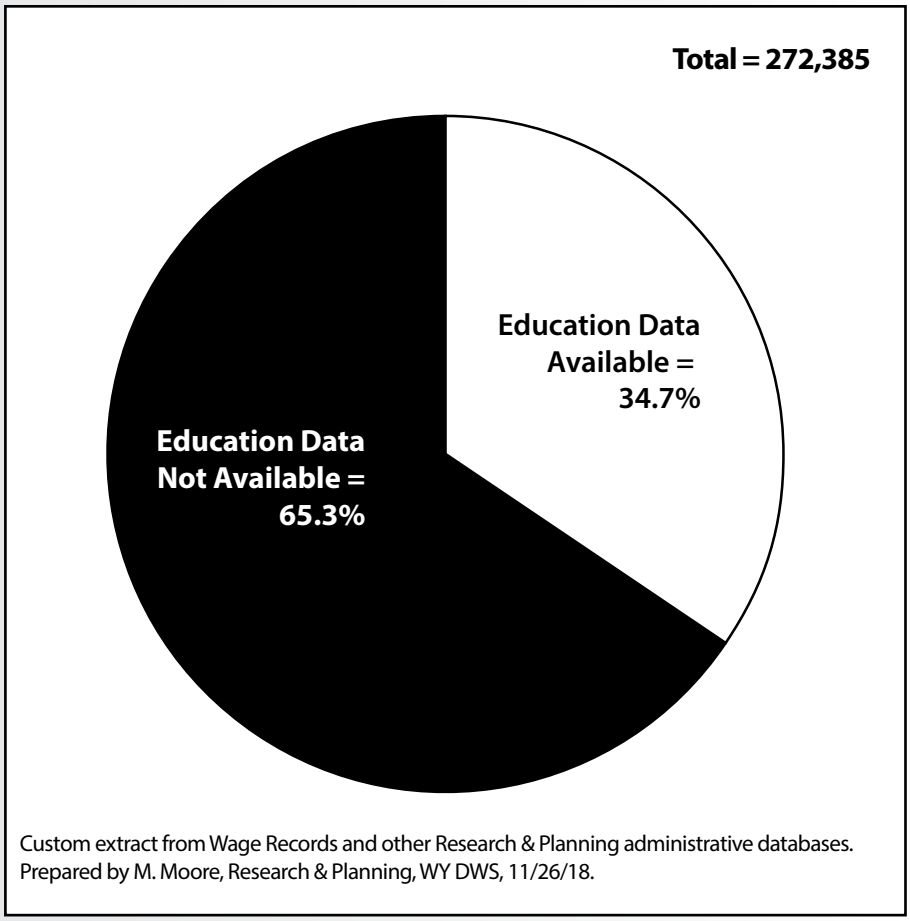
(Text continued from page 4)

Wyoming's secondary schools, community colleges, and the University of Wyoming from 2006 to present. However, as illustrated in Figure 4, R&P only had access to education data for 34.7% of all persons working in Wyoming in 2016. The remaining 65.3% received education at an earlier time or in another state or country.

As discussed in the key findings section of this article, the number of hours worked by a person played a substantial role in Wyoming's gender wage gap in 2016. Hours are a voluntary field attached to UI Wage Records, so R&P was missing hours worked data for 35.9% of all persons working in Wyoming in 2016 (see Figure 5, page 7). Data for hours worked were submitted for approximately 74% of all submissions; after quality assurance standards were applied to the data, R&P had hours worked data for 64.1% of persons working. As noted by Glover (2018), data on the number of hours worked are important because those data make it possible to establish an hourly rate of pay, which is more appropriate to analyze than total wages paid in the year.

The availability of hours worked allowed R&P to calculate full-time equivalency ratios, which are defined as the number of hours worked in a year compared to 2,080 potential hours (40 hours per week times 52 weeks). As shown in Figure 6 (see page 7), men were more likely to work more than full-time (more than 100% of 2,080 hours), while women were more likely to work full-time or less (100% or less of 2,080 hours). Full-time equivalencies were not available for nearly half of all men and women working in Wyoming in 2016.

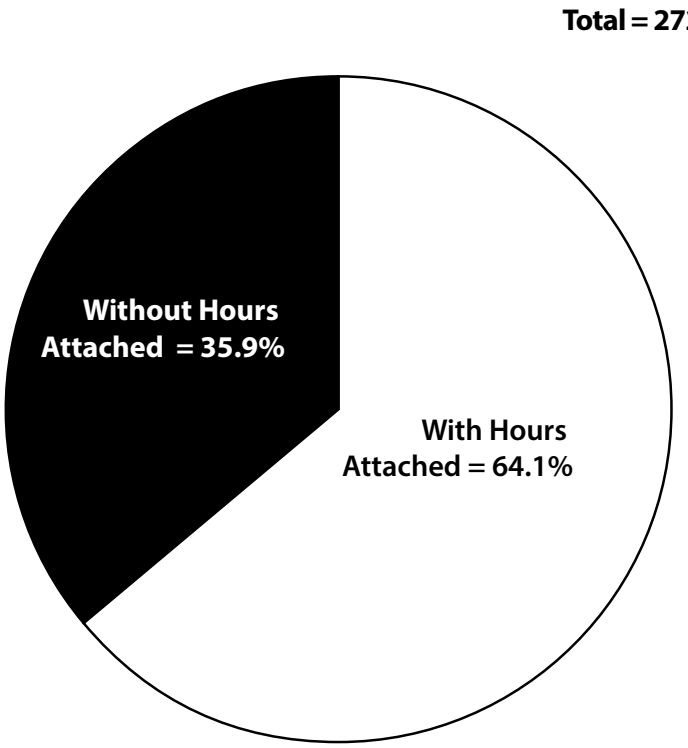
Occupation data are not collected with UI Wage Records. In order to identify occupation for this report, R&P used the resources it had available, such as the Wyoming Department of Education staffing files, Wyoming State Auditor employee



Custom extract from Wage Records and other Research & Planning administrative databases.
Prepared by M. Moore, Research & Planning, WY DWS, 11/26/18.

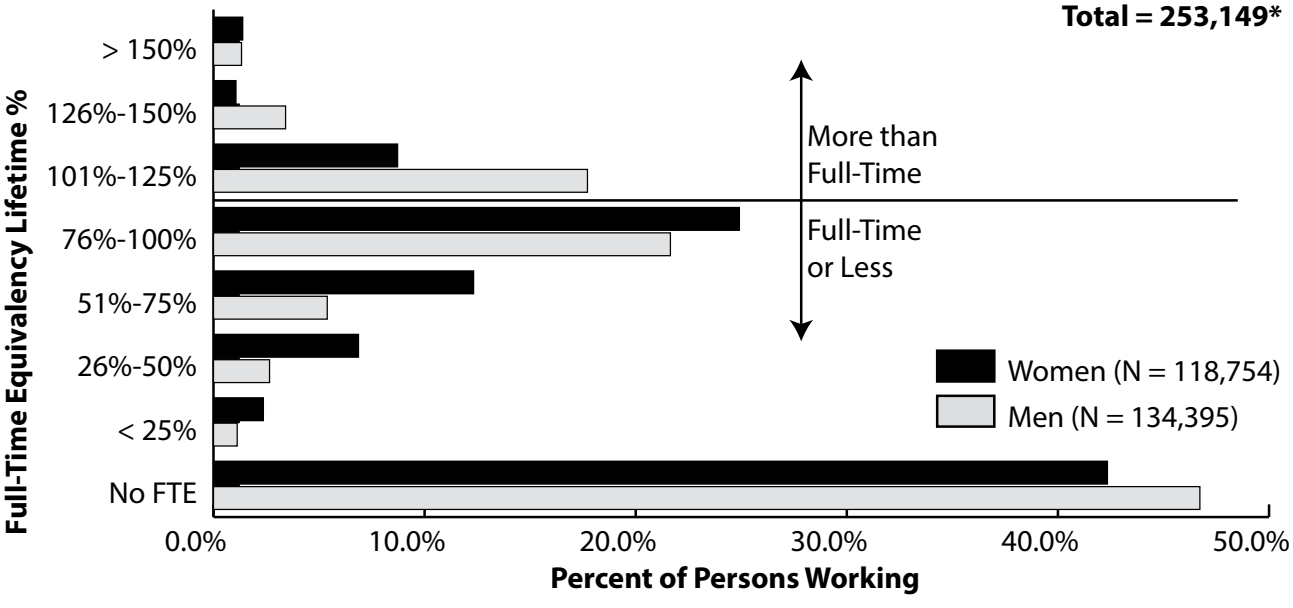
Figure 4: **Availability of Education Data for Persons Working in Wyoming, 2016**

files, state health care licensing board data, and New Hires Job Skills Survey data. Because of these limitations, R&P was only able to identify occupations for 23.2% of all persons working in Wyoming in 2016 (see Figure 7, page 8). Because these data sources represented industries that traditionally employ more women than men in Wyoming — particularly educational services and health services — occupation data were available for disproportionately more women (34.1%) than men (16.3%; see Figure 8, page 8).



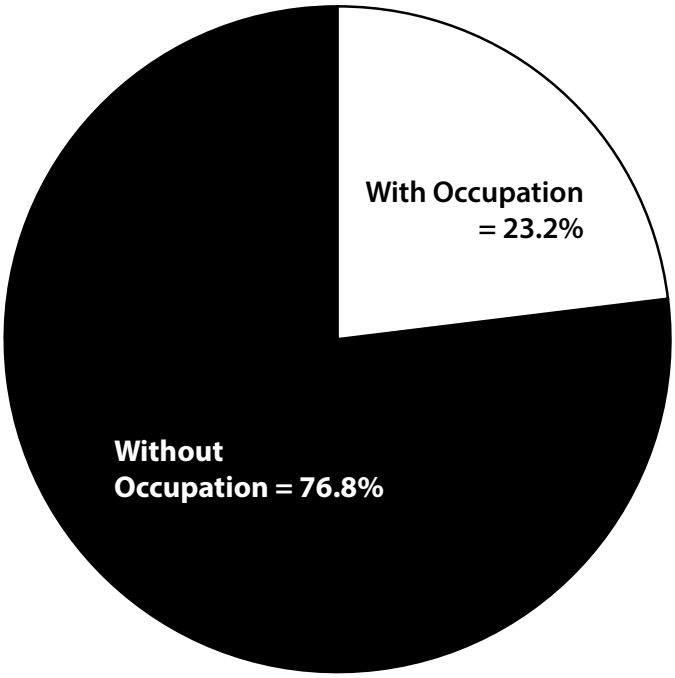
Custom extract from Wage Records and other Research & Planning administrative databases.
Prepared by M. Moore, Research & Planning, WY DWS, 11/26/18.

Figure 5: **Percent of Records with Hours Worked in Wyoming, 2016**



*Excludes 19,236 with unknown gender.
Full-time equvialency = 2,080 hours worked per year.
Source: Custom extract from Wage Records and other Research & Planning databases.
Prepared by T. Glover, Research & Planning, WY DWS, 11/26/18.

Figure 6: **Persons Working in Wyoming in 2016 by Gender and Lifetime Percent of Full-time Equivalency**

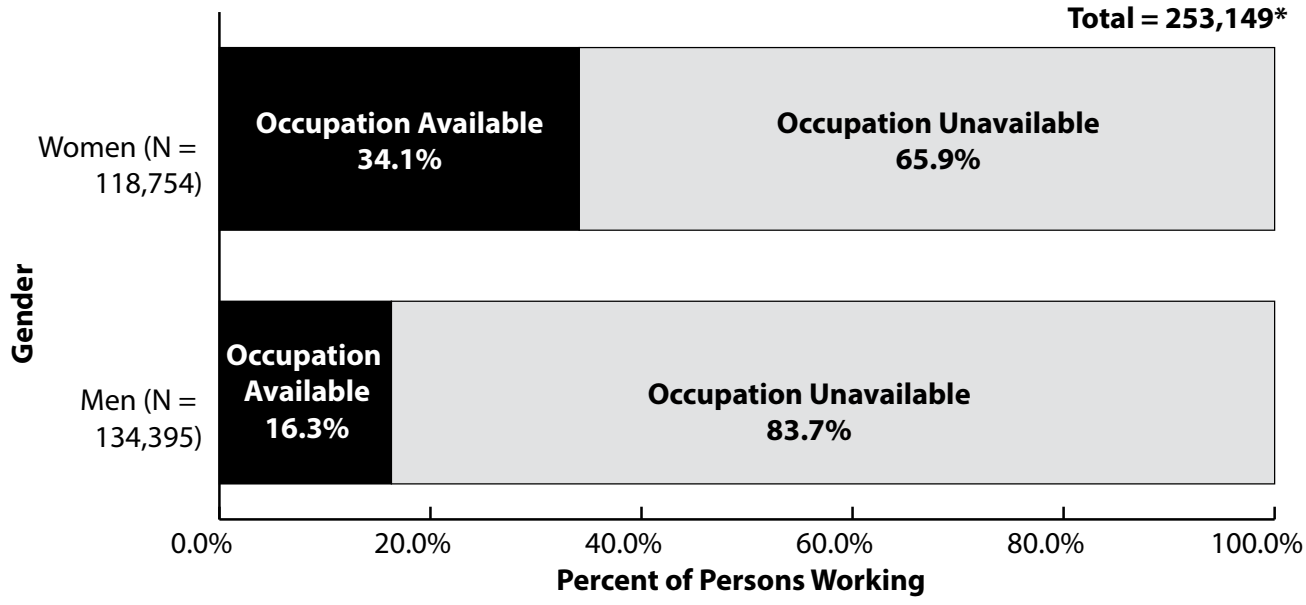


Custom extract from Wage Records and other Research & Planning administrative databases.
Prepared by M. Moore, Research & Planning, WY DWS, 11/26/18.

