

WYOMING WORKFORCE ANNUAL REPORT

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RESEARCH & PLANNING



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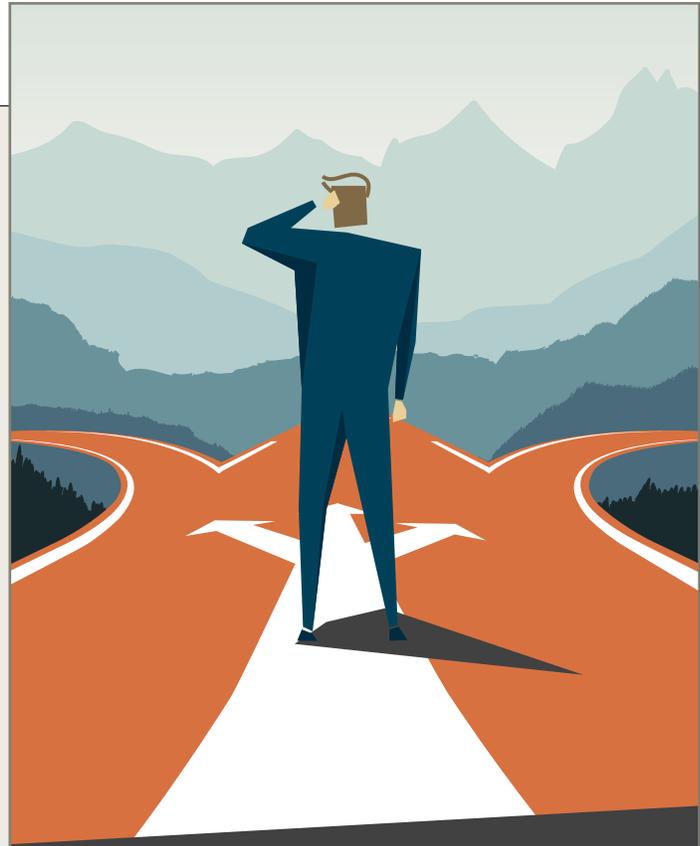
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Dear Reader,

Welcome to the 2015 edition of the Wyoming Workforce Annual Report, produced by the Research & Planning (R&P) section of the Wyoming Department of Workforce Services in partnership with the Wyoming Workforce Development Council. This report offers an overview of Wyoming's economy and workforce, and introduces new research which seeks to improve the quality of workforce data. Highlights from this year's report include:

- Employment in Wyoming is expected to grow by 5,982 jobs by second quarter 2016, with the largest growth expected in the construction, educational & health services, and retail trade industries.
- Short-term projections also indicate the fastest-growing occupations requiring a bachelor's degree in Wyoming are expected to be elementary and secondary school teachers.
- In the short term, the highest number of openings for jobs requiring an associate's degree is expected for registered nurses and preschool teachers.
- Females working in Wyoming in 2014 were paid an average of 59 cents for every dollar paid to males working in Wyoming.
- The number of nonresident workers in Wyoming continues to increase, while the number of resident youth working in Wyoming has decreased over the last decade.
- The number of occupational fatalities fell from 35 in 2012 to 26 in 2013.
- New research in the area of projected vs. actual wages demonstrates that wages and benefits may vary significantly for the same occupation, dependent on the industry.



- Wyoming's average annual unemployment rate for 2014 was 4.3%, the lowest since 2008.

Thank you for taking the time to review this report. While the report contains many important economic indicators and research milestones, we understand there may be some areas of research not covered here but which you would like to see included in future reports. I encourage you to contact us with questions, suggestions, or to share your thoughts on future research.

Best Regards,

Tom Gallagher, Manager

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Youth Employment in Wyoming Continues to Decline in 2014

By: Michael Moore, Research Analyst

The participation of resident youths in Wyoming's labor force continued to decline in 2014. Resident youths, or those under age 20 who possess a Wyoming driver's license and for whom demographic data are available, made up just 5.6% of all persons working at any time in 2014. In 2000, the first year used in this analysis, resident youths made up 10.8% of all persons working at any time.

As shown in Figure 1 and Table 1 (see page 3), the number and percentage of Wyoming's youth participating in the labor force have decreased at a much greater rate than the youth population. The number of resident youths working in Wyoming has been declining since 2000, but the most substantial decline took place from 2008 to 2010 during Wyoming's economic downturn. During that two-year period, the number of resident youths working in Wyoming at any time decreased from 30,665 to 22,732 (a decrease of 7,933, or -25.9%). Resident youth employment has continued to

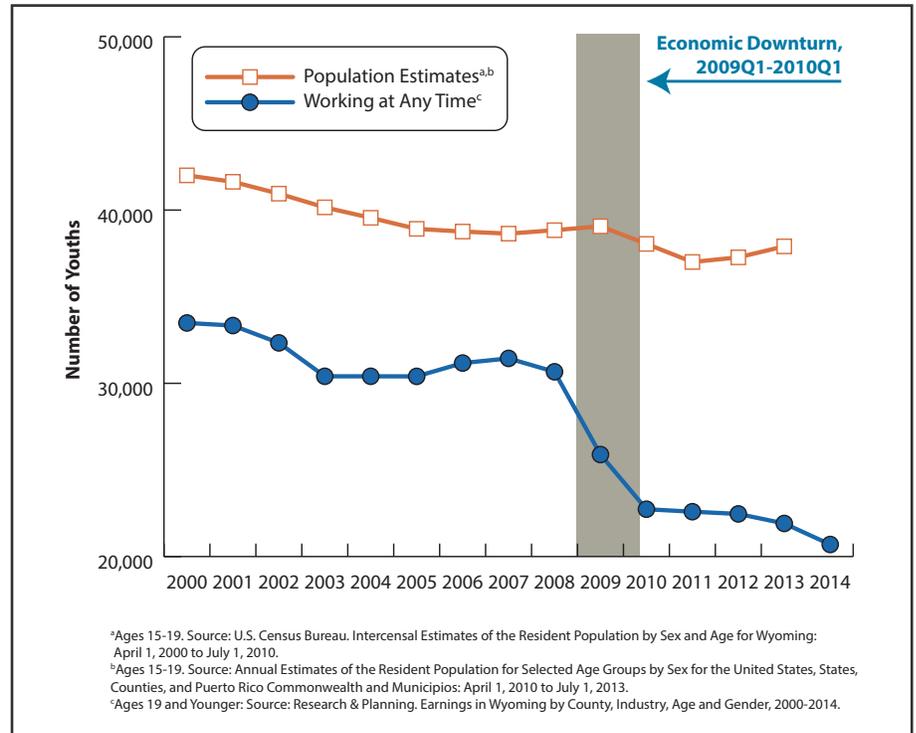


Figure 1: Wyoming Youth Population Estimates (Ages 15-19), 2000-2013, and Resident Youths (Ages 19 and Younger) Working in Wyoming at Any Time, 2000-2014

decline ever since. By comparison, Wyoming's estimated youth population (ages 15-19) decreased from 38,839 in 2008 to 38,047 in 2010 (a decrease of 792, or -2.1%) and has remained relatively flat ever since (U.S. Census Bureau, 2014a and 2014b).

