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WYOMING LABOR FORCE TRENDS

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Consumer Reports: Wyoming Career Assist

Employment, Earnings, and Hours Worked Five Years Before and Five Years After Graduation by Programs of Study

by: Tom Gallagher, Research & Planning Manager, and Lynae Mohondro, Senior Economist

The Research & Planning (R&P) section of the Wyoming Department of Workforce Services produces reports in tabular and interactive graphic form, and supporting documentation allowing customers to better understand a great deal more about the career pathways between work and education leading to a greater probability of success in their chosen field of study. This report introduces consumers to tabulations and interactive graphics of student outcomes and pre-graduation work experiences.

People use cost and time investment to make among the most important decisions about postsecondary enrollment in their lives and those of their families. Many factors may influence an individual's decisions regarding postsecondary education: what to study, where to enroll, and the level of degree to obtain. However, what is frequently unavailable to facilitate choice is information about the formal education process and the world of work most people enter coincidentally, as well as information about post-graduation employment and earnings.

Wyoming Career Assist Online

Detailed tables, interactive graphics, related articles, and more are available online at http://doe.state.wy.us/LMI/education_we_connect/2017/consumer_reports_intro.htm

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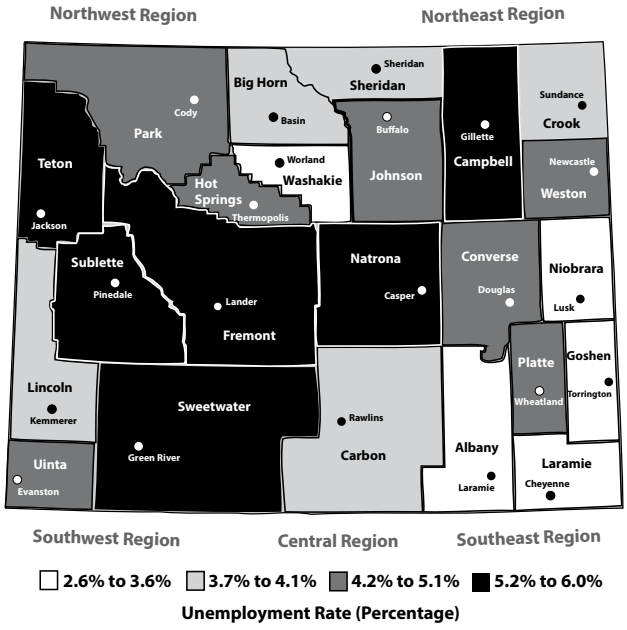
HIGHLIGHTS

- **In third quarter 2016 (2016Q3), average monthly employment and total wages declined over the year for the sixth consecutive quarter across all industries in Wyoming. Total employment decreased from 288,316 in 2015Q3 to 275,834 in 2016Q3 (-12,482 jobs, or -4.3%). …** ***page 17***
- **In 2016Q2, Wyoming employers added fewer hires in mining (797) than at any other time dating back to 1992, the first year for which wage records are available. …** ***page 26***

Unemployment Rate by Wyoming County, November 2016 (Not Seasonally Adjusted)



IN THIS ISSUE

Wyoming Labor Force Trends

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Forming reasonable expectations about the education and work experience is essential to realistic strategies for educational success and goes well beyond information in the course catalogue. Currently in Wyoming, very few sources exist that link education and labor market outcomes. The Research & Planning (R&P) section of the Wyoming Department of Workforce Services produces reports in tabular and interactive graphic form, and supporting documentation allowing customers to better understand a great deal more about the career pathways between work and education, leading to a greater probability of success in their chosen field of study.

With such an abundance of data provided in the tables, some fields and variables may be unclear to users; this introduction aims to provide explanation of the tables and decisions made during their development.

Background Discussion, What the Data Measure, and How they Can be Used

How important is pre-graduation work experience to the probability of post-graduation work in a field for which individuals trained? What proportion of students finance their education with work? How much do they work, and does work impede or propel graduation? The first step in answering these and other complex questions involves assembling the relevant data and describing how work, training, and education fit together. As individuals progress from young adulthood into postsecondary education and the labor market, the alternative pathways available make measuring progress more complicated than it may first appear.

There is a growing body of literature describing the interaction between employment and participation in formal education and training programs. Typically, market outcomes are measured using worker earnings as reported to the state Unemployment Insurance (UI) program. Workers earn quarterly wage credits, which determine their eligibility for UI weekly benefit payments should they become unemployed. Quarterly wage credits are referred to as wage records.

Wage records in most states represent the level of compensation during a calendar quarter rather than a more familiar measure of earnings, such as an hourly rate of pay or monthly salary. Consequently, because the hire date and exit date from jobs can occur at any time during the quarter, the interpretation of wage records earnings is less than straightforward. When the goal for training programs is to earn a clearly defined family-sustaining wage, near term post-training wage records earnings prove difficult to interpret because people enter and leave jobs within a quarter, rather than at the beginning or end. One solution to the problem of interpretation is to focus on earnings with the same employer over a longer period of time; another solution is to develop or collect information on rates of compensation as part of administrative employment records.

The tabulations and interactive graphics referenced in this report include

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Box: Definitions of Variables Used in the Five Year Pre- & Post-Graduation Tables

Year Relative to Graduation	The number of four-quarter groupings prior to and following graduation. E.g. If an individual graduates in May 2007 (2007Q2) then 1 year relative to graduation includes 2007Q3, 2007Q4, 2008Q1, and 2008Q2.
Degrees Awarded	The number of degrees obtained in a CIP code by the cohort at graduation. E.g. the number of degrees obtained during the 2007/08, 2008/09, & 2009/10 academic years.
% Female	The percentage of degrees awarded to females in the cohort at graduation. E.g. the percentage of degrees obtained by females during the 2007/08, 2008/09, & 2009/10 academic years.
% Age 25+	The percentage of degrees awarded to individuals aged 25 or older in the cohort at graduation. E.g. the percentage of degrees obtained by students age 25 and older during the 2007/08, 2008/09, & 2009/10 academic years.
N	The number of degrees matched to wage records in the year relative to graduation. An individual with more than one degree in the CIP and academic years will be matched to wage records the same number of times as degrees. This variable is listed for Wyoming & Partner States, Wyoming Only, and Partner States Only.
%	The percentage of degrees matched to wage records in the year relative to graduation. An individual with more than one degree in the CIP and academic years will be matched to wage records the same number of times as degrees. This variable is listed for Wyoming & Partner States, Wyoming Only, and Partner States Only.
Annual $	The annual median wage of degrees matched to wage records in the year relative to graduation. An individual with more than one degree in the CIP and academic years will be matched to wage records the same number of times as degrees. This variable is listed for Wyoming & Partner States, Wyoming Only, and Partner States Only. All wages are in 2015 real dollars, they have been adjusted to remove the effects of changes in prices and living conditions over the 10 year period.
Hourly $	The imputed median hourly wage of degrees matched to wage records in the year relative to graduation. An individual with more than one degree in the CIP and academic year will be matched to wage records the same number of times as degrees. This data is only available for the Wyoming workforce. All wages are in 2015 real dollars, they have been adjusted to remove the effects of changes in prices over the 10 year period.
Hrs Worked/ Quarter	The imputed average number of hours worked per quarter of degrees matched to wage records in the year relative to graduation. An individual with more than one degree in the CIP and academic year will be matched to wage records the same number of times as degrees. This data is only available for the Wyoming workforce. A person who works 520 hours is considered full-time.
CIP Code	A code system maintained by the National Center for Education Statistics (NCES) categorized by two-, four-, and six-digit levels of instructional programs. The purpose of the classification system is to support the accurate tracking, assessment, and reporting of fields of study and program completions activity. A complete listing of CIP codes can be found at https://nces.ed.gov/pubs2002/cip2000/. Example of CIP Code Structure 2-Digit CIP: 510000 Health Professions and Related Programs 4-Digit: 510200 Communication Disorders Sciences and Services 6-Digit: 510204 Audiology/Audiologist & Speech Language Pathology/Pathologist 4-Digit: 513800 Registered Nursing, Nursing Administration, Nursing Research, & Clinical Nursing 6-Digit: 513801 Registered Nursing/Registered Nurse
NAICS Code	In general, an industry refers to the type of firm for which a person works. Rather than grouping according to the final product or service, the North American Industry Classification System (NAICS*) categorizes firms based on production process. However, the final product or service is usually similar for establishments within an industry. NAICS code structure has a similar 2-Digit, 4-Digit, 6-Digit structure as CIP codes, however the UW/Community College student outcome tables only use the 2-Digit NAICS codes. Example of NAICS Code Structure 2-Digit NAICS: 620000 Health Care and Social Assistance 4-Digit NAICS: 621000 Ambulatory Health Care Services 5-Digit NAICS: 62111 Offices of Physicians 6-Digit NAICS: 621111 Offices of Physicians (except Mental Health Specialists) 6-Digit NAICS: 621112 Offices of Physicians, Mental Health Specialists
Primary Industry	The industry in which an individual earned the highest wages during the reference quarter. Individuals may work in more than one industry, but their primary industry is the one in which they had the highest wages.
Partner States	Partner States are states with which R&P has a data sharing agreement and include Alaska, Colorado, Idaho, Montana, Nebraska, New Mexico, Oklahoma, Ohio, South Dakota, Texas, and Utah. A map of Wyoming and Partner States can be found at http://doe.state.wy.us/LMI/About_Research_Planning_2015.pdf. An individual may work in two states in the reference quarter. The state in which they are counted is the one in which they earned the highest wages.

(Text continued from page 3)

earnings using wage records, as well as hourly rates of compensation and the median number of hours worked per quarter. The availability of rates of compensation not only yields a more customary measure, it also allows us to ascertain the extent to which earnings change over time as individuals add human capital through maturity and as they shift hours from time spent in the classroom to time spent employed.

Researchers, and sometimes individuals and organizations with little formal education in the social and behavioral sciences, are increasingly accessing wage records, linking them to student files, and publishing average earnings post-training results. Often these calculations are carried out without reference to the socioeconomic context or human capital assets of training participants, leaving the results uninterpretable except by those whose imaginations are unimpeded by the possession of a relevant academic discipline. The tabular data presented along with earnings outcomes, such as post-graduation industry of employment, are among the most relevant contextual factors in establishing what outcomes mean. However, these tables by themselves are inadequate in anticipating future outcomes.

This report introduces consumers to tabulations and interactive graphics of student outcomes and pre-graduation work experiences. These are available online at http://doe.state.wy.us/LMI/education_we_connect/2017/consumer_reports_intro.htm. Popular terms refer to these longitudinal measures as the *labor supply pipeline* or components of *career pathways*. However they are referenced, what is clear is that most people work in their pre-graduation school years. For example, for the University of Wyoming 2008/09, 2009/10, & 2010/11 cohort, 73.7% of graduates with a bachelor's degree worked a UI covered job for at least some time four years prior to graduation. For awards involving an older population of graduates, even greater proportions are found working. For the cohort of UW graduates in Dental Support Services and Allied Professions (CIP 5106), 56.9% were age 25 or older at the time of graduation and 80.4% were found working four years prior to graduation. Whether pre-graduation work experience (or on-the-job training, as can be seen in the tabular data) is highly important to post-graduation outcomes can be determined by forms of analysis beyond the descriptive tables presently available. However, it is clear that the work to date to bring the variables together in one data set is a precursor to that analysis.

Because of the relatively small number (N) of students who graduate from a postsecondary education institution in Wyoming, graduates from three consecutive school years have been aggregated to form cohorts, such as the 2008/09, 2009/10, & 2010/11 cohort (see Box, page 4). Combining school years allows R&P to disclose more information and also see trends in the data over time that a small sample size (n) may not display. For example, as can be seen in the tables, where n is large, hours worked and the average hourly rate progress in a reasonable manner over

(Text continued on page 7)

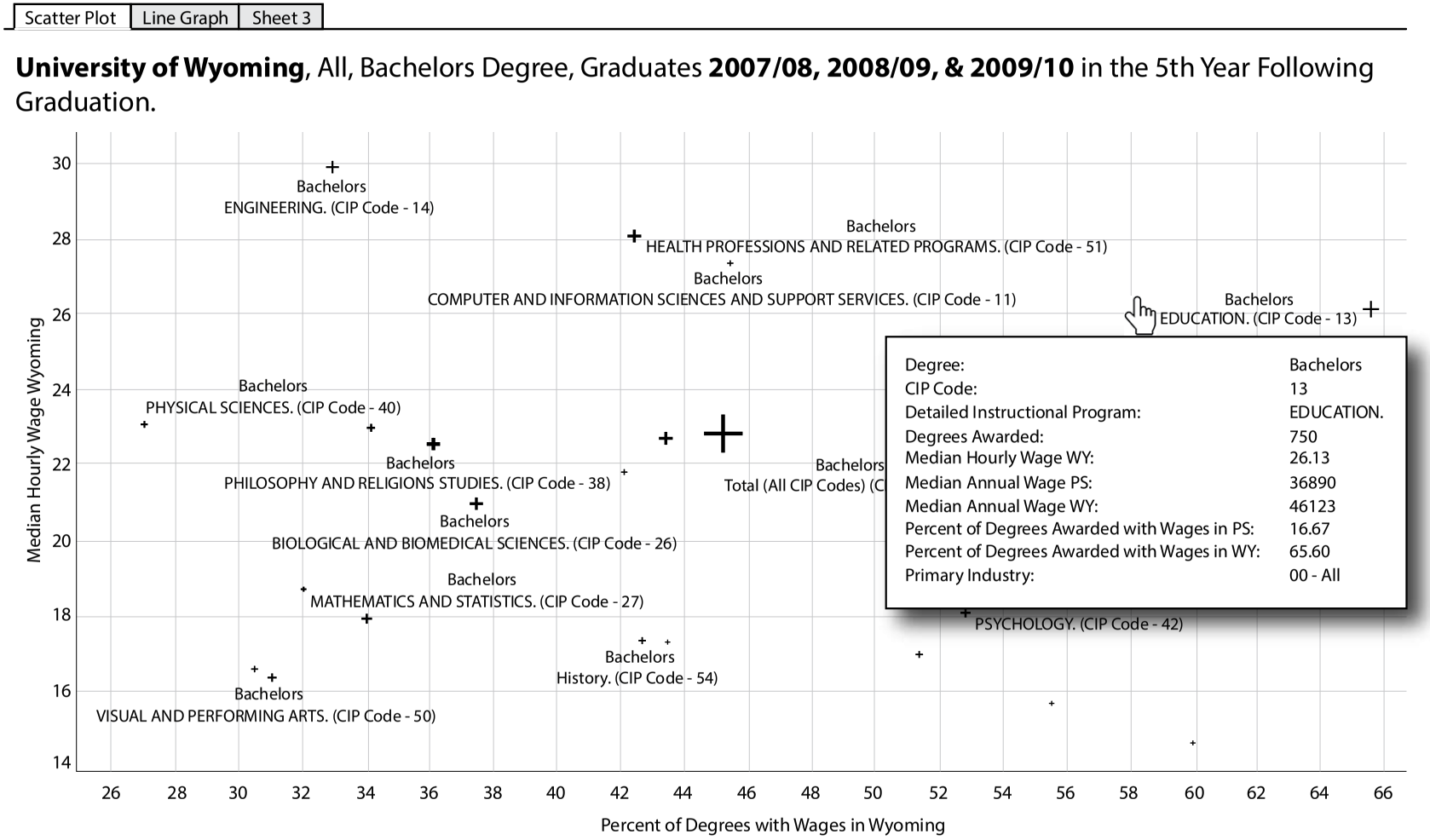

Figure 1: University of Wyoming Bachelor's Degree Graduates from 2007/08, 2008/09, & 2009/10 Working in Wyoming 5 Years After Graduation (sample screenshot).

The scatter plot in Figure 1 shows the percent of degrees with wages in Wyoming (horizontal axis) and the median hourly wage in Wyoming (vertical axis) for a selected school year, degree type, and year relative to graduation. To view additional data on the points on the scatter plot, the user can hover the cursor over the point in question. The user will then get to view details on the training program (such as CIP code and title), demographics of the graduates (such as the percentage of female and percentage above age 25), and employment data (such as the percentage of graduates working in Wyoming and partner states and the average wages earned in Wyoming and partner states).

(Text continued from page 5)

time. On the other hand, when n is small, change over time is much more likely subject to random, erratic, and inexplicable events from one period to the next.

The scatter plot (see Figure 1, page 6) shows the percent of degrees with wages in Wyoming (horizontal axis) and the median hourly wage in Wyoming (vertical axis) for a selected school year, degree type, and year relative to graduation. To view additional data on the points on the scatter plot, the user can hover the cursor over the point in question. The user will then get to view details on the training program (such as CIP code and title), demographics of the graduates (such as the percentage of female and percentage above age 25), and employment data (such as the percentage of graduates working in Wyoming and partner states[1] and the average wages earned in Wyoming and partner states). As shown in the example in Figure 1, the University of Wyoming awarded 750 bachelor's degrees in education to graduates from 2007/08, 2008/09, & 2009/10. Five years after graduation, 65.6% of those degrees were found working in Wyoming, with a median hourly wage of $26.13 and a median annual wage of $46,123. An additional 16.67% of those degrees were found working in a partner state, with a median annual wage of $36,890.

To see how the characteristics of cohorts have changed over time, the user can view multidimensional line graphs showing the percentage of graduates working in Wyoming, the median hourly wage, and the median quarterly hours worked (see Figure 2, page 8). The line graphs clearly show how the percentage working, wages, and hours worked changed relative to graduation. The example in Figure 2 shows the percent of degrees found working, median hourly wage, and median hours worked per quarter for education graduates from 2007/08, 2008/09, & 2009/10.