Figure 7: **Availability of Occupation Data for Persons Working in Wyoming, 2016**

Key Findings

It is imperative for the reader to understand that Wyoming's gender wage gap varies depending on the data source that is used and the restrictions placed upon the data, and that different chapters in *Update 2018* used different data in order to address the issues presented in House Bill 0209 as thoroughly as possible; examples of these differences are shown in Table 1 (see page 9). For example, Chapter 1 used five-year estimates from the U.S. Census Bureau's American Community



*Excludes 19,236 with unknown gender.
Source: Custom extract from Wage Records and other Research & Planning databases.
Prepared by T. Glover, Research & Planning, WY DWS, 11/26/18.

Figure 8: **Availability of Occupation Data for Persons Working in Wyoming by Gender, 2016**

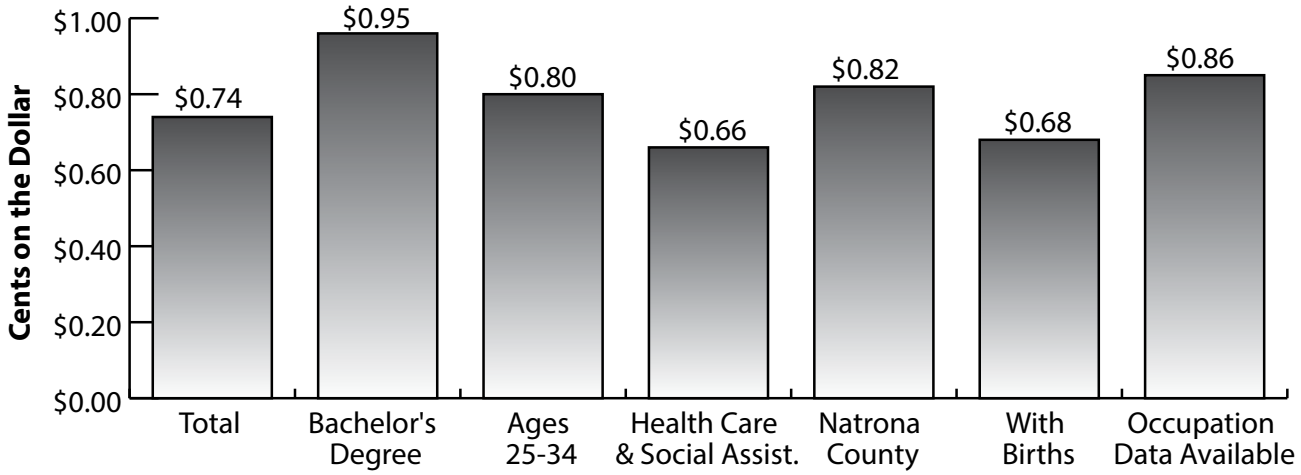
Survey to show that women who worked full-time and year-round in Wyoming earned $0.68 on the dollar compared to men, the second lowest in the nation, compared to Louisiana. By comparison, Chapter 2 used R&P administrative data to show that among people who worked in Wyoming in 2016 and had at least two consecutive quarters of employment, women earned $0.74 on the dollar. The analysis in Chapter 3 also used R&P administrative data, but limited the scope to only instances where occupational data were available for at least five men and five women in the same occupation from 2005 to 2017; in that chapter, the author showed that women earned $0.86 on the dollar.

Even when using the same data source, the gender wage gap varied when different restrictions were placed upon the data. This is illustrated in Figure 9, which shows women's earnings in cents on a man's dollar from Chapter 2 based on R&P administrative data. As previously mentioned, among individuals working in 2016 with at least two consecutive quarters of employment, women earned $0.74 on the dollar on average. But among individuals with a bachelor's degree, women earned $0.95 on the dollar, and for individuals with any number of births in Wyoming, women earned $0.68 on the dollar on average.

Table 1: **Examples of Gender Wage Gap in Wyoming, Data Source, and Restrictions Placed Upon the Data, 2016**

Chapter	Wage Gap[a]	Data Source	Restrictions
1	$0.68	American Community Survey 5-Year Estimates	Worked full-time, year-round
2	$0.74	R&P Administrative Data	Worked in 2016, at least 2 consecutive quarters
3	$0.86	R&P Administrative Data	Worked at least 2 consecutive quarters, 2005-2017, with occupation data available for at least 5 men and 5 women

[a]Women's earnings as cents on a man's dollar.
Source: Gender Wage Disparity in Wyoming: Update 2018.
Prepared by M. Moore, Research & Planning, WY DWS, 11/26/18.



Source: Custom extract from Wage Records and other Research & Planning administrative databases.
Prepared by L. Mohondro, Research & Planning, WY DWS, 4/5/18.

Figure 9: **Cents Women Earn on a Man's Dollar by Selected Characteristics, 2016**

County of Employment

Wyoming's gender wage gap varied by county of employment. In Wyoming's two most populous counties, Laramie and Natrona, women were paid $0.80 and $0.82 on the dollar, respectively (see Table 2). Counties in which mining made up a substantial proportion of all jobs had some of the largest wage gaps, including Sweetwater ($0.59 on the dollar), Sublette ($0.62), and Campbell ($0.66) counties. Niobrara ($0.99 on the dollar) and Goshen ($0.90), two of Wyoming's least populous counties, had two of the narrowest gaps.

Table 2: Average Hourly Wage for Persons Working in Wyoming by Gender and County of Employment, 2016

County	Women	Men	Cents on the Dollar (W/M)
Total	**$20.89**	**$28.10**	**$0.74**
Albany	$20.26	$25.53	$0.79
Big Horn	$19.24	$25.26	$0.76
Campbell	$20.33	$31.02	$0.66
Carbon	$19.33	$27.32	$0.71
Converse	$19.22	$28.49	$0.67
Crook	$20.35	$26.39	$0.77
Fremont	$19.63	$25.16	$0.78
Goshen	$20.86	$23.30	$0.90
Hot Springs	$19.45	$25.20	$0.77
Johnson	$18.15	$23.87	$0.76
Laramie	$20.90	$26.05	$0.80
Lincoln	$18.29	$30.23	$0.61
Natrona	$23.46	$28.63	$0.82
Niobrara	$20.90	$21.13	$0.99
Park	$20.24	$25.95	$0.78
Platte	$21.21	$30.08	$0.71
Sheridan	$19.48	$23.93	$0.81
Sublette	$21.23	$33.97	$0.62
Sweetwater	$20.56	$34.61	$0.59
Teton	$24.82	$26.63	$0.93
Uinta	$18.18	$27.41	$0.66
Washakie	$19.80	$26.49	$0.75
Weston	$17.40	$25.79	$0.67

Source: Custom extract from Wage Records and other Research & Planning databases.

Prepared by E. Gagne, Research & Planning, WY DWS, 8/13/18.

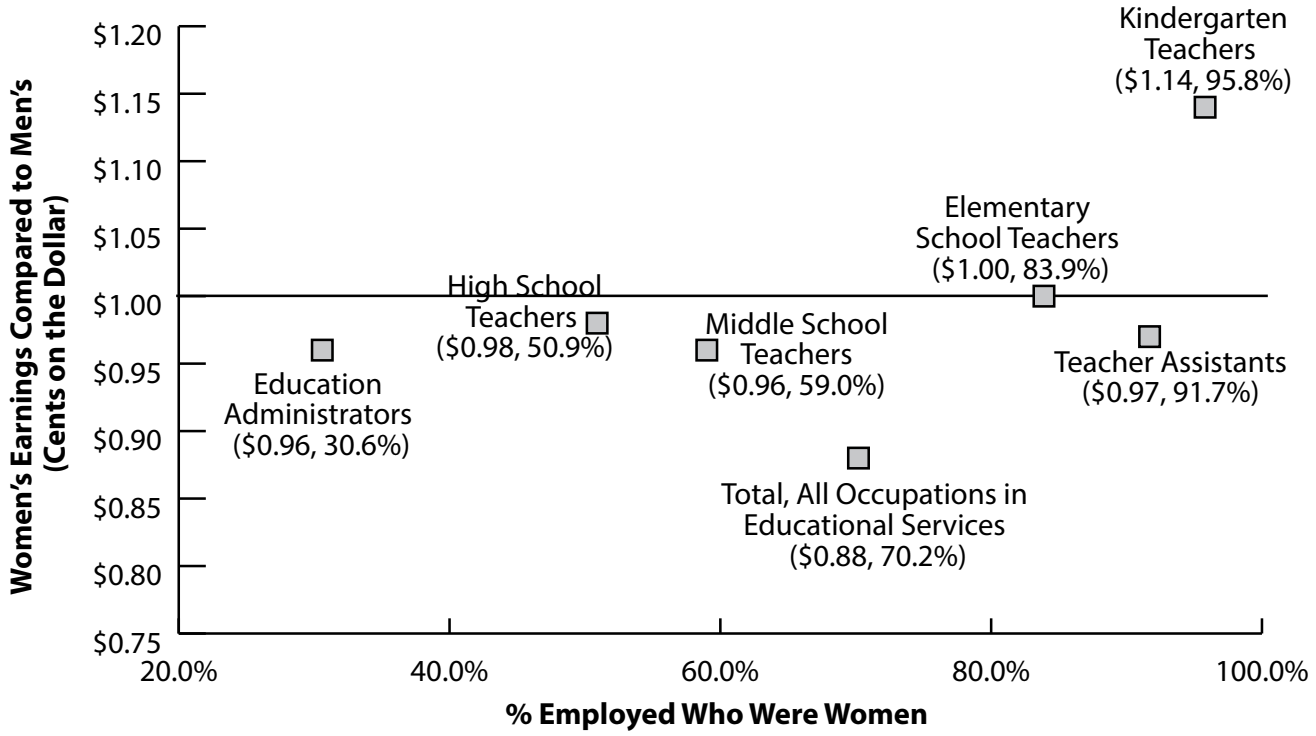
Education Occupations

The gender wage gap was narrower in many occupations in the educational services industry, which employs a large number of women in occupations requiring a postsecondary education. Among teachers, the wage disparity varied from women earning $0.96 on a man's dollar for middle school teachers to $1.14 on a man's dollar for kindergarten teachers (see Figure 10, page 11).

Occupational Analysis

As previously mentioned, occupation data are not collected with UI Wage Records, which limited the amount of data available for R&P in this research. With the data available, R&P was able to perform an analysis by occupation on 30,536 men and 56,185 women working in Wyoming between 2005 and 2017. Of the 228 occupations analyzed, 81 occupations had statistically significant wage differences: in 76, men were paid more than women and in five, women were paid more than men. The remaining 147 occupations showed no statistically significant difference in wages between men and women.

Table 3 (see page 12) includes a sample of occupations that showed a statistically significant difference in wages between men and women. For example, women earned $0.90 on the dollar as accountants and auditors and $0.95 on the dollar as nursing assistants; in both of these occupations, men earned significantly more than women, based on results from a Wilcoxon ranked sum test. In contrast, women earned $1.05 on the dollar as training & development specialists and $1.03 on the dollar as executive secretaries & administrative assistants, both of which



Source: Custom extract from Wage Records and other Research & Planning databases.
Prepared by M. Moore, Research & Planning, WY DWS, 9/13/18.

Figure 10: Women's Earnings Compared to Men's Earnings (Cents on the Dollar) and Percent of Individuals Who Were Women in Selected Occupations in Educational Services in Wyoming, 2016

were significantly more than men.

Results of all 228 occupations analyzed are available in Appendix Table 3.2 at https://doe.state.wy.us/LMI/WYWageGap2018/Update_2018_Appendix.pdf.

National & State Comparison

Among full-time, year-round workers, women in the United States were paid approximately $0.80 on the dollar paid to men in 2016. However, during that same year, women in Wyoming were paid $0.68 for every $1 paid to men, ranking the state 51st in terms of gender wage gap (see Table 4, page 13).

In Wyoming, women made up 92.3% of persons working in healthcare support occupations, compared to 85.7% nationally and 78.0% in the Salt Lake City Metropolitan Statistical Area (see Figure 11, page 14). Many of these occupations had relatively low hourly wages, particularly nursing assistants: according to Occupational Employment Statistics for Wyoming, the average hourly wage for nursing assistants in 2016 was $15.41. The large proportion of women working in healthcare support occupations was the largest difference between men and women in all of the selected regions and occupations. On the other hand, women

(Text continued on page 13)

Table 3: **Number of Persons Working in Wyoming and Mean Hourly Wage by Gender and Selected Detailed Occupation (6-Digit SOC[a]), 2005-2017**
Excerpted from Appendix Table 3.2, available at https://doe.state.wy.us/LMI/WYWageGap2018/Update_2018_Appendix.pdf.

