

TRENDS

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Research & Planning

After Energy: One-Year Certificate Programs Outside of the Energy Industry with High Earnings

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The purpose of this article is to give adults who are considering applying to a Wyoming community college for a one-year certificate program a realistic concept of their potential earnings outside direct employment in the oil & gas industry.

In 2014, the Workforce Information and Opportunity Act (WIOA) was signed into law, emphasizing the country's commitment to adult education and displaced workers. Since then, the Research & Planning (R&P) section of the Wyoming Department of Workforce Services has made a large effort to make career outcomes of educational programs readily available to employers, workers, government entities, and educational institutions. In January 2017, R&P published detailed interactive graphics describing the earnings and labor market behavior of Wyoming community colleges and University of Wyoming students. Customers can use these Tableau graphics at <http://tinyurl.com/ya5cxy6t> to explore, among other factors, academic programs by

college, degree year, and earnings before and after graduation. Along with the interactive graphics, R&P also published a series of detailed tables of student outcomes (Glover, 2017) and "Consumer Reports: Wyoming Career Assist: Employment, Earnings, and Hours Worked Five Years Before and Five Years after Graduation by Programs of Study" (Gallagher & Mohondro, 2017). Student outcomes research is especially important to Wyoming due to the state's investment in the Hathaway Scholarship Program (Faler, 2016).

To isolate the effects of a specific program, the analysis presented in this report looked

(Text continued on page 3)

HIGHLIGHTS

- **Teton County's unemployment rate rose from 2.8% in March to 4.9% in April as the end of the ski season resulted in job losses. ... page 21**
- **Initial Unemployment Insurance claims decreased 44.5% from April 2016 to April 2017, a decrease of 1,903 claims. The largest decrease was in mining (-805 claims, or -86.8%). ... page 26**

(Text continued from page 1)

exclusively at one-year certificate holders who did not earn another degree or certificate within three years before or after receiving their one-year certificate. Research & Planning found 16 educational program

groups in Wyoming which may be of interest to displaced workers. Certificate holders from these programs had a lower-than-average dependence directly on the oil & gas industry and a relatively higher median wage than one-year certificate holders overall. Six of the 16

programs stood out based on earnings, employment stability, and the percent of graduates who lived in the same county before and after graduation: journalism; computer programming; computer software & media applications; teacher education & professional development, specific levels & methods; homeland security, law enforcement, firefighting & related protective services, other; and mental & social health services & allied professions (see Box 1).

Box 1: Selected One-Year Certificate Program Groups by Title and Classification of Instructional Program (CIP) Code

- Journalism (0904)
- Computer Programming (1102)
- Computer Software & Media Applications (1108)
- Mental & Social Health Services & Allied Professions (5115)
- Homeland Security, Law Enforcement, Firefighting & Related Protective Services, Other (4399)
- Legal Support Services (2203)
- Fire Protection (4302)
- Physical Science Technologies/Technicians (4103)
- Allied Health Diagnostic, Intervention, & Treatment Professions (5109)
- Clinical/Medical Laboratory Science/Research & Allied Professions (5110)
- Teacher Education & Professional Development, Specific Levels & Methods (1312)
- Accounting & Related Services (5203)
- Drafting/Design Engineering Technologies/Technicians (1513)
- Health & Medical Administrative Services (5107)
- Practical Nursing, Vocational Nursing & Nursing Assistants (5139)
- Allied Health & Medical Assisting Services (5108)

Methodology & Data

R&P obtained the administrative data used in this analysis through memorandums of understanding (MOU) with labor market information offices in 11 partner states¹, the University of Wyoming, the Wyoming community colleges, the 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 MOUs

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.

and data-sharing agreements can be found at <https://doe.state.wy.us/LMI/LMIinfo.htm>.

Colleges use the Integrated Postsecondary Education Data System (<https://nces.ed.gov/ipeds>) to assign a Classification of Instructional Program (CIP) code for statistical purposes (National Center for Education Statistics, 2010). CIP codes indicate general (two digits), intermediate (four digits), and specific instructional groups (six digits). For example, the CIP code 51 designates health care professions and related programs, 51.06 designates a

program for dental support services and allied professions, and 51.0602 designates a dental hygiene/hygienist program. To account for slight variations in colleges' reporting to the Integrated Postsecondary Education Data System, this report uses the four-digit intermediate groups to assess academic program outcomes in Wyoming.

A map of the locations of Wyoming's community colleges is presented in Figure 1.

For this evaluation, R&P decided to focus on students' inflation-adjusted earnings

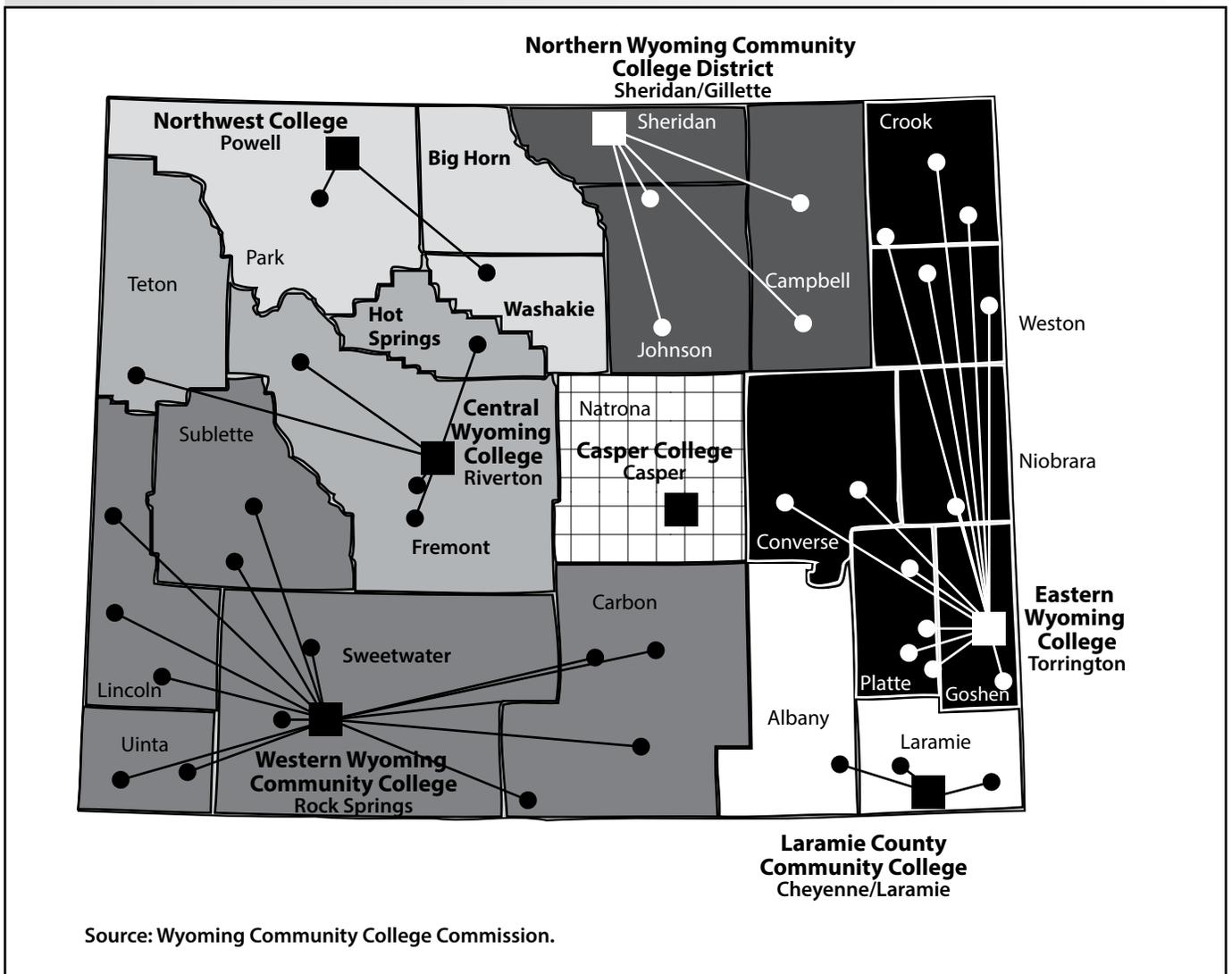


Figure 1: Map of Wyoming Community Colleges

outside the mining, oil & gas industry (NAICS 21)². Historically, the rate of job loss in the oil & gas industry is more volatile than other industries (Wen & Moore, 2017), and hire rates decrease more for the oil & gas industry than other industries during periods of economic downturn (Research & Planning, 2017). Most recently, Wyoming entered an economic downturn in second quarter 2015 (2015Q2) that persisted for at least seven consecutive quarters through fourth quarter 2016 (Moore, 2017). Also, given the state's current focus on growing economic diversity beyond mining, oil & gas activities (<https://www.endowyo.biz/>), R&P decided to calculate program results based on wages earned outside direct employment in mining, oil & gas.

Median non-oil & gas earnings in the year immediately following graduation were of primary concern. In all cases, a student's quarter of graduation was known as quarter zero, and R&P added together all non-oil & gas wages from the following four quarters to calculate the student's earnings in the first year after graduation.

However, students' pre-graduation careers can have a large effect on post-graduation earnings and

students may not choose their program of study based solely on potential earning. R&P used several

Box 2: Definitions

R&P decided that a student's non-oil & gas earnings three years prior to graduation from a one-year occupational certificate program were generally most typical of their career's annual wages. The third year (the twelfth and ninth quarters before graduation) was chosen instead of the first or second year before graduation because prior research has shown that a dip in wages is often the tipping point where workers decide to enroll in a training program (Ashenfelter, 1978). R&P estimated that this dip in wages may have happened in the second year before graduation. R&P also considered that student's earnings in the year before graduation may have been unusually low as well, possibly due to time away from work to complete their educational program.

Each quarter, R&P defines an individual's primary industry as the industry in which they earned the most money. The most common industry employing students, or a program's dominant industry, is defined as the most common primary industry for a program's graduates. For this report, the dominant industry was calculated for the third year before graduation and the first year after graduation.

Each quarter, R&P designates a worker to be stably, or continuously, employed when the individual worked for the same employer at some point in the previous quarter, and again in the following quarter. Other recent research on employment stability and workforce turnover can be found at http://doe.state.wy.us/LMI/education_we_connect/hathaway2016/hathaway_ch3.htm.

A graduate's migration was determined by comparing R&P's records of the most recent residence for an individual between the twelfth and ninth quarters before graduation (the third year before graduation) and the last residence on record between the first and fourth quarters after graduation (the first year after graduation).

² The mining, oil & gas industry is defined by the North American Industry Classification System (NAICS) and is coded as NAICS 21.

other factors to describe the outcomes of a program, including student earnings prior to graduation, the most common industries employing students, employment stability, and student migration (see Box 2, page 5).

Data from the Wyoming Community College Commission show that, from 2006 to 2016, Wyoming's community colleges issued 8,236 one-year certificates. In order to limit the confounding effects of multiple certificates or degrees achieved either simultaneously or in close succession, R&P removed from consideration any one-year certificate that was granted within three years³ of any other known post-secondary academic award. The final dataset included education and labor market information on 3,015 one-year certificates.