Using the tables to make decisions about a course of study is complicated by the fact that some variables, such as gender and out-migration, are highly (non-randomly) associated with selected courses of study. What may be a reliable outcome for one gender may not be a reliable outcome for another. Moreover, it is also apparent that graduation by itself is not sufficient for the achievement of a particular outcome in the market. Graduates with a nursing degree who work in retail trade earn far less than graduates working in health care. Some fields of study require migration out of Wyoming to attain the highest level of earnings. Graduation by itself is insufficient to understanding employment and earnings outcomes, since it is clearly not the only associated variable. Confidently predicting the outcome of an educational pursuit is further complicated when the economy is neither as robust nor diversified as we would wish it to be. There are some steps which can be taken to add certainty to the decision making process. The primary link between the tables and greater certainty is the industry of employment following graduation (and

(Text continued on page 9)

1 Partner states are those state labor market information (LMI) offices with which Research & Planning has data-sharing agreements: Alaska, Colorado, Idaho, Montana, Nebraska, New Mexico, Ohio, Oklahoma, South Dakota, Texas, and Utah.

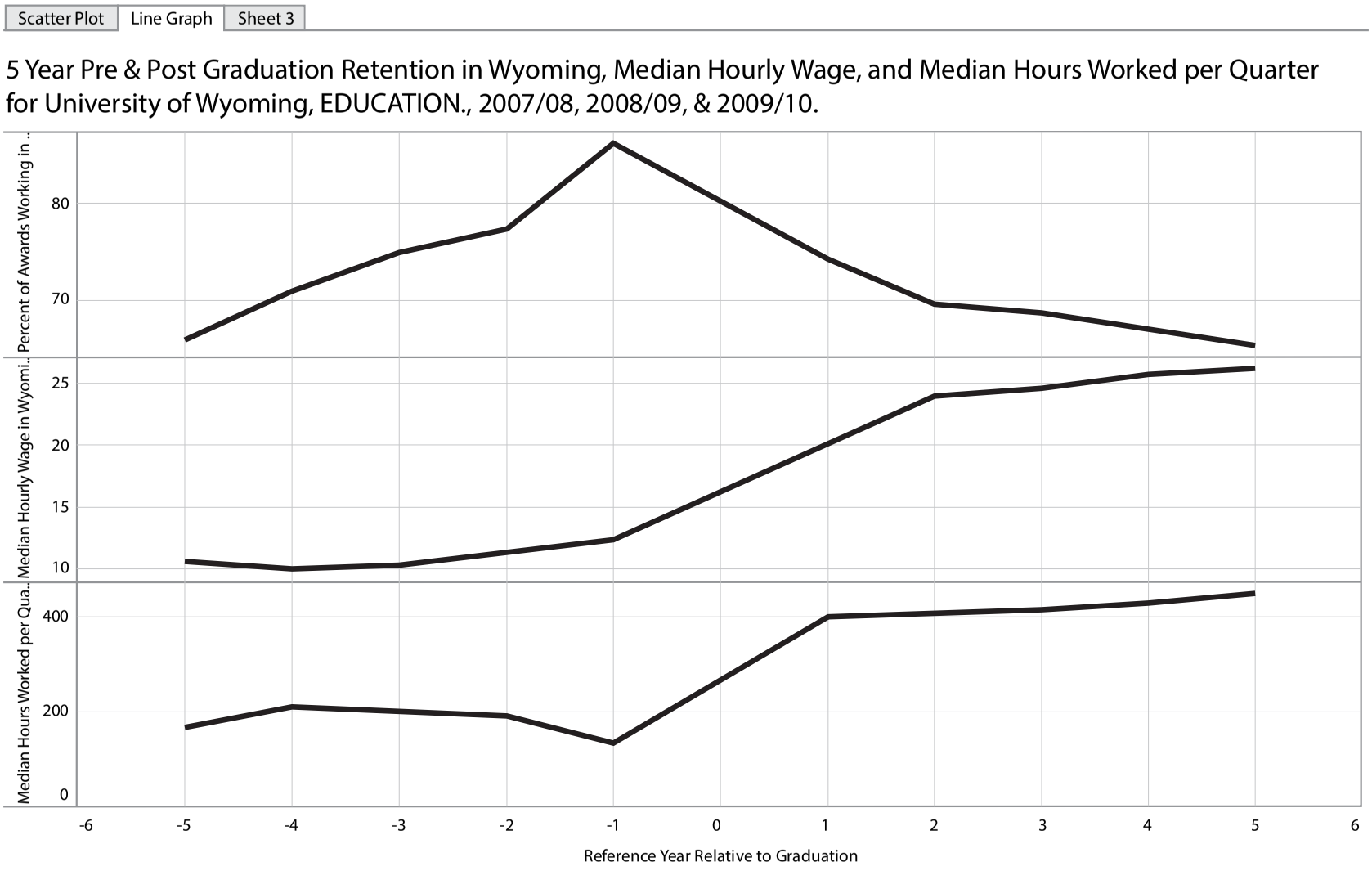

Figure 2: University of Wyoming Bachelor's Degree Graduates from 2007/08, 2008/09, & 2009/10 Working in Wyoming 5 Years Prior to and 5 Years After Graduation (sample screenshot).

To see how the characteristics of cohorts have changed over time, the user can view multidimensional line graphs showing the percentage of graduates working in Wyoming, the median hourly wage, and the median quarterly hours worked. The line graphs clearly show how the percentage working, wages, and hours worked changed relative to graduation.

(Text continued from page 7)

secondarily, geographic location).

Tables of employment and earnings by industry sector are published each calendar quarter by county. These tables can be used to plot local trend lines in employment sectors that employ graduates. Links to these tables can be found at http://doe.state.wy.us/LMI/toc_202.htm and https://www.bls.gov/cew/.

To better understand the outcomes of training programs in the workforce, the Bureau of Labor Statistics and the National Center for Education Statistics developed a Classification of Instructional Programs (CIP) to Standard Occupational Classification (SOC) crosswalk[2]. The crosswalk allows users to explore the different training programs available and the occupations for which the training programs prepare students. Students and postsecondary education institutions may also make decisions based on the characteristics of the occupations, such as employment and average wage, associated with selected CIP codes. Occupations are matched to CIP codes using crosswalks to understand the occupational outcomes of students who graduated from different degree programs. The CIP to SOC crosswalk can be found at https://www.bls.gov/soc/soccrosswalks.htm.

Occupational Employment Statistics (OES) provide additional data to understand student outcomes. An occupation refers to a specific task or set of job tasks. Consider the occupation of roustabouts, oil & gas. The Standard Occupational Classification (SOC) manual defines the occupation as follows: "assemble or repair oil field equipment using hand and power tools. Perform other tasks as needed" (Office of Management & Budget, 2000, p. 173). A single occupation may be present in a variety of industries. For example, accountants, in addition to working in accounting firms, also work for mining companies, hospitals, state or local government, and a host of other industries. Staffing patterns within industries can also provide more information for students on the differences in employment and wages of occupations among the different industries. Information on how occupations differ among industries can be found at http://doe.state.wy.us/LMI/LEWISSept2016ECI/toc001.htm and other OES data can be found at http://doe.state.wy.us/LMI/OES_toc.htm and https://www.bls.gov/oes/.

Long- and short-term industry and occupational projections predict trends on industry or occupational future demand. Projections are useful when examining future growth or contraction of specific industries and occupations in Wyoming. Considering projections while examining data from R&P's student outcome tables from five years prior to graduation and five years after graduation allows users a more advanced understanding of the results of decisions made regarding what to study in postsecondary education. For example, a substantial increase in annual wages occurs for Petroleum Engineers (CIP 1425) in all industries one year after graduation. This may appear to be an occupation that students should pursue to earn

[2] National Center for Education Statistics and Bureau of Labor Statistics. (2011, March). Guidelines for Using the CIP-SOC Crosswalk. Retrieved January 25, 2017, from https://nces.ed.gov/ipeds/cipcode/

high wages; however, according to the 2014-2024 long-term occupational projections, the number of petroleum engineers in Wyoming is expected to decline by 120 jobs by 2024. Students who pursue petroleum engineering may be required to go out of state to find employment in their chosen field. The industry and occupational projections and articles discussing the projections can be found at http://doe.state.wy.us/LMI/projections.htm.

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Consumer Reports: Wyoming Career Assist

Comparing Workforce Outcomes of Dental Support and Nursing Graduates

by: Katelynd Faler, Senior Economist

The purpose of this article is to provide a comparison of the wages and workforce participation rates for graduates with degrees in dental support and nursing. Students, educators, and employers can use the information presented here, and in the interactive graphics to inform post-graduation expectations, craft better instructional programs, and recruit graduates for employment.

Research & Planning (R&P) found that nursing graduates were generally older than dental support graduates and had higher median annual wages. Dental support graduates were more likely to work in health care outside Wyoming where they earned higher wages. The data show that dental support students' years of post-graduate experience were rewarded at a higher rate than nursing students' years of experience.

Methodology

R&P obtained the administrative data used in this analysis through memorandums of understanding with labor market information offices in 11 partner states[1], the University of

[1] Research & Planning has data-sharing agreements with labor market information offices in Alaska, Colorado, Idaho, Montana, Nebraska, New Mexico, Ohio, Oklahoma, South Dakota, Texas, and Utah.

Wyoming, and Wyoming Community College Commission, the Wyoming Department of Education, the Wyoming Department of Transportation, and the Wyoming Department of Workforce Services. More information on R&P's memorandums of understanding can be found at http://doe.state.wy.us/LMI/LMIinfo.htm.

Wyoming's low population can make confidentiality and data analysis challenging. To maintain student privacy, R&P combined records for Wyoming community college graduates from the 2008/09, 2009/10, and 2010/11 school years, and then calculated median annual wages for the first five years after graduation. All wage data are gathered from unemployment insurance wage records and are converted into 2015 dollars. For research purposes, educational programs are assigned a Classification of Instructional Program (CIP) title and code (National Center for Education Statistics, 2010).

This report looks at graduates from all Wyoming community colleges with a two-year occupational degree in dental support — that is, dental support services and allied professions (CIP code 5106) — and nursing, or registered nursing, nursing administration, nursing research and clinical nursing (CIP code 5138). Dental support and nursing were chosen for this report because both programs had a relatively high number of graduates between 2008 and 2011, and a recognizable, corresponding health care occupation (i.e. dental hygienist and registered nurse).

Results

Over 90% of the graduates in dental support and nursing were female (see Table 1). There were 115 degrees issued in dental support, 56.5% of which were granted to students over the age of 25, and 791 degrees issued in nursing, where 76.0% of students were over age 25.

Nursing graduates tended to have a higher annual wages than dental support graduates (see Table 2). In the first year after graduation, nursing graduates who found work in Wyoming's health care industry earned a median wage of $47,114, a higher wage than the nursing graduates who worked in health care in partner states ($39,656). Graduates with a degree in dental support generally earned more in partner states one year after graduation than dental support graduates who worked in Wyoming ($38,211 compared to

Table 1: Number of 2008/09, 2009/10, and 2010/11 Wyoming Community College Graduates in Dental Support Services & Allied Professions (CIP[a] 5106) and Registered Nursing, Nursing Administration, Nursing Research, & Clinical Nursing (CIP[a] 5138) Programs, % of Graduates Who Were Female, and % of Graduates Older than 25 at Graduation

CIP[a] Code	CIP[a] Title	Number of Graduates	% of Graduates, Female	% of Graduates over Age 25 at Graduation
5106	Dental Support Services & Allied Professions	115	94.8%	56.5%
5138	Registered Nursing, Nursing Administration, Nursing Research, & Clinical Nursing	791	91.0%	76.0%

[a]Classification of Instructional Programs Code.
Source: Workforce Data Quality Initiative (WDQI) Custom Extract.
Prepared by K. Faler, Research & Planning, WY DWS, 2/7/17.

$33,735). However, this was not the case five years after graduation, when dental support graduates in Wyoming's health care industry generally earned more than dental support graduates in health care in partner states ($50,213 compared to $47,519).

Table 2: Median Annual Wage for 2008/09, 2009/10, & 2010/11 Wyoming Community College Graduates Graduates in Dental Support Services & Allied Professions (CIP[a] 5106) and Registered Nursing, Nursing Administration, Nursing Research, & Clinical Nursing (CIP[a] 5138) Programs Working in Health Care in Wyoming and Partner States[b] 1 Year and 5 Years After Graduation

		Median Wage, 1 Year After Graduation		Median Wage, 5 Years After Graduation	
CIP[a] Code	CIP Title	WY	Partner States[b]	WY	Partner States[b]
5106	Dental Support Services & Allied Professions	$33,735	$38,211	$50,213	$47,519
5138	Registered Nursing, Nursing Administration, Nursing Research, & Clinical Nursing	$47,114	$39,656	$56,608	$47,644

[a]Classification of Instructional Programs Code.

[b]States with which Research & Planning has data-sharing agreements: Alaska, Colorado, Idaho, Montana, Nebraska, New Mexico, Ohio, Oklahoma, South Dakota, Texas, and Utah.

Source: Workforce Data Quality Initiative (WDQI) Custom Extract.

Prepared by K. Faler, Research & Planning, WY DWS, 2/7/17.

Table 3: Withdrawal of 2008/09, 2009/10, & 2010/11 Wyoming Community College Graduates Graduates in Dental Support Services & Allied Professions (CIP[a] 5106) and Registered Nursing, Nursing Administration, Nursing Research, & Clinical Nursing (CIP[a] 5138) Programs from Wyoming's Health Care Industry

CIP[a] Code (a)	CIP Title	% Working in Health Care in WY 5 Years After Graduation	% Working in Health Care in Partner States[b] 5 Years After Graduation	% Who Left Health Care in Wyoming between 1 and 5 Years After Graduation
5106	Dental Support Services and Allied Professions.	23.5%	67.0%	32.5%
5138	Registered Nursing, Nursing Administration, Nursing Research and Clinical Nursing.	58.4%	17.8%	19.8%

[a]Classification of Instructional Programs Code.

[b]States with which Research & Planning has data-sharing agreements: Alaska, Colorado, Idaho, Montana, Nebraska, New Mexico, Ohio, Oklahoma, South Dakota, Texas, and Utah.

Source: Workforce Data Quality Initiative (WDQI) Custom Extract.

Prepared by K. Faler, Research & Planning, WY DWS, 2/7/17.

Dental support graduates left Wyoming's health care industry at a faster rate than nursing graduates (see Table 3). From one to five years after graduation, there was a 32.5% reduction in the number of dental support graduates working in health care in Wyoming, compared to a reduction of 19.8% for nursing graduates. Five years after graduation, 58.4% of nursing graduates remained working in health care in Wyoming, whereas only 23.5% of dental support graduates were still working in health care in Wyoming. R&P also found 67.0% of dental support graduates worked in a partner state's health care industry five years after graduation, compared to 17.8% of nursing graduates.

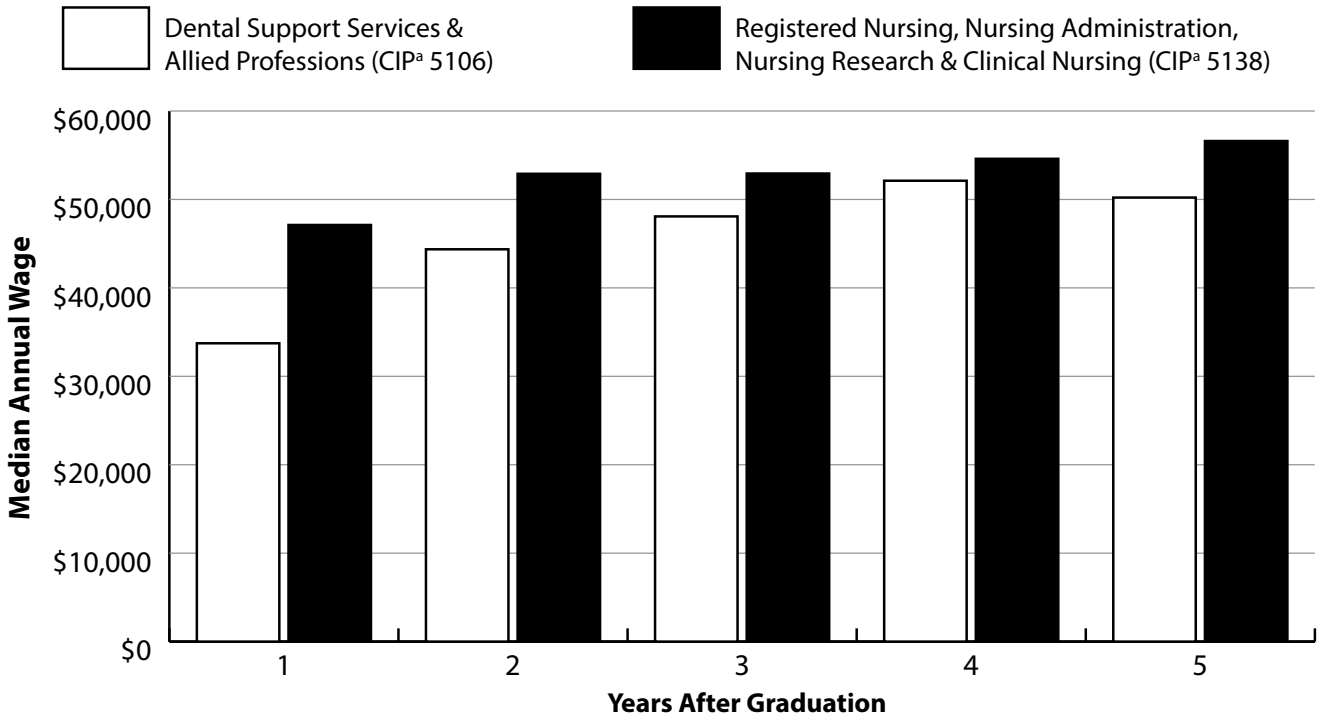
Discussion

In 2008/09, 2009/10, and 2010/11, Wyoming community colleges issued 676 more nursing degrees than dental support

degrees. While both female dominated programs, the nursing graduates were generally older than the dental support graduates. Variations in prerequisites may contribute to the age difference between the two programs, as well as the career pathways chosen by the students: nursing may appeal more to those looking for a second career, or students may work as a certified nursing assistant before committing to a two year program.