			Women		Men		Hourly Wage Difference		
	SOC Code	Occupation Title	N	Mean Hourly Wage	N	Mean Hourly Wage	Difference (W-M)	Cents on Dollar (W/M)	P-Value[b]
✓	**0**	**Total, All Occupations**	**66,485**	**$20.73**	**33,066**	**$24.15**	**-$3.42**	**$0.86**	**<.0001**
✓	11-1021	General & Operations Managers	163	$35.58	265	$43.10	-$7.52	$0.83	0.0001
●	13-1151	Training & Development Specialist	457	$31.97	185	$30.34	$1.62	$1.05	0.0105
✓	13-2011	Accountants & Auditors	833	$24.74	263	$27.54	-$2.80	$0.90	<.0001
✓	29-1051	Pharmacists	482	$43.75	413	$47.77	-$4.02	$0.92	0.0014
✓	29-1071	Physician Assistants	154	$49.94	139	$53.16	-$3.22	$0.94	0.0372
✓	31-1014	Nursing Assistants	11,540	$13.24	1,259	$13.96	-$0.72	$0.95	<.0001
✓	33-3021	Detectives & Criminal Investigators	57	$27.63	134	$34.82	-$7.18	$0.79	<.0001
●	33-9092	Lifeguards, Ski Patrol, & Other Recreational Protective Service Workers	71	$12.47	60	$10.89	$1.58	$1.15	0.0015
●	35-3021	Combined Food Preparation & Serving Workers, Including Fast Food	218	$10.64	113	$10.19	$0.45	$1.04	0.0221
✓	41-2031	Retail Salespersons	263	$13.10	178	$14.31	-$1.22	$0.92	0.0009
✓	43-4061	Eligibility Interviewers, Government Programs	558	$20.65	80	$21.32	-$0.67	$0.97	0.0495
●	43-6011	Executive Secretaries & Administrative Assistants	843	$19.43	65	$18.88	$0.54	$1.03	0.0464
●	43-9199	Office & Administrative Support Workers, All Other	18	$16.29	8	$12.40	$3.89	$1.31	0.028
✓	47-5071	Roustabouts, Oil & Gas	7	$11.86	233	$19.57	-$7.71	$0.61	0.0006
✓	49-3042	Mobile Heavy Equipment Mechanics, Except Engines	6	$16.00	286	$25.22	-$9.22	$0.63	0.0011
✓	51-9111	Packaging & Filling Machine Operators & Tenders	10	$12.78	26	$20.02	-$7.24	$0.64	0.0101

✓ = Occupation in which men's wages were statistically significantly higher than women's wages.
● = Occupation in which women's wages were statistically significantly higher than men's wages.
[a]Standard Occupational Classification System.
[b]Wilcoxon ranked sum test results. A p-value that is less than or equal to 0.05 indicates a statistically significant gender wage gap between men and women.
Source: Custom extract of Research & Planning databases.
Prepared by L. Knapp, Research & Planning, WY DWS, 7/17/18.

(Text continued from page 11)

made up just 10.2% of persons working in relatively higher paying production occupations, the smallest proportion in the region.

Causes of Wage Disparity

R&P analysts performed a thorough decomposition analysis by including 121 variables, such as age, marital status, births, hours worked, experience working in Wyoming, workforce characteristics, employer firm size, education, industry, county of employment, and more. The purpose of the decomposition analysis was to identify how much each variable contributed to the gender wage gap.

This approach showed that women earned $0.72 on the dollar compared to men, leaving a difference of $0.28. The analysis allowed R&P analysts to explain $0.15 of the $0.28 difference, with the two greatest contributors being industry of employment ($0.12) and hours worked ($0.09). The remaining $0.13 of the $0.28 difference could not be accounted for with the data currently available to R&P. A thorough discussion of the decomposition analysis can be found in Chapter 6 of *Update 2018*.

As previously mentioned, industry of employment was one of the largest contributors to Wyoming's gender wage gap. This can be seen in Figure 12 (see page 15), which shows the top three industries of employment in Wyoming by gender in 2016. Large numbers of men worked in higher paying industries such as mining, construction, and wholesale trade, transportation, warehousing, & utilities. By comparison, large numbers of women worked in lower-paying industries,

Table 4: Women's Wages Compared to Men's Wages (Cents on the Dollar) for Full-Time, Year-Round Workers Ages 16 and Older by State, 2016

Rank	State	Cents on the Dollar
1	Puerto Rico	$1.01
2	District of Columbia	$0.87
3	New York	$0.87
4	California	$0.86
5	Florida	$0.86
6	Vermont	$0.85
7	Maryland	$0.84
8	Rhode Island	$0.83
9	Nevada	$0.82
10	Delaware	$0.82
11	Arizona	$0.82
12	New Mexico	$0.82
13	North Carolina	$0.82
14	Massachusetts	$0.82
15	Hawaii	$0.82
16	Tennessee	$0.81
17	Minnesota	$0.81
18	New Jersey	$0.81
19	**Colorado**	**$0.81**
20	Georgia	$0.81
21	Connecticut	$0.80
22	Oregon	$0.80
23	Maine	$0.80
24	South Carolina	$0.80
	U.S.	**$0.80**
25	**Texas**	**$0.79**
26	Illinois	$0.79
27	Pennsylvania	$0.78
28	Virginia	$0.78
29	Wisconsin	$0.78
30	Arkansas	$0.78
31	Kentucky	$0.78
32	Missouri	$0.78
33	**Nebraska**	**$0.78**
34	Iowa	$0.77
35	New Hampshire	$0.77
36	South Dakota	$0.77
37	Kansas	$0.77
38	Mississippi	$0.76
39	Ohio	$0.76
49	Washington	$0.76
41	Michigan	$0.76
42	Alaska	$0.76
43	Indiana	$0.75
44	Idaho	$0.74
45	Oklahoma	$0.74
46	Alabama	$0.74
47	**Montana**	**$0.73**
48	**North Dakota**	**$0.71**
49	**Utah**	**$0.70**
50	West Virginia	$0.70
51	**Wyoming**	**$0.68**
52	Louisiana	$0.66

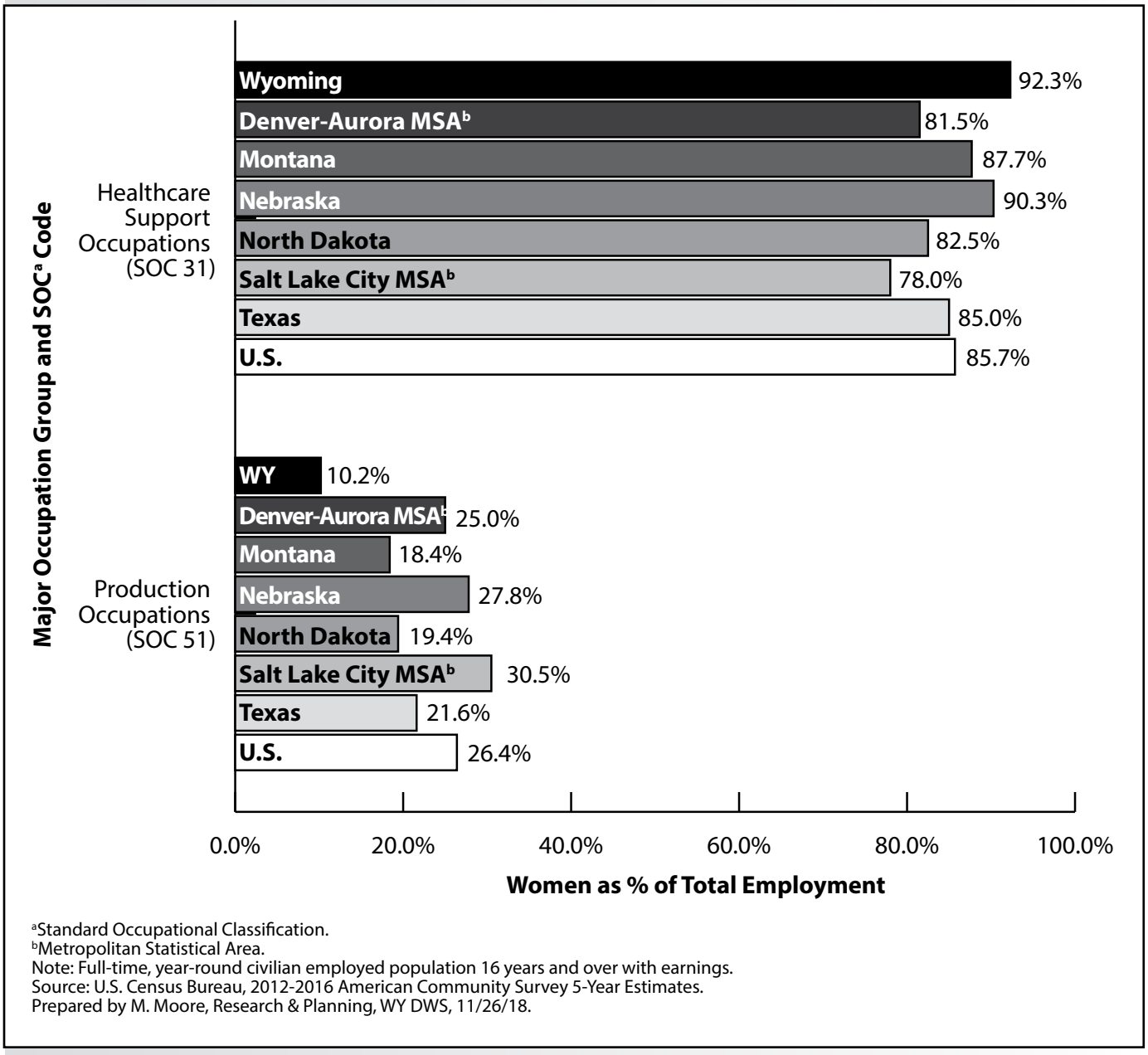
Source: U.S. Census Bureau, 2016 American Community Survey 5-Year Estimates.
Prepared by M. Moore, Research & Planning, WY DWS, 8/10/18.

such as leisure & hospitality, health care & social assistance, and educational services. Mining had the highest hourly wage for both men ($37.47) and women ($31.06), but only 1,401 women were employed in mining in 2016, compared to 10,912 men.

Table 5 (see page 15) shows the differences in hours worked between men and women. On average, men worked 44.0 hours per week in 2016, compared to 36.0 hours for women. A greater proportion of men (86.0%) worked 35 or more hours per week than women (69.2%).

Conclusion

A multitude of factors contribute to



[a]Standard Occupational Classification.
[b]Metropolitan Statistical Area.
Note: Full-time, year-round civilian employed population 16 years and over with earnings.
Source: U.S. Census Bureau, 2012-2016 American Community Survey 5-Year Estimates.
Prepared by M. Moore, Research & Planning, WY DWS, 11/26/18.

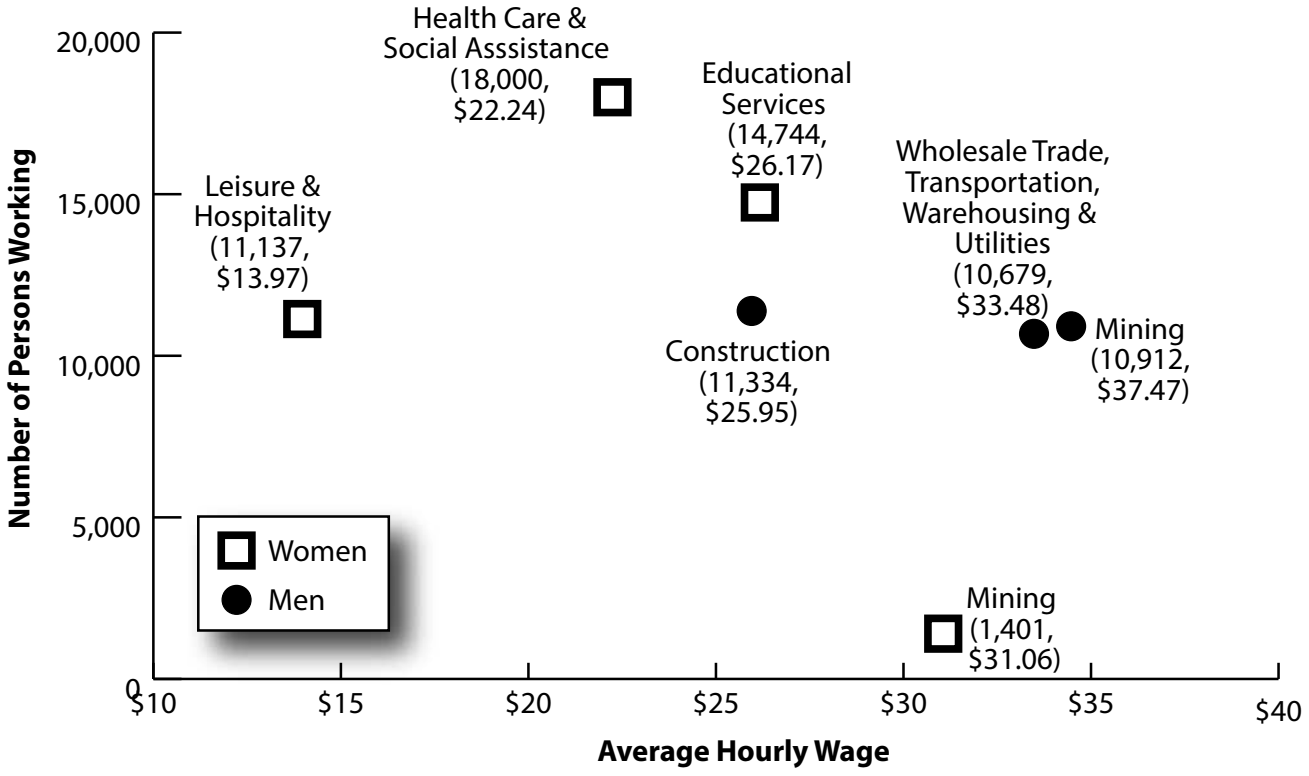
Figure 11: **Women as a Percent of Total Employment by Selected Major Occupation Group and Region, 2016**

Wyoming's gender wage gap, with industry of employment and hours worked identified as the two greatest contributors. Examining the gender wage gap for particular segments of the population provides a more thorough representation and understanding of wage disparity. In addition, it is important to recognize that the gender wage gap varies depending upon the source of the data and the limitations placed upon the data. More complete data in areas such as the number of hours worked, education level, and occupation would improve the accuracy of comparisons of wages between men and women.