Overall, Wyoming community colleges issued one-year certificates in 70 different intermediate (four-digit) instructional groups from 2006 to 2016, but R&P only the examined programs which met the following criteria:

- The program had at least five graduates between 2006 and 2016, to ensure student and employer privacy.
- The program had at least one graduate in the 2014/2015 or 2015/2016 school years, meaning the program was likely an active option for Wyomingites looking to obtain a one-year certificate.
- The program had a lower-than-average ratio of graduates dependent primarily

on the oil & gas industry for income in the five years following graduation⁴.

- There were at least five graduates who earned wages outside the oil and gas industry in the year following graduation (for confidentiality).
- Graduates from the program earned a higher median wage in the year following graduation than one-year graduates overall (with non-confounding degrees).

R&P found 16 instructional groups that met these criteria (see Box 1, page 3).

Results

Overall, Wyoming community colleges issued 3,015 one-year occupational certificates to graduates who did not earn another postsecondary degree in the three years before or after their one-year certificate. Males accounted for 53.6% of graduates, the median age at graduation was 27 (see Table 1, page 7), and graduates' median annual non-oil & gas wages were \$10,913 three years before graduation and \$17,726 in the year following graduation (see Table 2, page 8). In terms of stable employment (see Table 3, page 11), there was a 1.0% increase between in the ratio of continuous employment from the third year prior to graduation to the first year following graduation. The most common industry of employment three years before graduation (see Table 4, page 12) was leisure & hospitality (NAICS 71-72), but one year

³ Records of one-year certificates were removed from the dataset if another certificate or degree was granted within 12 quarters before or after the quarter in which the one-year certificate was received. The quarter in which the degree was received was considered quarter 0. This means that if an individual earned two one-year certificates between 2006 and 2016, but the certificates were earned more than 12 quarters apart, then R&P included both certificates in the dataset.

⁴ R&P defines an individual's primary industry each quarter as the industry in which they earned the most money in the given quarter. For all 3,015 records in the dataset, each record was assigned a primary industry for each quarter in the 20 quarters following the quarter of graduation based on R&P's wage records information. The oil & gas industry accounted for 8.2% of all primary industries for one-year certificate holders in the five years following graduation.

after graduation the most common industry was health care & social assistance (NAICS 62). Table 5 (see page 13) shows the migration rates of graduates between the third year before graduation and the first year after graduation. Just over one in

three graduates (36.0%) of one-year occupational certificate programs continued to live in the same county in the first year after graduation as they did in the third year prior to graduation (see Table 5). In all, 40.9% of graduates remained residents

of Wyoming during the same time period.

Of the 16 instructional groups identified in this report, Table 1 shows that practical nursing, vocational nursing & nursing assistants (CIP 5139) had the most graduates (397), and computer programming (CIP 1102) had the fewest graduates (seven), closely followed by homeland security, law enforcement, firefighting & related protective services, other (CIP 4399), with nine graduates. Only three programs had more male graduates than female graduates: drafting/design engineering technologies/technician (CIP 1513), physical science technologies/technicians (CIP 4103), and fire protection (CIP 4302). Graduates from homeland security, law enforcement, firefighting and related protective services, other had the highest median age (50). The only programs where the graduates' median ages were under 24, the age generally accepted as the cutoff between traditional and nontraditional students (National Center for Education Statistics, n.d.), were fire protection and allied health and medical assisting services (CIP 5108).

In the year following graduation, three programs had median annual non-

Table 1: Demographics of Graduates from One-Year Certificate Programs from Wyoming Community Colleges by CIP^a Code, 2006-2016

CIP Code	Title	Number of Graduates	Dominant Gender	Median Age
0904	Journalism	12	F	38.5
1102	Computer Programming	7	N/D	33.0
1108	Computer Software & Media Applications	34	F	33.0
1312	Teacher Education & Professional Development, Specific Levels & Methods	11	F	33.0
1513	Drafting/Design Engineering Technologies/Technicians	15	M	29.5
2203	Legal Support Services	15	F	39.0
4103	Physical Science Technologies/Technicians	101	M	33.0
4302	Fire Protection	21	M	21.0
4399	Homeland Security, Law Enforcement, Firefighting & Related Protective Services, Other	9	N/D	50.0
5107	Health & Medical Administrative Services	61	F	30.0
5108	Allied Health & Medical Assisting Services	27	F	22.0
5109	Allied Health Diagnostic, Intervention, & Treatment Professions	206	F	26.0
5110	Clinical/Medical Laboratory Science/Research & Allied Professions	51	F	27.5
5115	Mental & Social Health Services & Allied Professions	15	F	51.0
5139	Practical Nursing, Vocational Nursing & Nursing Assistants	397	F	30.0
5203	Accounting & Related Services	22	F	40.5
	All Other	2,011	M (67.0%)	26.0
Total		3,015	M (53.6%)	27.0

^aClassification of Instructional Programs Code
 N/D = Not discloseable due to confidentiality.
 Source: Workforce Data Quality Initiative (WDQI) custom extract.
 Prepared by K. Faler, Research & Planning, WY DWS, 6/6/17.

oil & gas wages over \$40,000 (see Table 2): journalism (CIP 0904), computer programming (CIP 1102), and computer software and media applications (CIP 1108). Figure 2 (see page 9) shows that graduates from allied health and medical assisting services had the greatest relative change in median annual wages, whose wages more than tripled from three years before graduation to the first year after graduation. The largest gross changes in wages (see Figure 3, page 10) occurred for journalism graduates, whose median annual wages increased by \$25,210, and homeland

security, law enforcement, firefighting and related protective services, other with an increase of \$18,176. Median annual wages for graduates from accounting and related services (CIP 5203) and allied health diagnostic, intervention, and treatment professions (CIP 5109) decreased between the third year before graduation to the first year after graduation by \$4,135 and \$540.24, respectively.

In addition to having some of the highest earnings in the year following graduation, journalism, computer programming, and

Table 2: Median Earnings^a Outside Direct Employment in the Oil & Gas Industry (NAICS^b 21) of Graduates from One-Year Certificate Programs from Wyoming Community Colleges by CIP^c Code, 2006-2016

CIP Code	CIP Title	Years Relative to Graduation			
		3 Years Before	1 Year After	2 Years After	3 Years After
0904	Journalism	\$35,262	\$60,472	\$56,632	\$55,438
1102	Computer Programming	\$29,446	\$41,414	\$46,359	\$46,825
1108	Computer Software & Media Applications	\$37,406	\$41,140	\$42,604	\$29,091
1312	Teacher Education & Professional Development, Specific Levels & Methods	\$7,846	\$20,898	\$24,387	\$20,860
1513	Drafting/Design Engineering Technologies/Technicians	\$9,924	\$20,164	N/D	N/D
2203	Legal Support Services	\$22,944	\$30,778	\$37,924	\$45,560
4103	Physical Science Technologies/Technicians	\$21,520	\$26,295	\$30,371	\$15,815
4302	Fire Protection	\$10,818	\$28,994	\$31,901	\$33,809
4399	Homeland Security, Law Enforcement, Firefighting & Related Protective Services, Other	\$26,635	\$31,577	\$27,039	\$32,845
5107	Health & Medical Administrative Services	\$15,464	\$19,660	\$22,131	\$23,335
5108	Allied Health & Medical Assisting Services	\$4,456	\$18,400	N/D	N/D
5109	Allied Health Diagnostic, Intervention, & Treatment Professions	\$23,032	\$22,492	\$19,290	\$20,733
5110	Clinical/Medical Laboratory Science/Research & Allied Professions	\$9,430	\$20,936	\$19,392	\$24,942
5115	Mental & Social Health Services & Allied Professions	\$26,879	\$31,737	\$29,838	\$30,085
5139	Practical Nursing, Vocational Nursing & Nursing Assistants	\$15,578	\$18,617	\$30,018	\$31,530
5203	Accounting & Related Services	\$24,544	\$20,410	\$18,511	\$30,138
	All Other	\$8,228	\$15,216	\$20,340	\$21,625
	Total	\$10,913	\$17,726	\$22,231	\$23,768

^aEarnings in real 2015 dollars.

^bNorth American Industry Classification System.

^cClassification of Instructional Programs Code.

N/D = Not discloseable due to confidentiality.

Note: See Appendix Table 1 for the number of graduates used to calculate median earnings in each category (http://doe.state.wy.us/LMI/education_we_connect/2017/one_year_programs_appendix.pdf).

Source: Workforce Data Quality Initiative (WDQI) custom extract.

Prepared by K. Faler, Research & Planning, WY DWS, 6/6/17.

computer software and media applications graduates were among the programs with the most stable employment (see Table 3, page 11), along with homeland security, law enforcement, firefighting and related protective services, other, and teacher

education and professional development, specific levels and methods (CIP 1312). Graduates from allied health and medical assisting services had the greatest relative increase in the ratio of employment stability between the third year before graduation to

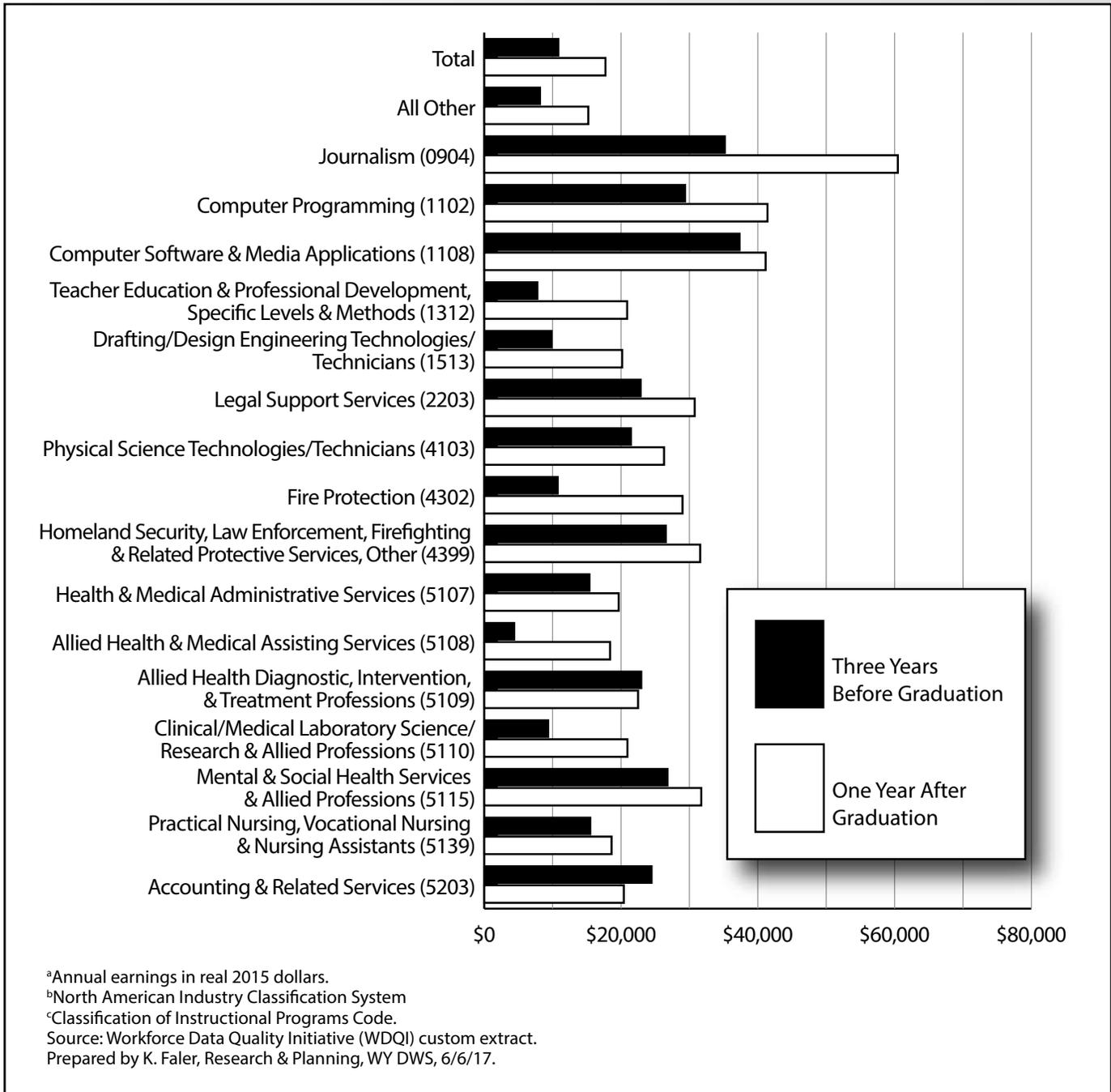


Figure 2: Median Earnings^a Outside Direct Employment in the Oil & Gas Industry (NAICS^b 21) of Graduates from One-Year Certificate Programs from Wyoming Community Colleges by CIP^c Code, 2006-2016