The effects of this decline in resident youth workers may be starting to show in other employment trends. Wyoming

employers have historically relied to some degree on nonresident workers, especially during times of economic expansion. Nonresident workers are defined as "individuals without a Wyoming-issued driver's license or at least four quarters of work history in Wyoming" (Jones, 2002). Historically, nonresident workers have been hired to fill seasonal or low-skill jobs in industries such as construction, retail trade, and leisure & hospitality.

However, as shown in Figure 2 (see page 3), nonresident

The data used in this article are from fourth quarter to third quarter; for example, 2014 consists of 2013Q4 through 2014Q3. These data will be revised to include calendar years and posted at <http://doe.state.wy.us/LMI>.

Table 1: Total Number of Persons Working and Resident Youths (Ages 19 and Younger) Working in Wyoming at Any Time, 2000-2014

Year	Resident		Row %
	Total N	Youths N	
2000	311,366	33,483	10.8%
2001	324,463	33,335	10.3%
2002	322,427	32,334	10.0%
2003	323,966	30,405	9.4%
2004	328,541	30,405	9.3%
2005	333,345	30,401	9.1%
2006	351,986	31,169	8.9%
2007	372,412	31,438	8.4%
2008	384,018	30,665	8.0%
2009	369,388	25,887	7.0%
2010	353,920	22,732	6.4%
2011	360,268	22,589	6.3%
2012	365,070	22,461	6.2%
2013	363,866	21,910	6.0%
2014	367,738	20,696	5.6%

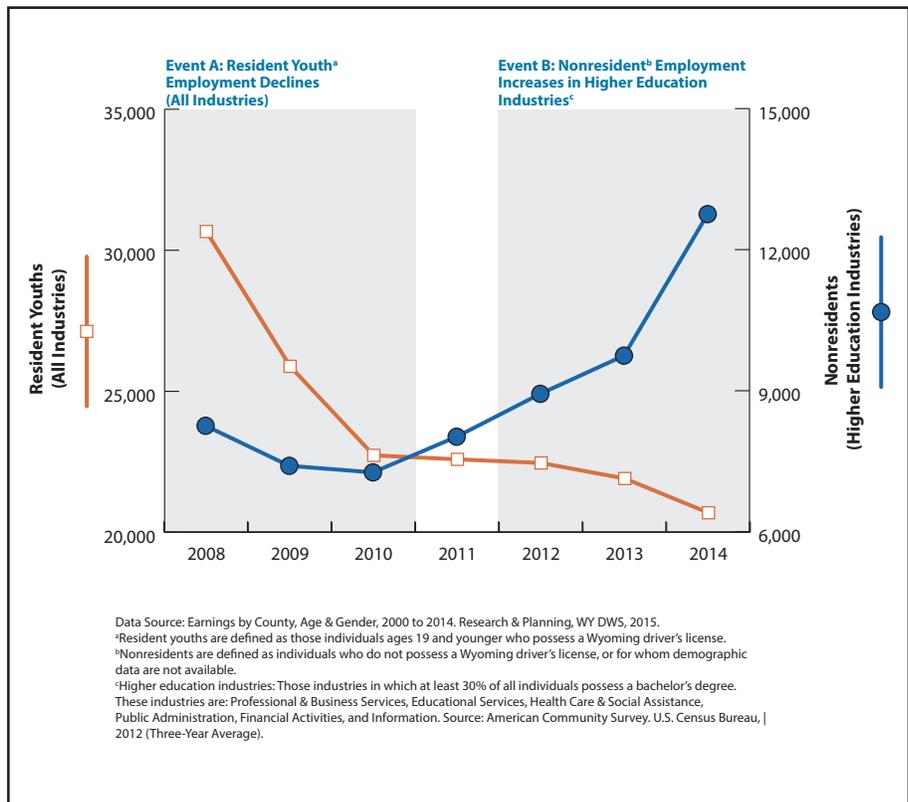


Figure 2: Total Number of Resident Youths Working in Wyoming Across All Industries and Total Number of Nonresidents Working in Wyoming in Higher Education Industries at Any Time, 2008-2014

employment in Wyoming has increased substantially over the last few years in industries with a high percentage of workers with a bachelor's degree: professional & business services, educational services, health care & social assistance, public administration, financial activities, and information (U.S. Census Bureau, 2014c). The number of nonresident workers in these combined six industries increased from 7,264 in 2010 to 12,756 in 2014 (an increase of 5,492, or 75.6%). As previously mentioned, the number of resident youths working in Wyoming declined substantially from 2008 to 2010 (-7,933, or -25.9%).

It is possible that the decline in resident youth employment and the increase in nonresident employment are related. Those who are employed during their formative teenage years acquire soft skills, or “workforce readiness skills,” on the job; these include communication, enthusiasm and attitude, teamwork, networking, problem solving and critical thinking, and professionalism (U.S. DOL, n.d.). If individuals are not working during their teenage years, they may struggle with following directions, showing up on time and working an entire shift, communicating with customers and co-workers, and balancing work

responsibilities with other commitments (Moore, 2013). If individuals are not learning these soft skills during their teenage years, they may not be prepared for more skill-driven jobs with some educational requirement in industries such as health care & social assistance, educational services, and public administration. As a result, Wyoming employers may be looking out of state to hire qualified workers for jobs in these industries.

Research & Planning (R&P) has found anecdotal evidence of employers' dissatisfaction with the soft skills of younger workers through survey responses and

customer contacts. Through a Workforce Data Quality Initiative grant, R&P will be able to track students from school into the labor force longitudinally in order to better understand how these trends are related.

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Quarterly Census of Employment & Wages: Wyoming Job Growth Improves in 2014

By: Michael Moore, Research Analyst,
and David Bullard, Senior Economist

Job growth in Wyoming improved in 2014, although the over-the-year growth rate was consistently lower than the national average and the growth rates for many surrounding states.

In September 2014 – the most recent month for which estimates were available at the time of publication – total Unemployment Insurance (UI) covered employment increased 1.7% from September 2013. Nationally, UI-covered employment increased 2.0% from September 2013.