Table 5: **Working Status of Individuals Ages 16-64 in Wyoming, 2016**

	Men		Women	
	N	%	N	%
Population Ages 16-64	195,740	100.0	182,751	100.0
Worked in Past 12 Months	170,477	87.1	143,393	78.5
Usually Worked 35 or More Hours Per Week	146,575	86.0	99,286	69.2
Usually Worked Fewer than 35 Hours Per Week	23,902	14.0	44,107	30.8
Did Not Work in Past 12 Months	25,263	12.9	39,358	21.5
Worked Full-Time, Year-Round	120,389	61.5	80,088	43.8
Mean Usual Hours Worked Per Week	44.0		36.0	

Source: U.S. Census Bureau, 2016 American Community Survey 5-Year Estimates.
Prepared by M. Moore, Research & Planning, WY DWS, 8/30/18.



Source: Custom extract from Wage Records and other Research & Planning databases.
Prepared by M. Moore, Research & Planning, WY DWS, 11/26/18.

Figure 12: **Top Three Industries of Employment for Persons Working in Wyoming by Gender, 2016**

Steps for Competitive Wage Compensation

by: Tiffany Horn, Survey Technician

During 2018, there were multiple occurrences of wage-related walkouts and strikes affecting many parts of the country. In March, teachers in West Virginia were off the job for almost two weeks, while in April, teachers in Kentucky and Oklahoma walked off the job for nine days (Will, 2018). In May, tens of thousands of service employees working for the University of California went on strike. Positions affected by the University of California strike ranged from nurse's aides and physician's assistants to security guards and landscapers (CBS News, 2018). This particular strike affected 10 different campuses and five medical centers associated with the University of California. Each of these demonstrations was in response to compensation-related complaints.

The purpose of this article is to provide employers with information to help them find appropriate compensation levels by utilizing data from the Research & Planning (R&P) section of the Wyoming Department of Workforce Services and the U.S. Bureau of Labor Statistics (BLS), along with other tools. Competitive wages are essential for employers to see their companies succeed. There are many drawbacks to providing a less than competitive wage, such as high turnover, disgruntled employees and negative performance, potential understaffing, and more. These are just a part of the snowball effect that can occur when competitive wages are not provided. It is important to note there are also drawbacks to overcompensation, such as the potential for reduced profitability for a company.

As discussed in this article, it is crucial for employers to know their areas' labor markets, and wages and compensation are important aspects of the labor market.

Job Descriptions

The first step involves an evaluation of job-related factors, most notably job description. What are the duties expected to be performed? Are there certifications required for certain jobs, such as electricians, engineers, and nursing assistants? Is this an entry-level position, or an apprentice level position that will require additional training and resources provided by the employer? Keep in mind the knowledge and skill set required to perform these duties. The job duties should define the compensation, not the title. If an employee is trained as an engineer, but performing the duties of a computer drafter, then that employee is a computer drafter and should be compensated as such. There is always an opportunity to adjust wages when the duties change.

The O*NET Resource Center from the U.S. Department of Labor/Employment and Training Administration (https://www.onetcenter.org/) provides multitude of descriptors for occupations that can help employers compile accurate job descriptions, including employment and wage estimates, projected job openings, top industries for each occupation, education and certification requirements, and required knowledge, skills, and abilities, among others.

Wage Data

The second step to competitive compensation is to know the current wages provided by establishments in the area. As noted by Bolden-Barrett (n.d.), "for help with setting pay rates, businesses turn to labor market data, or surveys, from government and private sources." Such data for Wyoming are available from the Occupational Employment Statistics (OES) program, a semiannual report that is conducted by R&P in cooperation with the BLS. Data for Wyoming from the OES program are available at https://doe.state.wy.us/LMI/oes.htm, including occupational wages by state, region, county, and metropolitan statistical area. The OES substate regions are illustrated in Figure 1.

Data from the OES program can be

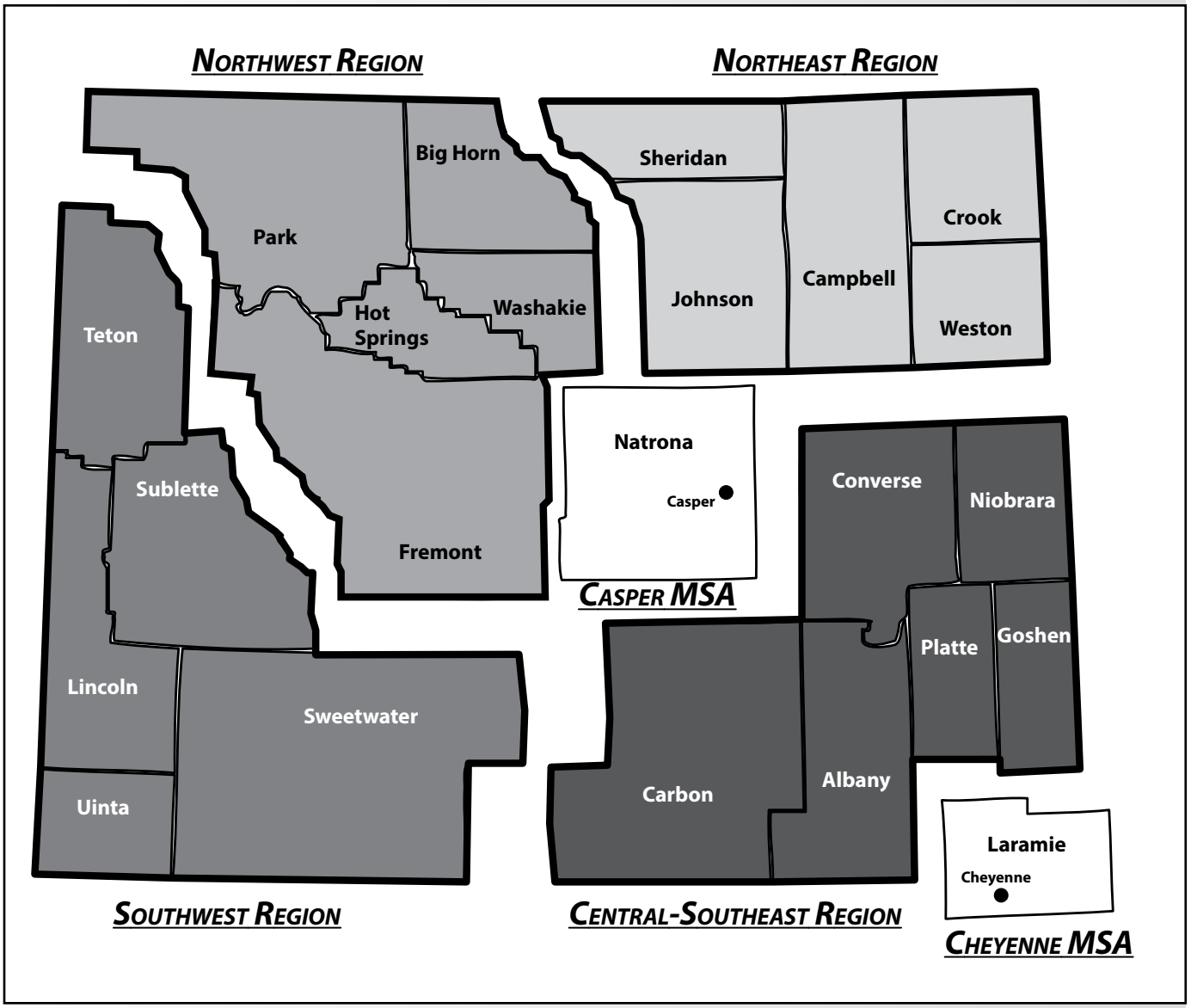


Figure 1: **Substate Regions for Wyoming**

used to set minimum and maximum compensation rates. The OES survey data also include a range of wages for any given occupation, broken down into the mean and 10th, 25th, 50th, 75th, and 90th percentiles. The OES survey data are updated twice per year, and keeping up with this information can help employers provide competitive wages. The OES website also provides an estimate of how many people are working in specific occupations, also broken down by state, region, county, and MSA.

For example, Table 1 shows employment and wage data for civil engineers in Wyoming by region in March 2018. There were 810 civil engineers in Wyoming, with the largest number (220) found in the Cheyenne MSA, followed by the southwest region (170). The central-southeast region had the lowest number of civil engineers (80), followed by the Casper MSA (90). However, the Casper MSA had the highest average (mean) wage for civil engineers ($38.99), while the central-southeast region had the lowest ($34.68).

Market Strategies

The third step is for employers to determine how they are going to be competitive. As noted by the Society for Human Resource Management (2018), there are different strategies to choose from: market lead strategy, market match strategy, and market lag strategy. A market lead strategy means that the employer is going to lead the market by paying a higher wage. This can be effective if there is a workload that warrants this type of pay for qualified staff. A downfall is the potentially higher costs. The market match strategy is one in which employers pay wages comparable to their competitors. It is a highly common practice used in many different industries. With this strategy, an employer is providing a wage that is proportional to the other establishments in their industry. The third strategy is the market lag strategy, in which employers pay less than competitors in their area. A pitfall for this type of

Table 1: Employment and Wages for Civil Engineers (SOC[a] 17-2051) by Selected Region in Wyoming, March 2018

Region	Estimated Employment	Hourly Wage					
		Mean	10th %	25th %	Median	75th %	90th %
Wyoming	**810**	**$37.30**	**$25.47**	**$29.80**	**$35.92**	**$43.01**	**$50.50**
Casper MSA[b]	90	$38.99	$28.41	$33.05	$37.88	$44.18	$49.70
Cheyenne MSA[b]	220	$37.33	$23.91	$28.42	$33.48	$40.94	$54.09
Central-Southeast Region	80	$34.68	$24.36	$28.54	$33.89	$38.82	$46.90
Northeast Region	140	$36.99	$20.44	$28.72	$36.97	$45.21	$53.29
Northwest Region	100	$36.11	$26.41	$30.25	$33.88	$41.12	$49.70
Southwest Region	170	$38.64	$27.57	$32.09	$37.92	$45.35	$50.00

[a]Standard Occupational Classification.
[b]Metropolitan Statistical Area.
Source: Occupational Employment Statistics, March 2018.
Prepared by M. Moore, Research & Planning, WYDWS, 12/5/18.

strategy is the potential to have a higher turnover in employment, as employees may seek higher wages from same industry establishments within the area. Employers could be faced with hire costs to train new employees who may not stay when higher wages are available elsewhere. Each of these strategies has its own benefits and pitfalls, and it is up to the employer to determine which is best.

Conclusion

There are many factors to determining a comparable wage that is both market savvy and competitive. First and foremost, employers should assess their needs and pay according to the duties performed by their employees. Second, employers should keep up with wage changes through websites provided by state labor market information agencies such as R&P. Finally, employers should know their market. It is important to know the demand for the skills that employees bring to the market.

References

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CBS News. (2018, May 7). Thousands of University of California workers go on strike over pay. Retrieved December 5, 2018, from https://tinyurl.com/yaq4h8yp

Society for Human Resource Management. (2018, April). Planning & design: Compensation philosophy: What are the advantages or disadvantages of a lead, match, or lag compensation strategy? Retrieved December 4, 2018, from https://tinyurl.com/ycnbesul

Will, M. (2018, September 7). Teacher strikes are heating up in more states. Education Week. Retrieved December 5, 2018, from https://tinyurl.com/y88hfj3l

Now Online: Occupational Safety and Health

Wyoming Occupational Fatalities Decrease to 20 in 2017

https://doe.state.wy.us/LMI/CFOI/toc.htm

The number of occupational fatalities in Wyoming fell from 34 in 2016 to 20 in 2017 — a decrease of 14 deaths, or 41.2%, according to the Census of Fatal Occupational Injuries (CFOI). In 2017, occupational fatalities were at their lowest level since 2009.