the first year after graduation, an increase of 44.2%, followed by drafting/design engineering technologies/technicians with an increase of 40.0%. Accounting and related services had the greatest decrease in relative employment stability (-22.5%) and also had

the lowest percent of stable employment one year after graduation (55.1%).

Table 4 (see page 12) details each program's dominant primary industry before and after graduation. For a number

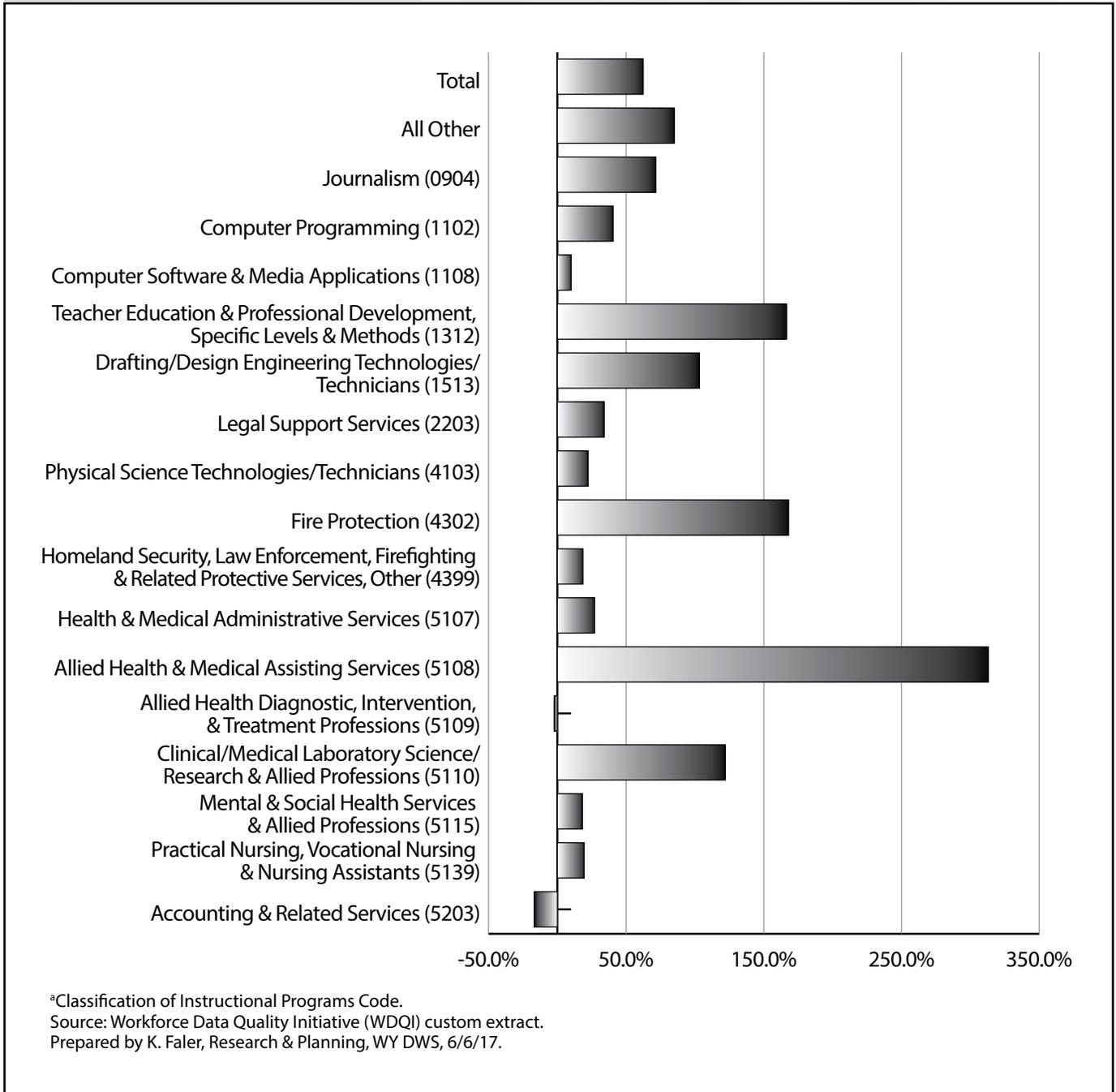


Figure 3: Percent Change in Median Earnings of Graduates from One-Year Certificate Programs from Wyoming Community Colleges from Three Years Before Graduation to One Year After Graduation by CIP^a Code , 2006-2016

of programs, particularly those with an initial dominant industry of health

services (NAICS 62), the most common primary industry after graduation

remained health services. This was the case for teacher education and professional development, specific levels and methods, allied health diagnostic intervention, and treatment professions, clinical/medical laboratory science/research and allied professions (CIP 5110), mental and social health services and allied professions, and practical nursing and nursing assistants. There were only two cases where the dominant industry after graduation was less stable than the dominant industry three years before graduation: drafting/design engineering technologies/technicians and legal support services (CIP 2203).

Table 3 : Employment Stability^a for One-Year Certificate Programs of Graduates from One-Year Certificate Programs from Wyoming Community Colleges by CIP^b Code, 2006-2016

CIP Code	CIP Title	Percent of Records with Stable Employment:		
		Three Years Before Graduation	One After Graduation	Percent Change in Ratio
0904	Journalism	84.3	80.4	-4.6
1102	Computer Programming	72.4	83.3	15.1
1108	Computer Software & Media Applications	80.5	82.1	2.1
1312	Teacher Education & Professional Development, Specific Levels & Methods	76.7	82.1	7.1
1513	Drafting/Design Engineering Technologies/Technicians	42.9	60.0	40.0
2203	Legal Support Services	51.6	65.3	26.5
4103	Physical Science Technologies/Technicians	63.6	57.0	-10.5
4302	Fire Protection	69.6	62.3	-10.4
4399	Homeland Security, Law Enforcement, Firefighting & Related Protective Services, Other	90.0	96.6	7.3
5107	Health & Medical Administrative Services	66.7	66.3	-0.6
5108	Allied Health & Medical Assisting Services	52.9	76.3	44.2
5109	Allied Health Diagnostic, Intervention, & Treatment Professions	64.7	63.0	-2.5
5110	Clinical/Medical Laboratory Science/Research & Allied Professions	60.5	67.3	11.2
5115	Mental & Social Health Services & Allied Professions	66.7	67.3	0.9
5139	Practical Nursing, Vocational Nursing & Nursing Assistants	67.5	63.5	-5.9
5203	Accounting & Related Services	71.1	55.1	-22.5
	All Other	56.5	62.5	10.5
	Total	57.1	63.0	10.2

Source: Custom Extract from WDQI Database

^aFor this article, employment stability is defined as the rate of continuous employment over total employment.

^bClassification of Instructional Programs Code.

Source: Workforce Data Quality Initiative (WDQI) custom extract.

Prepared by K. Faler, Research & Planning, WY DWS, 6/6/17.

Table 5 (see page 13) presents student migration data. Teacher education and professional development, specific levels and methods had the greatest percent of graduates who lived in the same county after graduation as they did three years before graduation (54.6%). Almost half (49.5%) of graduates from physical science technologies/technicians lived in the same county, compared to 36.0% of one-year certificate graduates overall. More than half of graduates from the following programs who lived in Wyoming three years before graduation also lived in Wyoming one year after

graduation: teacher education & professional development, specific levels & methods; legal support services; physical science technologies/technicians; health & medical administrative services; mental & social

health services & allied professions; and accounting & related services. The programs with the lowest percent of graduates who lived in the same county before and after graduation were allied health diagnostic,

Table 4: Dominant Industry of Employment^a for Graduates from One-Year Certificate Programs from Wyoming Community Colleges by CIP^b Code, 2006-2016

CIP Code	CIP Title	Three Years Before Graduation		One Year After Graduation	
		Dominant Primary Industry & NAICS ^c Code	% Working in Dominant Primary Industry	Dominant Primary Industry & NAICS Code	% Working in Dominant Primary Industry
0904	Journalism	Educational Services (61)	83.7	Educational Services (61)	100.0
1102	Computer Programming	Educational Services (61)	37.5	Public Admin. (92)	39.1
1108	Computer Software & Media Applications	Retail Trade (44,45)	29.4	Educational Services (61)	28.7
1312	Teacher Education & Professional Development, Specific Levels & Methods	Health Services (62)	62.1	Health Services (62)	76.5
1513	Drafting/Design Engineering Technologies/Technicians	Wholesale Trade, Trans., Utilities, & Warehousing (42,48,49,22)	26.7	Retail Trade (44,45)	33.3
2203	Legal Support Services	Health Services (62)	46.9	Professional & Business	51.9
4103	Physical Science Technologies/Technicians	Manufacturing (31,32,33)	20.4	Manufacturing (31,32,33)	44.4
4302	Fire Protection	Retail Trade (44,45)	32.8	Public Admin. (92)	45.5
4399	Homeland Security, Law Enforcement, Firefighting & Related Protective Services, Other	Educational Services (61) or Public Administration (92)	41.4	Public Admin. (92)	57.1
5107	Health & Medical Admin. Services	Retail Trade (44,45)	24.2	Health Services (62)	39.5
5108	Allied Health & Medical Assisting Svcs.	Leisure & Hospitality (71,72)	40.4	Retail Trade (44,45)	30.2
5109	Allied Health Diagnostic, Intervention, & Treatment Professions	Health Services (62)	51.1	Health Services (62)	46.7
5110	Clinical/Medical Laboratory Science/Research & Allied Professions	Health Services (62)	25.4	Health Services (62)	55.9
5115	Mental & Social Health Services & Allied Professions	Health Services (62)	43.9	Health Services (62)	69.0
5139	Practical Nursing, Vocational Nursing & Nursing Assistants	Health Services (62)	47.5	Health Services (62)	76.4
5203	Accounting & Related Services	Leisure & Hospitality (71,72)	23.8	Leisure & Hospitality (71,72)	22.7
	All Other	Leisure & Hospitality (71,72)	17.5	Leisure & Hospitality (71,72)	12.6
	Total	Leisure & Hospitality (71,72)	15.4	Health Services (62)	17.8

^aThe dominant industry is defined as the industry in which a plurality of individuals primarily worked during a given time period. R&P defines an individual's primary industry each quarter as the industry in which they earned the highest wages in the given quarter.