Among surrounding states (see Figure 1), the greatest increases in job growth were seen in Colorado (3.7%) and Utah (3.1%), two states with large metropolitan areas. In 2013 job growth in Wyoming was slower than growth in all surrounding states. However, Wyoming's over-the-year job growth in September 2014 was higher than Montana (0.7%) and Nebraska (1.1%).

From 2005 to 2008, Wyoming's over-the-year employment growth rate was consistently higher than the national average and most surrounding states. Wyoming was still in the midst of a rapid economic expansion when the national Great Recession began in December 2007 (NBER, 2010) and it wasn't until February 2009 that Wyoming's total UI-covered employment declined from previous-year levels.

Wyoming recovered from its economic downturn at about the same rate as most other

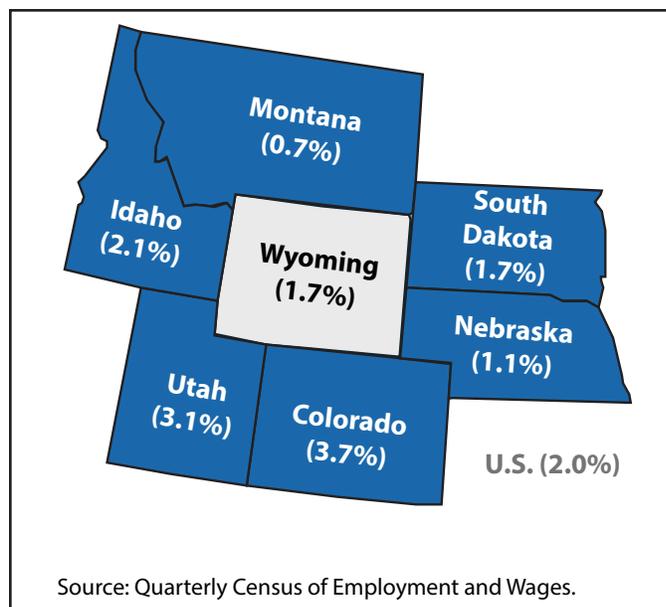


Figure 1: Over-the-Year Percentage Change in Total Unemployment Insurance Covered Employment for Wyoming and Border States, September 2014

surrounding states from August 2010 to June 2012. Then from July 2012 through December 2013, Wyoming's job growth consistently lagged behind all surrounding states and the national average. Wyoming's job growth outpaced Nebraska and Montana throughout most of 2014, but remained below all other surrounding states and the national average.

Since 2000, Wyoming's unemployment rate has consistently been one of the lowest in the nation (LAUS, 2014), with a low of 2.8% in 2007. The seasonally adjusted unemployment rate increased for the next three years, peaking at 6.4% in 2010 (see Figure 2, page 6). Since then the state's unemployment rate has steadily declined, and stood at 4.3% in 2014.

For more information: http://doe.state.wy.us/LMI/toc_202.htm

However, even though Wyoming’s unemployment rate has continued to decline, employment has yet to return to 2008 levels. According to Bullard (2013), “it seems that a large part of the decrease in the unemployment rate is related to people dropping out of the labor force, rather than returning to work.” Figure 2 shows that as Wyoming’s unemployment rate has decreased, so has the employment to population ratio. In 2006, while Wyoming’s economy was rapidly expanding, more than 69% of the population was employed in Wyoming. Since 2013, however, approximately 65% of the population has been employed in Wyoming.

As Bullard noted, one possible reason for this change in the employment to population ratio is that, during the recovery, employment and population have increased at approximately the same rate. During the economic expansion,

however, employment increased faster than population, leading to an increased employment to population ratio and a lower unemployment rate.

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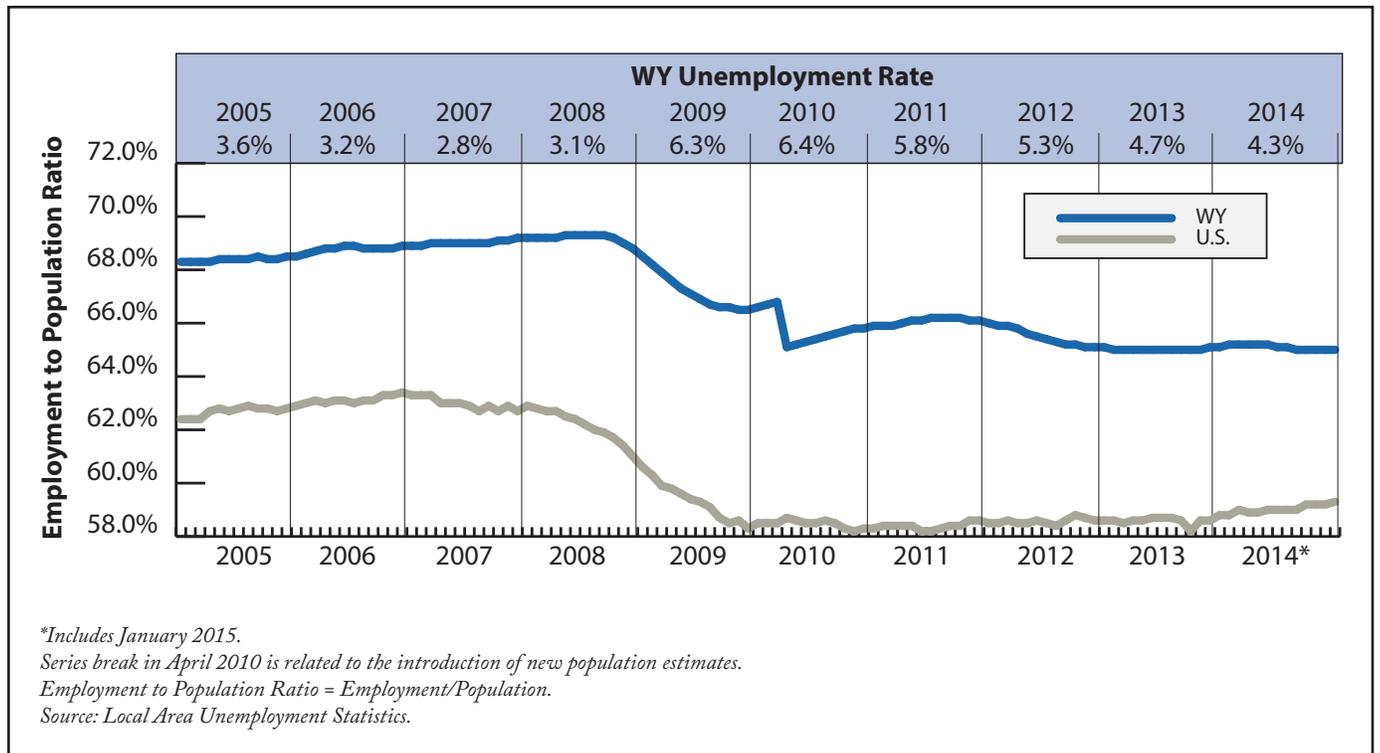