Wyoming's Nonfatal Occupational Injury and Illness Incidence Rate Essentially Unchanged in 2017

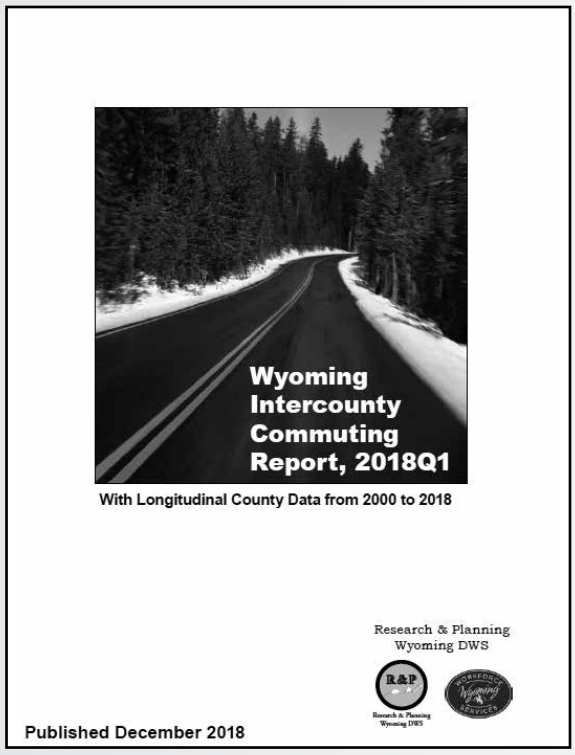
https://doe.state.wy.us/LMI/OSH/toc.htm

Wyoming's nonfatal occupational injury and illness incident rate across all industries was 3.7 per 100 full-time workers in 2017, compared to 3.6 in 2016, according to the Survey of Occupational Injuries and Illnesses (SOII).

Now Online: Wyoming Intercounty Commuting Report, 2018Q1

by: Michael Moore, Editor
Methodologist: Tony Glover, Manager, Research & Planning

The Research & Planning (R&P) section of the Wyoming Department of Workforce Services has published a new intercounty commuting report for first quarter 2018 (2018Q1), available at https://doe.state.wy.us/LMI/commute/WY_Commuting_2018Q1.pdf.



The term *intercounty commuting* refers to individuals traveling from a Wyoming county of residence to another Wyoming county of employment. Interstate commuting data, such as Wyoming residents commuting to Colorado or Utah for work, are not included in this report. However, this report does include data on workers from other states who commuted to Wyoming for work (*nonresidents*).

According to the report, nearly one in four (22.5%) persons working in Wyoming in 2018Q1 commuted from another county or state.

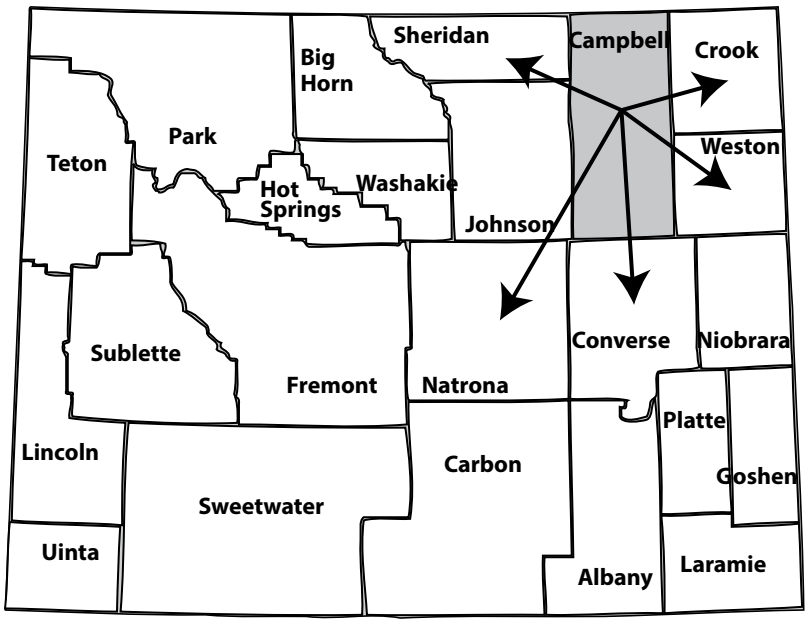
The Wyoming intercounty commuting report includes commuting tables and figures for each Wyoming county. The report focuses specifically on *inflow* (workers commuting into a county of employment from a different county of residence or a different state) and *outflow* (workers commuting from a county of residence to another county of employment) during 2018Q1.

For example, the tables and figures on page 21 show inflow and outflow for Campbell County in 2018Q1. As shown in Table 1, 1,854 residents (7.9% of the total) of Campbell County worked in another Wyoming county; the top five destination counties of employment for Campbell County residents were Natrona, Sheridan, Crook, Converse, and Weston.

By comparison, Table 2 shows that of the 27,443 persons working in Campbell County in 2018Q1, 5,808 (21.2% of the total) came from another county or state. The top five counties for worker inflow were Crook, Weston, Converse, Natrona, and Sheridan. Nonresidents made up 8.6% of all persons working in Campbell County in 2018Q1, likely due to high wages in mining jobs drawing workers in from other states.

The tables and figures on page 21 are available for each county in the report. More information on commuting, including previous commuting reports and historical data from 1992 to 2018 can be found online at https://doe.state.wy.us/LMI/commute.htm.

Campbell County



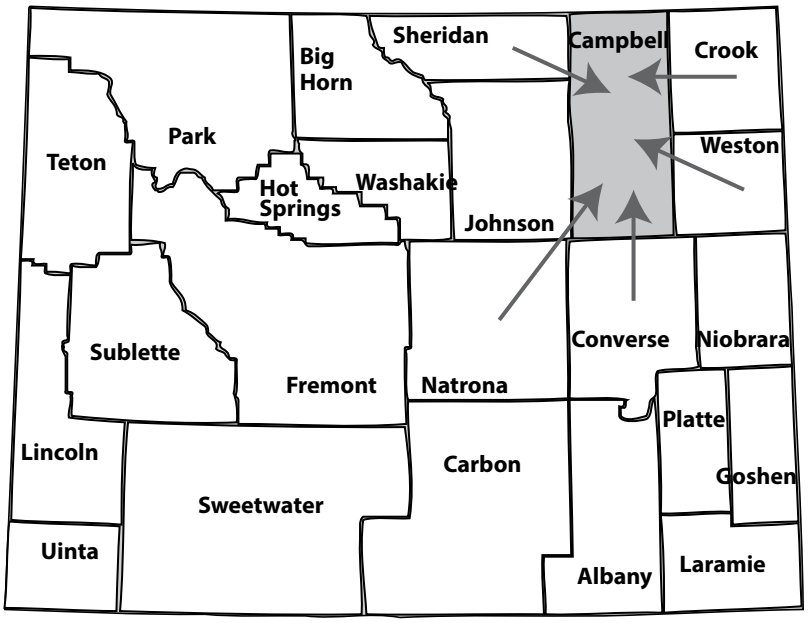
Source: Wyoming Intercounty Commuting Data, 2018Q1.

Table 1: Campbell County Residents by County of Employment (Outflow), 2018Q1

County of Employment	N	%
Campbell	21,635	92.1
Total Outflow	1,854	7.9
Natrona	353	1.5
Sheridan	223	0.9
Crook	180	0.8
Unknown	179	0.8
Converse	140	0.6
Weston	129	0.5
Total, All Campbell County Residents with Wage Records	**23,489**	**100.0**

Source: Wyoming Intercounty Commuting Data, 2018Q1.

Figure 1: Campbell County Residents by County of Employment (Outflow), 2018Q1



Source: Wyoming Intercounty Commuting Data, 2018Q1.

Table 2: Campbell County Employment by County of Residence (Inflow), 2018Q1

County of Residence	N	%
Campbell	21,635	78.8
Total Inflow	5,808	21.2
Nonresidents	2,373	8.6
Crook	808	2.9
Weston	670	2.4
Converse	438	1.6
Natrona	393	1.4
Sheridan	244	0.9
Total Persons Working in Campbell County	**27,443**	**100.0**

Nonresidents are individuals for whom demographic data are not available.

Source: Wyoming Intercounty Commuting Data, 2018Q1.

Figure 2 Persons Working in Campbell County by County of Residence (Inflow), 2018Q1

2018 Products from Research & Planning

Research & Planning produced a variety of reports and publications in 2018. Many are available in print, and all may be found online at https://doe.state.wy.us/LMI. For print copies, call (307) 473-3814 or e-mail michael.moore@wyo.gov.

Wyoming Labor Force Trends

January 2018 through December 2018	Monthly publication with current employment, unemployment, employment growth, unemployment insurance claims, county and regional data, and analysis of workforce topics.	https://doe.state.wy.us/LMI/trends.htm

***Trends* Issue**	**Feature Articles**
January	2017Q3 Quarterly Update: Mining Shows Continued Growth in Jobs, Persons Working
February	The Survey of Occupational Injuries and Illnesses for 2016
March	Wyoming New Business Formation Declines During Recent Economic Downturn
April	2017Q4 Quarterly Update: Jobs and Wages Increase for Second Consecutive Quarter
May	Short-Term Industry and Occupational Projections for Wyoming, 2017-2019; Business Survival in Wyoming
June	Unemployment Insurance Claims Decrease in 2017; Economic Impacts of Growing and Potential Industries on the Wyoming Economy
July	2018Q1 Quarterly Update: Private Sector Spurs Job Growth in Wyoming; Manufacturing Experiences Near 50% Growth in Total Hires
August	Wyoming New Hires Survey Results for 2016: How Do New Hires' Wages Compare to Others?
September	JOLTS Data: What Do They Tell Us About the U.S. Labor Market?; New from Research & Planning: Long-Term Projections, 2016-2026
October	2018Q2 Quarterly Update: Mining, Manufacturing Lead Job Growth in Wyoming; Quarterly Turnover Update: Hiring Activity Increases, Persons Working Unchanged in 2018Q2
November	Demographics of Wyoming's Workforce, 2008-2017
December	R&P Publishes New Study on Wyoming's Gender Wage Gap; Steps for Competitive Wage Compensation

News Releases and Reports

Title	Description	URL
Labor Force Estimates	Updates on the labor force in Wyoming, including statewide and county unemployment rates. Updated monthly.	https://doe.state.wy.us/LMI/news_archive.htm
Quarterly Covered Employment and Wages	Employment and payroll news by industry and county. Updated quarterly.	https://doe.state.wy.us/LMI/QCEW/toc.htm
Unemployment Insurance (UI) Claims	UI claims by county, industry, and place of residence of claimant. Published monthly.	https://doe.state.wy.us/LMI/ui.htm

(Table continued on page 23)

2018 Products from Research & Planning

(Table continued from page 22)

Census of Fatal Occupational Injuries	Wyoming Occupational Fatalities Decrease to 20 in 2017	https://doe.state.wy.us/LMI/CFOI/toc.htm
Survey of Occupational Injuries and Illnesses	Wyoming's Nonfatal Occupational Injury and Illness Incidence Rate Essentially Unchanged in 2017	https://doe.state.wy.us/LMI/OSH/toc.htm
Wyoming Intercounty Turnover Report	Provides tables and figures showing hire and exit data for Wyoming by year and quarter. Data updated quarterly.	https://doe.state.wy.us/LMI/turnover.htm
Wyoming Intercounty Commuting Report	This report includes sample tables and figures that provide readers with a better understanding of the commuting patterns for each Wyoming county, both in the most recent quarter for which data are available and historically. Data updated quarterly.	https://doe.state.wy.us/LMI/commute.htm

Other Publications

Publication	Description	URL
Workforce Innovation and Opportunity Act (WIOA) State Plan for the State of Wyoming (published February 2018)	Research & Planning contributed an economic and workforce analysis to the WIOA state plan for Wyoming.	https://wyowdc.wyo.gov/unified-state-plan
Wyoming Benefits Survey 2016 (published February 2018)	This publication examines the prevalence of traditional benefits, such as medical insurance and retirement plans, as well as offerings of paid leave by employer size, industry, and substate region.	https://doe.state.wy.us/LMI/benefits/benefits_2016.pdf
2018 Wyoming Workforce Annual Report (published June 2018)	This report provides an overview of Wyoming's economy and workforce.	https://doe.state.wy.us/LMI/annual-report/2018/2018_Annual_Report.pdf
A Study of the Disparity in Wages Between Men and Women in Wyoming: Update 2018 (published October 2018)	In 2017, the Wyoming joint labor, health, and social services interim and the joint minerals, business, and economic development interim committees requested the Wyoming Department of Workforce Services complete a study on the state's gender wage gap (House Bill 0209).	https://doe.state.wy.us/LMI/WYWageGap2018/Update_2018.pdf

Tables, Tabular Data, and Other Resources

Title	Description	URL
Occupational Employment Statistics	A semiannual report that collects and produces occupational employment and wage rate estimates.	https://doe.state.wy.us/LMI/oes.htm
Projections	Short-term and long-term industry and occupational projections for Wyoming.	https://doe.state.wy.us/LMI/projections.htm
Quarterly Census of Employment and Wages	Employment and wage estimates (measured in the number of jobs worked) by year and quarter.	https://doe.state.wy.us/LMI/toc_202.htm

(Table continued on page 24)

2018 Products from Research & Planning

(Table continued from page 23)

Wage Records: Earnings in Wyoming by County, Industry, Age, & Gender, 2000-2017	Any individual who had wages in Wyoming at any time from 2000 to 2017 is included in the summary counts.	https://doe.state.wy.us/LMI/earnings_tables.htm
Wyoming New Hires Job Skills Survey Results, 2016	The New Hires Survey includes data on new hires such as occupation, rate of compensation, benefits, important job skills, employer satisfaction with a new hire's skills, retention, age, gender and more.	https://doe.state.wy.us/LMI/newhires.htm

Webinars and Presentations

Title	Description	URL
Webinars	Webinars are presented free of charge on a variety of topics. Space is limited; for more information, please contact Katelynd Faler at (307) 473-3808 or katelynd.faler@wyo.gov.	https://doe.state.wy.us/LMI/webinars.htm

Date	Title
January	Myths of the Unemployment Rate
April	Transportation & Warehousing
June	Nursing Assistants in Wyoming
October	Understanding and Using Employment Projections

Presentations	R&P presentations are given at various events and public meetings, including those of Wyoming State Legislature subcommittees and the Wyoming Workforce Development Committee. All presentations are available online.	https://doe.state.wy.us/LMI/presentations.htm

Date	Topic	Audience
February 15	Economic, Workforce, and Workforce Development Activities Analysis: Strategic Elements of the Workforce Innovation and Opportunity Act	Presented to the Wyoming Workforce Development Council
June 20	Inside the *2018 Wyoming Workforce Annual Report*	Presented at the 2018 Safety & Workforce Summit
November 30	A Study of the Disparity in Wages and Benefits Between Men and Women in Wyoming: Update 2018	Presented to the Minerals, Business, & Economic Development Committee of the Wyoming Legislature

Wyoming Unemployment Steady at 4.1% in October

by: David Bullard, Senior Economist

The Research & Planning section of the Wyoming Department of Workforce Services reported that the state's seasonally adjusted[1] unemployment rate remained unchanged from September to October at 4.1%. Wyoming's unemployment rate is slightly lower than its year-ago level of 4.2%, but higher than the current U.S. rate of 3.7%.