The median wage for nursing graduates working in Wyoming's health care industry was more than $13,000 greater than dental support service graduates in the year following graduation (see Figure 1). This gap narrowed to a difference of about $6,000 five years after graduation. This shows that Wyoming's health care market may initially place a higher value on a nurse's education, but years of experience for a dental support graduate have a relatively higher value in Wyoming's labor market.

The lesser value placed on the education of dental support graduates may encourage those students to leave Wyoming: dental support graduates working in health care in a partner state initially earn about $4,500 more annually

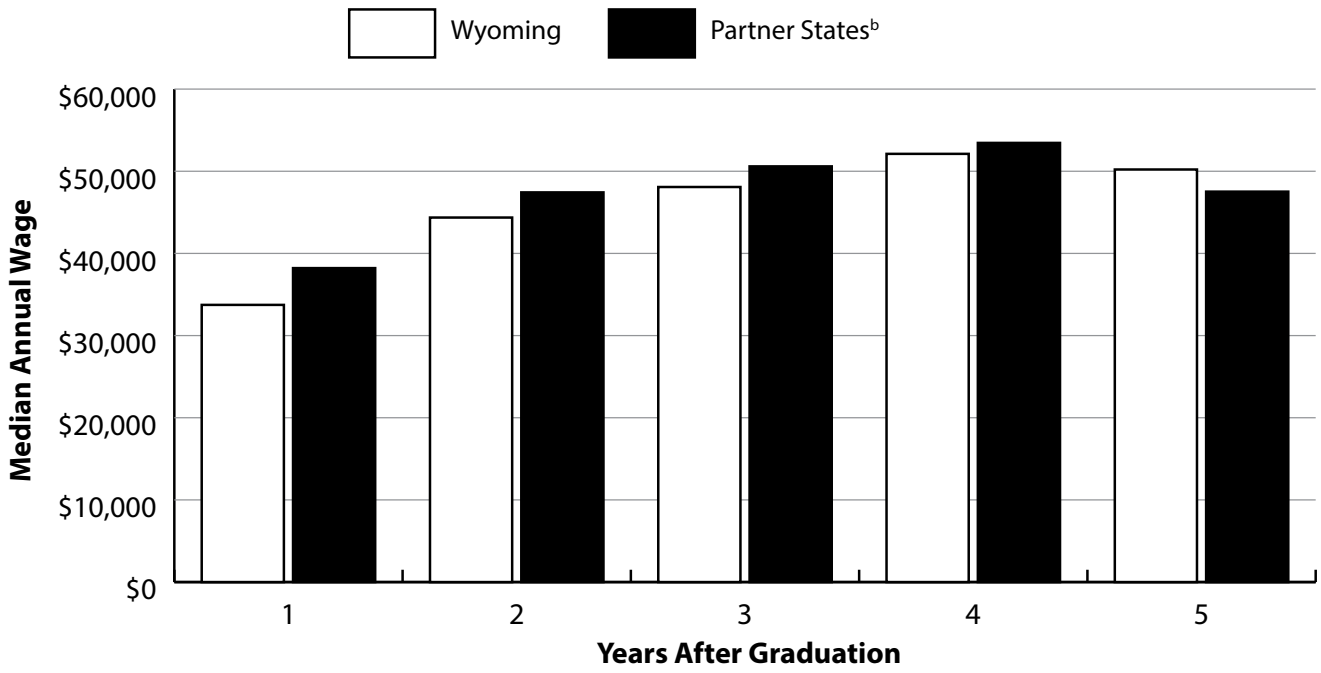


[a]Classification of Instructional Programs.
Source: Workforce Data Quality Initiative (WDQI) Custom Extract.
Prepared by K. Faler, Research & Planning, WY DWS, 2/7/17.

Figure 1: Median Annual Wage for 2008/09, 2009/10, and 2010/11 Wyoming Community College Graduates in Dental Support Services & Allied Professions (CIP[a] 5106) and Registered Nursing, Nursing Administration, Nursing Research, & Clinical Nursing (CIP[a] 5138) Programs Working in Wyoming During the Five Quarters After Graduation

than those who stay in Wyoming (see Figure 2). The extended tables show 31.3% of dental support graduates work in healthcare in a partner state the year after graduation, as compared to 9.4% of nursing graduates (see Figure 3, page 15).

Figures 1 and 2 show a correlation between wages and the rate at which dental support graduates leave Wyoming. However, this does not necessarily indicate that dental support graduates leave Wyoming purely in hope of higher wages elsewhere. It may be that dental support graduates only exit Wyoming's labor market if they receive an offer in another state that is both greater than their current wage and large enough to offset the costs of moving a household. It is also possible that dental support graduates who worked out-of-state received the same rate of pay as their in-state colleagues but had the opportunity to work more hours in a partner states' economy. This may have resulted in a skewed representation of wages offered by other states. Alternatively, the location of Wyoming's two-year dental support programs, offered at community colleges in Cheyenne and Sheridan, may have



[a]Classification of Instructional Programs.
[b]States with which Research & Planning has data-sharing agreements: Alaska, Colorado, Idaho, Montana, Nebraska, New Mexico, Ohio, Oklahoma, South Dakota, Texas, and Utah.
Source: Workforce Data Quality Initiative (WDQI) Custom Extract.
Prepared by K. Faler, Research & Planning, WY DWS, 2/7/17.

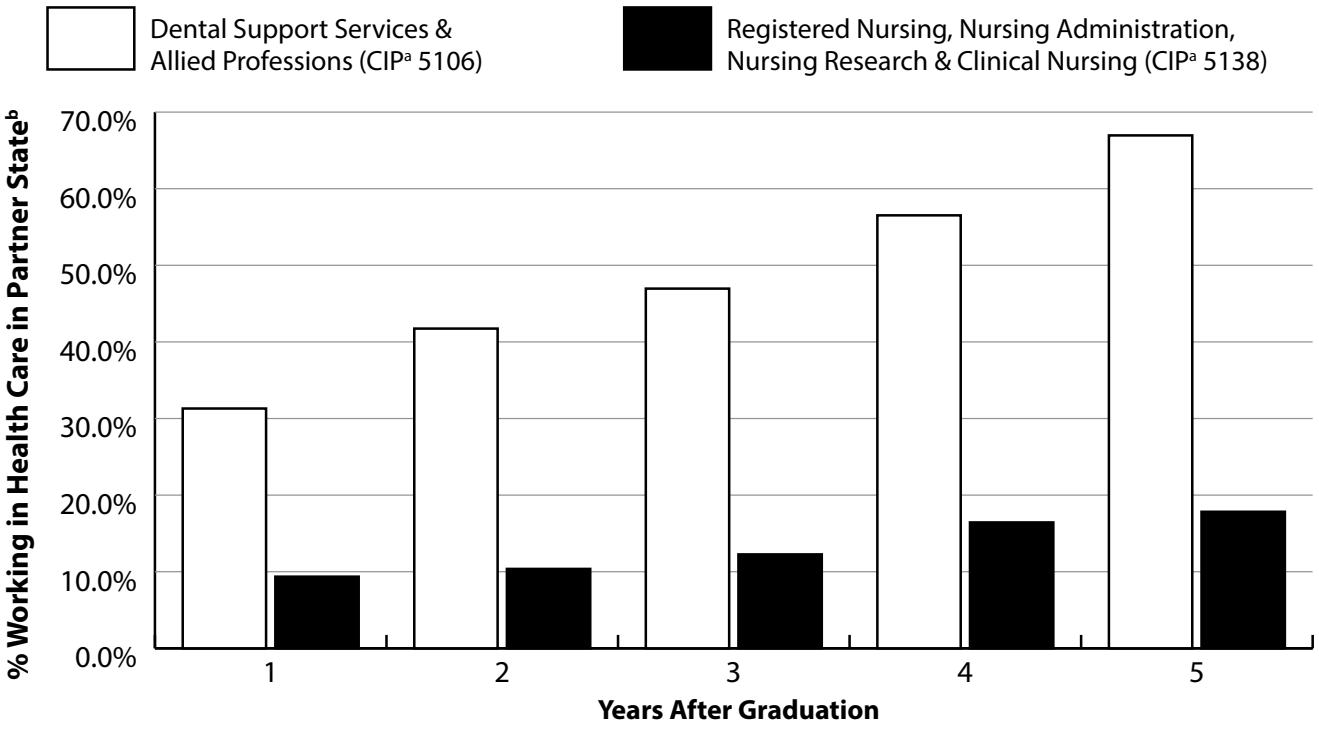
Figure 2: **Median Annual Wage for 2008/09, 2009/10, and 2010/11 Wyoming Community College Graduates in Dental Support Services & Allied Professions (CIP[a] 5106) Programs Working in Wyoming and Partner States[b] in the Five Quarters After Graduation**

also contributed to graduates' tendency to leave Wyoming, possibly for work in Billings or Fort Collins, as opposed to the more widely offered nursing programs. It is difficult to determine causation without more data.

Nursing graduates in Wyoming consistently had higher median wages in health care than in partner states (see Figure 4, page 16), which correlates to the slower rate at which nursing graduates left for a partner states' health care labor market. However, lower median earnings in other states did not completely deter nursing graduates from leaving Wyoming, which reinforces the fact that there are motives outside of wages that drive the migration of Wyoming's graduates. For example, female graduates may be leaving Wyoming to follow their spouses to other states.

Conclusion

In 2008/09, 2009/10, and 2010/11, graduates who earned a degree from a two-year nursing program and worked in



[a]Classification of Instructional Programs.
[b]States with which Research & Planning has data-sharing agreements: Alaska, Colorado, Idaho, Montana, Nebraska, New Mexico, Ohio, Oklahoma, South Dakota, Texas, and Utah.
Source: Workforce Data Quality Initiative (WDQI) Custom Extract.
Prepared by K. Faler, Research & Planning, WY DWS, 2/7/17.

Figure 3: **Percent of 2008/09, 2009/10, and 2010/11 Wyoming Community College Graduates in Dental Support Services & Allied Professions (CIP[a] 5106) and Registered Nursing, Nursing Administration, Nursing Research & Clinical Nursing (CIP[a] 5138) Programs Working in Health Care in a Partner State[b] in the Five Quarters After Graduation**

Wyoming earned higher median wages than nursing graduates who worked in partner states, and dental support graduates who worked in Wyoming or partner states.

Nursing graduates were also less likely to exit Wyoming's health care labor market and more likely to be over the age of 25 at graduation.

The data presented in this article indicate that Wyoming's health care market placed a higher value on a dental support graduates years of post-graduation experience than nursing graduates.

Reference

National Center for Education Statistics. (2010). Introduction to the Classification of Instructional Programs: 2010 edition (CIP-2010). Retrieved February 9, 2017, from https://nces.ed.gov/ipeds/cipcode/Files/Introduction_CIP2010.pdf

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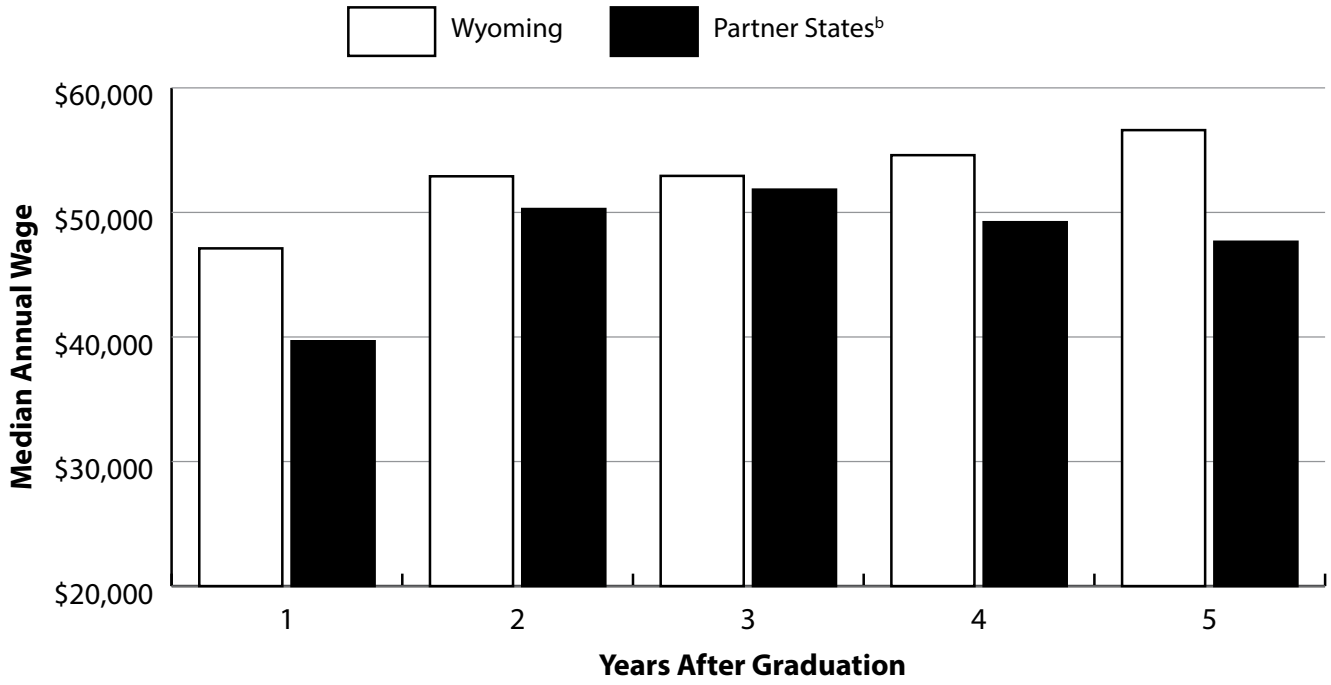


[a]Classification of Instructional Programs.
[b]States with which Research & Planning has data-sharing agreements: Alaska, Colorado, Idaho, Montana, Nebraska, New Mexico, Ohio, Oklahoma, South Dakota, Texas, and Utah.
Source: Workforce Data Quality Initiative (WDQI) Custom Extract.
Prepared by K. Faler, Research & Planning, WY DWS, 2/7/17.

Figure 4: **Median Annual Wage for 2008/09, 2009/10, and 2010/11 Wyoming Community College Graduates in Registered Nursing, Nursing Administration, Nursing Research, & Clinical Nursing (CIP[a] 5138) Programs Working in Health Care in Wyoming and Partner States[b] in the Five Quarters After Graduation**

Employment and Wage Change for Selected Industries in Wyoming, 2016Q3

by: Michael Moore, Editor

In third quarter 2016 (2016Q3), average monthly employment and total wages declined over the year for the sixth consecutive quarter across all industries, according to the Quarterly Census of Employment and Wages (QCEW). Average monthly employment from the QCEW is a measurement of the number of jobs worked, not the number of persons working.

Total employment decreased from 288,316 in 2015Q3 to 275,834 in 2016Q3 (-12,482 jobs, or -4.3%). During the same period, total wages decreased from $3.24 billion to $3.10 billion (-$139.53 million, or -4.3%). Total payroll represents approximately 43% of what households in Wyoming can spend on goods, services, and housing (Bullard, 2013).

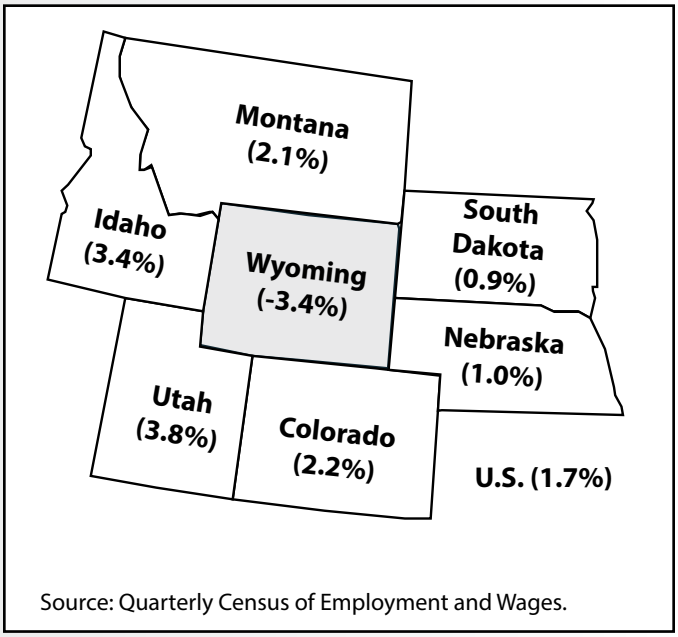
The Research & Planning (R&P) section of the Wyoming Department of Workforce Services publishes employment and wage counts from Unemployment Insurance employer tax filings across all industries in Wyoming four times per year in *Wyoming Labor Force Trends* (January, April, July, and October) as part of the QCEW statistical program. The current issue of *Trends* includes employment and wage counts for 2007Q3 to 2016Q3 (see pages 24-25). In addition, R&P updates its website quarterly to include QCEW employment and wage counts at the industry and county levels. These tables are available at http://doe.state.wy.us/LMI/toc_202.htm.