^bClassification of Instructional Programs Code.

^cNorth American Industry Classification System.

Source: Workforce Data Quality Initiative (WDQI) custom extract.

Prepared by K. Faler, Research & Planning, WY DWS, 6/6/17.

intervention, and treatment professionals (19.4%) and allied health and medical assisting services (25.9%); these two programs also had the lowest percentage of graduates who lived in Wyoming at all in the year following graduation.

R&P found that the programs with the best outcomes based on wages, stability, and student migration were journalism, computer programming, computer software and media applications, mental and social health services and allied professions, homeland security, law enforcement, firefighting and related protective services, other, and teacher education and professional development, specific levels and methods (see Table 6, page 15). Programs with lower wages outside the oil & gas industry, lower employment stability, and higher post-graduation migration were accounting and related services, drafting/design engineering technologies/technicians, health and medical administrative services, allied health diagnostic, intervention, and treatment professions, and practical nursing, vocational nursing and nursing assistants. See the “Discussion” section on page 14 for more details on these programs.

Table 5: Migration^a of Graduates from One-Year Certificate Programs from Wyoming Community Colleges between the Third Year Before Graduation to the First Year Following Graduation by CIP^b Code, 2006-2016

CIP Code	CIP Title	Number of Graduates	Graduates who Continued to Live in Same WY County		Graduates Who Continued to Live in WY	
			N	%	N	%
0904	Journalism	12	N/D	N/D	N/D	N/D
1102	Computer Programming	7	N/D	N/D	N/D	N/D
1108	Computer Software & Media Applications	34	12	35.3	13	38.2
1312	Teacher Education & Professional Development, Specific Levels & Methods	11	6	54.6	6	54.6
1513	Drafting/Design Engineering Technologies/Technicians	15	N/D	N/D	N/D	N/D
2203	Legal Support Services	15	7	46.7	8	53.3
4103	Physical Science Technologies/Technicians	101	50	49.50	52	51.5
4302	Fire Protection	21	8	38.1	8	38.1
4399	Homeland Security, Law Enforcement, Firefighting & Related Protective Services, Other	9	N/D	N/D	N/D	N/D
5107	Health & Medical Administrative Services	61	28	45.9	31	50.8
5108	Allied Health & Medical Assisting Services	27	7	25.9	8	29.6
5109	Allied Health Diagnostic, Intervention, & Treatment Professions	206	40	19.4	47	22.8
5110	Clinical/Medical Laboratory Science/Research & Allied Professions	51	17	33.3	17	33.3
5115	Mental & Social Health Services & Allied Professions	15	7	46.7	8	53.3
5139	Practical Nursing, Vocational Nursing & Nursing Assistants	397	140	35.3	157	39.6
5203	Accounting & Related Services	22	10	45.5	12	54.6
	All Other	2,011	722	35.9	842	41.9
	Total	3,015	1,086	36.0	1,233	40.9

^aA graduate’s migration was determined by comparing R&P’s records of the most recent residence between the twelfth and ninth quarters before the quarter of graduation, and the last residence on records between the first and fourth quarters after graduation.

^bClassification of Instructional Programs Code

N/D = Not discloseable due to confidentiality.

Source: Workforce Data Quality Initiative (WDQI) custom extract.

Prepared by K. Faler, Research & Planning, WY DWS, 6/6/17.

Discussion

Volatility within the mining, oil & gas industry prompted R&P to focus on non-mining, oil & gas earnings when evaluating one-year occupational certificate program for this report. As a result, the instructional programs highlighted here may be different than expected. For example, welding and machining are often perceived as desirable instructional programs, both by Wyoming community colleges and by displaced workers (Storrow, 2016); however, graduates from the instructional group precision metal working (CIP 4805), which includes welding and machining, are much more dependent directly on the oil & gas industry than average in the five years following graduation (Glover, 2017, p 143-6; http://doe.state.wy.us/LMI/education_we_connect/2017/Career_Assist_Community_College_Grads_by_Gender.pdf) so the instructional group is not featured here.

Figure 2 (see page 9), which illustrates students' non-oil & gas earnings in the third year prior to graduation and the first year after graduation, shows that the top earning programs in this study for the year after graduation were journalism (CIP 0904, \$60,472), followed by computer programming (CIP 1102, \$41,414), and computer software and media applications (CIP 1108, \$41,140).

R&P also used employment stability to identify key instructional programs with the understanding that some individuals may sacrifice higher earnings for more reliable work. In third quarter 2016, 68.5% of all employment records indicated continuous employment, whereas in the first year after graduation 63.0% of employment records for one-year occupational graduates indicated continuous employment. A lower rate of

employment stability for recent graduates is not unusual: students often leverage their new degrees for more desirable work. Still, graduates from some programs had a high degree of employment stability immediately following graduation: homeland security, law enforcement, firefighting and related protective services, other (CIP 4399, 96.6%), computer programming (83.3%), computer software and media applications (82.1%), and teacher education and professional development, specific levels and methods (CIP 1312, 82.1%). Figure 4 (see page 16) provides a comparison of employment stability by instructional program.

The industries in which graduates work can provide significant insight into their earnings and employment stability. Three years before graduation, the dominant industries for future graduates were health services, retail trade, and leisure & hospitality. Typically, the retail trade and leisure & hospitality industries employ younger workers with lower wages and higher turnover (see Appendix Table 2 online at http://doe.state.wy.us/LMI/education_we_connect/2017/one_year_programs_appendix.pdf). In the year following graduation, students' dominant industries were health services, public administration, and educational services, all sectors with relatively less volatility than the mining, oil & gas industry but also with relatively lower earnings. For the labor market as a whole, workers' wages and employment stability tend to increase over the course of their career, which means that part of these programs' outcomes may be attributable to workers' age rather than exclusively to their occupational certificate. However, it appears that the jump in wages and employment stability for graduates is much higher than for other workers of a similar age. This may

(Text continued on page 16)

Table 6: High Value One-Year Occupational Certificate Programs Selected based on Higher Earnings^a, Greater Employment Stability^b, and Lower Migration Rates^c for Graduates from Wyoming Community Colleges by CIP^d Code, 2006-2016

		CIP Title and Code					
		Journalism (0904)	Computer Programming (1102)	Computer Software & Media Applications (1108)	Teacher Education & Professional Development, Specific Levels & Methods \\ (1312)	Homeland Security, Law Enforcement, Firefighting & Related Protective Services, Other (4399)	Mental & Social Health Services & Allied Professions (5155)
	Number of Graduates	12	7	34	11	9	15
	Dominant Gender	F	N/D	F	F	N/D	F
	Median Age	38.5	35	35	33	48.5	51
Average Annual Wage (Relative to Graduation)	Three Years Before	\$35,262	\$29,446	\$37,406	\$7,846	\$26,635	\$26,879
	One Year After	\$60,472	\$41,414	\$41,140	\$20,898	\$31,577	\$31,737
	Two Years After	\$56,632	\$46,359	\$42,604	\$24,387	\$27,039	\$29,838
	Three Years After	\$55,438	\$46,825	\$29,091	\$20,860	\$32,845	\$30,085
Dominant Primary Industry of Employment 3 Years Before Graduation	Industry	Educational Services (61)	Retail Trade (44,45)	Retail Trade (44,45)	Health Services (62)	Educational Services (61) or Public Admin. (92)	Health Services (62)
	% of Graduates Working	83.7%	37.5%	29.4%	62.1%	41.4%	43.9%
Dominant Primary Industry of Employment 1 Year After Graduation	Industry	Educational Services (61)	Public Admin. (92)	Educational Services (61)	Health Services (62)	Public Admin. (92)	Health Services (62)
	% of Graduates Working	100.0%	39.1%	28.7%	76.5%	57.1%	69.0%
Stable Employment (%)	3 Years Before Graduation	84.3%	72.4%	80.5%	76.7%	90.0%	66.7%
	1 Year After Graduation	80.4%	83.3%	82.1%	82.1%	96.6%	67.3%
Graduates who Continued to Live in Same WY County After Graduation	N	N/D	N/D	12	6	N/D	7
	%	N/D	N/D	35.29%	54.55%	N/D	46.67%
Graduates who Continued to Live in WY After Graduation	N	N/D	N/D	13	6	N/D	8
	%	N/D	N/D	38.24%	54.55%	N/D	53.33%

^aEarnings in real 2015 dollars.

^bFor this article, employment stability is defined as the rate of continuous employment over total employment.

^cAn graduate's migration was determined by comparing R&P's records of the most recent residence between the 12th and ninth quarters before the quarter of graduation, and the last residence on records between the first and fourth quarters after graduation.

^dClassification of Instructional Programs Code.

^eNorth American Industry Classification System.

N/D = Not discloseable due to confidentiality.

Source: Workforce Data Quality Initiative (WDQI) custom extract.

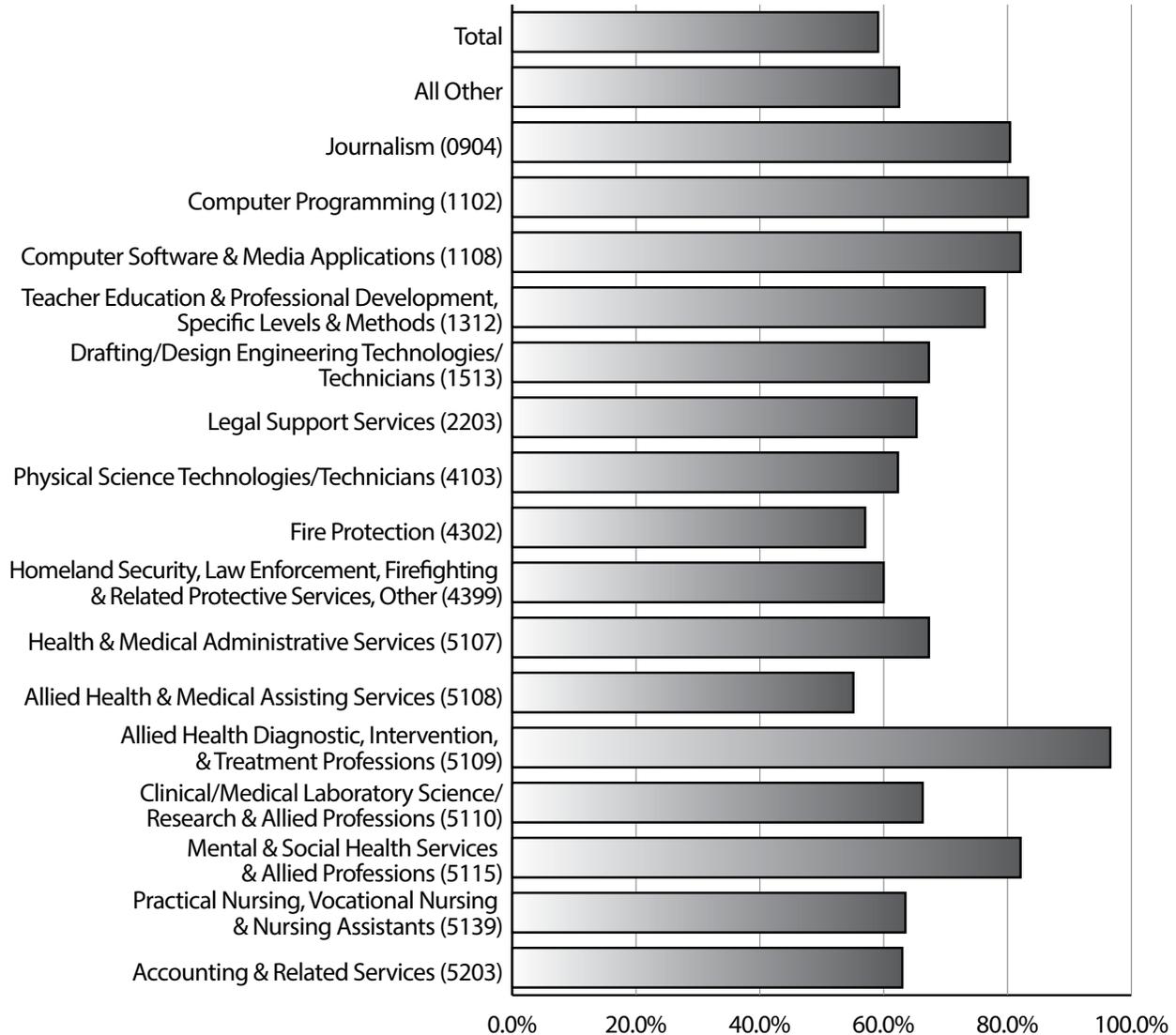
Prepared by K. Faler, Research & Planning, WY DWS, 6/6/17.