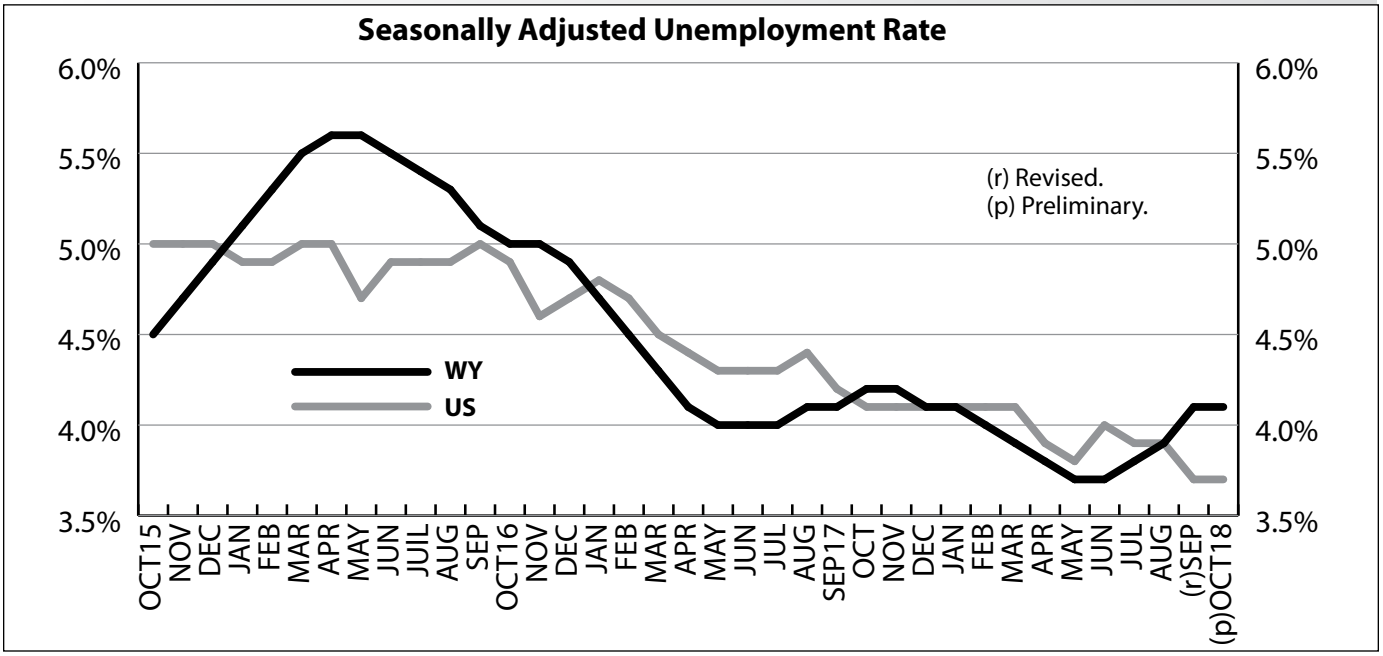
At the county level, most unemployment rates remained fairly stable from September to October. Small decreases were seen in Platte (down from 3.4% to 2.8%), Niobrara (down from 3.1% to 2.5%), Sweetwater (down from 4.0% to 3.5%), and Converse (down from 3.6% to 3.1%) counties, while Teton County's unemployment rate rose slightly from 2.2% to 2.6%.

Unemployment rates were lower than a year ago in most Wyoming counties. The largest decreases occurred in Converse (down from 3.9% to 3.1%), Weston (down from 3.6% to 3.1%), Sweetwater (down from 4.0% to 3.5%), and Platte (down from 3.3% to 2.8%) counties. Unemployment rates rose modestly in Big Horn (up from 3.5% to 3.8%), Albany (up from 2.7% to 2.9%), Goshen (up from 2.6% to 2.8%), and Niobrara (up from 2.3% to 2.5%) counties.

Niobrara County had the lowest unemployment rate at 2.5% in October. It was followed by Teton County at 2.6%, and Platte, Goshen, and Crook counties, all at 2.8%. The highest unemployment rates were reported in Fremont County at 4.4% and Natrona County at 4.2%.

Total nonfarm employment (not seasonally adjusted and measured by place of work) increased from 284,400 in October 2017 to 290,800 in October 2018, a gain of 6,400 jobs (or 2.3%).

1 Seasonal adjustment is a statistical procedure to remove the impact of normal regularly recurring events (such as weather, major holidays, and the opening and closing of schools) from economic time series to better understand changes in economic conditions from month to month.



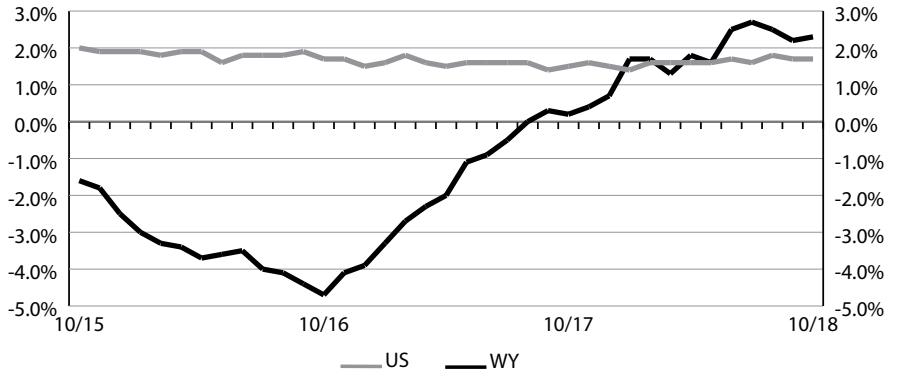
Current Employment Statistics (CES) Estimates and Research & Planning's Internal Estimates, October 2018

by: David Bullard, Senior Economist

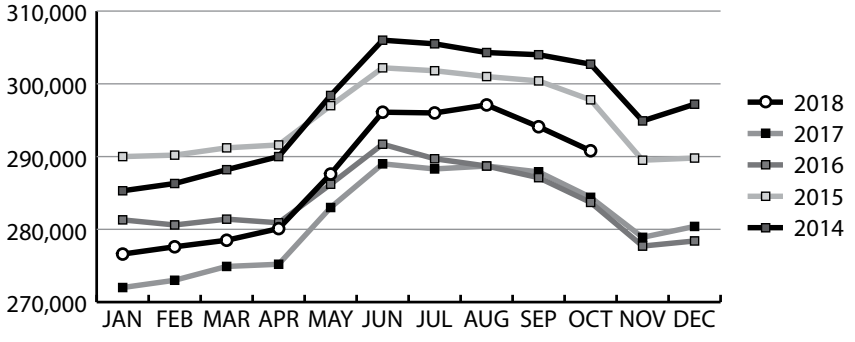
Industry Sector	Research & Planning's Internal Estimates	Current Employment Statistics (CES) Estimates	N Difference	% Difference
Total Nonfarm	**286,016**	**290,800**	**4,784**	**1.6%**
Natural Resources & Mining	20,803	21,400	597	2.8%
Construction	20,985	22,500	1,515	6.7%
Manufacturing	10,073	10,100	27	0.3%
Wholesale Trade	8,128	8,700	572	6.6%
Retail Trade	29,192	29,400	208	0.7%
Transportation & Utilities	14,445	14,700	255	1.7%
Information	3,538	3,600	62	1.7%
Financial Activities	11,082	11,200	118	1.1%
Professional & Business Services	18,917	18,700	-217	-1.2%
Educational & Health Services	28,709	28,700	-9	0.0%
Leisure & Hospitality	36,616	36,800	184	0.5%
Other Services	14,171	14,400	229	1.6%
Government	69,357	70,600	1,243	1.8%

Projections were run in November 2018 and based on QCEW data through June 2018.

Nonagricultural Employment Growth (Percentage Change Over Previous Year)



Wyoming Nonagricultural Wage and Salary Employment



State Unemployment Rates October 2018 (Seasonally Adjusted)

State	Unemp. Rate
Puerto Rico	8.0
Alaska	6.4
District of Columbia	5.6
West Virginia	5.2
Louisiana	5.0
Arizona	4.7
Mississippi	4.7
New Mexico	4.6
Ohio	4.6
Kentucky	4.5
Nevada	4.4
Washington	4.3
Connecticut	4.2
Illinois	4.2
Alabama	4.1
California	4.1
Maryland	4.1
New Jersey	4.1
Pennsylvania	4.1
Wyoming	**4.1**
New York	4.0
Delaware	3.9
Michigan	3.9
Oregon	3.8
Rhode Island	3.8
Montana	3.7
Tennessee	3.7
Texas	3.7
United States	**3.7**
Georgia	3.6
North Carolina	3.6
Arkansas	3.5
Indiana	3.5
Massachusetts	3.5
Florida	3.4
Maine	3.4
Oklahoma	3.4
Kansas	3.3
South Carolina	3.3
Colorado	3.2
Utah	3.2
Missouri	3.1
South Dakota	3.0
Wisconsin	3.0
Virginia	2.9
Minnesota	2.8
Nebraska	2.8
North Dakota	2.8
Vermont	2.8
Idaho	2.7
New Hampshire	2.6
Iowa	2.4
Hawaii	2.3

Wyoming Nonagricultural Wage and Salary Employment

by: David Bullard, Senior Economist

	Employment in Thousands			% Change Total Employment	
	Oct 18	Sep 18	Oct 17	Oct 18 Sep 18	Oct 18 Oct 17
CAMPBELL COUNTY					
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	**25.8**	**25.8**	**25.1**	**0.0**	**2.8**
TOTAL PRIVATE	**20.6**	**20.6**	**20.0**	**0.0**	**3.0**
GOODS PRODUCING	**8.7**	**8.7**	**8.3**	**0.0**	**4.8**
Natural Resources & Mining	6.0	6.0	6.0	0.0	0.0
Construction	2.2	2.2	1.9	0.0	15.8
Manufacturing	0.5	0.5	0.4	0.0	25.0
SERVICE PROVIDING	**17.1**	**17.1**	**16.8**	**0.0**	**1.8**
Trade, Transportation, & Utilities	5.2	5.2	5.1	0.0	2.0
Information	0.2	0.2	0.2	0.0	0.0
Financial Activities	0.7	0.7	0.7	0.0	0.0
Professional & Business Services	1.6	1.6	1.6	0.0	0.0
Educational & Health Services	1.1	1.1	1.1	0.0	0.0
Leisure & Hospitality	2.3	2.3	2.3	0.0	0.0
Other Services	0.8	0.8	0.7	0.0	14.3
GOVERNMENT	**5.2**	**5.2**	**5.1**	**0.0**	**2.0**

	Employment in Thousands			% Change Total Employment	
	Oct 18	Sep 18	Oct 17	Oct 18 Sep 18	Oct 18 Oct 17
SWEETWATER COUNTY					
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	**23.3**	**23.3**	**23.0**	**0.0**	**1.3**
TOTAL PRIVATE	**18.6**	**18.7**	**18.3**	**-0.5**	**1.6**
GOODS PRODUCING	**7.6**	**7.6**	**7.4**	**0.0**	**2.7**
Natural Resources & Mining	4.7	4.7	4.6	0.0	2.2
Construction	1.6	1.6	1.5	0.0	6.7
Manufacturing	1.3	1.3	1.3	0.0	0.0
SERVICE PROVIDING	**15.7**	**15.7**	**15.6**	**0.0**	**0.6**
Trade, Transportation, & Utilities	4.6	4.6	4.5	0.0	2.2
Information	0.2	0.2	0.2	0.0	0.0
Financial Activities	0.7	0.7	0.7	0.0	0.0
Professional & Business Services	1.1	1.1	1.1	0.0	0.0
Educational & Health Services	1.4	1.3	1.4	7.7	0.0
Leisure & Hospitality	2.4	2.5	2.4	-4.0	0.0
Other Services	0.6	0.7	0.6	-14.3	0.0
GOVERNMENT	**4.7**	**4.6**	**4.7**	**2.2**	**0.0**