Figure 2: Wyoming and United States Unemployment Rate and Employment-to-Population Ratio, January 2005 to January 2015

Current Employment in Wyoming by Industry Shows Continued Growth in 2014

By: David Bullard, Senior Economist

Wyoming covered employment increased steadily from 2000 to 2008, and then declined in 2009 and 2010. Early in the decade, employment growth was fairly slow, but as energy prices increased and energy development in the state intensified in 2006, 2007, and 2008, employment grew more rapidly. The collapse of energy prices in late 2008 and the severity of the national recession resulted in large job losses in Wyoming in 2009 and 2010.

The highest employment level shown in Figure 1 is 297,210 jobs in June 2008. Two years later, in June 2010, employment had fallen by nearly 16,000 jobs. In third quarter 2010 job losses stopped and employment began to stabilize. While employment increased from 2011 to 2014, it grew at a much slower pace.

Approximately 92% of wage & salary jobs in the state are covered by state unemployment insurance, while 2.6% of jobs are covered by federal unemployment insurance, and 1.0% are covered by unemployment insurance

administered by the railroad retirement board. There are several categories of non-covered jobs, and together they account for nearly 5% of wage & salary jobs in the state. Some examples of non-covered employment include elected officials, students working at educational institutions, employees of churches, and workers at small non-profit organizations.

Did You Know?

QCEW data are used in the development of industry and occupational projections, and can help job seekers target their job searches.

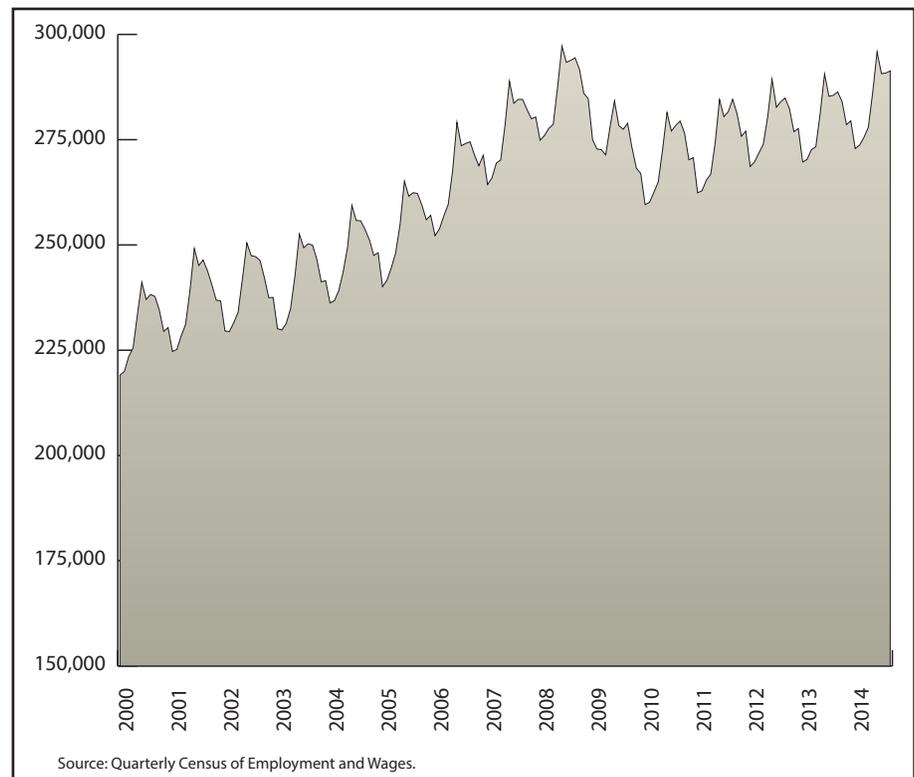


Figure 1: Total Unemployment Insurance Covered Employment in Wyoming, 2000-2014

Growing or declining industries in a county can provide clues regarding area housing costs. In rapidly growing counties, for example, new residents moving to the area may put upward pressure on home prices and rents. In contrast, as people lose their jobs and move away from an area, housing prices could fall.

Wyoming Employment by Industry 2013 and 2014

Total employment increased by 3,779 jobs (1.4%) from 2013 to 2014. Figure 2 shows that the largest job gains occurred in construction (approximately 1,600 jobs, or 7.4%). Strong growth was also seen in leisure & hospitality (approximately 650 jobs, or 1.9%), transportation & utilities (approximately 550 jobs, or 4.5%), mining (including oil & gas; nearly 350 jobs, or 1.3%), and professional & business services (more than 300 jobs, or 1.8%).

From 2013 to 2014, employment also grew in manufacturing (more than 250 jobs, or 3.0%), wholesale trade (more than 250 jobs, or 3.0%), financial activities (approximately 150 jobs, or 1.4%), and retail trade (approximately 100 jobs, or 0.3%).

Job losses were seen in other services (down nearly 450 jobs, or -5.3%), government (down approximately 150 jobs, or -0.2%), and information (down approximately 25 jobs, or -0.7%).

County Employment, 2013 and 2014

Employment increased in 17 counties and decreased in six counties (see Figure 3, page 9).

The largest job gains occurred in Laramie, Campbell, Teton, and Natrona counties. Laramie County benefitted from strong job growth in mining