(Text continued from page 14)

indicate a potential causal relationship between earnings, employment stability, and one-year occupational certificates in future research.

Graduates' dominant industries can

also provide clues as to what students' goals are with their certificates. In some cases, students may use a one-year occupational certificate to change industries or careers entirely, like a one-year certificate in computer programming; the dominant industry for computer programming graduates three years before graduation was retail



^aEarnings in real 2015 dollars.
^bNorth American Industry Classification System.
^cClassification of Instructional Programs Code.
 Source: Workforce Data Quality Initiative (WDQI) custom extract.
 Prepared by K. Faler, Research & Planning, WY DWS, 6/6/17.

Figure 4: Percent of Graduates from One-Year Certificate Programs from Wyoming Community Colleges with Stable Employment 1 Year After Graduation by CIP^a Code, 2006-2016

trade, but after graduation the dominant industry was public administration. With a median age of 35 at graduation (relatively young compared to one-year certificate graduates overall) and a median wage increase of \$11,969 from the third year prior to graduation to the first year after graduation, it can be inferred that computer programming students are using their certificate to change careers. In other cases, graduates may use their award to advance their career within a specific industry. For example, 41.4% of graduates from homeland security, law enforcement, firefighting and related protective services, other worked in public administration (NAICS 92) three years before graduation, and 57.1% of graduates worked in public administration in the year following graduation with a median annual wage increase of \$4,942.

It is also important to consider that some employers encourage workers to obtain a postsecondary certificate, which may be the case for practical nursing, vocational nursing, and nursing assistants graduates. Three years before graduation, the dominant

industry for practical nursing students was health services with a median wage of \$15,579. One year after graduation, the dominant industry was health services with a median wage of \$18,617. Median wages for practical nursing students increased to \$30,018 the second year after graduation. This profile fits with what R&P already knows about nurses: future graduates often begin their careers as certified nursing assistants before becoming licensed practical nurses, and that employers in the health care industry are more likely than other industries to offer tuition reimbursement.

Migration was a third factor R&P considered in this study. In order to complete a certificate, students take time away from work, family, and personal obligations. Nontraditional students, who are more likely to have a family and own a home, may place an especially high value on using their new skills within their communities rather than having to move counties or states to find work. Although disclosable migration data is limited for confidentiality, students can use this data to select a program that best

Online Resources

Several appendix tables for this article are available online at http://doe.state.wy.us/LMI/education_we_connect/2017/one_year_programs.htm.

Appendix Table 1 shows the number of 2006-2016 graduates from one-year certificate programs from Wyoming community colleges who earned wages outside direct employment in the oil & gas industry.

Appendix Table 2 shows Wyoming quarterly turnover statistics by industry for 2016Q4.

Appendix Table 3 shows industry demographics, wages, and number of employers in Wyoming in 2015.

Finally, Appendix Table 4 provides links to related community college programs in Wyoming.

meets their needs and community college counselors can use this information to help students enroll in programs where they are more likely to find work where they live.

In this evaluation, R&P found that the highest value programs were journalism, computer programming, computer software and media applications, mental and social health services and allied professions, homeland security, law enforcement, firefighting and related protective services, other and teacher education and professional development, specific levels and methods.

The 12 graduates with a one-year certificate in journalism earned the most money after graduation, the largest change in wages, with relatively stable migration and non-disclosable migration data. The majority of graduates were female and tended to work in educational services before and after graduation. Western Wyoming Community College (WWCC) offers a certificate in journalism.

Laramie County Community College (LCCC) offers a number of one-year computer programming and information technology degrees. General computer programming certificate holders had the second highest median wages after graduation as well as a large change in wages in the year following graduation. The most common primary industry for computer programming students before graduation was retail trade, but the dominant industry after graduation was public administration. Students had relatively stable employment after graduation, but non-disclosable migration data.

Eastern Wyoming College (EWC), LCCC, and WCCC offer certificates in computer software and media applications, or more specifically web page, digital/multimedia and information resources design. Although

these graduates had a smaller change in wages and slightly greater county and inter-state migration than one-year occupational certificate holders overall, they had the third highest median wages of the programs featured here and relatively stable employment in the year following graduation. The dominant industry before graduation was retail trade and the dominant industry after graduation was educational services. Some of these programs may be available entirely online.

Health care programs are offered widely at Wyoming's community colleges. Mental and social health services and allied professions had relatively high wages as well, higher employment stability in the first year after graduation, and less migration than other programs. However, graduates had a smaller change in wages than one-year certificate graduates overall. Casper College (CC) and the Northern Wyoming Community College District (NWCCD) offer programs in substance abuse/addiction counseling.

Programs in homeland security, law enforcement, firefighting and related protective services, other are offered at LCCC and WWCC. Graduates of this program were older than other programs in this report and had the most stable employment and relatively high median wages following graduation. The change in wages was smaller than for one-year certificate holders overall and migration data is non-disclosable.

Students obtained certificates in teacher education and professional development, specific levels and methods from EWC, Northern Wyoming College (NWC), and NWCCD. These colleges specifically offered degrees in early childhood education and kindergarten/preschool education and teaching. Although wages for this program were on the lower side than other programs

in this report, graduates of these programs had a large change in wages, relatively stable employment, and the least migration between counties.

Limitations and Future Research

A significant advantage of this study is that it combines ten years of data, meaning that the results here include statistics from graduates who entered the labor market in highly varied economic conditions. While this research correlates these programs with higher non-oil & gas wages, it does not prove that certificates in these programs directly caused students to earn more or have more stable employment. Given the generally small number of graduates from these programs, it is unlikely that a future study would be able to maintain confidentiality and still provide support for causation. Administrative data of the kind used in this report is one of the most powerful types of raw data, but it is not without limitations: incomplete, incorrect, or unknown systematic errors may have had an impact on the results.

Future research may include similar studies on two-year occupational certificates, associate's degrees, and bachelor's degrees. Use of broader instructional categories may allow R&P to provide more causal analysis regarding degree outcomes.

Conclusion

Students choose to enroll in one-year certificate programs for a variety of reasons with a range of expected outcomes. R&P found 16 programs with relatively high median wages outside the mining, oil & gas

industry that are likely still offered at Wyoming community colleges. This article used the best available data to describe student outcomes for these 16 programs and found that the most successful programs based on median wages, wage changes before and after graduation, employment stability, and student migration were (1) journalism, (2) computer programming, (3) computer software and media applications, (4) teacher education and professional development, specific levels and methods, (5) homeland security, law enforcement, firefighting and related protective services, other, (6) mental and social health services and allied professions.

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Wyoming Unemployment Rate Falls to 4.3% in April 2017

by: David Bullard, Senior Economist

The Research & Planning section of the Wyoming Department of Workforce Services reported that the state's seasonally adjusted¹ unemployment rate fell significantly from 4.5% in March to 4.3% in April. Wyoming's unemployment rate was also significantly lower than its April 2016 level of 5.6%. Seasonally adjusted employment of Wyoming residents decreased slightly from March to April, falling by an estimated 509 individuals (-0.2%).

From March to April, most county unemployment rates followed their normal seasonal pattern and decreased. Seasonal job gains are often seen in April, as employment grows in construction, retail trade, and professional & business services. The largest unemployment rate decreases occurred in Johnson (down from 5.4% to 4.3%), Park (down from 5.4% to 4.4%), Weston (down from 4.8% to 3.9%), Uinta (down from 5.5% to 4.6%), and Sublette (down from 5.6% to 4.7%) counties. Teton

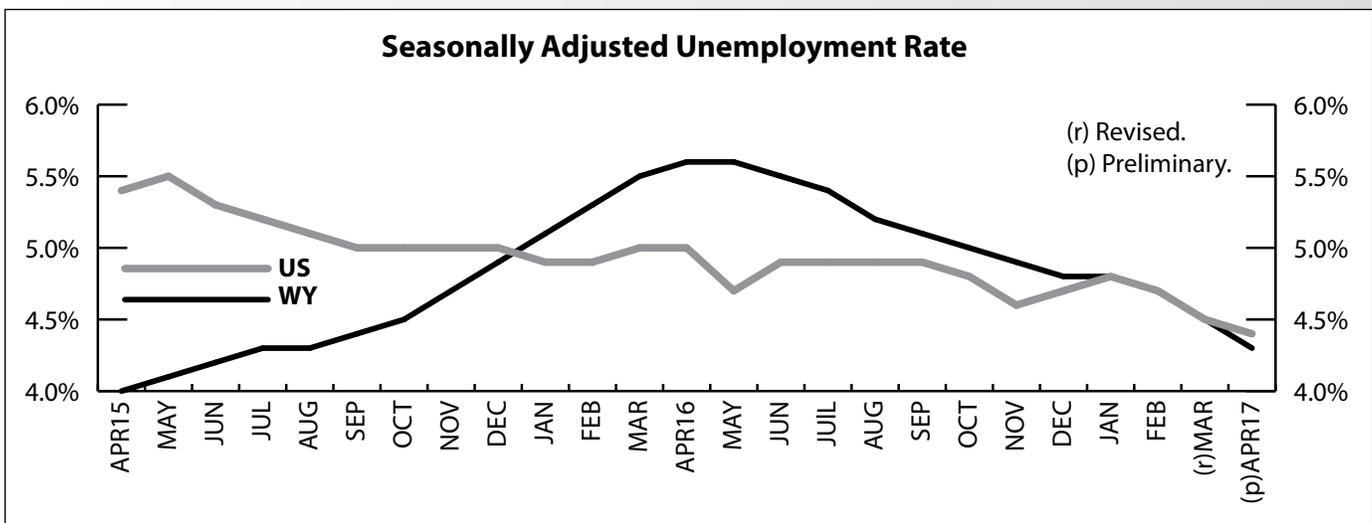
County's unemployment rate rose from 2.8% in March to 4.9% in April as the end of the ski season resulted in job losses.