	Employment in Thousands			% Change Total Employment	
	Oct 18	Sep 18	Oct 17	Oct 18 Sep 18	Oct 18 Oct 17
TETON COUNTY					
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	**20.6**	**22.8**	**20.3**	**-9.6**	**1.5**
TOTAL PRIVATE	**17.9**	**20.1**	**17.6**	**-10.9**	**1.7**
GOODS PRODUCING	**2.3**	**2.3**	**2.4**	**0.0**	**-4.2**
Natural Resources, Mining & Construction	2.1	2.1	2.2	0.0	-4.5
Manufacturing	0.2	0.2	0.2	0.0	0.0
SERVICE PROVIDING	**18.3**	**20.5**	**17.9**	**-10.7**	**2.2**
Trade, Transportation, & Utilities	2.7	3.1	2.6	-12.9	3.8
Information	0.2	0.2	0.2	0.0	0.0
Financial Activities	1.1	1.1	1.0	0.0	10.0
Professional & Business Services	2.1	2.1	2.0	0.0	5.0
Educational & Health Services	1.2	1.2	1.2	0.0	0.0
Leisure & Hospitality	7.8	9.5	7.7	-17.9	1.3
Other Services	0.5	0.6	0.5	-16.7	0.0
GOVERNMENT	**2.7**	**2.7**	**2.7**	**0.0**	**0.0**

State Unemployment Rates October 2018 (Not Seasonally Adjusted)

State	Unemp. Rate
Puerto Rico	8.3
Alaska	5.8
District of Columbia	5.6
Louisiana	4.7
West Virginia	4.6
Arizona	4.5
New Mexico	4.5
Ohio	4.3
Illinois	4.2
Kentucky	4.2
Mississippi	4.2
Nevada	4.2
California	4.0
Oregon	4.0
Washington	4.0
Pennsylvania	3.9
Alabama	3.8
Connecticut	3.8
Maryland	3.8
Michigan	3.8
Tennessee	3.7
Georgia	3.6
Indiana	3.6
New Jersey	3.6
New York	3.6
Delaware	3.5
Texas	3.5
United States	**3.5**
Wyoming	**3.5**
North Carolina	3.4
Arkansas	3.3
Montana	3.3
South Carolina	3.3
Maine	3.2
Colorado	3.1
Rhode Island	3.1
Florida	3.0
Kansas	3.0
Oklahoma	3.0
Massachusetts	2.9
Virginia	2.8
Utah	2.7
Nebraska	2.6
South Dakota	2.6
Wisconsin	2.6
Hawaii	2.5
Missouri	2.3
Idaho	2.2
Minnesota	2.2
New Hampshire	2.1
North Dakota	2.0
Iowa	1.9
Vermont	1.8

Economic Indicators

by: David Bullard, Senior Economist

The number of multiple jobholders in the U.S. rose 9.2% from October 2017 to October 2018.

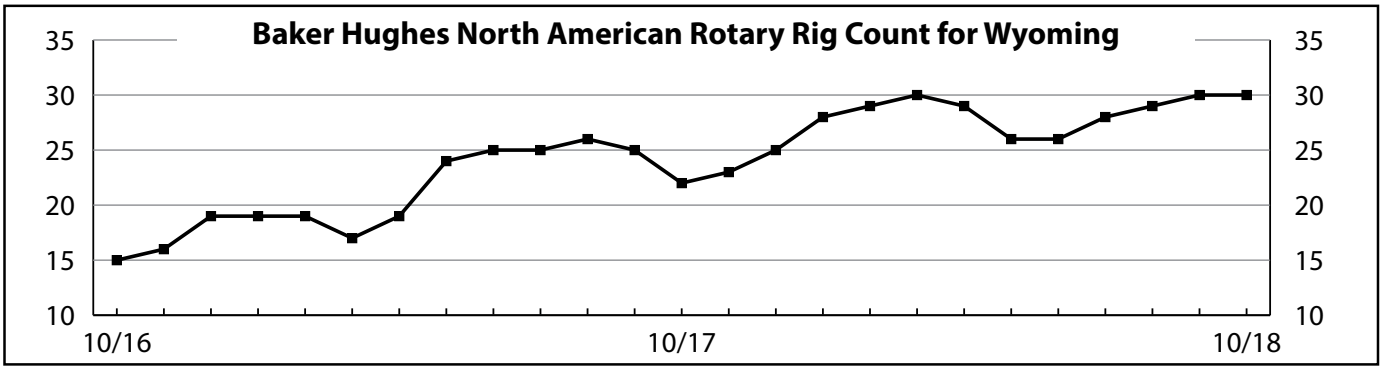
	Oct 2018 (p)	Sep 2018(r)	Oct 2017 (b)	Percent Change Month	Year
Wyoming Total Nonfarm Employment	**290,800**	**294,100**	**284,400**	**-1.1**	**2.3**
Wyoming State Government	15,400	15,100	15,400	2.0	0.0
Laramie County Nonfarm Employment	47,000	47,100	46,900	-0.2	0.2
Natrona County Nonfarm Employment	39,100	39,100	39,200	0.0	-0.3
Selected U.S. Employment Data					
U.S. Multiple Jobholders	8,093,000	7,670,000	7,409,000	5.5	9.2
As a percent of all workers	5.2%	4.9%	4.8%	N/A	N/A
U.S. Discouraged Workers	506,000	383,000	524,000	32.1	-3.4
U.S. Part Time for Economic Reasons	4,246,000	4,306,000	4,553,000	-1.4	-6.7
Wyoming Unemployment Insurance					
Weeks Compensated	7,075	5,144	9,076	37.5	-22.0
Benefits Paid	$2,578,822	$1,934,852	$3,276,926	33.3	-21.3
Average Weekly Benefit Payment	$364.50	$376.14	$361.05	-3.1	1.0
State Insured Covered Jobs[1]	265,382	267,682	261,771	-0.9	1.4
Consumer Price Index (U) for All U.S. Urban Consumers					
(1982 to 1984 = 100)					
All Items	252.9	252.4	246.7	0.2	2.5
Food & Beverages	254.2	254.2	251.1	0.0	1.2
Housing	260.3	259.9	253.1	0.1	2.8
Apparel	129.1	127.4	129.6	1.3	-0.4
Transportation	213.5	212.4	202.5	0.5	5.4
Medical Care	485.3	484.7	477.1	0.1	1.7
Recreation (Dec. 1997=100)	118.9	119.2	118.7	-0.3	0.2
Education & Communication (Dec. 1997=100)	137.8	137.9	136.5	-0.1	0.9
Other Goods & Services	444.3	443.4	436.3	0.2	1.8
Producer Prices (1982 to 1984 = 100)					
All Commodities	204.3	203.2	194.9	0.5	4.8
Wyo. Bldg. Permits (New Privately Owned Housing Units Authorized)					
Total Units	172	139	146	23.7	17.8
Valuation	$42,104,000	$30,235,000	$37,203,000	39.3	13.2
Single Family Homes	103	114	144	-9.6	-28.5
Valuation	$34,312,000	$27,340,000	$36,995,000	25.5	-7.3
Casper MSA[2] Building Permits	8	10	18	-20.0	-55.6
Valuation	$2,322,000	$1,208,000	$3,649,000	92.2	-36.4
Cheyenne MSA Building Permits	46	55	43	-16.4	7.0
Valuation	$7,421,000	$9,151,000	$7,339,000	-18.9	1.1
Baker Hughes North American Rotary Rig Count for Wyoming	30	30	22	0.0	36.4

(p) Preliminary. (r) Revised. (b) Benchmarked.

[1]Local Area Unemployment Statistics Program estimates.

[2]Metropolitan Statistical Area.

Note: Production worker hours and earnings data have been dropped from the Economic Indicators page because of problems with accuracy due to a small sample size and high item nonresponse. The Bureau of Labor Statistics will continue to publish these data online at https://www.bls.gov/eag/eag.wy.htm.



Wyoming County Unemployment Rates

by: Carola Cowan, BLS Programs Supervisor

From September to October, unemployment rates fell slightly in Platte and Niobrara counties. The highest unemployment rates were found in Fremont (4.4%) and Natrona (4.2%) counties.

	Labor Force			Employed			Unemployed			Unemployment Rates		
REGION	Oct 2018	Sep 2018	Oct 2017	Oct 2018	Sep 2018	Oct 2017	Oct 2018	Sep 2018	Oct 2017	Oct 2018	Sep 2018	Oct 2017
County	(p)	(r)	(b)	(p)	(r)	(b)	(p)	(r)	(b)	(p)	(r)	(b)
NORTHWEST	**45,488**	**46,036**	**46,730**	**43,699**	**44,220**	**44,864**	**1,789**	**1,816**	**1,866**	**3.9**	**3.9**	**4.0**
Big Horn	5,242	5,282	5,491	5,043	5,073	5,297	199	209	194	3.8	4.0	3.5
Fremont	18,795	18,626	19,301	17,967	17,793	18,408	828	833	893	4.4	4.5	4.6
Hot Springs	2,136	2,169	2,249	2,070	2,099	2,174	66	70	75	3.1	3.2	3.3
Park	15,245	15,929	15,555	14,680	15,369	14,990	565	560	565	3.7	3.5	3.6
Washakie	4,070	4,030	4,134	3,939	3,886	3,995	131	144	139	3.2	3.6	3.4
NORTHEAST	**49,788**	**49,579**	**50,087**	**48,072**	**47,758**	**48,233**	**1,716**	**1,821**	**1,854**	**3.4**	**3.7**	**3.7**
Campbell	22,819	22,401	22,781	21,965	21,494	21,856	854	907	925	3.7	4.0	4.1
Crook	3,636	3,799	3,716	3,534	3,688	3,609	102	111	107	2.8	2.9	2.9
Johnson	4,154	4,226	4,242	4,008	4,084	4,089	146	142	153	3.5	3.4	3.6
Sheridan	15,464	15,449	15,614	14,964	14,915	15,078	500	534	536	3.2	3.5	3.4
Weston	3,715	3,704	3,734	3,601	3,577	3,601	114	127	133	3.1	3.4	3.6
SOUTHWEST	**57,842**	**58,477**	**58,764**	**55,947**	**56,487**	**56,673**	**1,895**	**1,990**	**2,091**	**3.3**	**3.4**	**3.6**
Lincoln	8,776	8,832	8,709	8,509	8,553	8,428	267	279	281	3.0	3.2	3.2
Sublette	4,223	4,350	4,371	4,071	4,186	4,214	152	164	157	3.6	3.8	3.6
Sweetwater	20,996	20,481	21,447	20,251	19,657	20,589	745	824	858	3.5	4.0	4.0
Teton	14,809	15,853	15,182	14,419	15,498	14,729	390	355	453	2.6	2.2	3.0
Uinta	9,038	8,961	9,055	8,697	8,593	8,713	341	368	342	3.8	4.1	3.8
SOUTHEAST	**80,559**	**78,901**	**81,743**	**77,987**	**76,146**	**79,143**	**2,572**	**2,755**	**2,600**	**3.2**	**3.5**	**3.2**
Albany	20,968	20,166	20,785	20,369	19,521	20,228	599	645	557	2.9	3.2	2.7
Goshen	6,796	6,737	7,145	6,607	6,534	6,962	189	203	183	2.8	3.0	2.6
Laramie	46,896	45,904	47,665	45,271	44,199	45,994	1,625	1,705	1,671	3.5	3.7	3.5
Niobrara	1,284	1,342	1,343	1,252	1,301	1,312	32	41	31	2.5	3.1	2.3
Platte	4,615	4,752	4,805	4,488	4,591	4,647	127	161	158	2.8	3.4	3.3
CENTRAL	**53,615**	**52,819**	**54,862**	**51,493**	**50,596**	**52,503**	**2,122**	**2,223**	**2,359**	**4.0**	**4.2**	**4.3**
Carbon	7,778	7,822	8,041	7,515	7,561	7,760	263	261	281	3.4	3.3	3.5
Converse	7,489	7,417	7,445	7,254	7,153	7,156	235	264	289	3.1	3.6	3.9
Natrona	38,348	37,580	39,376	36,724	35,882	37,587	1,624	1,698	1,789	4.2	4.5	4.5
STATEWIDE	**287,291**	**285,812**	**292,185**	**277,197**	**275,207**	**281,414**	**10,094**	**10,605**	**10,771**	**3.5**	**3.7**	**3.7**
Statewide Seasonally Adjusted										4.1	4.1	4.2
U.S.										3.5	3.6	3.9
U.S. Seasonally Adjusted										3.7	3.7	4.1

Prepared in cooperation with the Bureau of Labor Statistics. Benchmarked 03/2018. Run Date 11/2018.

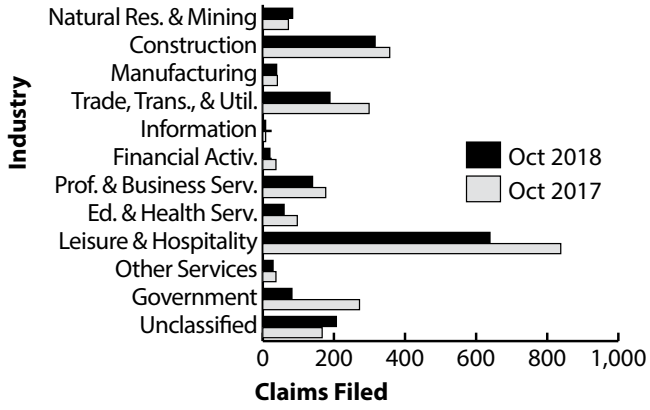
Data are not seasonally adjusted except where otherwise specified.