This article provides a brief discussion on the two most recent periods of economic downturn: 2009Q1-2010Q1 (*previous downturn*) and 2015Q2-2016Q3 (*current downturn*). For the purposes of this article, a *downturn* is defined as a period of at least two consecutive quarters when Wyoming experienced an over-the-year decrease in total wages and average monthly employment. This article also presents a description of the economic trends in four selected industries in Wyoming: mining, construction, private education & health services, and leisure & hospitality. Each industry responds differently to the state's economic conditions, and has its own trends, peaks, and troughs in the graphics presented in this article.

Periods of Economic Downturn

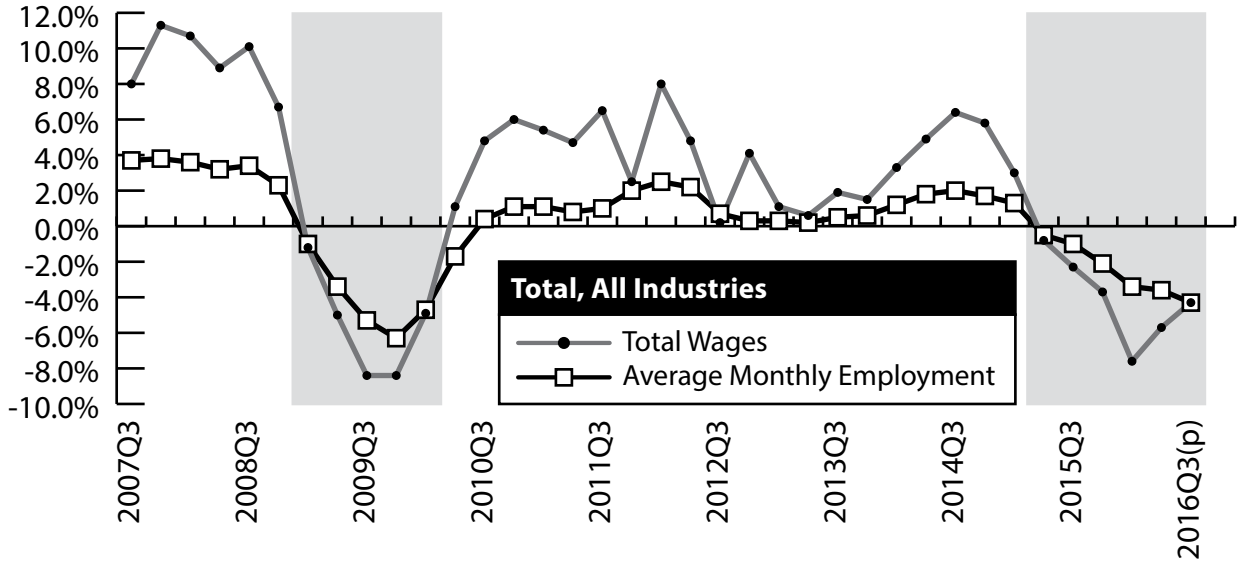
As shown in Figure 1 (see page 18), Wyoming has experienced two periods of economic downturn in recent years. It is important to understand the state, regional, and national economic conditions prior to and during each of these downturns. The previous downturn (2009Q1-2010Q1) was preceded by a period of rapid economic growth (2006-2008) and the start of the national Great Recession, which occurred from December 2007 to June 2009 (NBER, 2010). By comparison, the current downturn was preceded by a period of moderate growth and began when "Wyoming's economy was exposed to a substantial decline in the prices of oil, an extended period of low natural gas prices, and the erosion in the price of coal" (Gallagher, 2016).

During the previous downturn, the economies of Wyoming and surrounding states like Colorado, Utah, and Montana all contracted (Bullard and Moore, 2014). In other words, workers who lost jobs in Wyoming would have found it difficult to find work in one of these surrounding states. By comparison, during Wyoming's current downturn, most surrounding states were experiencing economic growth. As shown in Figure 2, the total number of jobs worked in Wyoming decreased by 3.4% from 2015Q2 to 2016Q2 (the most recent quarter for which surrounding states' data was available at the time of publication). By comparison, all of Wyoming's surrounding states experienced an increase in the number of jobs worked; relatively large increases were seen in Utah (3.8%), Idaho (3.4%), Colorado (2.2%), and Montana (2.1%). Individuals who lost jobs in Wyoming during the current downturn may have been able to find work in one of these states.



Source: Quarterly Census of Employment and Wages.

Figure 2: Over-the-Year Change in Average Monthly Employment (Jobs Worked) in Wyoming and Surrounding States, 2015Q2-2016Q2

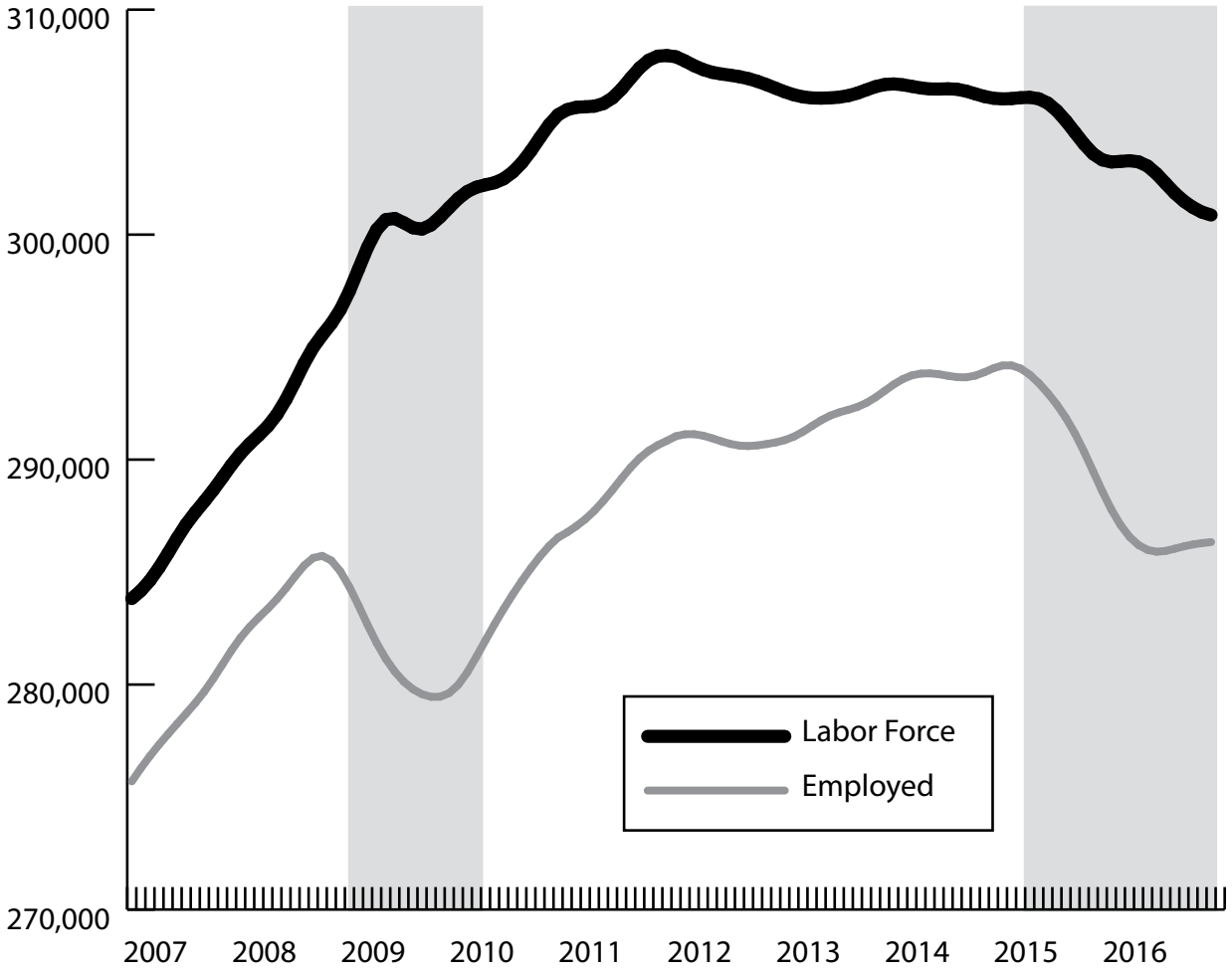


(p) Preliminary.
Shaded areas indicate periods of economic downturn: 2009Q1-2010Q1 and 2015Q2-2016Q3.
Source: Quarterly Census of Employment and Wages.
Prepared by M. Moore, Research & Planning, WY DWS, 2/14/17.

Figure 1: Over-the-Year Percentage Change in Total Wages and Average Monthly Employment (Jobs Worked) in Wyoming by Year and Quarter, 2007Q3-2016Q3

In contrast to the QCEW, the labor force estimates from the Local Area of Unemployment Statistics (LAUS) program provide a measurement of the number of persons working. The *labor force* is defined as the total number of the civilian non-institutionalized population age 16 or older who are employed or unemployed (jobless, looking for a job, and available for work).

Figure 3 shows the seasonally adjusted total labor force and the number of employed individuals in Wyoming from January 2007 to December 2016. During the previous downturn, the resident labor



The labor force is defined as the total number of the civilian non-institutionalized population age 16 or older who are employed or unemployed (jobless, looking for a job, and available for work).
Seasonally adjusted.
Source: Local Area Unemployment Statistics.
Shaded areas indicate periods of economic downturn: 2009Q1-2010Q1 and 2015Q2-2016Q3.
Revised by M. Moore, Research & Planning, WY DWS, 3/17/17.

Figure 3: **Wyoming Resident Labor Force and Number of Persons Employed (Seasonally Adjusted), 2007-2016**

force continued to grow, even though the number employed declined. This indicates that Wyoming residents who lost their jobs continued to look for work. During the current downturn, a decline in the number of jobs worked was followed by a decline in the number of persons working. This is an indication that individuals who could not find work left Wyoming's labor force, meaning they may have stopped looking for a job, enrolled in a postsecondary education institution, or left the state to find work elsewhere. A forthcoming article from R&P will provide a thorough discussion about the relationship between the number of jobs worked, the resident labor force, out-of-state workers, the unemployment rate, and unemployment insurance claims.

Industry Trends

Table 1 shows average monthly employment (jobs worked) and total wages for selected industries in Wyoming for 2015Q3 and 2016Q3. Average monthly employment and total wages both declined 4.3% over the year; however, Wyoming's mining industry experienced a much greater decline. Average monthly employment in mining decreased 22.2% (-5,107 jobs) and total payroll decreased 21.7% (-$103.5 million). Moderate growth occurred in private educational & health services, with a 1.8% increase in average monthly employment (467 jobs) and a 5.3% increase ($14.1 million) in total wages.

Table 1: **Average Monthly Employment (Jobs Worked) and Total Wages for Selected Industries in Wyoming, 2016Q3**

					Over-the-Year Change			
	Average Monthly Employment		Total Wages		Average Monthly Employment		Total Wages	
Industry & NAICS[a] Code	2015Q3	2016Q3	2015Q3	2016Q3	N	%	$	%
Mining, Quarrying, & Oil & Gas Extraction (21)	23,023	17,916	$476,917,847	$373,425,519	-5,107	-22.2	-$103,492,328	-21.7
Coal Mining (2121)	6,581	5,426	$142,205,326	$115,705,011	-1,155	-17.6	-$26,500,315	-18.6
Support Activities for Mining (213)	9,385	6,242	$176,120,358	$110,131,008	-3,143	-33.5	-$65,989,350	-37.5
Construction (23)	25,004	22,357	$323,251,048	$291,658,951	-2,647	-10.6	-$31,592,097	-9.8
Manufacturing (31-33)	9,827	9,258	$151,360,646	$148,608,095	-569	-5.8	-$2,752,551	-1.8
Wholesale Trade, Trans., Warehousing & Utilities (42, 48-49, & 22)	22,471	20,271	$319,705,189	$293,782,962	-2,200	-9.8	-$25,922,227	-8.1
Retail Trade (44-45)	31,754	31,375	$220,832,242	$218,781,118	-379	-1.2	-$2,051,124	-0.9
Information (51)	3,794	3,739	$41,710,752	$44,157,696	-55	-1.4	$2,446,944	5.9
Financial Activities (52-53)	11,177	10,891	$139,603,544	$140,924,434	-286	-2.6	$1,320,890	0.9
Prof. & Business Services (54-56)	19,326	18,538	$228,332,041	$216,672,536	-788	-4.1	-$11,659,505	-5.1
Private Educational & Health Services (61-62)	25,923	26,390	$265,742,064	$279,884,998	467	1.8	$14,142,934	5.3
Leisure & Hospitality (71-72)	41,232	40,980	$206,435,472	$213,907,093	-252	-0.6	$7,471,621	3.6
Other Services (81)	7,878	7,366	$70,927,008	$63,078,438	-512	-6.5	-$7,848,570	-11.1
Total Government	**64,046**	**63,859**	**$774,812,305**	**$795,202,414**	**-187**	**-0.3**	**$20,390,109**	**2.6**
Local Government	42,475	42,604	$459,291,021	$475,651,608	129	0.3	$16,360,587	3.6
State Government	13,606	13,135	$183,388,317	$180,692,809	-471	-3.5	-$2,695,508	-1.5
Federal Government	7,965	8,120	$132,132,967	$138,857,997	155	1.9	$6,725,030	5.1
Total, All Industries	**288,316**	**275,834**	**$3,242,027,718**	**$3,102,495,402**	**-12,482**	**-4.3**	**-$139,532,316**	**-4.3**

[a]North American Industry Classification System.

Source: Quarterly Census of Employment and Wages. Preliminary.

Prepared by N. Brennan and M. Moore, Research & Planning, WY DWS, 2/15/17.

As previously mentioned, individual industries respond differently to changes in Wyoming's economy. Table 2 and Figure 4 (see page 22) show over-the-year percentage change for four selected industries from 2007Q3 to 2016Q3: mining, construction, private educational & health services, and leisure & hospitality. During Wyoming's previous economic downturn, mining and construction lost jobs at similar rates; the average over-the-year rate of change during the five quarters from 2009Q1 to 2010Q1 for mining was -13.1%, compared to -14.4% for construction. During the current downturn, however, mining lost jobs at a much greater rate than construction; from 2015Q2 to 2016Q3, the average over-the-year rate of change for mining was -19.4%, compared to -6.1% for construction. During both periods of economic downturn, private education & health services experienced job growth, at an average rate of 3.7% for the previous downturn and 1.7% for the current downturn. Average monthly employment declined in leisure & hospitality during the previous downturn (-4.6% rate of change), but

Table 2: **Over-the-Year Percentage Change in Average Monthly Employment (Jobs Worked) for Selected Industries in Wyoming, 2007Q3-2016Q3**

Year and Quarter	Total, All Industries	Mining (NAICS[a] 21)	Construction (NAICS[a] 23)	Private Education & Health Services (NAICS[a] 61-62)	Leisure & Hospitality (NAICS[a] 71-72)
2007Q3	3.7	0.5	11.3	3.7	2.1
2007Q4	3.8	1.0	11.1	3.9	2.5
2008Q1	3.6	3.9	13.4	4.9	3.7
2008Q2	3.2	5.2	6.5	5.3	4.2
2008Q3	3.4	9.2	6.4	5.6	3.0
2008Q4	2.3	9.7	-1.1	5.7	1.8
2009Q1	-1.0	0.3	-13.9	5.1	-3.1
2009Q2	-3.4	-11.8	-13.7	4.6	-5.1
2009Q3	-5.3	-18.8	-16.2	3.7	-4.0
2009Q4	-6.3	-20.6	-16.7	3.7	-6.2
2010Q1	-4.7	-14.6	-11.6	1.6	-4.7
Average Rate of Change, 2009Q1-2010Q1	**-4.1**	**-13.1**	**-14.4**	**3.7**	**-4.6**
2010Q2	-1.7	-2.7	-7.4	1.7	-1.5
2010Q3	0.4	5.3	-3.7	1.7	0.6
2010Q4	1.1	8.3	-3.0	2.0	1.9
2011Q1	1.1	9.0	-8.4	2.9	1.3
2011Q2	0.8	9.0	-8.2	2.1	0.4
2011Q3	1.0	9.0	-5.5	1.0	1.5
2011Q4	2.0	9.4	-1.9	0.1	2.2
2012Q1	2.5	7.6	3.4	-0.6	2.8
2012Q2	2.2	3.9	6.4	-0.3	3.2
2012Q3	0.7	-1.8	0.5	0.5	1.8
2012Q4	0.3	-4.7	-0.9	0.7	2.7
2013Q1	0.3	-6.0	2.6	2.0	2.3
2013Q2	0.2	-5.1	0.5	1.6	2.2
2013Q3	0.5	-2.7	0.8	1.2	2.1
2013Q4	0.6	-1.5	1.9	0.9	1.5
2014Q1	1.2	1.3	6.8	0.3	2.1
2014Q2	1.8	2.4	10.2	0.2	2.6
2014Q3	2.0	3.1	10.7	0.1	1.7
2014Q4	1.7	3.3	7.9	0.4	2.1
2015Q1	1.3	-1.1	3.6	0.1	3.5
2015Q2	-0.5	-11.8	-3.2	0.8	2.9
2015Q3	-1.0	-16.5	-4.2	1.0	2.0
2015Q4	-2.1	-20.4	-4.0	1.6	0.7
2016Q1	-3.4	-23.0	-7.6	2.7	-1.4
2016Q2	-3.6	-22.7	-7.1	2.5	-1.1
2016Q3	-4.3	-22.2	-10.6	1.8	-0.6
Average Rate of Change, 2015Q2-2016Q3	**-2.5**	**-19.4**	**-6.1**	**1.7**	**0.4**

[a]North American Industry Classification System.