From April 2016 to April 2017, unemployment rates fell in all of Wyoming's 23 counties. However, labor force also fell in 13 counties, suggesting that some of the people who were unemployed in April 2016 have left the state or dropped out of the labor force. The largest unemployment rate decreases occurred in Sublette (down from 8.1% to 4.7%), Campbell (down from 8.4% to 5.1%), Converse (down from 6.9% to 4.3%), and Natrona (down from 7.8% to 5.5%) counties.

In April 2017, the highest unemployment rates were found in Fremont and Natrona counties (both 5.5%). The lowest rates occurred in Albany (2.6%), Goshen (2.7%), and Niobrara (2.8%) counties.

The estimate of total nonfarm jobs (not seasonally adjusted and measured by place of work) fell from 278,200 in April 2016 to 271,800 in April 2017, a decrease of 6,400 jobs (or -2.3%; 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, April 2017

by: David Bullard, Senior Economist

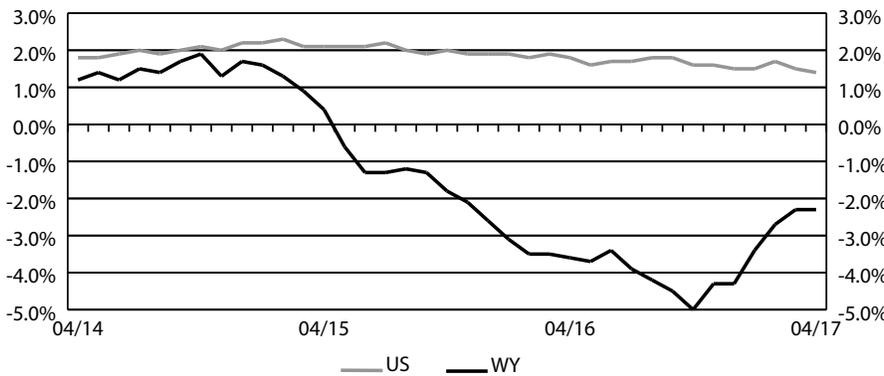
Industry Sector	Research & Planning's Short-Term Projections	Current Employment Statistics (CES) Estimates	N Difference	% Difference
Total Nonfarm Employment	271,699	271,800	101	0.0%
Natural Resources & Mining	17,719	19,000	1,281	6.7%
Construction	19,255	20,400	1,145	5.6%
Manufacturing	8,792	9,000	208	2.3%
Wholesale Trade	8,063	7,900	-163	-2.1%
Retail Trade	29,065	29,500	435	1.5%
Transportation & Utilities	14,259	14,000	-259	-1.9%
Information	3,654	3,700	46	1.2%
Financial Activities	10,707	10,300	-407	-4.0%
Professional & Business Services	17,688	16,800	-888	-5.3%
Educational & Health Services	27,991	28,000	9	0.0%
Leisure & Hospitality	32,198	31,100	-1,098	-3.5%
Other Services	10,867	11,000	133	1.2%
Government	71,441	71,100	-341	-0.5%

Projections were run in May 2017 and based on QCEW data through December 2016.

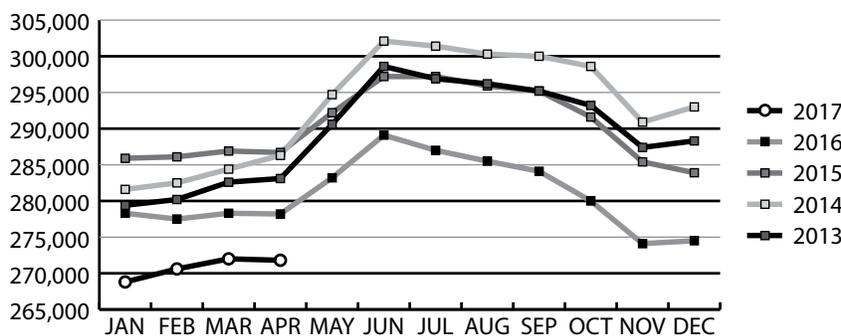
State Unemployment Rates April 2017 (Seasonally Adjusted)

State	Unemp. Rate
Puerto Rico	11.5
New Mexico	6.7
Alaska	6.6
District of Columbia	5.9
Louisiana	5.8
Alabama	5.4
Kentucky	5.1
Arizona	5.0
Georgia	5.0
Mississippi	5.0
Ohio	5.0
Texas	5.0
Connecticut	4.9
Pennsylvania	4.9
California	4.8
West Virginia	4.8
Illinois	4.7
Michigan	4.7
Nevada	4.7
North Carolina	4.7
Tennessee	4.7
Delaware	4.6
Washington	4.6
Florida	4.5
United States	4.4
Maryland	4.3
New York	4.3
Oklahoma	4.3
Rhode Island	4.3
South Carolina	4.3
Wyoming	4.3
New Jersey	4.1
Massachusetts	3.9
Missouri	3.9
Minnesota	3.8
Montana	3.8
Virginia	3.8
Kansas	3.7
Oregon	3.7
Indiana	3.6
Arkansas	3.5
Idaho	3.4
Wisconsin	3.2
Iowa	3.1
Utah	3.1
Vermont	3.1
Maine	3.0
Nebraska	3.0
New Hampshire	2.8
South Dakota	2.8
Hawaii	2.7
North Dakota	2.7
Colorado	2.3

Nonagricultural Employment Growth (Percentage Change Over Previous Year)



Wyoming Nonagricultural Wage and Salary Employment



Wyoming Nonagricultural Wage and Salary Employment

by: David Bullard, Senior Economist

State Unemployment Rates April 2017 (Not Seasonally Adjusted)

	Employment in Thousands			% Change Total Employment	
	Apr 17	Mar 17	Apr 16	Apr 17	Apr 17
				Mar 17	Apr 16
CAMPBELL COUNTY					
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	24.0	23.8	26.1	0.8	-8.0
TOTAL PRIVATE	18.7	18.5	20.7	1.1	-9.7
GOODS PRODUCING	7.4	7.3	8.7	1.4	-14.9
Natural Resources & Mining	5.3	5.3	6.2	0.0	-14.5
Construction	1.7	1.6	2.0	6.2	-15.0
Manufacturing	0.4	0.4	0.5	0.0	-20.0
SERVICE PROVIDING	16.6	16.5	17.4	0.6	-4.6
Trade, Transportation, & Utilities	5.0	5.0	5.5	0.0	-9.1
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	1.5	1.6	6.7	0.0
Educational & Health Services	1.0	1.0	1.0	0.0	0.0
Leisure & Hospitality	2.1	2.1	2.2	0.0	-4.5
Other Services	0.7	0.7	0.8	0.0	-12.5
GOVERNMENT	5.3	5.3	5.4	0.0	-1.9

	Employment in Thousands			% Change Total Employment	
	Apr 17	Mar 17	Apr 16	Apr 17	Apr 17
				Mar 17	Apr 16
SWEETWATER COUNTY					
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	22.7	22.3	23.1	1.8	-1.7
TOTAL PRIVATE	17.9	17.5	18.3	2.3	-2.2
GOODS PRODUCING	7.3	7.1	7.4	2.8	-1.4
Natural Resources & Mining	4.2	4.2	4.4	0.0	-4.5
Construction	1.7	1.5	1.6	13.3	6.2
Manufacturing	1.4	1.4	1.4	0.0	0.0
SERVICE PROVIDING	15.4	15.2	15.7	1.3	-1.9
Trade, Transportation, & Utilities	4.5	4.5	4.6	0.0	-2.2
Information	0.2	0.2	0.2	0.0	0.0
Financial Activities	0.7	0.7	0.8	0.0	-12.5
Professional & Business Services	1.0	0.9	1.0	11.1	0.0
Educational & Health Services	1.3	1.3	1.3	0.0	0.0
Leisure & Hospitality	2.3	2.2	2.4	4.5	-4.2
Other Services	0.6	0.6	0.6	0.0	0.0
GOVERNMENT	4.8	4.8	4.8	0.0	0.0

	Employment in Thousands			% Change Total Employment	
	Apr 17	Mar 17	Apr 16	Apr 17	Apr 17
				Mar 17	Apr 16
TETON COUNTY					
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	17.8	19.2	17.2	-7.3	3.5
TOTAL PRIVATE	15.3	16.6	14.7	-7.8	4.1
GOODS PRODUCING	2.1	2.0	2.2	5.0	-4.5
Natural Resources, Mining & Construction	2.0	1.9	2.0	5.3	0.0
Manufacturing	0.1	0.1	0.2	0.0	-50.0
SERVICE PROVIDING	15.7	17.2	15.0	-8.7	4.7
Trade, Transportation, & Utilities	2.5	2.6	2.4	-3.8	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	1.7	1.8	11.8	5.6
Educational & Health Services	1.2	1.3	1.1	-7.7	9.1
Leisure & Hospitality	5.9	7.3	5.6	-19.2	5.4
Other Services	0.5	0.5	0.5	0.0	0.0
GOVERNMENT	2.5	2.6	2.5	-3.8	0.0

State	Unemp. Rate
Puerto Rico	11.5
Alaska	7.0
New Mexico	6.2
Louisiana	5.6
District of Columbia	5.4
West Virginia	5.0
Kentucky	4.8
Connecticut	4.7
Georgia	4.7
Pennsylvania	4.7
Nevada	4.6
Arizona	4.5
California	4.5
Delaware	4.5
Texas	4.5
Alabama	4.4
Illinois	4.4
Ohio	4.4
Mississippi	4.3
North Carolina	4.3
Washington	4.3
Wyoming	4.3
New York	4.2
Rhode Island	4.1
United States	4.1
Florida	4.0
Oklahoma	4.0
Maryland	3.9
New Jersey	3.9
Massachusetts	3.8
Michigan	3.7
Minnesota	3.7
Missouri	3.7
Montana	3.7
Tennessee	3.7
South Carolina	3.6
Virginia	3.6
Kansas	3.5
Oregon	3.5
Maine	3.4
Vermont	3.3
Utah	3.2
Arkansas	3.1
Idaho	3.0
Wisconsin	3.0
Iowa	2.9
South Dakota	2.9
Nebraska	2.8
New Hampshire	2.8
Indiana	2.7
North Dakota	2.7
Hawaii	2.6
Colorado	2.2

Economic Indicators

by: David Bullard, Senior Economist

The number of people working part-time for economic reasons fell 12.4% from April 2016 to April 2017.