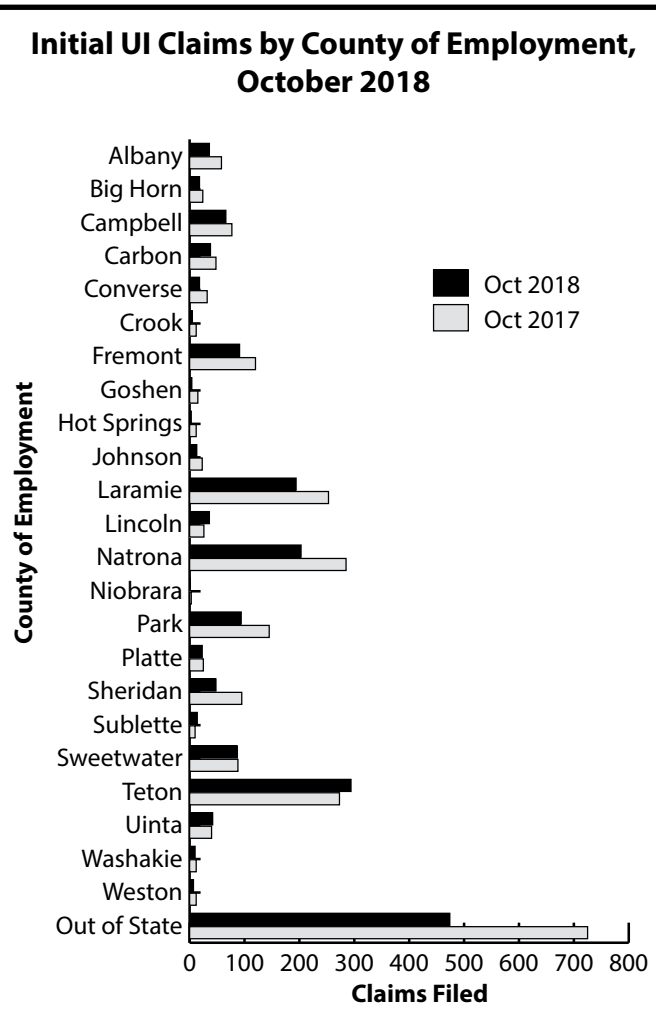
(p) Preliminary. (r) Revised. (b) Benchmarked.

Wyoming Normalized[a] Unemployment Insurance Statistics: Initial Claims

by: Patrick Manning, Principal Economist

There were 1,824 initial claims in October 2018, down 24.4% over the year.





Initial Claims

	Claims Filed			Percent Change Claims Filed	
	Oct 18	Sep 18	Oct 17	Oct 18 Sep 18	Oct 18 Oct 17
Wyoming Statewide					
TOTAL CLAIMS FILED	**1,824**	**906**	**2,412**	**101.3**	**-24.4**
TOTAL GOODS-PRODUCING	441	258	471	70.9	-6.4
Natural Res. & Mining	84	55	72	52.7	16.7
Mining	70	47	62	48.9	12.9
Oil & Gas Extraction	3	8	4	-62.5	-25.0
Construction	316	179	357	76.5	-11.5
Manufacturing	39	22	41	77.3	-4.9
TOTAL SERVICE-PROVIDING	1,092	467	1,500	133.8	-27.2
Trade, Transp., & Utilities	189	128	299	47.7	-36.8
Wholesale Trade	30	21	29	42.9	3.4
Retail Trade	84	72	177	16.7	-52.5
Transp., Warehousing & Utilities	75	35	93	114.3	-19.4
Information	8	14	8	-42.9	0.0
Financial Activities	20	28	37	-28.6	-45.9
Prof. and Business Svcs.	140	81	177	72.8	-20.9
Educational & Health Svcs.	60	53	97	13.2	-38.1
Leisure & Hospitality	639	131	838	387.8	-23.7
Other Svcs., exc. Public Admin.	29	25	37	16.0	-21.6
TOTAL GOVERNMENT	82	48	272	70.8	-69.9
Federal Government	14	4	156	250.0	-91.0
State Government	10	11	35	-9.1	-71.4
Local Government	57	32	80	78.1	-28.8
Local Education	17	8	15	112.5	13.3
UNCLASSIFIED	207	130	167	59.2	24.0
Laramie County					
TOTAL CLAIMS FILED	**193**	**128**	**253**	**50.8**	**-23.7**
TOTAL GOODS-PRODUCING	66	37	82	78.4	-19.5
Construction	54	35	72	54.3	-25.0
TOTAL SERVICE-PROVIDING	103	70	139	47.1	-25.9
Trade, Transp., & Utilities	27	23	36	17.4	-25.0
Financial Activities	3	1	8	200.0	-62.5
Prof. & Business Svcs.	43	18	49	138.9	-12.2
Educational & Health Svcs.	6	8	16	-25.0	-62.5
Leisure & Hospitality	16	8	22	100.0	-27.3
TOTAL GOVERNMENT	7	4	24	75.0	-70.8
UNCLASSIFIED	15	16	6	-6.3	150.0
Natrona County					
TOTAL CLAIMS FILED	**202**	**174**	**284**	**16.1**	**-28.9**
TOTAL GOODS-PRODUCING	89	63	90	41.3	-1.1
Construction	66	47	71	40.4	-7.0
TOTAL SERVICE-PROVIDING	90	94	167	-4.3	-46.1
Trade, Transp., & Utilities	32	25	62	28.0	-48.4
Financial Activities	7	6	10	16.7	-30.0
Prof. & Business Svcs.	13	14	27	-7.1	-51.9
Educational & Health Svcs.	11	19	18	-42.1	-38.9
Leisure & Hospitality	20	16	39	25.0	-48.7
TOTAL GOVERNMENT	5	2	10	150.0	-50.0
UNCLASSIFIED	17	14	15	21.4	13.3

[a]An average month is considered 4.33 weeks. If a month has four weeks, the normalization factor is 1.0825. If the month has five weeks, the normalization factor is 0.866. The number of raw claims is multiplied by the normalization factor to achieve the normalized claims counts.

Wyoming Normalized[a] Unemployment Insurance Statistics: Continued Claims

by: Patrick Manning, Principal Economist

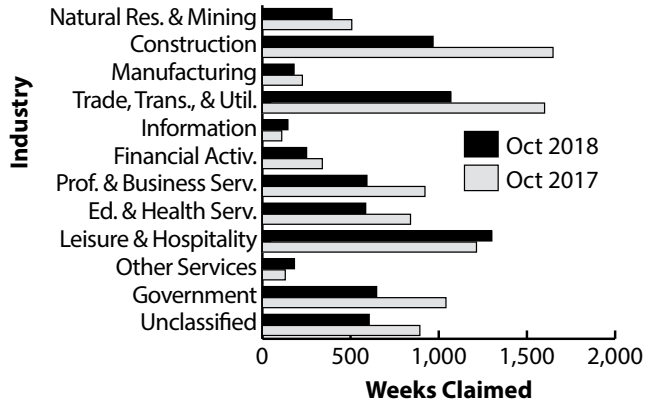
There were 2,054 claimants with continued claims, a decrease of 30.8% (916 fewer individuals) over the year.

Continued Claims

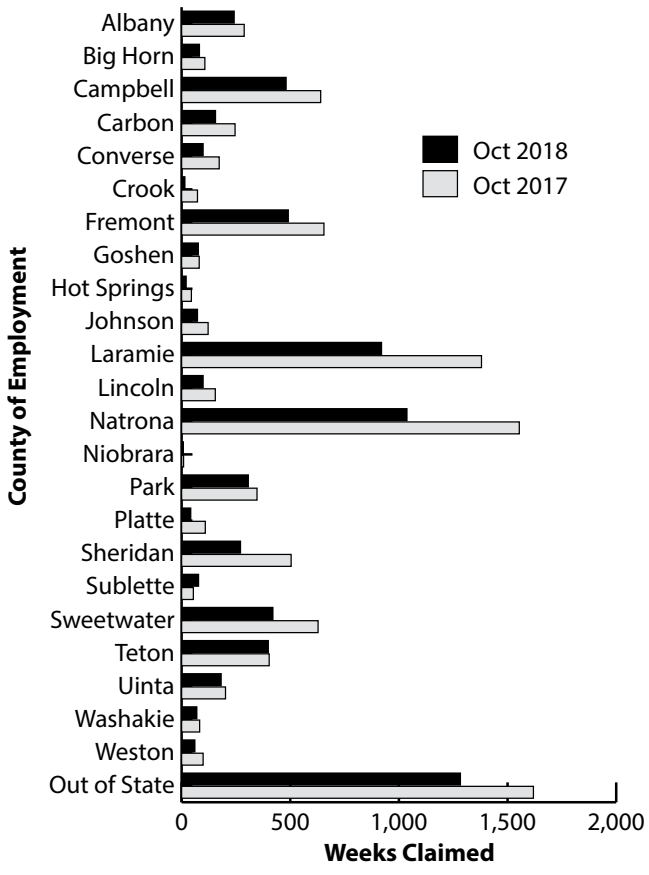
	Claims Filed			Percent Change Claims Filed	
	Oct 18	Sep 18	Oct 17	Oct 18 Sep 18	Oct 18 Oct 17
Wyoming Statewide					
TOTAL WEEKS CLAIMED	6,932	6,121	9,580	13.2	-27.6
TOTAL UNIQUE CLAIMANTS	2,054	1,864	2,970	10.2	-30.8
Benefit Exhaustions	189	190	224	-0.5	-15.6
Benefit Exhaustion Rates	9.2%	10.2%	7.5%	-1.0%	1.7%
TOTAL GOODS-PRODUCING	1,544	1,512	2,383	2.1	-35.2
Natural Res. & Mining	395	379	507	4.2	-22.1
Mining	335	342	437	-2.0	-23.3
Oil & Gas Extraction	42	31	79	35.5	-46.8
Construction	968	952	1,648	1.7	-41.3
Manufacturing	180	179	227	0.6	-20.7
TOTAL SERVICE-PROVIDING	4,133	3,271	5,262	26.4	-21.5
Trade, Transp., & Utilities	1,069	1,045	1,600	2.3	-33.2
Wholesale Trade	192	180	252	6.7	-23.8
Retail Trade	575	582	959	-1.2	-40.0
Transp., Warehousing & Utilities	302	283	389	6.7	-22.4
Information	145	158	110	-8.2	31.8
Financial Activities	251	264	340	-4.9	-26.2
Prof. & Business Services	593	458	922	29.5	-35.7
Educational & Health Svcs.	586	649	840	-9.7	-30.2
Leisure & Hospitality	1,301	486	1,214	167.7	7.2
Other Svcs., exc. Public Admin.	182	202	230	-9.9	-20.9
TOTAL GOVERNMENT	648	598	1,041	8.4	-37.8
Federal Government	145	55	214	163.6	-32.2
State Government	110	114	172	-3.5	-36.0
Local Government	392	428	654	-8.4	-40.1
Local Education	122	176	226	-30.7	-46.0
UNCLASSIFIED	606	739	893	-18.0	-32.1
Laramie County					
TOTAL WEEKS CLAIMED	919	925	1,380	-0.6	-33.4
TOTAL UNIQUE CLAIMANTS	263	272	417	-3.3	-36.9
TOTAL GOODS-PRODUCING	152	150	339	1.3	-55.2
Construction	120	115	268	4.3	-55.2
TOTAL SERVICE-PROVIDING	646	618	910	4.5	-29.0
Trade, Transp., & Utilities	205	221	219	-7.2	-6.4
Financial Activities	41	58	90	-29.3	-54.4
Prof. & Business Svcs.	161	90	283	78.9	-43.1
Educational & Health Svcs.	98	103	157	-4.9	-37.6
Leisure & Hospitality	61	58	63	5.2	-3.2
TOTAL GOVERNMENT	68	94	88	-27.7	-22.7
UNCLASSIFIED	52	62	41	-16.1	26.8
Natrona County					
TOTAL WEEKS CLAIMED	1,036	1,000	1,554	3.6	-33.3
TOTAL UNIQUE CLAIMANTS	302	287	469	5.2	-35.6
TOTAL GOODS-PRODUCING	254	214	379	18.7	-33.0
Construction	174	126	278	38.1	-37.4
TOTAL SERVICE-PROVIDING	697	700	1,024	-0.4	-31.9
Trade, Transp., & Utilities	202	226	404	-10.6	-50.0
Financial Activities	57	41	74	39.0	-23.0
Professional & Business Svcs.	71	58	139	22.4	-48.9
Educational & Health Svcs.	161	197	241	-18.3	-33.2
Leisure & Hospitality	135	119	161	13.4	-16.1
TOTAL GOVERNMENT	14	19	99	-26.3	-85.9
UNCLASSIFIED	70	66	50	6.1	40.0

[a]An average month is considered 4.33 weeks. If a month has four weeks, the normalization factor is 1.0825. If the month has five weeks, the normalization factor is 0.866. The number of raw claims is multiplied by the normalization factor to achieve the normalized claims counts.

Continued UI Claims by Industry, October 2018



Continued UI Claims by County of Employment, October 2018



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