Shaded areas indicate periods of economic downturn: 2009Q1-2010Q1 and 2015Q2-2016Q3.

Source: Quarterly Census of Employment and Wages.

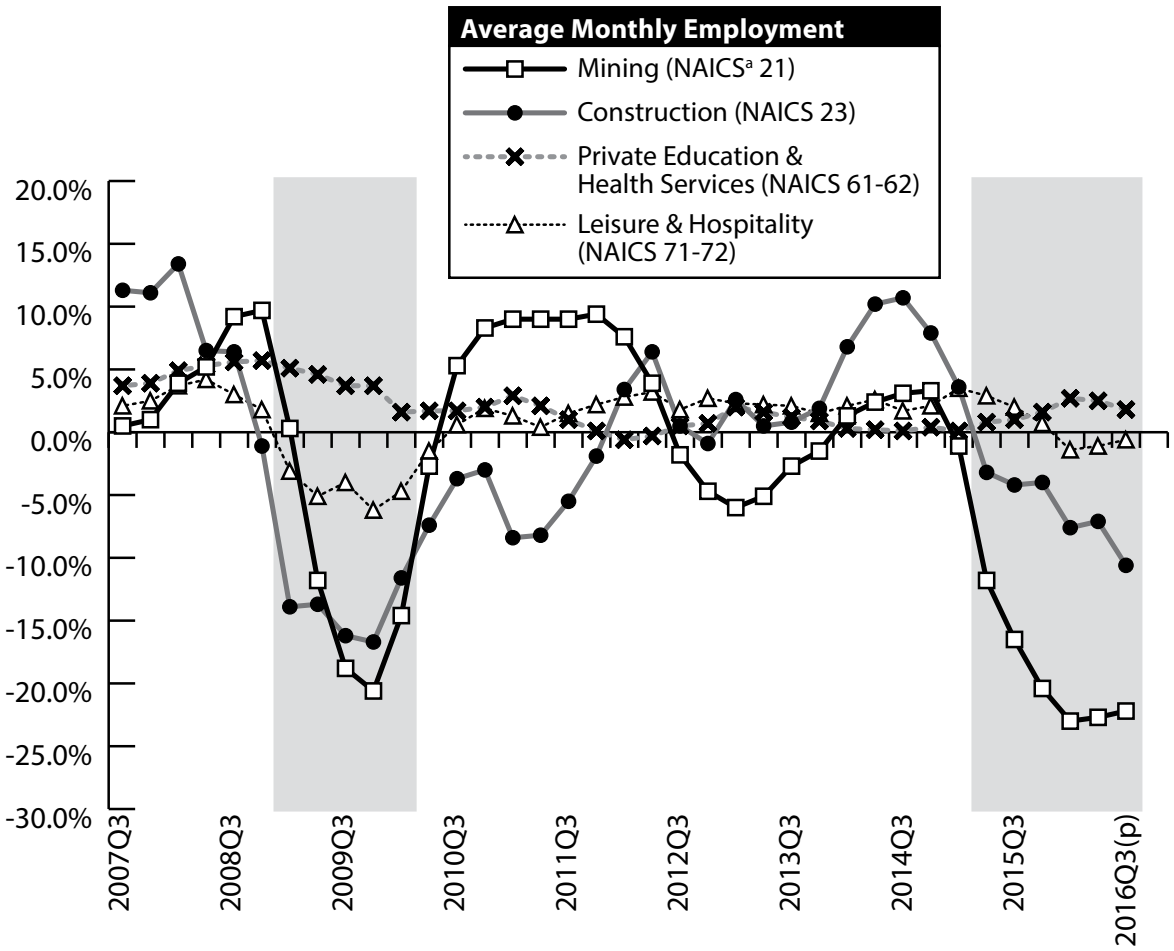
Prepared by M. Moore, Research & Planning, WY DWS, 2/17/17.

increased slightly during the current downturn (0.4% rate of change). The minor increase in jobs in leisure & hospitality was due in large part to job growth during 2015, because average monthly employment decreased over the year during each of the first three quarters of 2016.

Over-the-year changes in total wages generally followed the same pattern as average monthly employment from 2007Q3 to 2016Q3 (see Table 3, page 23).

Conclusion

During the previous downturn, which lasted from 2009Q1-1010Q1, Wyoming lost jobs as the number of jobs worked declined from the pre-downturn years of economic growth. During the current downturn, Wyoming appears to have lost jobs and people, as the number of jobs worked and the total labor force have both declined from pre-downturn years. R&P will continue to



(p) Preliminary.
[a]North American Industry Classification System.
Shaded areas indicate periods of economic downturn: 2009Q1-2010Q1 and 2015Q2-2016Q3.
Source: Quarterly Census of Employment and Wages.
Prepared by M. Moore, Research & Planning, WY DWS, 2/14/17.

Figure 4: **Over-the-Year Percentage Change in Average Monthly Employment (Jobs Worked) for Selected Industries in Wyoming, 2007Q3-2016Q3**

monitor these developments and present findings in future research.

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Table 3: **Over-the-Year Percentage Change in Total Wages for Selected Industries in Wyoming, 2007Q3-2016Q3**

Year and Quarter	Total, All Industries	Mining (NAICS[a] 21)	Construction (NAICS[a] 23)	Private Education & Health Services (NAICS[a] 61-62)	Leisure & Hospitality (NAICS[a] 71-72)
2007Q3	8.0	4.3	25.0	9.5	-21.7
2007Q4	11.3	5.9	26.0	9.4	20.2
2008Q1	10.7	8.4	34.8	9.9	10.0
2008Q2	8.9	13.2	15.2	11.8	8.3
2008Q3	10.1	14.6	13.2	10.2	8.1
2008Q4	6.7	14.0	1.7	12.6	-3.8
2009Q1	-1.2	-0.1	-21.0	4.9	-5.8
2009Q2	-5.0	-17.7	-16.6	4.3	-4.8
2009Q3	-8.4	-21.3	-20.3	3.5	-2.2
2009Q4	-8.4	-23.1	-22.2	6.0	-6.3
2010Q1	-4.9	-11.1	-13.3	1.9	-5.0
Average Rate of Change, 2009Q1-2010Q1	**-5.6**	**-14.7**	**-18.7**	**4.1**	**-4.8**
2010Q2	1.1	1.5	-3.9	4.5	-0.4
2010Q3	4.8	10.5	1.0	6.2	1.4
2010Q4	6.0	16.1	6.2	3.2	5.4
2011Q1	5.4	12.7	-7.0	6.9	2.9
2011Q2	4.7	14.0	-9.2	7.1	3.3
2011Q3	6.5	17.4	-3.2	2.9	4.4
2011Q4	2.5	9.7	-5.2	-0.2	1.0
2012Q1	8.0	14.2	6.2	4.6	13.3
2012Q2	4.8	6.9	16.5	0.7	5.5
2012Q3	0.2	-2.2	1.2	-1.0	1.9
2012Q4	4.1	-0.5	1.8	10.0	5.2
2013Q1	1.1	-6.4	5.8	1.5	11.9
2013Q2	0.6	-1.6	-3.6	0.8	4.7
2013Q3	1.9	0.7	0.6	1.9	4.0
2013Q4	1.5	2.1	11.5	-3.9	2.9
2014Q1	3.3	5.3	9.8	3.0	-2.2
2014Q2	4.9	6.5	16.4	3.1	6.3
2014Q3	6.4	6.6	17.1	2.9	6.4
2014Q4	5.8	7.5	3.9	2.5	8.7
2015Q1	3.0	0.7	2.6	2.8	5.6
2015Q2	-0.8	-11.7	-4.5	4.4	5.0
2015Q3	-2.3	-18.9	-4.5	3.3	4.6
2015Q4	-3.7	-21.6	-4.5	3.2	4.3
2016Q1	-7.6	-28.9	-9.5	2.7	-0.6
2016Q2	-5.7	-25.0	-7.4	0.1	2.9
2016Q3	-4.3	-21.7	-9.8	5.3	3.6
Average Rate of Change, 2015Q2-2016Q3	**-4.1**	**-21.3**	**-6.7**	**3.2**	**3.3**

[a]North American Industry Classification System.

Shaded areas indicate periods of economic downturn: 2009Q1-2010Q1 and 2015Q2-2016Q3.

Source: Quarterly Census of Employment and Wages.

Prepared by M. Moore, Research & Planning, WY DWS, 2/17/17.

Total Wages, Average Monthly Employment, and Average Monthly Wage Changes for Wyoming by Year/Quarter: 2006Q3 to 2016Q3

Year/Quarter	Total Wages	% Change	Avg. Monthly Employment	% Change	Avg. Monthly Wage	% Change
2006Q3	$2,511,603,105		274,060		$3,054.81	
2007Q3	$2,712,325,140	8.0%	284,317	3.7%	$3,179.93	4.1%
2006Q4	$2,674,775,271		270,498		$3,296.11	
2007Q4	$2,976,397,551	11.3%	280,888	3.8%	$3,532.13	7.2%
2007Q1	$2,528,871,913		266,599		$3,161.89	
2008Q1	$2,798,237,273	10.7%	276,195	3.6%	$3,377.13	6.8%
2007Q2	$2,679,641,341		278,792		$3,203.87	
2008Q2	$2,918,008,721	8.9%	287,780	3.2%	$3,379.91	5.5%
2007Q3	$2,712,325,140		284,317		$3,179.93	
2008Q3	$2,985,771,294	10.1%	293,895	3.4%	$3,386.44	6.5%
2007Q4	$2,976,397,551		280,888		$3,532.13	
2008Q4	$3,177,223,682	6.7%	287,478	2.3%	$3,684.02	4.3%
2008Q1	$2,798,237,273		276,195		$3,377.13	
2009Q1	$2,764,364,307	-1.2%	273,471	-1.0%	$3,369.48	-0.2%
2008Q2	$2,918,008,721		287,780		$3,379.91	
2009Q2	$2,773,191,493	-5.0%	277,897	-3.4%	$3,326.40	-1.6%
2008Q3	$2,985,771,294		293,895		$3,386.44	
2009Q3	$2,736,056,780	-8.4%	278,234	-5.3%	$3,277.88	-3.2%
2008Q4	$3,177,223,682		287,478		$3,684.02	
2009Q4	$2,911,594,084	-8.4%	269,439	-6.3%	$3,602.04	-2.2%
2009Q1	$2,764,364,307		273,471		$3,369.48	
2010Q1	$2,627,558,836	-4.9%	260,726	-4.7%	$3,359.29	-0.3%
2009Q2	$2,773,191,493		277,897		$3,326.40	
2010Q2	$2,802,848,365	1.1%	273,044	-1.7%	$3,421.73	2.9%
2009Q3	$2,736,056,780		278,234		$3,277.88	
2010Q3	$2,866,694,334	4.8%	279,429	0.4%	$3,419.71	4.3%
2009Q4	$2,911,594,084		269,439		$3,602.04	
2010Q4	$3,087,069,661	6.0%	272,511	1.1%	$3,776.08	4.8%
2010Q1	$2,627,558,836		260,726		$3,359.29	
2011Q1	$2,769,072,169	5.4%	263,558	1.1%	$3,502.17	4.3%
2010Q2	$2,802,848,365		273,044		$3,421.73	
2011Q2	$2,933,492,659	4.7%	275,169	0.8%	$3,553.56	3.9%
2010Q3	$2,866,694,334		279,429		$3,419.71	
2011Q3	$3,053,914,162	6.5%	282,231	1.0%	$3,606.87	5.5%
2010Q4	$3,087,069,661		272,511		$3,776.08	
2011Q4	$3,165,745,021	2.5%	278,015	2.0%	$3,795.65	0.5%
2011Q1	$2,769,072,169		263,558		$3,502.17	
2012Q1	$2,991,246,352	8.0%	270,073	2.5%	$3,691.90	5.4%
2011Q2	$2,933,492,659		275,169		$3,553.56	
2012Q2	$3,074,207,136	4.8%	281,192	2.2%	$3,644.26	2.6%
2011Q3	$3,053,914,162		282,231		$3,606.87	
2012Q3	$3,060,122,560	0.2%	284,180	0.7%	$3,589.42	-0.5%
2011Q4	$3,165,745,021		278,015		$3,795.65	
2012Q4	$3,294,064,060	4.1%	278,934	0.3%	$3,936.49	3.7%
2012Q1	$2,991,246,352		270,073		$3,691.90	
2013Q1	$3,024,233,488	1.1%	270,881	0.3%	$3,721.48	0.8%
2012Q2	$3,074,207,136		281,192		$3,644.26	
2013Q2	$3,093,096,086	0.6%	281,707	0.2%	$3,659.94	0.4%
2012Q3	$3,060,122,560		284,180		$3,589.42	
2013Q3	$3,119,244,931	1.9%	285,726	0.5%	$3,638.97	1.4%
2012Q4	$3,294,064,060		278,934		$3,936.49	
2013Q4	$3,344,359,716	1.5%	280,701	0.6%	$3,971.44	0.9%

(p) Preliminary.
Source: Quarterly Census of Employment and Wages (http://doe.state.wy.us/LMI/toc_202.htm).
Prepared by C. Toups, Research & Planning, WY DWS.

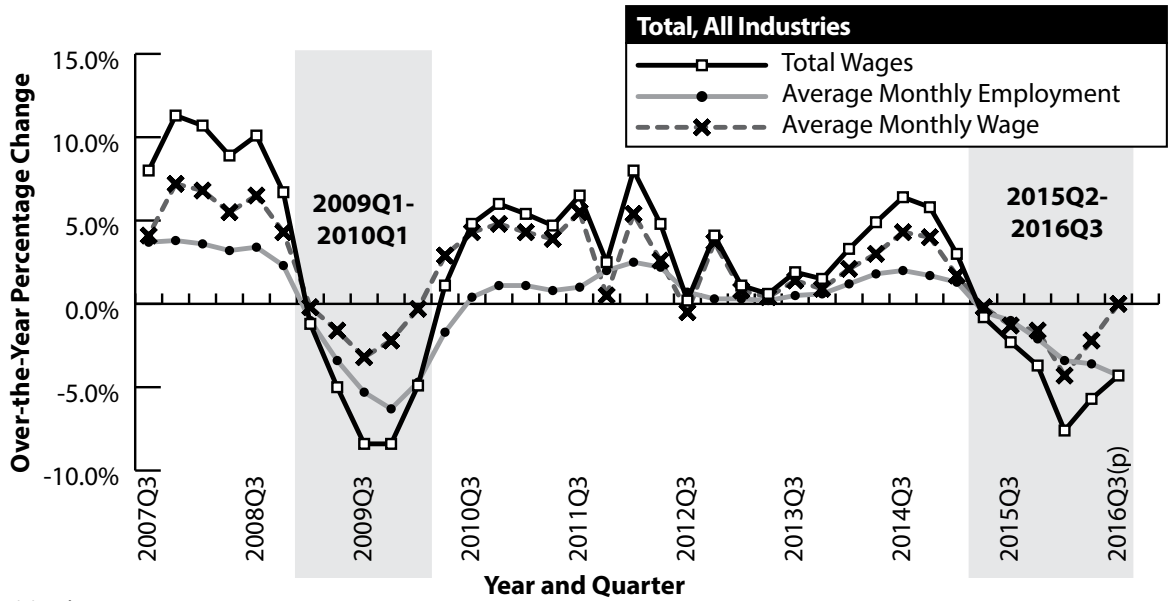
Table continued on page 25

(Text continued from page 24)

Total Wages, Average Monthly Employment, and Average Monthly Wage Changes for Wyoming by Year/Quarter: 2006Q3 to 2016Q3

Year/Quarter	Total Wages	% Change	Avg. Monthly Employment	% Change	Avg. Monthly Wage	% Change
2013Q1	$3,024,233,488		270,881		$3,721.48	
2014Q1	$3,124,158,426	3.3%	274,050	1.2%	$3,799.99	2.1%
2013Q2	$3,093,096,086		281,707		$3,659.94	
2014Q2	$3,243,373,986	4.9%	286,669	1.8%	$3,771.33	3.0%
2013Q3	$3,119,244,931		285,726		$3,638.97	
2014Q3	$3,317,475,865	6.4%	291,299	2.0%	$3,796.19	4.3%
2013Q4	$3,344,359,716		280,701		$3,971.44	
2014Q4	$3,536,857,567	5.8%	285,540	1.7%	$4,128.85	4.0%
2014Q1	$3,124,158,426		274,050		$3,799.99	
2015Q1	$3,218,193,073	3.0%	277,691	1.3%	$3,863.04	1.7%
2014Q2	$3,243,373,986		286,669		$3,771.33	
2015Q2	$3,219,023,155	-0.8%	285,186	-0.5%	$3,762.48	-0.2%
2014Q3	$3,317,475,865		291,299		$3,796.19	
2015Q3	$3,242,027,718	-2.3%	288,316	-1.0%	$3,748.23	-1.3%
2014Q4	$3,536,857,567		285,540		$4,128.85	
2015Q4	$3,406,817,213	-3.7%	279,408	-2.1%	$4,064.33	-1.6%
2015Q1	$3,218,193,073		277,691		$3,863.04	
2016Q1	$2,974,719,713	-7.6%	268,324	-3.4%	$3,695.43	-4.3%
2015Q2	$3,219,023,155		285,186		$3,762.48	
2016Q2	$3,035,536,278	-5.7%	275,018	-3.6%	$3,679.20	-2.2%
2015Q3	$3,242,027,718		288,316		$3,748.23	
2016Q3 (p)	$3,102,495,402	-4.3%	275,834	-4.3%	$3,749.23	0.0%

(p) Preliminary.
Source: Quarterly Census of Employment and Wages (http://doe.state.wy.us/LMI/toc_202.htm).
Prepared by C. Toups, Research & Planning, WY DWS.