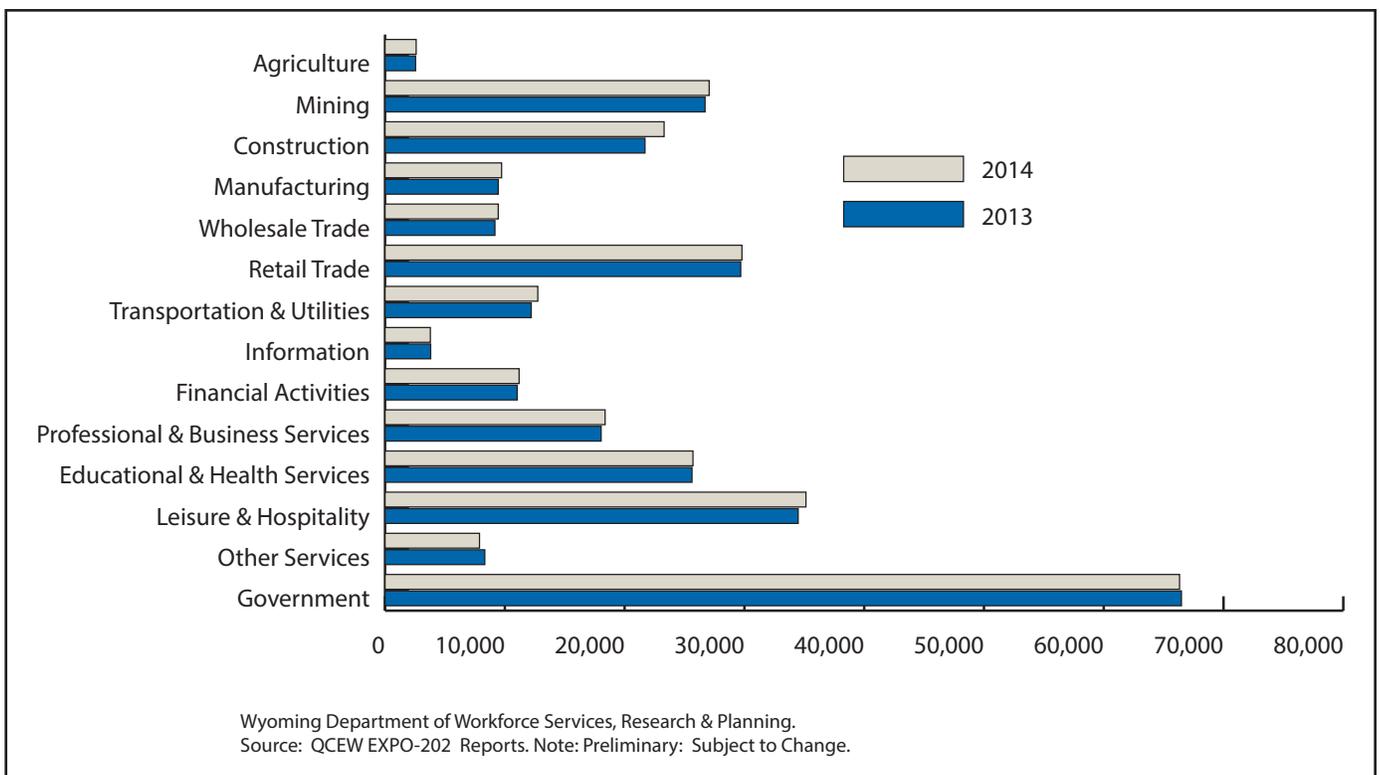


Figure 2: Total Unemployment Insurance Covered Employment by Industry in Wyoming, 2013 and 2014

(including oil & gas), transportation & warehousing, and leisure & hospitality. Campbell County saw job gains in construction, mining (including oil & gas), and wholesale trade. In Teton County, employment grew in leisure & hospitality, construction, and retail trade. Natrona County added jobs in construction and mining (including oil & gas).

Three of the counties where employment declined were located in the southwest region of the state (Sweetwater, Sublette, and Uinta counties). Sweetwater County saw employment fall in mining (including oil & gas), leisure &

hospitality, and retail trade. Sublette County lost jobs in transportation & warehousing, mining (including oil & gas), administrative & waste services, and wholesale trade. In Uinta County, employment decreased modestly in mining, wholesale trade, and construction.

In Fremont County, job losses were seen in local government, state government, retail trade, and leisure & hospitality.

The employment level was relatively stable in Albany, Sheridan, and Park counties.

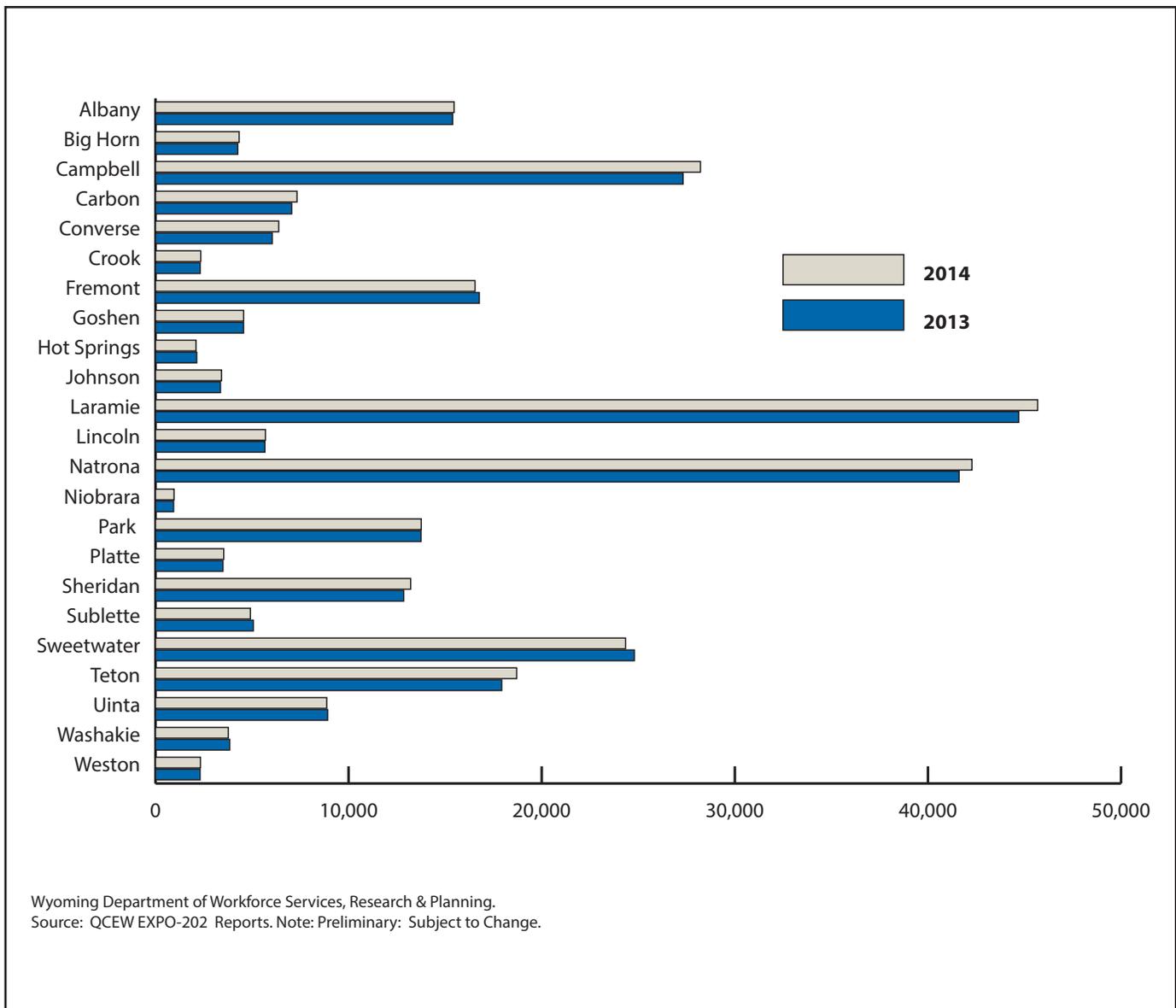


Figure 3: Total Unemployment Insurance Covered Employment by County in Wyoming, 2013 and 2014