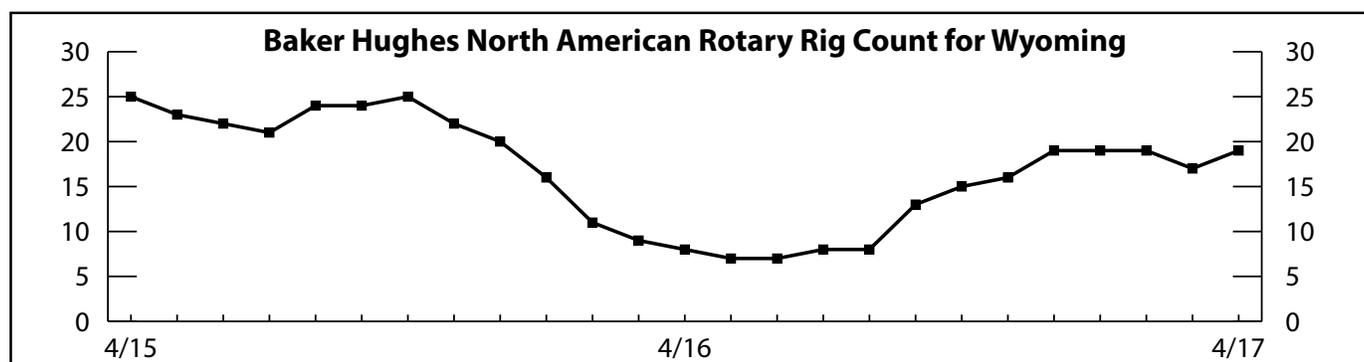
	Apr 2017 (p)	Mar 2017 (r)	Apr 2016 (b)	Percent Change Month	Percent Change Year
Wyoming Total Nonfarm Employment	271,800	271,800	278,200	0.0	-2.3
Wyoming State Government	15,300	15,300	15,900	0.0	-3.8
Laramie County Nonfarm Employment	46,400	45,900	46,500	1.1	-0.2
Natrona County Nonfarm Employment	36,900	36,600	39,300	0.8	-6.1
Selected U.S. Employment Data					
U.S. Multiple Jobholders	7,609,000	8,137,000	7,383,000	-6.5	3.1
As a percent of all workers	5.0%	5.3%	4.9%	N/A	N/A
U.S. Discouraged Workers	455,000	460,000	568,000	-1.1	-19.9
U.S. Part Time for Economic Reasons	5,058,000	5,552,000	5,771,000	-8.9	-12.4
Wyoming Unemployment Insurance					
Weeks Compensated	15,164	21,178	29,195	-28.4	-48.1
Benefits Paid	\$5,626,087	\$7,967,561	\$11,973,215	-29.4	-53.0
Average Weekly Benefit Payment	\$371.02	\$376.22	\$410.11	-1.4	-9.5
State Insured Covered Jobs ¹	254,769	254,214	257,277	0.2	-1.0
Insured Unemployment Rate	2.0%	2.6%	3.9%	N/A	N/A
Consumer Price Index (U) for All U.S. Urban Consumers (1982 to 1984 = 100)					
All Items	244.5	243.8	239.3	0.3	2.2
Food & Beverages	249.5	249.0	248.1	0.2	0.6
Housing	249.5	249.0	241.8	0.2	3.2
Apparel	128.3	128.3	127.8	0.1	0.5
Transportation	202.4	200.1	195.5	1.1	3.5
Medical Care	473.6	474.6	460.0	-0.2	3.0
Recreation (Dec. 1997=100)	118.6	118.6	117.5	0.1	1.0
Education & Communication (Dec. 1997=100)	135.8	136.2	139.3	-0.3	-2.5
Other Goods & Services	432.2	428.3	421.0	0.9	2.7
Producer Prices (1982 to 1984=100)					
All Commodities	193.0	191.3	183.2	0.9	5.3
Wyo. Bldg. Permits (New Privately Owned Housing Units Authorized)					
Total Units	196	160	171	22.5	14.6
Valuation	\$60,751,000	\$54,016,000	\$63,604,000	12.5	-4.5
Single Family Homes	171	141	163	21.3	4.9
Valuation	\$58,990,000	\$51,812,000	\$62,689,000	13.9	-5.9
Casper MSA ² Building Permits	20	12	19	66.7	5.3
Valuation	\$3,822,000	\$2,579,000	\$5,302,000	48.2	-27.9
Cheyenne MSA Building Permits	38	48	34	-20.8	11.8
Valuation	\$7,347,000	\$8,343,000	\$6,751,000	-11.9	8.8
Baker Hughes North American Rotary Rig Count for Wyoming	19	17	8	11.8	137.5

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

¹Local Area Unemployment Statistics Program estimates.

²Metropolitan 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 <http://www.bls.gov/eag/eag.wy.htm>.



Wyoming County Unemployment Rates

by: Carola Cowan, BLS Programs Supervisor

Teton County's unemployment rate rose from 2.8% in March to 4.9% in April as the end of the ski season resulted in job losses.

REGION County	Labor Force			Employed			Unemployed			Unemployment Rates		
	Apr 2017 (p)	Mar 2017 (r)	Apr 2016 (b)									
NORTHWEST	47,448	47,869	47,526	45,152	45,180	44,515	2,296	2,689	3,011	4.8	5.6	6.3
Big Horn	5,478	5,442	5,537	5,249	5,188	5,229	229	254	308	4.2	4.7	5.6
Fremont	20,086	20,258	20,286	18,973	18,954	18,717	1,113	1,304	1,569	5.5	6.4	7.7
Hot Springs	2,416	2,505	2,400	2,321	2,396	2,277	95	109	123	3.9	4.4	5.1
Park	15,291	15,433	15,097	14,622	14,605	14,308	669	828	789	4.4	5.4	5.2
Washakie	4,177	4,231	4,206	3,987	4,037	3,984	190	194	222	4.5	4.6	5.3
NORTHEAST	51,405	51,881	53,400	49,128	49,184	49,774	2,277	2,697	3,626	4.4	5.2	6.8
Campbell	23,495	23,877	25,448	22,302	22,521	23,301	1,193	1,356	2,147	5.1	5.7	8.4
Crook	3,577	3,616	3,621	3,440	3,450	3,429	137	166	192	3.8	4.6	5.3
Johnson	4,168	4,125	4,089	3,990	3,901	3,837	178	224	252	4.3	5.4	6.2
Sheridan	16,218	16,247	16,207	15,604	15,488	15,415	614	759	792	3.8	4.7	4.9
Weston	3,947	4,016	4,035	3,792	3,824	3,792	155	192	243	3.9	4.8	6.0
SOUTHWEST	58,531	60,037	58,752	55,879	57,297	54,934	2,652	2,740	3,818	4.5	4.6	6.5
Lincoln	8,609	8,826	8,559	8,257	8,433	8,090	352	393	469	4.1	4.5	5.5
Sublette	4,122	4,237	4,121	3,928	3,998	3,788	194	239	333	4.7	5.6	8.1
Sweetwater	22,324	22,643	22,645	21,337	21,464	21,153	987	1,179	1,492	4.4	5.2	6.6
Teton	14,201	15,013	13,836	13,507	14,600	12,925	694	413	911	4.9	2.8	6.6
Uinta	9,275	9,318	9,591	8,850	8,802	8,978	425	516	613	4.6	5.5	6.4
SOUTHEAST	84,401	85,557	83,860	81,739	82,384	80,625	2,662	3,173	3,235	3.2	3.7	3.9
Albany	21,379	21,861	21,666	20,822	21,194	21,003	557	667	663	2.6	3.1	3.1
Goshen	6,869	7,036	6,995	6,682	6,825	6,739	187	211	256	2.7	3.0	3.7
Laramie	49,918	50,584	49,124	48,216	48,552	47,094	1,702	2,032	2,030	3.4	4.0	4.1
Niobrara	1,312	1,322	1,312	1,275	1,275	1,271	37	47	41	2.8	3.6	3.1
Platte	4,923	4,754	4,763	4,744	4,538	4,518	179	216	245	3.6	4.5	5.1
CENTRAL	55,571	56,590	58,456	52,738	53,324	54,192	2,833	3,266	4,264	5.1	5.8	7.3
Carbon	8,032	8,363	8,207	7,705	7,969	7,773	327	394	434	4.1	4.7	5.3
Converse	7,723	7,778	8,066	7,392	7,392	7,509	331	386	557	4.3	5.0	6.9
Natrona	39,816	40,449	42,183	37,641	37,963	38,910	2,175	2,486	3,273	5.5	6.1	7.8
STATEWIDE	297,353	301,932	301,994	284,635	287,366	284,041	12,718	14,566	17,953	4.3	4.8	5.9
Statewide Seasonally Adjusted										4.3	4.5	5.6
U.S.										4.1	4.6	4.7
U.S. Seasonally Adjusted										4.4	4.5	5.0

Prepared in cooperation with the Bureau of Labor Statistics. Benchmarked 03/2017. Run Date 05/2017.

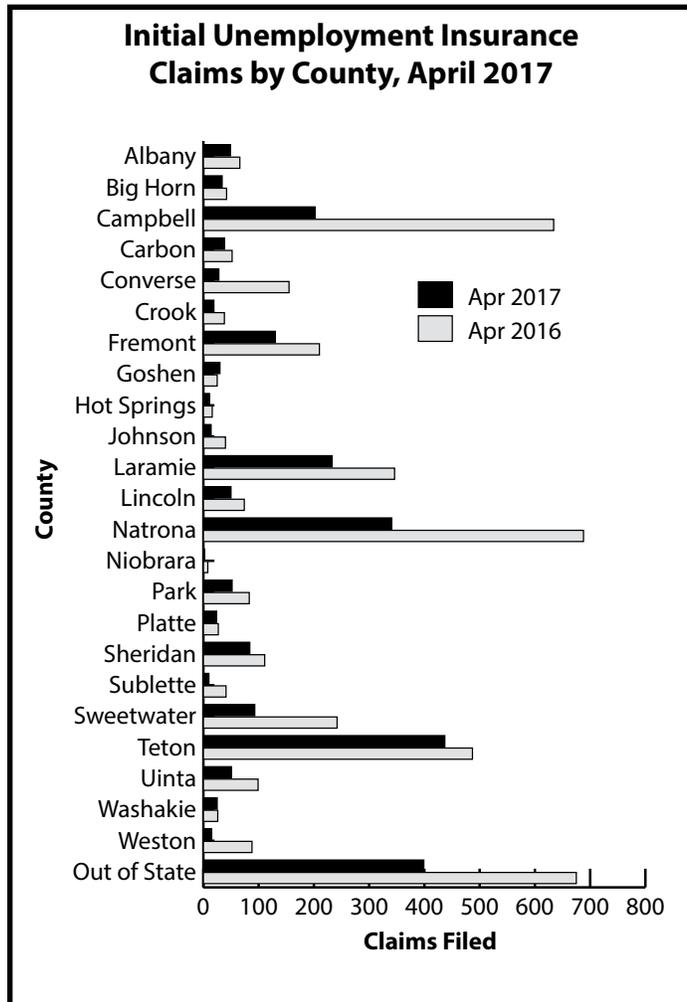
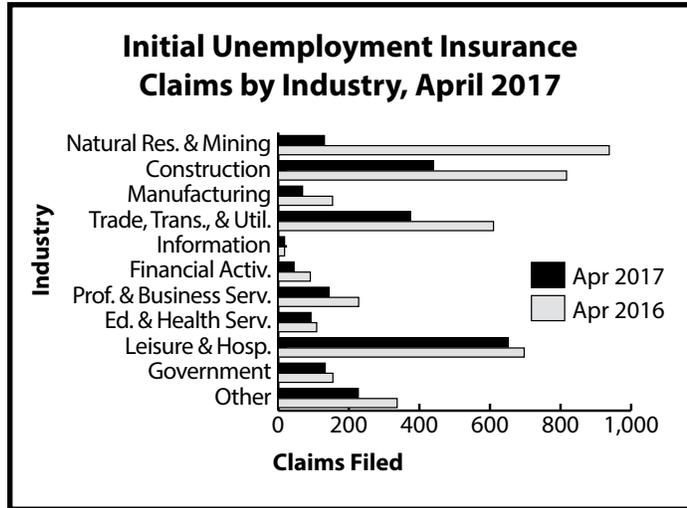
Data are not seasonally adjusted except where otherwise specified.