(p)Preliminary.
Shaded areas indicate periods of economic downturn: 2009Q1-2010Q1 and 2015Q3-2016Q3.
Source: Quarterly Census of Employment and Wages.
Prepared by M. Moore, Research & Planning, WY DWS, 2/15/17.

Figure: Over-the-Year Percentage Change for Total Wages, Average Monthly Employment, and Average Monthly Wage Across All Industries in Wyoming by Year and Quarter, 2007Q2 to 2016Q3

Quarterly Turnover Statistics by Industry, Second Quarter 2016

In 2016Q2, Wyoming employers added fewer hires in mining (797) than at any other time dating back to 1992, the first year for which wage records are available. A full turnover report and tabular data are available at http://doe.state.wy.us/LMI/turnover.htm.

Sector	Major Industry		(H) Hire Only	(H)+(B) Total Hires	(B) Both Hire and Exit	(E) Exit Only	(E)+(B) Total Exits	(C) Continuous Employment	(H+E+B+C) Total	Turnover Rate[a]	Turnover Change Prior Year
Goods Producing	Agriculture, Forestry, Fishing, & Hunting	Transactions[b]	732	999	267	279	546	2,139	3,417	37.4	-0.9
		Rates	21.4	29.2	7.8	8.2	16.0	62.6	100.0		
	Mining	Transactions	797	1,114	317	2,379	2,696	17,077	20,570	17.0	-3.4
		Rates	3.9	5.4	1.5	11.6	13.1	83.0	100.0		
	Construction	Transactions	5,204	8,632	3,428	3,549	6,977	16,245	28,426	42.9	-3.1
		Rates	18.3	30.4	12.1	12.5	24.5	57.1	100.0		
	Manufacturing	Transactions	863	1,079	216	758	974	8,779	10,616	17.3	-2.5
		Rates	8.1	10.2	2.0	7.1	9.2	82.7	100.0		
Service Providing	Wholesale Trade, Transp., Utilities, & Warehousing	Transactions	1,930	2,525	595	2,282	2,877	17,607	22,414	21.4	-0.9
		Rates	8.6	11.3	2.7	10.2	12.8	78.6	100.0		
	Retail Trade	Transactions	6,425	8,405	1,980	5,081	7,061	25,632	39,118	34.5	-2.5
		Rates	16.4	21.5	5.1	13.0	18.1	65.5	100.0		
	Information	Transactions	414	491	77	403	480	3,923	4,817	18.6	-2.1
		Rates	8.6	10.2	1.6	8.4	10.0	81.4	100.0		
	Financial Activities	Transactions	997	1,281	284	1,071	1,355	9,537	11,889	19.8	-0.6
		Rates	8.4	10.8	2.4	9.0	11.4	80.2	100.0		
	Professional & Business Services	Transactions	4,041	6,338	2,297	2,996	5,293	13,943	23,277	40.1	-1.5
		Rates	17.4	27.2	9.9	12.9	22.7	59.9	100.0		
	Educational Services	Transactions	1,933	2,811	878	3,736	4,614	27,725	34,272	19.1	-1.7
		Rates	5.6	8.2	2.6	10.9	13.5	80.9	100.0		
	Health Services	Transactions	3,672	4,590	918	3,960	4,878	29,090	37,640	22.7	0.8
		Rates	9.8	12.2	2.4	10.5	13.0	77.3	100.0		
	Leisure & Hospitality	Transactions	15,254	20,316	5,062	8,472	13,534	23,832	52,620	54.7	-1.2
		Rates	29.0	38.6	9.6	16.1	25.7	45.3	100.0		
	Other Services	Transactions	1,302	2,049	747	1,124	1,871	5,973	9,146	34.7	0.8
		Rates	14.2	22.4	8.2	12.3	20.5	65.3	100.0		
	Public Admin.	Transactions	2,666	3,189	523	1,437	1,960	19,311	23,937	19.3	-0.3
		Rates	11.1	13.3	2.2	6.0	8.2	80.7	100.0		
	Unclassified	Transactions	33	90	57	81	138	75	246	69.5	-7.3
		Rates	13.4	36.6	23.2	32.9	56.1	30.5	100.0		
Total		**Transactions**	**46,263**	**63,909**	**17,646**	**37,608**	**55,254**	**220,888**	**322,405**	**31.5**	**-1.4**
		Rates	**14.3**	**19.8**	**5.5**	**11.7**	**17.1**	**68.5**	**100.0**		

(H) Hire Only. (B) Both Hire and Exit. (E) Exit Only. (C) Continuous Employment.
[a]Turnover rate equals (H+E+B)/Total.
[b]Jobs worked at any time during the quarter.
Historical turnover data can be found online at http://doe.state.wy.us/LMI/turnover.htm.

Quarterly Commuting Statistics by County, 2016Q3

by: Michael Moore, Editor; Methodologist: Tony Glover, Workforce Information Supervisor

In 2016Q3, 74.5% of all persons working in Wyoming resided in and were employed in the same county, while 9.1% commuted from another Wyoming county and 14.8% commuted from another state. By comparison, only 46.9% of all individuals employed in Teton County also resided in Teton County; 7.5% commuted from another Wyoming county and 45.7% commuted from another state. Historical data from 1992Q1-2016Q3 are available at http://doe.state.wy.us/LMI/turnover.htm.

County of Employment			County of Residence			
County	Row	Persons Working	Home[a]	Other WY County[b]	Nonresidents[c]	Total Inflow[d]
Albany	N	19,130	14,254	2,075	2,801	4,876
	Row %	100.0	74.5	10.8	14.6	25.5
Big Horn	N	5,027	3,701	858	468	1,326
	Row %	100.0	73.6	17.1	9.3	26.4
Campbell	N	28,268	22,297	3,468	2,503	5,971
	Row %	100.0	78.9	12.3	8.9	21.1
Carbon	N	9,273	6,351	777	2,145	2,922
	Row %	100.0	68.5	8.4	23.1	31.5
Converse	N	6,299	4,802	947	550	1,497
	Row %	100.0	76.2	15.0	8.7	23.8
Crook	N	2,687	1,784	437	466	903
	Row %	100.0	66.4	16.3	17.3	33.6
Fremont	N	18,392	15,630	1,015	1,747	2,762
	Row %	100.0	85.0	5.5	9.5	15.0
Goshen	N	4,977	4,177	279	521	800
	Row %	100.0	83.9	5.6	10.5	16.1
Hot Springs	N	2,442	1,807	483	152	635
	Row %	100.0	74.0	19.8	6.2	26.0
Johnson	N	3,874	2,976	512	386	898
	Row %	100.0	76.8	13.2	10.0	23.2
Laramie	N	52,060	41,469	2,867	7,724	10,591
	Row %	100.0	79.7	5.5	14.8	20.3
Lincoln	N	7,184	5,554	671	959	1,630
	Row %	100.0	77.3	9.3	13.3	22.7
Natrona	N	44,740	37,283	4,284	3,173	7,457
	Row %	100.0	83.3	9.6	7.1	16.7
Niobrara	N	1,055	845	117	93	210
	Row %	100.0	80.1	11.1	8.8	19.9
Park	N	16,422	12,264	1,449	2,709	4,158
	Row %	100.0	74.7	8.8	16.5	25.3
Platte	N	4,168	3,057	722	389	1,111
	Row %	100.0	73.3	17.3	9.3	26.7
Sheridan	N	15,162	12,419	1,559	1,184	2,743
	Row %	100.0	81.9	10.3	7.8	18.1
Sublette	N	4,612	3,342	596	674	1,270
	Row %	100.0	72.5	12.9	14.6	27.5
Sweetwater	N	25,217	20,195	2,345	2,677	5,022
	Row %	100.0	80.1	9.3	10.6	19.9
Teton	N	28,205	13,219	2,108	12,878	14,986
	Row %	100.0	46.9	7.5	45.7	53.1
Uinta	N	9,884	7,910	845	1,129	1,974
	Row %	100.0	80.0	8.5	11.4	20.0
Washakie	N	4,188	3,307	648	233	881
	Row %	100.0	79.0	15.5	5.6	21.0
Weston	N	2,840	2,089	361	390	751
	Row %	100.0	73.6	12.7	13.7	26.4
Total	**N**	**323,285**	**240,732**	**29,423**	**47,877**	**75,374**
	Row %	**100.0**	**74.5**	**9.1**	**14.8**	**23.3**

[a]Individuals who are employed in their county of residence.
[b]Individuals who commute to work from another Wyoming county.
[c]Individuals for whom demographic data are not available.
[d]All individuals who commute into a county from another Wyoming county or another state.
Source: Research & Planning Commuting Patterns based on Wage Records (County of Employment) and Wyoming Driver's License File (County of Residence).
Prepared by M. Moore, Research & Planning, WY DWS, 2/28/17.

Persons Working in Jobs Covered by Wyoming State Unemployment Insurance, Third Quarter 2016

by: Tony Glover, Workforce Information Supervisor

The total number of persons found in Wage Records decreased from 301,943 in 2015Q3 to 284,843 in 2016Q3 (-17,100 persons, or -5.7%; see Figure 4).

The number new persons not previously found working in Wyoming decreased 23.1% over the year (see Figure 1).

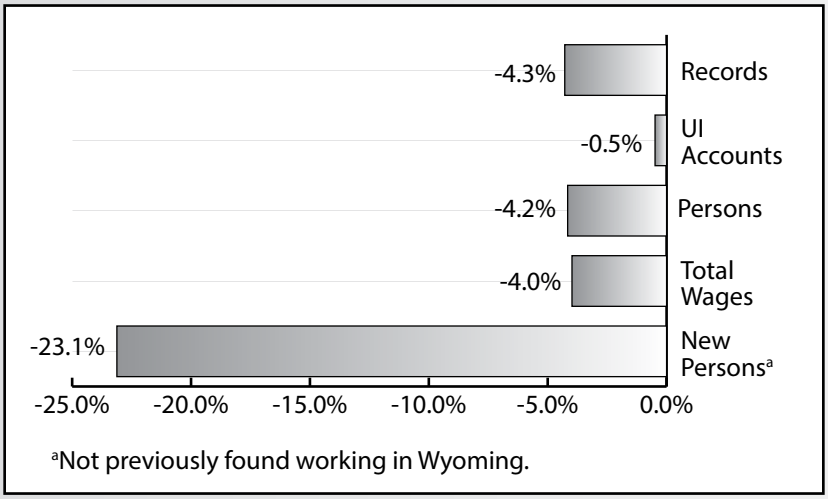


Figure 1: Percentage Change from Previous Year, Wyoming Wage Records, Third Quarter 2016

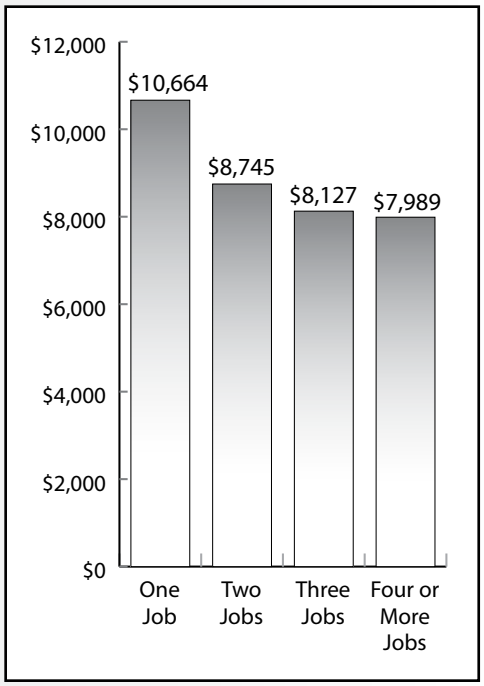


Figure 2: Mean Quarterly Wages in Wyoming by Number of Jobs, Third Quarter 2016

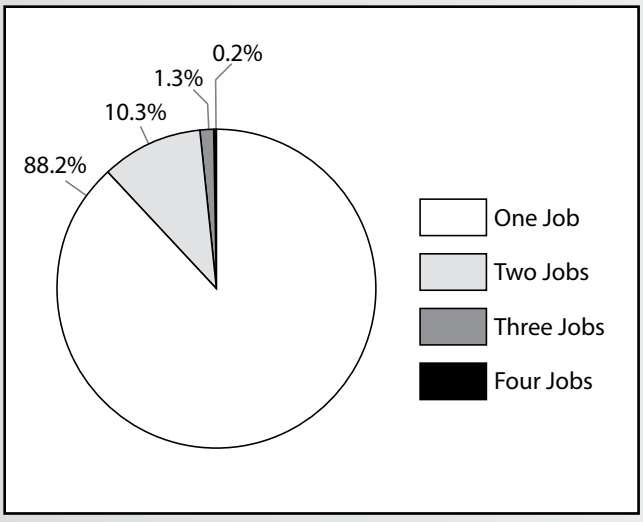


Figure 3: Percentage of Total Persons by Number of Jobs Worked in Wyoming, Third Quarter 2016

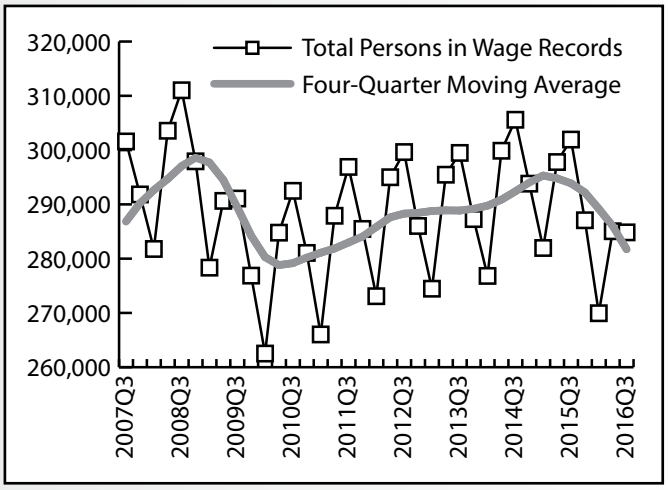


Figure 4: Running Total of Persons in Wyoming Wage Records, Third Quarter 2007 (2007Q3) to Third Quarter 2016 (2016Q3)

Wyoming Unemployment Rate Falls to 4.9% in November 2016

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 fell significantly from 5.1% in October to 4.9% in November. Wyoming's unemployment rate remained higher than the current U.S. rate (4.6%) and significantly higher than its November 2015 level of 4.3%. Seasonally adjusted employment of Wyoming residents increased significantly from October to November, rising by an estimated 1,749 individuals (0.6%). However, employment remained well below last year's level (down 3,735 individuals, or –1.3%). Additionally, Wyoming's labor force has declined in over-the-year comparisons for each of the past 25 months.

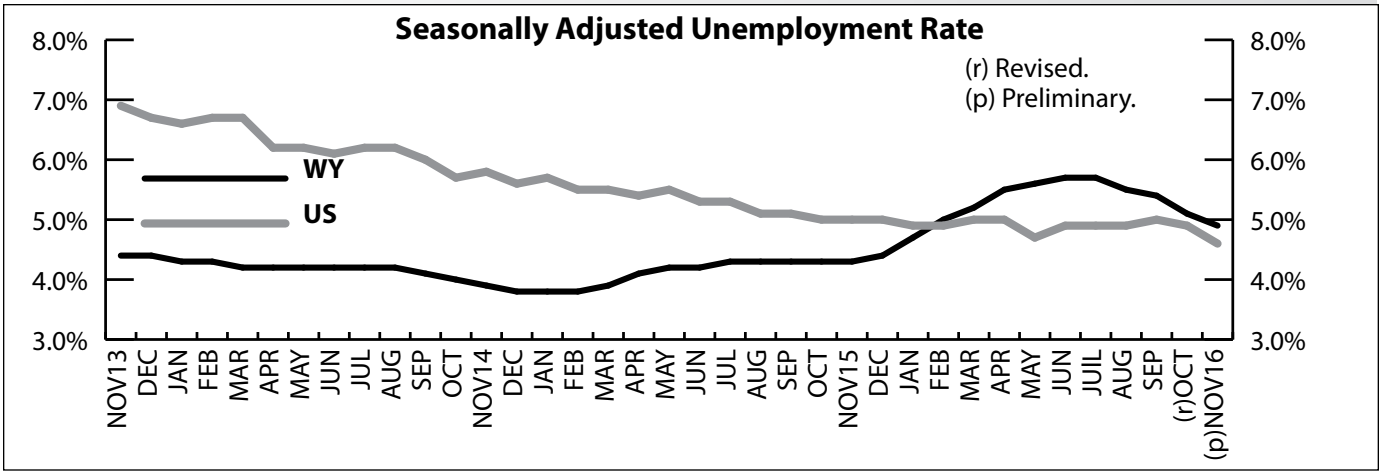
From October to November, unemployment rates decreased slightly in 17 counties and increased in five counties, while Johnson County's unemployment rate was unchanged. In Teton County, unemployment rose from 3.1% to 5.6% as the summer tourist season had ended and the ski season had not begun. The largest decrease in unemployment occurred in Campbell County (down from 6.3% to 5.9%).

From November 2015 to November 2016, unemployment rates fell in 11 counties, rose in 10 counties, and were unchanged in two counties (Johnson and Platte). Sizeable declines were seen in Teton (down from 6.7% to 5.6%), Lincoln (down from 4.5% to 3.8%), Sheridan (down from 4.2% to 3.7%), and Park (down from 4.8% to 4.3%) counties. The largest unemployment rate increases occurred in Campbell (up from 4.0% to 5.9%), Weston (up from 3.0% to 4.5%), Converse (up from 3.7% to 5.1%), and Natrona (up from 5.2% to 6.0%) counties.