Short-Term Industry Projections: Construction, Educational & Health Services Lead Projected Job Growth

By David Bullard, Senior Economist

According to short-term industry projections, Wyoming's employment is expected to grow by 5,982 jobs (2.1%) between second quarter 2014 and second quarter 2016 (see Table 1). Figure 1 (see page 11) shows that at the major industry level, job growth is forecast in every sector except mining.

The largest job growth is expected in construction (1,558 jobs, or 6.4%), educational & health services (1,323 jobs, or 2.2%), and retail trade (1,102 jobs, or 3.7%). These sectors have

consistently added jobs in recent years.

Because of low oil prices, the forecast suggests that employment will decline in the mining sector (including oil & gas; -1,644 jobs, or -6.1%). Modest job growth is expected in information (32 jobs, or 0.8%), and public administration (316 jobs, or 1.0%).

The industry projections are developed at the three-digit North American Industry Classification System (NAICS) subsector level and then summed to the major industries shown in

Table 1: Short-Term Industry Projections for Wyoming, 2014Q2-2016Q2

	Employment		Change	
	2014Q2 (Actual)	2016Q2 (Projected)	N	%
Agriculture	2,718	2,790	72	2.6%
Mining	27,024	25,380	-1,644	-6.1%
Construction	24,293	25,851	1,558	6.4%
Manufacturing	9,637	9,878	241	2.5%
Wholesale Trade	9,529	9,997	468	4.9%
Retail Trade	29,737	30,839	1,102	3.7%
Transportation & Utilities	15,450	15,670	220	1.4%
Information	3,768	3,800	32	0.8%
Financial Activities	11,167	11,531	364	3.3%
Professional & Business Services	18,643	19,407	764	4.1%
Educational & Health Services	61,339	62,662	1,323	2.2%
Leisure & Hospitality	35,230	36,297	1,067	3.0%
Other Services	7,883	7,984	101	1.3%
Public Administration	32,551	32,867	316	1.0%
Total	288,970	294,952	5,982	2.1%

Source: Wyoming Short-Term Industry Projections, 2014-2016 (http://doe.state.wy.us/LMI/projections/2015/Short_Term_Ind_2016.htm).

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the table and figure. At the detailed level, many of the projected increases and decreases are larger than at the summary level. For example, in the retail trade sector, which is expected to add 1,102 jobs overall (3.7%), some subsectors are expected to lose jobs (clothing stores), others are expected to maintain a constant level of employment (food

& beverage stores), while yet others are expected to grow faster than average (general merchandise stores).

The subsector-level industry projections are an important input that is used in developing the occupational projections (see page 12).