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

Wyoming Normalized^a Unemployment Insurance Statistics: Initial Claims

by: Patrick Manning, Principal Analyst

Initial claims decreased 44.5% from April 2016 to April 2017, a decrease of 1,903 claims. The largest decrease was in mining (-805 claims, or -86.8%).



Initial Claims	Claims Filed		Percent Change	
	Apr 17	Mar 17	Apr 17	Apr 17

Wyoming Statewide	2,371	1,991	4,274	19.1	-44.5
TOTAL CLAIMS FILED					
TOTAL GOODS-PRODUCING	641	747	1,911	-14.2	-66.5
Natural Res. & Mining	131	128	938	2.3	-86.0
Mining	122	115	927	6.1	-86.8
Oil & Gas Extraction	11	11	57	0.0	-80.7
Construction	440	517	817	-14.9	-46.1
Manufacturing	69	101	154	-31.7	-55.2
TOTAL SERVICE-PROVIDING	1,369	904	1,869	51.4	-26.8
Trade, Transp., & Utilities	375	286	610	31.1	-38.5
Wholesale Trade	40	36	142	11.1	-71.8
Retail Trade	162	148	180	9.5	-10.0
Transp., Warehousing & Utilities	173	102	288	69.6	-39.9
Information	18	8	18	125.0	0.0
Financial Activities	45	42	91	7.1	-50.5
Prof. and Business Svcs.	144	125	228	15.2	-36.8
Educational & Health Svcs.	93	80	109	16.3	-14.7
Leisure & Hospitality	652	316	697	106.3	-6.5
Other Svcs., exc. Public Admin.	37	40	109	-7.5	-66.1
TOTAL GOVERNMENT	133	137	155	-2.9	-14.2
Federal Government	45	48	46	-6.3	-2.2
State Government	11	15	15	-26.7	-26.7
Local Government	75	73	94	2.7	-20.2
Local Education	6	17	15	-64.7	-60.0
UNCLASSIFIED	227	201	337	12.9	-32.6

Laramie County	232	272	346	-14.7	-32.9
TOTAL CLAIMS FILED					
TOTAL GOODS-PRODUCING	66	102	135	-35.3	-51.1
Construction	61	87	106	-29.9	-42.5
TOTAL SERVICE-PROVIDING	145	139	169	4.3	-14.2
Trade, Transp., & Utilities	56	47	55	19.1	1.8
Financial Activities	9	17	11	-47.1	-18.2
Prof. & Business Svcs.	25	29	31	-13.8	-19.4
Educational & Health Svcs.	20	20	21	0.0	-4.8
Leisure & Hospitality	19	16	24	18.8	-20.8
TOTAL GOVERNMENT	9	18	22	-50.0	-59.1
UNCLASSIFIED	11	12	18	-8.3	-38.9

Natrona County	340	307	688	10.7	-50.6
TOTAL CLAIMS FILED					
TOTAL GOODS-PRODUCING	139	128	377	8.6	-63.1
Construction	101	94	198	7.4	-49.0
TOTAL SERVICE-PROVIDING	185	160	291	15.6	-36.4
Trade, Transp., & Utilities	63	54	133	16.7	-52.6
Financial Activities	6	8	22	-25.0	-72.7
Prof. & Business Svcs.	27	29	40	-6.9	-32.5
Educational & Health Svcs.	27	17	26	58.8	3.8
Leisure & Hospitality	48	30	32	60.0	50.0
TOTAL GOVERNMENT	7	10	6	-30.0	16.7
UNCLASSIFIED	8	8	12	0.0	-33.3

^aAn 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

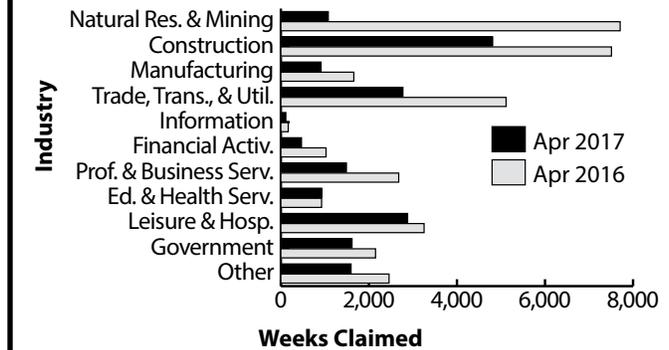
by: Patrick Manning, Principal Analyst

Over the year, the number of unique claimants with continued claims decreased by 45.1% (-4,871 individuals). The total number of continued weeks claimed decreased by 46.4%, or 16,502 weeks claimed.

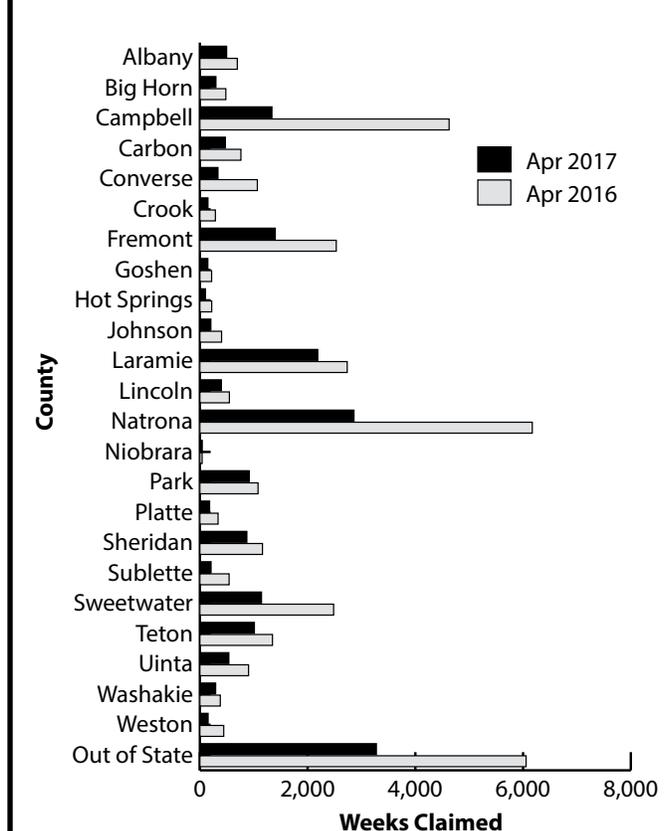
Continued Claims

	Claims Filed		Percent Change		Claims Filed	
	Apr 17	Mar 17	Apr 16	Mar 17	Apr 17	Apr 16
Wyoming Statewide						
TOTAL WEEKS CLAIMED	19,032	24,904	35,534	-23.6	-46.4	
TOTAL UNIQUE CLAIMANTS	5,918	6,132	10,789	-3.5	-45.1	
Benefit Exhaustions	539	549	672	-1.8	-19.8	
Benefit Exhaustion Rates	9.1%	9.0%	6.2%	0.2%	2.9%	
TOTAL GOODS-PRODUCING	6,803	10,572	16,875	-35.7	-59.7	
Natural Res. & Mining	1,077	1,375	7,707	-21.7	-86.0	
Mining	950	1,174	7,536	-19.1	-87.4	
Oil & Gas Extraction	187	199	688	-6.0	-72.8	
Construction	4,811	8,101	7,510	-40.6	-35.9	
Manufacturing	913	1,094	1,657	-16.5	-44.9	
TOTAL SERVICE-PROVIDING	9,018	9,917	14,050	-9.1	-35.8	
Trade, Transp., & Utilities	2,772	3,169	5,116	-12.5	-45.8	
Wholesale Trade	423	489	1,555	-13.5	-72.8	
Retail Trade	1,476	1,755	1,462	-15.9	1.0	
Transp., Warehousing & Utilities	873	925	2,099	-5.6	-58.4	
Information	113	126	167	-10.3	-32.3	
Financial Activities	468	481	1,026	-2.7	-54.4	
Prof. & Business Services	1,489	2,141	2,677	-30.5	-44.4	
Educational & Health Svcs.	929	997	925	-6.8	0.4	
Leisure and Hospitality	2,879	2,625	3,253	9.7	-11.5	
Other Svcs., exc. Public Admin.	361	370	880	-2.4	-59.0	
TOTAL GOVERNMENT	1,616	2,143	2,150	-24.6	-24.8	
Federal Government	683	983	702	-30.5	-2.7	
State Government	164	217	247	-24.4	-33.6	
Local Government	768	942	1,200	-18.5	-36.0	
Local Education	136	194	153	-29.9	-11.1	
UNCLASSIFIED	1,594	2,271	2,457	-29.8	-35.1	
Laramie County						
TOTAL WEEKS CLAIMED	2,188	3,023	2,735	-27.6	-20.0	
TOTAL UNIQUE CLAIMANTS	671	768	855	-12.6	-21.5	
TOTAL GOODS-PRODUCING	705	1,339	1,204	-47.3	-41.4	
Construction	624	1,203	868	-48.1	-28.1	
TOTAL SERVICE-PROVIDING	1,276	1,414	1,138	-9.8	12.1	
Trade, Transp., and Utilities	487	571	439	-14.7	10.9	
Financial Activities	133	102	78	30.4	70.5	
Prof. & Business Svcs.	298	378	262	-21.2	13.7	
Educational and Health Svcs.	201	182	148	10.4	35.8	
Leisure & Hospitality	102	135	98	-24.4	4.1	
TOTAL GOVERNMENT	115	142	278	-19.0	-58.6	
UNCLASSIFIED	90	127	113	-29.1	-20.4	
Natrona County						
TOTAL WEEKS CLAIMED	2,861	3,784	6,171	-24.4	-53.6	
TOTAL UNIQUE CLAIMANTS	878	930	1,819	-5.6	-51.7	
TOTAL GOODS-PRODUCING	1,176	1,822	3,124	-35.5	-62.4	
Construction	847	1,397	1,168	-39.4	-27.5	
TOTAL SERVICE-PROVIDING	1,507	1,736	2,844	-13.2	-47.0	
Trade, Transp., and Utilities	528	600	1,345	-12.0	-60.7	
Financial Activities	86	81	267	6.2	-67.8	
Professional & Business Svcs.	264	379	443	-30.3	-40.4	
Educational & Health Svcs.	200	227	208	-11.9	-3.8	
Leisure & Hospitality	323	345	295	-6.4	9.5	
TOTAL GOVERNMENT	88	115	89	-23.5	-1.1	
UNCLASSIFIED	87	110	112	-20.9	-22.3	

Continued Unemployment Insurance Claims by Industry, April 2017



Continued Unemployment Insurance Claims by County, April 2017



^aAn 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 Department of Workforce
Services, Research & Planning
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Casper, WY 82602**

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