The lowest unemployment rates in November were found in Albany (2.6%), Niobrara (2.6%), and Goshen (2.7%) counties. The highest rates were reported in Natrona (6.0%), Campbell (5.9%), and Fremont (5.8%) counties.

Total nonfarm employment (not seasonally adjusted and measured by place of work) fell from 285,400 in November 2015 to 276,600 in November 2016, a decrease of 8,800 jobs (or –3.1%; a statistically significant decrease).

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.



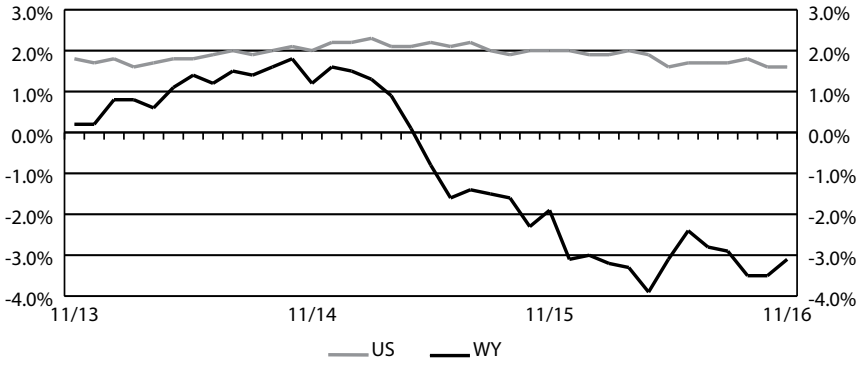
Current Employment Statistics (CES) Estimates and Research & Planning's Short-Term Projections, November 2016

by: David Bullard, Senior Economist

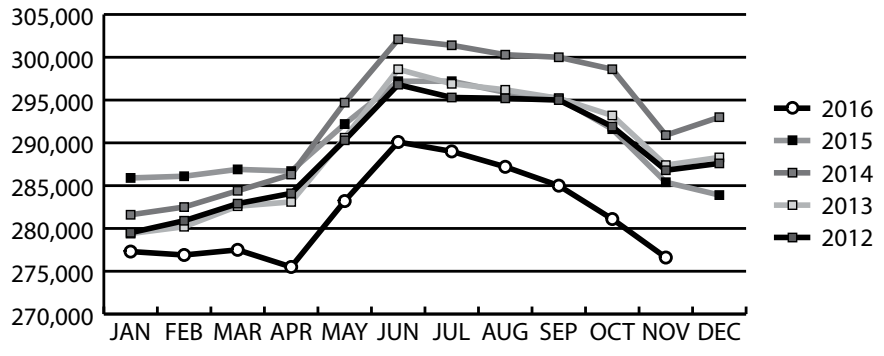
Industry Sector	Research & Planning's Short-Term Projections	Current Employment Statistics (CES) Estimates	N Difference	% Difference
Total Nonfarm	**274,984**	**276,600**	**1,616**	**0.6%**
Natural Resources & Mining	17,449	19,000	1,551	8.2%
Construction	21,384	22,200	816	3.7%
Manufacturing	9,547	10,000	453	4.5%
Wholesale Trade	7,769	8,400	631	7.5%
Retail Trade	31,068	29,800	-1,268	-4.3%
Transportation & Utilities	13,925	14,400	475	3.3%
Information	3,725	3,600	-125	-3.5%
Financial Activities	10,581	10,400	-181	-1.7%
Professional & Business Services	17,499	18,100	601	3.3%
Educational & Health Services	27,624	28,400	776	2.7%
Leisure & Hospitality	31,882	30,200	-1,682	-5.6%
Other Services	9,533	10,100	567	5.6%
Government	72,998	72,000	-998	-1.4%

Projections were run in November 2016 and based on QCEW data through June 2016.

Nonagricultural Employment Growth
(Percentage Change Over Previous Year)



Wyoming Nonagricultural Wage and Salary Employment



State Unemployment Rates
November 2016
Seasonally Adjusted

State	Unemp. Rate
Puerto Rico	11.9
Alaska	6.8
New Mexico	6.7
Louisiana	6.2
District of Columbia	6.0
West Virginia	6.0
Alabama	5.9
Mississippi	5.7
Pennsylvania	5.7
Illinois	5.6
California	5.3
Georgia	5.3
Rhode Island	5.3
Washington	5.3
Nevada	5.2
New York	5.1
Oklahoma	5.1
Arizona	5.0
New Jersey	5.0
North Carolina	5.0
Oregon	5.0
Florida	4.9
Michigan	4.9
Ohio	4.9
Wyoming	**4.9**
Kentucky	4.8
Tennessee	4.8
Connecticut	4.7
Missouri	4.7
Texas	4.6
United States	**4.6**
South Carolina	4.4
Delaware	4.3
Kansas	4.3
Indiana	4.2
Maryland	4.2
Virginia	4.2
Wisconsin	4.1
Arkansas	4.0
Maine	4.0
Montana	4.0
Idaho	3.8
Iowa	3.8
Minnesota	3.8
Nebraska	3.4
Colorado	3.2
Vermont	3.2
Utah	3.1
Hawaii	3.0
Massachusetts	2.9
North Dakota	2.9
New Hampshire	2.7
South Dakota	2.7

Wyoming Nonagricultural Wage and Salary Employment

by: David Bullard, Senior Economist

	Employment in Thousands			Percent Change Total Employment	
	Nov 2016	Oct 2016	Nov 2015	Oct 2016 Nov 2016	Nov 2015 Nov 2016
CAMPBELL COUNTY					
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	**24.8**	**25.2**	**27.9**	**-1.6**	**-11.1**
TOTAL PRIVATE	**19.6**	**19.9**	**22.6**	**-1.5**	**-13.3**
GOODS PRODUCING	**8.0**	**8.2**	**10.0**	**-2.4**	**-20.0**
Natural Resources & Mining	5.4	5.5	7.0	-1.8	-22.9
Construction	2.1	2.2	2.4	-4.5	-12.5
Manufacturing	0.5	0.5	0.6	0.0	-16.7
SERVICE PROVIDING	**16.8**	**17.0**	**17.9**	**-1.2**	**-6.1**
Trade, Transportation, & Utilities	5.2	5.2	5.9	0.0	-11.9
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	1.5	1.5	1.6	0.0	-6.3
Educational & Health Services	1.0	1.0	1.1	0.0	-9.1
Leisure & Hospitality	2.3	2.4	2.3	-4.2	0.0
Other Services	0.7	0.7	0.8	0.0	-12.5
GOVERNMENT	**5.2**	**5.3**	**5.3**	**-1.9**	**-1.9**

	Employment in Thousands			Percent Change Total Employment	
	Nov 2016	Oct 2016	Nov 2015	Oct 2016 Nov 2016	Nov 2015 Nov 2016
SWEETWATER COUNTY					
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	**22.8**	**22.9**	**24.2**	**-0.4**	**-5.8**
TOTAL PRIVATE	**17.8**	**17.9**	**19.4**	**-0.6**	**-8.2**
GOODS PRODUCING	**7.1**	**7.3**	**8.2**	**-2.7**	**-13.4**
Natural Resources & Mining	4.1	4.1	4.8	0.0	-14.6
Construction	1.6	1.8	2.0	-11.1	-20.0
Manufacturing	1.4	1.4	1.4	0.0	0.0
SERVICE PROVIDING	**15.7**	**15.6**	**16.0**	**0.6**	**-1.9**
Trade, Transportation, & Utilities	4.6	4.5	5.0	2.2	-8.0
Information	0.2	0.2	0.2	0.0	0.0
Financial Activities	0.7	0.7	0.9	0.0	-22.2
Professional & Business Services	0.9	0.9	1.0	0.0	-10.0
Educational & Health Services	1.4	1.4	1.2	0.0	16.7
Leisure & Hospitality	2.3	2.3	2.3	0.0	0.0
Other Services	0.6	0.6	0.6	0.0	0.0
GOVERNMENT	**5.0**	**5.0**	**4.8**	**0.0**	**4.2**

	Employment in Thousands			Percent Change Total Employment	
	Nov 2016	Oct 2016	Nov 2015	Oct 2016 Nov 2016	Nov 2015 Nov 2016
TETON COUNTY					
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	**17.1**	**20.1**	**16.3**	**-14.9**	**4.9**
TOTAL PRIVATE	**14.6**	**17.5**	**13.8**	**-16.6**	**5.8**
GOODS PRODUCING	**2.4**	**2.5**	**2.2**	**-4.0**	**9.1**
Natural Resources, Mining & Construction	2.2	2.3	2.1	-4.3	4.8
Manufacturing	0.2	0.2	0.1	0.0	100.0
SERVICE PROVIDING	**14.7**	**17.6**	**14.1**	**-16.5**	**4.3**
Trade, Transportation, & Utilities	2.5	2.8	2.4	-10.7	4.2
Information	0.2	0.2	0.2	0.0	0.0
Financial Activities	1.0	1.0	0.9	0.0	11.1
Professional & Business Services	1.9	2.0	1.8	-5.0	5.6
Educational & Health Services	1.1	1.1	1.1	0.0	0.0
Leisure & Hospitality	5.0	7.4	4.7	-32.4	6.4
Other Services	0.5	0.5	0.5	0.0	0.0
GOVERNMENT	**2.5**	**2.6**	**2.5**	**-3.8**	**0.0**

State Unemployment Rates
November 2016
Not Seasonally Adjusted

State	Unemp. Rate
Puerto Rico	11.0
Alaska	6.6
New Mexico	6.4
District of Columbia	5.9
Alabama	5.6
Louisiana	5.5
Illinois	5.3
Mississippi	5.2
Washington	5.2
West Virginia	5.1
California	5.0
Georgia	5.0
Nevada	5.0
Pennsylvania	4.9
Florida	4.8
North Carolina	4.8
Arizona	4.7
New York	4.7
Oklahoma	4.7
Rhode Island	4.6
Tennessee	4.6
Wyoming	**4.6**
Michigan	4.5
Oregon	4.5
Ohio	4.4
United States	**4.4**
Texas	4.2
Maryland	4.1
New Jersey	4.1
Kentucky	4.0
South Carolina	4.0
Virginia	4.0
Delaware	3.9
Indiana	3.9
Idaho	3.8
Kansas	3.8
Maine	3.8
Connecticut	3.7
Missouri	3.7
Montana	3.7
Wisconsin	3.6
Arkansas	3.5
Minnesota	3.2
Iowa	3.1
Vermont	2.9
Colorado	2.8
Hawaii	2.8
Nebraska	2.8
Massachusetts	2.6
South Dakota	2.6
Utah	2.6
New Hampshire	2.5
North Dakota	2.5

Economic Indicators

by: David Bullard, Senior Economist

The Baker Hughes rig count for Wyoming fell 27.3% from November 2015 to November 2016.

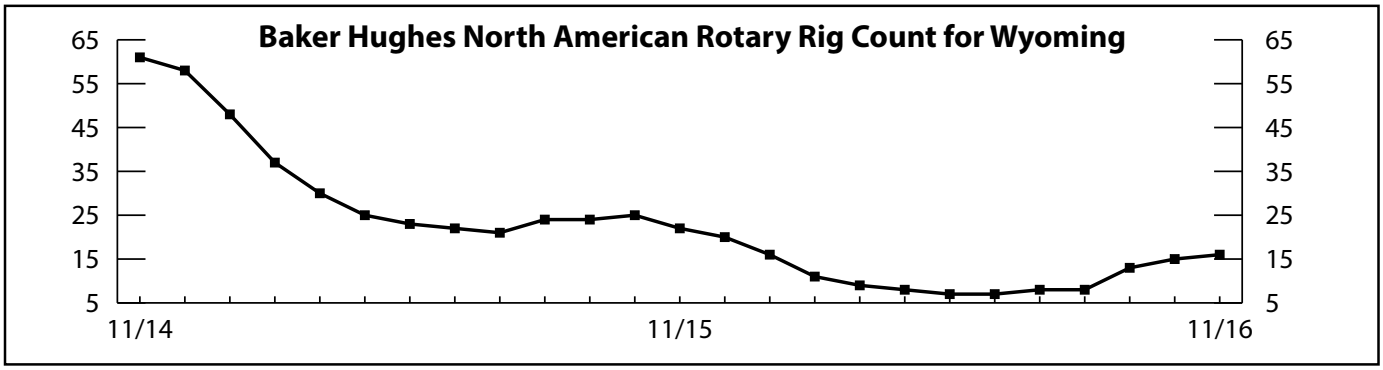
	Nov 2016 (p)	Oct 2016 (r)	Nov 2015 (b)	Percent Change Month	Year
Wyoming Total Nonfarm Employment	**276,600**	**281,500**	**285,400**	**-1.7**	**-3.1**
Wyoming State Government	15,700	15,800	15,900	-0.6	-1.3
Laramie County Nonfarm Employment	46,000	46,000	47,400	0.0	-3.0
Natrona County Nonfarm Employment	38,800	39,600	41,200	-2.0	-5.8
Selected U.S. Employment Data					
U.S. Multiple Jobholders	8,107,000	8,050,000	7,596,000	0.7	6.7
As a percent of all workers	5.3%	5.3%	5.1%	N/A	N/A
U.S. Discouraged Workers	591,000	487,000	594,000	21.4	-0.5
U.S. Part Time for Economic Reasons	5,518,000	5,648,000	5,967,000	-2.3	-7.5
Wyoming Unemployment Insurance					
Weeks Compensated	20,569	14,436	17,063	42.5	20.5
Benefits Paid	$7,803,654	$5,717,575	$6,630,242	36.5	17.7
Average Weekly Benefit Payment	$379.39	$396.06	$388.57	-4.2	-2.4
State Insured Covered Jobs[1]	272,457	276,739	268,454	-1.5	1.5
Insured Unemployment Rate	2.3%	2.0%	2.4%	N/A	N/A
Consumer Price Index (U) for All U.S. Urban Consumers					
(1982 to 1984 = 100)					
All Items	241.4	241.7	237.3	-0.2	1.7
Food & Beverages	247.2	247.9	247.9	-0.2	-0.3
Housing	246.3	246.3	239.3	0.0	2.9
Apparel	127.4	130.3	127.0	-2.3	0.3
Transportation	195.4	196.2	194.4	-0.4	0.5
Medical Care	469.3	469.2	451.4	0.0	4.0
Recreation (Dec. 1997=100)	116.7	116.7	115.8	0.0	0.8
Education & Communication (Dec. 1997=100)	139.1	139.0	139.5	0.1	-0.3
Other Goods & Services	426.0	425.5	418.4	0.1	1.8
Producer Prices (1982 to 1984 = 100)					
All Commodities	186.4	186.8	185.7	-0.2	0.4
Wyo. Bldg. Permits (New Privately Owned Housing Units Authorized)					
Total Units	129	144	123	-10.4	4.9
Valuation	$46,934,000	$56,472,000	$47,114,000	-16.9	-0.4
Single Family Homes	111	129	110	-14.0	0.9
Valuation	$44,934,000	$55,395,000	$46,249,000	-18.9	-2.8
Casper MSA[2] Building Permits	17	24	20	-29.2	-15.0
Valuation	$1,622,000	$4,383,000	$4,906,000	-63.0	-66.9
Cheyenne MSA Building Permits	35	33	22	6.1	59.1
Valuation	$5,668,000	$6,079,000	$4,354,000	-6.8	30.2
Baker Hughes North American Rotary Rig Count for Wyoming	**16**	**15**	**22**	**6.7**	**-27.3**

(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 U.S. Bureau of Labor Statistics will continue to publish these data online at http://www.bls.gov/eag/eag.wy.htm.



Wyoming County Unemployment Rates

by: Carola Cowan, BLS Programs Supervisor

From November 2015 to November 2016, unemployment rates fell in 11 counties, rose in 10 counties, and were unchanged in two counties (Johnson and Platte).