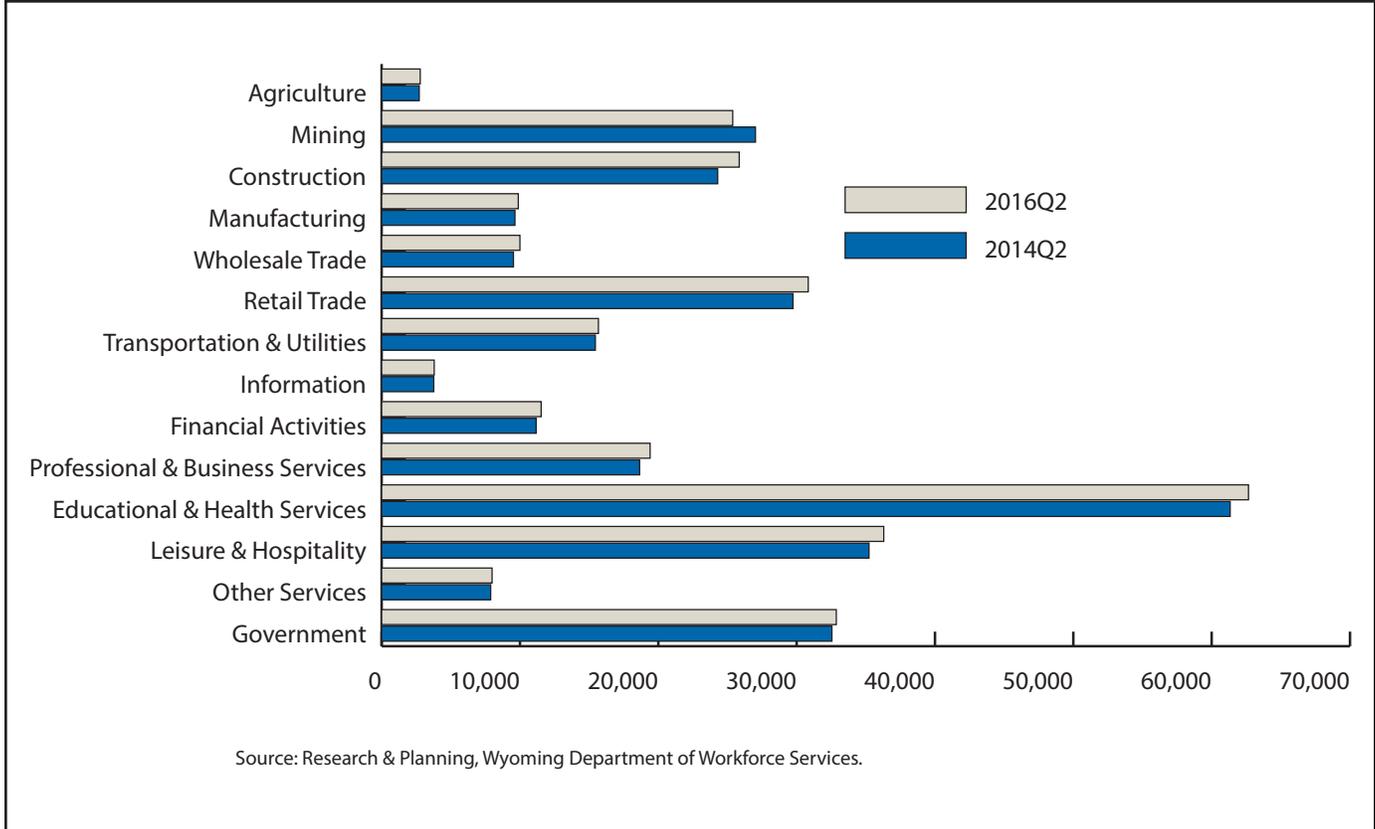


Figure 1: Wyoming Short-Term Industry Projections: 2014Q2 to 2016Q2

Top Five Occupational Projections by Typical Educational Requirement

By David Bullard, Senior Economist

Short-term occupational projections show anticipated job growth and openings due to replacement need through second quarter 2016. In this chapter, occupations are grouped by required education level and the tables highlight occupations with the highest level of job openings.

High School Diploma or Less

The top five occupations by total number of annual openings that require a high school diploma or less are shown in Table 1. There are expected to be 459 annual openings for retail salespersons, 384 annual openings for cashiers, and 381 openings for combined food preparation & serving workers, including fast food. Waiters & waitresses (318 annual openings) and operating engineers & other construction equipment operators (184 annual openings) round out the list of top five occupations. In total, there are 8,101 expected annual openings for all occupations requiring high school or less. The vast majority of expected job openings in Wyoming do not require

post-secondary education.

Certificate

Table 2 (see page 13) shows the top five occupations requiring a certificate. Heavy & tractor-trailer truck drivers are expected to have 200 openings each year and nursing assistants are expected to have 89 openings each year. Together, all occupations requiring a certificate are expected to generate 589 job openings each year in Wyoming.

Associate's Degree

Of the occupations requiring an associate's degree, the highest number of job openings are expected for registered nurses (148) and preschool teachers, except special education (27; see Table 3, page 13). Other occupations requiring an associate's degree are forest & conservation technicians (24 annual openings), dental hygienists (20 annual openings), and paralegals & legal assistants (12 annual openings).

For more information: <http://doe.state.wy.us/LMI/projections.htm>

Table 1: **Top 5 Occupations Requiring High School or Less in Wyoming by Projected Annual Total Openings, 2014Q2-2016Q2**

Occupation	Employment			Annual Growth Openings	Annual Replacement Openings	Annual Total Openings
	2014Q2	2016Q2	Numeric Change			
Retail Salespersons	8,291	8,598	307	154	305	459
Cashiers	5,906	6,038	132	66	318	384
Combined Food Prep. & Serving Workers, Incl. Fast Food	5,746	5,958	212	106	275	381
Waiters & Waitresses	5,112	5,218	106	53	265	318
Operating Engineers & Other Const. Equipment Operators	6,292	6,397	105	52	132	184
Total, All Occupations	209,466	213,748	4,282	2,635	5,466	8,101

Source: Wyoming Short-Term Occupational Projections, 2014-2016 (http://doe.state.wy.us/LMI/projections/2015/Short_term_Occs_2016.htm).

All occupations requiring an associate's degree are expected to generate 379 total annual openings.

Bachelor's Degree

Three of the top five occupations requiring a bachelor's degree are for teachers (see Table 4, page 14). Elementary school teachers, except special education are expected to have 81 annual openings, substitute teachers are expected to have 66 openings, and secondary school teachers, except special & career/technical education are expected to have 56 openings. The other two occupations in the top five are business-related. Projections suggest there will be 150 annual openings for general and operations managers and 76 annual openings for accountants & auditors. In

all, it is anticipated that there will be 1,215 annual job openings for occupations requiring a bachelor's degree. This is the second largest number of openings across all the categories of educational attainment.

Master's Degree

There are only a relatively small number of job openings in occupations requiring a master's degree (154 annual openings; see Table 5, page 14). Educational, guidance, school, & vocational counselors are expected to have 19 annual openings, librarians are expected to have 16 annual openings, and education administrators, elementary & secondary school are expected to have 12 annual openings.

Table 2: Top 5 Occupations Requiring a Certificate in Wyoming by Projected Annual Total Openings, 2014Q2-2016Q2

Occupation	Employment		Numeric Change	Annual Growth Openings	Annual Replacement Openings	Annual Total Openings
	2014Q2	2016Q2				
Heavy & Tractor-Trailer Truck Drivers	7,655	7,823	168	84	116	200
Nursing Assistants	3,379	3,440	61	30	59	89
Library Technicians	579	593	14	7	34	41
Heating, Air Cond., & Refrig. Mechanics & Installers	527	561	34	17	13	30
Emergency Medical Technicians & Paramedics	656	679	23	12	16	28
Total, All Occupations	19,837	20,270	433	220	369	589

Source: Wyoming Short-Term Occupational Projections, 2014-2016 (http://doe.state.wy.us/LMI/projections/2015/Short_term_Occs_2016.htm).

Table 3: Top 5 Occupations Requiring an Associate's Degree in Wyoming by Projected Annual Total Openings, 2014Q2-2016Q2

Occupation	Employment		Numeric Change	Annual Growth Openings	Annual Replacement Openings	Annual Total Openings
	2014Q2	2016Q2				
Registered Nurses	4,559	4,699	140	70	78	148
Preschool Teachers, Except Special Education	790	800	10	5	22	27
Forest & Conservation Technicians	577	579	2	1	23	24
Dental Hygienists	458	478	20	10	10	20
Paralegals & Legal Assistants	457	470	13	6	6	12
Total, All Occupations	11,533	11,828	295	152	227	379

Source: Wyoming Short-Term Occupational Projections, 2014-2016 (http://doe.state.wy.us/LMI/projections/2015/Short_term_Occs_2016.htm).

Doctoral Degree

Table 6 (see page 14) shows the top five occupations requiring a doctoral or professional

degree. Projections suggest there will be 183 total annual openings, including 31 annual openings for lawyers, 20 annual openings for pharmacists, and 20 annual openings for physical therapists.

Table 4: **Top 5 Occupations Requiring a Bachelor's Degree in Wyoming by Projected Annual Total Openings, 2014Q2-2016Q2**

Occupation	Employment					
	2014Q2	2016Q2	Numeric Change	Annual Growth Openings	Annual Replacement Openings	Annual Total Openings
General & Operations Managers	5,553	5,678	125	62	88	150
Elementary School Teachers, Except Special Education	2,630	2,680	50	25	56	81
Accountants & Auditors	1,975	2,013	38	19	57	76
Substitute Teachers	3,203	3,230	27	14	52	66
Secondary School Teachers, Exc. Special & Career/Tech.	1,809	1,820	11	6	50	56
Total, All Occupations	42,227	42,962	735	378	837	1,215

Source: Wyoming Short-Term Occupational Projections, 2014-2016 (http://doe.state.wy.us/LMI/projections/2015/Short_term_Occs_2016.htm).