	Labor Force			Employed			Unemployed			Unemployment Rates		
REGION	Nov	Oct	Nov	Nov	Oct	Nov	Nov	Oct	Nov	Nov	Oct	Nov
County	2016	2016	2015	2016	2016	2015	2016	2016	2015	2016	2016	2015
	(p)	(r)	(b)	(p)	(r)	(b)	(p)	(r)	(b)	(p)	(r)	(b)
NORTHWEST	**48,774**	**48,947**	**48,030**	**46,401**	**46,576**	**45,683**	**2,373**	**2,371**	**2,347**	**4.9**	**4.8**	**4.9**
Big Horn	5,708	5,715	5,539	5,476	5,493	5,303	232	222	236	4.1	3.9	4.3
Fremont	20,620	20,439	20,443	19,417	19,195	19,323	1,203	1,244	1,120	5.8	6.1	5.5
Hot Springs	2,475	2,451	2,392	2,371	2,344	2,297	104	107	95	4.2	4.4	4.0
Park	15,610	16,009	15,290	14,934	15,377	14,559	676	632	731	4.3	3.9	4.8
Washakie	4,361	4,333	4,366	4,203	4,167	4,201	158	166	165	3.6	3.8	3.8
NORTHEAST	**52,565**	**52,291**	**53,370**	**50,033**	**49,639**	**51,248**	**2,532**	**2,652**	**2,122**	**4.8**	**5.1**	**4.0**
Campbell	24,141	23,985	25,689	22,720	22,471	24,654	1,421	1,514	1,035	5.9	6.3	4.0
Crook	3,731	3,734	3,686	3,593	3,585	3,559	138	149	127	3.7	4.0	3.4
Johnson	4,258	4,305	4,096	4,073	4,119	3,920	185	186	176	4.3	4.3	4.3
Sheridan	16,394	16,279	15,905	15,786	15,661	15,242	608	618	663	3.7	3.8	4.2
Weston	4,041	3,988	3,994	3,861	3,803	3,873	180	185	121	4.5	4.6	3.0
SOUTHWEST	**58,946**	**60,135**	**58,388**	**55,992**	**57,475**	**55,329**	**2,954**	**2,660**	**3,059**	**5.0**	**4.4**	**5.2**
Lincoln	8,682	8,852	8,219	8,355	8,533	7,853	327	319	366	3.8	3.6	4.5
Sublette	4,297	4,333	4,486	4,073	4,102	4,263	224	231	223	5.2	5.3	5.0
Sweetwater	22,372	22,156	22,922	21,210	20,989	21,815	1,162	1,167	1,107	5.2	5.3	4.8
Teton	13,907	15,201	13,155	13,130	14,737	12,279	777	464	876	5.6	3.1	6.7
Uinta	9,688	9,593	9,606	9,224	9,114	9,119	464	479	487	4.8	5.0	5.1
SOUTHEAST	**85,160**	**83,785**	**85,259**	**82,423**	**80,889**	**82,325**	**2,737**	**2,896**	**2,934**	**3.2**	**3.5**	**3.4**
Albany	22,514	22,208	22,207	21,926	21,581	21,572	588	627	635	2.6	2.8	2.9
Goshen	7,424	7,320	7,424	7,222	7,100	7,202	202	220	222	2.7	3.0	3.0
Laramie	49,051	48,079	49,396	47,339	46,262	47,563	1,712	1,817	1,833	3.5	3.8	3.7
Niobrara	1,357	1,372	1,299	1,322	1,332	1,260	35	40	39	2.6	2.9	3.0
Platte	4,814	4,806	4,933	4,614	4,614	4,728	200	192	205	4.2	4.0	4.2
CENTRAL	**57,910**	**57,894**	**59,542**	**54,697**	**54,539**	**56,712**	**3,213**	**3,355**	**2,830**	**5.5**	**5.8**	**4.8**
Carbon	8,441	8,533	8,826	8,123	8,190	8,499	318	343	327	3.8	4.0	3.7
Converse	7,988	7,936	8,333	7,581	7,516	8,022	407	420	311	5.1	5.3	3.7
Natrona	41,481	41,425	42,383	38,993	38,833	40,191	2,488	2,592	2,192	6.0	6.3	5.2
STATEWIDE	**303,355**	**303,050**	**304,589**	**289,547**	**289,118**	**291,298**	**13,808**	**13,932**	**13,291**	**4.6**	**4.6**	**4.4**
Statewide Seasonally Adjusted										4.9	5.1	4.3
U.S.										4.4	4.7	4.8
U.S. Seasonally Adjusted										4.6	4.9	5.0

Prepared in cooperation with the Bureau of Labor Statistics. Benchmarked 03/2016. Run Date 12/2016.

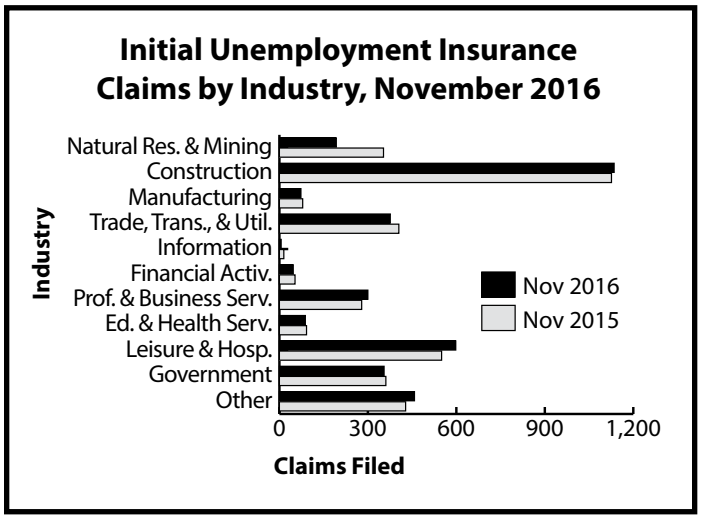
Data are not seasonally adjusted except where otherwise specified.

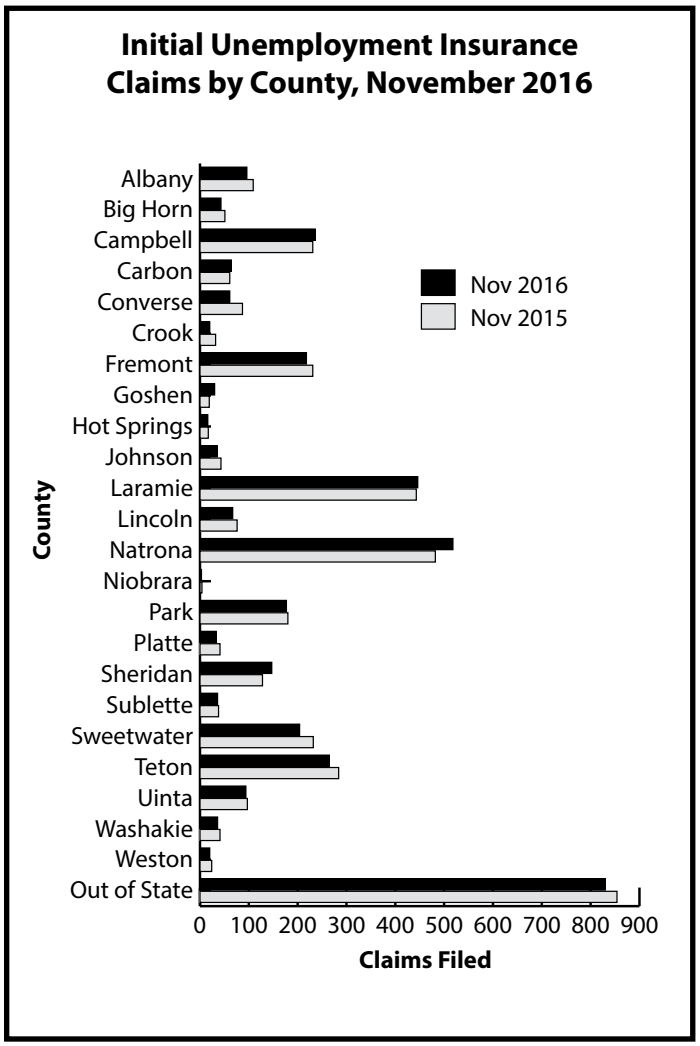
(p) Preliminary. (r) Revised. (b) Benchmarked.

Wyoming Normalized[a] Unemployment Insurance Statistics: Initial Claims

by: Patrick Manning, Principal Economist

The total number of initial claims decreased from 3,803 in November 2015 to 3,695 in November 2016 (-108 claims, or -2.8%).





Initial Claims	Claims Filed Nov 16	Oct 16	Nov 15	% Change Claims Filed Nov 16 Oct 16	Nov 16 Nov 15
Wyoming Statewide					
TOTAL CLAIMS FILED	**3,695**	**3,203**	**3,803**	**15.4**	**-2.8**
TOTAL GOODS-PRODUCING	1,402	842	1,559	66.5	-10.1
Natural Res. & Mining	193	168	353	14.9	-45.3
Mining	167	149	322	12.1	-48.1
Oil & Gas Extraction	10	11	70	-9.1	-85.7
Construction	1,135	608	1,126	86.7	0.8
Manufacturing	73	64	79	14.1	-7.6
TOTAL SERVICE-PROVIDING	1,477	1,775	1,453	-16.8	1.7
Trade, Transp., & Utilities	376	390	405	-3.6	-7.2
Wholesale Trade	57	49	70	16.3	-18.6
Retail Trade	206	232	154	-11.2	33.8
Transp., Warehousing & Utilities	113	109	181	3.7	-37.6
Information	6	9	15	-33.3	-60.0
Financial Activities	47	30	53	56.7	-11.3
Prof. & Business Svcs.	300	211	279	42.2	7.5
Educational & Health Svcs.	88	94	92	-6.4	-4.3
Leisure & Hospitality	598	962	550	-37.8	8.7
Other Svcs., exc. Public Admin.	53	73	53	-27.4	0.0
TOTAL GOVERNMENT	355	305	361	16.4	-1.7
Federal Government	239	168	227	42.3	5.3
State Government	19	30	27	-36.7	-29.6
Local Government	97	106	107	-8.5	-9.3
Local Education	23	19	12	21.1	91.7
UNCLASSIFIED	458	280	428	63.6	7.0
Laramie County					
TOTAL CLAIMS FILED	**445**	**284**	**442**	**56.7**	**0.7**
TOTAL GOODS-PRODUCING	243	87	235	179.3	3.4
Construction	228	73	205	212.3	11.2
TOTAL SERVICE-PROVIDING	167	156	159	7.1	5.0
Trade, Transp., & Utilities	68	44	64	54.5	6.3
Financial Activities	4	5	7	-20.0	-42.9
Prof. & Business Svcs.	49	57	39	-14.0	25.6
Educational & Health Svcs.	14	8	17	75.0	-17.6
Leisure & Hospitality	22	27	21	-18.5	4.8
TOTAL GOVERNMENT	14	24	23	-41.7	-39.1
UNCLASSIFIED	20	15	23	33.3	-13.0
Natrona County					
TOTAL CLAIMS FILED	**517**	**416**	**481**	**24.3**	**7.5**
TOTAL GOODS-PRODUCING	250	180	227	38.9	10.1
Construction	194	119	160	63.0	21.3
TOTAL SERVICE-PROVIDING	242	215	228	12.6	6.1
Trade, Transp., & Utilities	82	64	83	28.1	-1.2
Financial Activities	14	4	15	250.0	-6.7
Prof. & Business Svcs.	67	48	57	39.6	17.5
Educational & Health Svcs.	19	21	15	-9.5	26.7
Leisure & Hospitality	39	50	35	-22.0	11.4
TOTAL GOVERNMENT	13	10	8	30.0	62.5
UNCLASSIFIED	11	9	17	22.2	-35.3

[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.

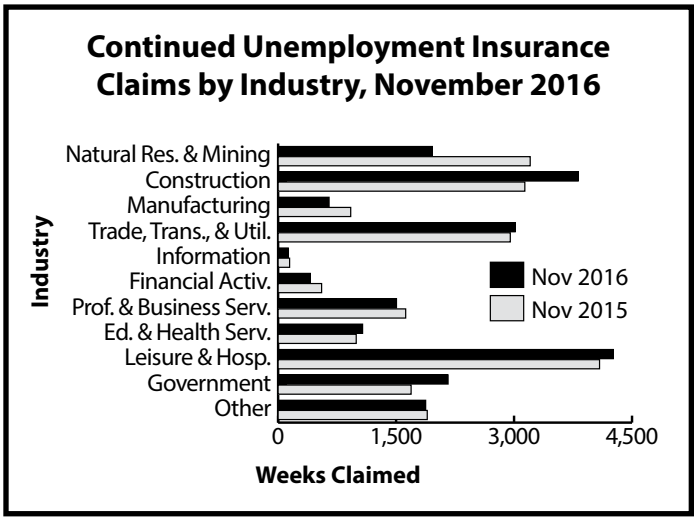
Wyoming Normalized[a] Unemployment Insurance Statistics: Continued Claims

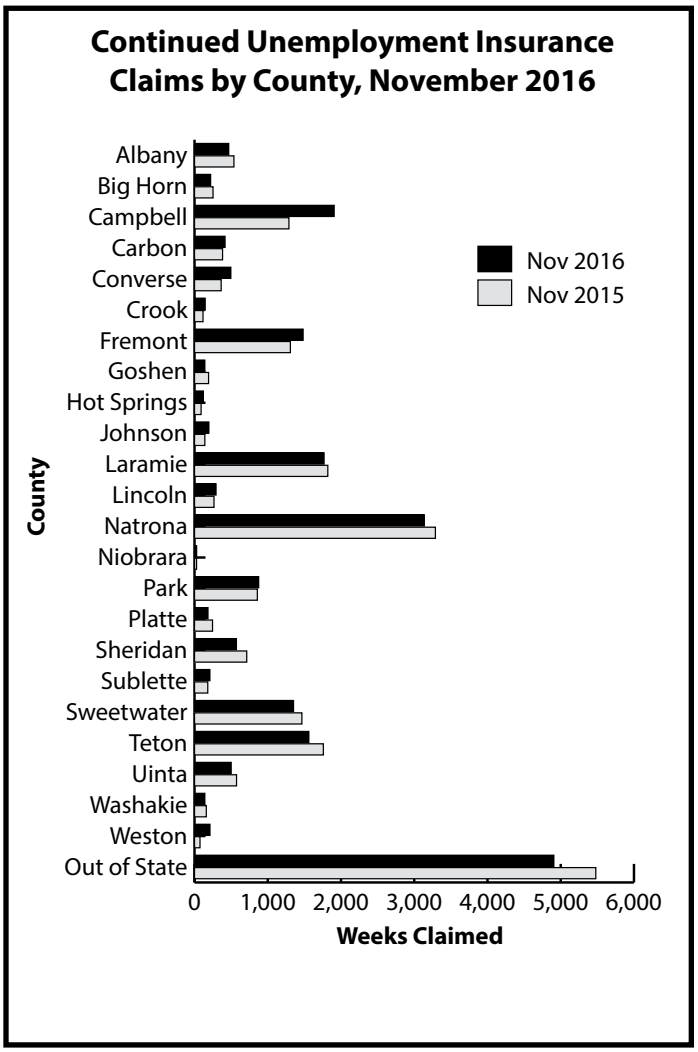
by: Patrick Manning, Principal Economist

Over the year, the number of unique claimants with continued claims dropped by 946 individuals, a decrease of 14.7%. Total continued weeks claimed decreased by 1.2% (-263 weeks).

CONTINUED CLAIMS	Continued Weeks Claimed Nov 16	Oct 16	Nov 15	% Change Weeks Claimed Nov 16 Oct 16	Nov 16 Nov 15
Wyoming Statewide					
TOTAL WEEKS CLAIMED	21,340	17,889	21,603	19.3	-1.2
TOTAL UNIQUE CLAIMANTS[b]	5,469	5,403	6,415	1.2	-14.7
Benefit Exhaustions	522	553	396	-5.6	31.8
Benefit Exhaustion Rates	9.5%	10.2%	6.2%	-0.7%	3.4%
TOTAL GOODS-PRODUCING	6,426	6,478	7,265	-0.8	-11.5
Natural Res. & Mining	1,961	2,656	3,205	-26.2	-38.8
Mining	1,838	2,563	3,124	-28.3	-41.2
Oil & Gas Extraction	276	306	362	-9.8	-23.8
Construction	3,815	3,136	3,137	21.7	21.6
Manufacturing	648	686	923	-5.5	-29.8
TOTAL SERVICE-PROVIDING	10,876	8,281	10,749	31.3	1.2
Trade, Transp., & Utilities	3,014	2,987	2,952	0.9	2.1
Wholesale Trade	719	902	780	-20.3	-7.8
Retail Trade	1,476	1,264	1,114	16.8	32.5
Transp., Warehousing & Utilities	819	821	1,058	-0.2	-22.6
Information	129	151	146	-14.6	-11.6
Financial Activities	409	502	553	-18.5	-26.0
Prof. & Business Services	1,505	1,259	1,622	19.5	-7.2
Educational & Health Svcs.	1,074	1,141	993	-5.9	8.2
Leisure & Hospitality	4,262	1,752	4,087	143.3	4.3
Other Svcs., exc. Public Admin.	475	481	388	-1.2	22.4
TOTAL GOVERNMENT	2,161	1,518	1,691	42.4	27.8
Federal Government	895	335	759	167.2	17.9
State Government	200	179	203	11.7	-1.5
Local Government	1,065	1,003	728	6.2	46.3
Local Education	250	260	199	-3.8	25.6
UNCLASSIFIED	1,876	1,610	1,896	16.5	-1.1
Laramie County					
TOTAL WEEKS CLAIMED	1,769	1,650	1,819	7.2	-2.7
TOTAL UNIQUE CLAIMANTS	465	490	557	-5.1	-16.5
TOTAL GOODS-PRODUCING	488	388	558	25.8	-12.5
Construction	348	252	422	38.1	-17.5
TOTAL SERVICE-PROVIDING	1,021	1,001	996	2.0	2.5
Trade, Transp., & Utilities	398	356	318	11.8	25.2
Financial Activities	36	67	115	-46.3	-68.7
Prof. & Business Svcs.	242	209	222	15.8	9.0
Educational & Health Svcs.	120	156	172	-23.1	-30.2
Leisure & Hospitality	131	120	97	9.2	35.1
TOTAL GOVERNMENT	149	160	179	-6.9	-16.8
UNCLASSIFIED	109	100	84	9.0	29.8
Natrona County					
TOTAL WEEKS CLAIMED	3,138	3,264	3,288	-3.9	-4.6
TOTAL UNIQUE CLAIMANTS	822	956	954	-14.0	-13.8
TOTAL GOODS-PRODUCING	1,177	1,286	1,483	-8.5	-20.6
Construction	582	552	408	5.4	42.6
TOTAL SERVICE-PROVIDING	1,756	1,794	1,646	-2.1	6.7
Trade, Transp., & Utilities	656	747	671	-12.2	-2.2
Financial Activities	58	68	142	-14.7	-59.2
Professional & Business Svcs.	312	200	254	56.0	22.8
Educational & Health Svcs.	283	351	182	-19.4	55.5
Leisure & Hospitality	303	258	264	17.4	14.8
TOTAL GOVERNMENT	145	110	82	31.8	76.8
UNCLASSIFIED	58	73	76	-20.5	-23.7

[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.





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