Table 5: **Top 5 Occupations Requiring a Master's Degree in Wyoming by Projected Annual Total Openings, 2014Q2-2016Q2**

Occupation	Employment					
	2014Q2	2016Q2	Numeric Change	Annual Growth Openings	Annual Replacement Openings	Annual Total Openings
Educational, Guidance, School, & Voc. Counselors	642	653	11	6	13	19
Librarians	455	465	10	5	11	16
Education Admin., Elementary & Secondary School	417	419	2	1	11	12
Mental Health Counselors	330	343	13	6	6	12
Physician Assistants	235	250	15	8	4	12
Total, All Occupations	5,023	5,143	120	60	94	154

Source: Wyoming Short-Term Occupational Projections, 2014-2016 (http://doe.state.wy.us/LMI/projections/2015/Short_term_Occs_2016.htm).

Table 6: **Top 5 Occupations Requiring a Doctoral or Professional Degree in Wyoming by Projected Annual Total Openings, 2014Q2-2016Q2**

Occupation	Employment					
	2014Q2	2016Q2	Numeric Change	Annual Growth Openings	Annual Replacement Openings	Annual Total Openings
Lawyers	1,249	1,275	26	13	18	31
Pharmacists	509	525	16	8	12	20
Physical Therapists	383	405	22	11	9	20
Clinical, Counseling, & School Psychologists	371	374	3	2	10	12
Physicians & Surgeons, All Other	331	339	8	4	8	12
Total, All Occupations	6,131	6,280	149	70	113	183

Source: Wyoming Short-Term Occupational Projections, 2014-2016 (http://doe.state.wy.us/LMI/projections/2015/Short_term_Occs_2016.htm).

Wyoming Unemployment Rate Falls to 4.3% in 2014

By: Carola Cowan, BLS Programs Supervisor

Wyoming's average annual unemployment rate for 2014 was 4.3%, the state's lowest since 2008 (see Table 1). In 2007, Wyoming's average annual unemployment rate was 2.8%, the lowest it has been since 2000. In 2009 things changed drastically and by 2010 the average annual unemployment rate rose to a decade high of 6.4%. Since then, the economy has continued to improve.

The unemployment rate is one of the most important economic indicators on which to measure economies' health. The unemployment rate is calculated by taking the number of unemployed and dividing it by the total number of people in the labor force. The labor force is defined as the number of employed plus the number of unemployed individuals. Individuals less than 16 years of age, inmates of institutions, or members of the Armed Forces are excluded from the labor force, as are people who don't have a job and are not looking for employment. The number of unemployed is counted by place of residence. If a person loses their job in Wyoming and moves out of state they are not included

in Wyoming's unemployment rate but in the state they moved to.

In 2014, Converse (3.2%), Weston (3.4%), Niobrara (3.5%) and Campbell (3.5%) counties had the lowest average annual unemployment rates (see Table 2, page 16). Lincoln (5.4%), Fremont (5.2%), and Uinta (5.0%) counties had the highest unemployment rates. All counties but one saw an improvement from the previous year; Niobrara County did not see a change from the previous year and held steady at 3.5%.

The three counties that showed the largest improvement from 2013 to 2014 were Teton (-0.8%), Campbell (-0.7%), and Sheridan (-0.7%). The counties that showed the least improvement in percentage point change were Carbon (-0.1%), Albany (-0.1%), Sublette (-0.2%), Sweetwater, (-0.2) and Weston (-0.2%).

One county in Wyoming finally returned to its pre-downturn unemployment rate. Platte County had an unemployment rate of 4.0% in 2007 and 2014, and had experienced the smallest rise

For more information:
<http://doe.state.wy.us/LMI/news.htm>

Table 1: Wyoming Labor Force and Unemployment Rate, 2007- 2014

Year	Labor Force	Employed	Unemployed	Unemployment Rate
2007	286,560	278,486	8,074	2.8
2008	293,279	284,310	8,969	3.1
2009	300,120	281,150	18,970	6.3
2010	303,297	283,744	19,553	6.4
2011	306,886	289,099	17,787	5.8
2012	307,542	291,177	16,365	5.3
2013	306,767	292,260	14,507	4.7
2014	306,928	293,689	13,239	4.3

Source: Local Area Unemployment Statistics program.



in its unemployment rate during the economic downturn. Sublette (3.0%), Lincoln (2.9%), and Teton (2.6%) counties experienced the largest increases in their unemployment rates during the economic downturn and still show the greatest differences compared to their pre-downturn unemployment rates. Weston (0.2%), Converse (0.4%), Goshen (0.5%), and Niobrara (0.5%) counties were the closest to their pre-downturn unemployment rates.

Table 2: Unemployment Rates by County for 2007, 2013, and 2014, and Percentage Point Changes for 2007-2014 and 2013-2014

County	Unemployment Rate			Percentage Point Change	
	2007	2013	2014	2007-2014	2013-2014
Albany	2.4	3.7	3.6	1.2	-0.1
Big Horn	4.0	5.2	4.7	0.7	-0.5
Campbell	2.0	4.2	3.5	1.5	-0.7
Carbon	2.9	4.3	4.2	1.3	-0.1
Converse	2.8	3.7	3.2	0.4	-0.5
Crook	2.7	4.4	4.0	1.3	-0.4
Fremont	3.8	5.7	5.2	1.4	-0.5
Goshen	3.2	4.2	3.7	0.5	-0.5
Hot Springs	3.3	4.7	4.3	1.0	-0.4
Johnson	3.3	5.1	4.7	1.4	-0.4
Laramie	3.5	4.8	4.5	1.0	-0.3
Lincoln	2.5	5.8	5.4	2.9	-0.4
Natrona	2.6	4.5	4.2	1.6	-0.3
Niobrara	3.0	3.5	3.5	0.5	0.0
Park	3.1	5.1	4.7	1.6	-0.4
Platte	4.0	4.4	4.0	0.0	-0.4
Sheridan	2.8	5.5	4.8	2.0	-0.7
Sublette	1.5	4.7	4.5	3.0	-0.2
Sweetwater	2.2	4.4	4.2	2.0	-0.2
Teton	2.2	5.6	4.8	2.6	-0.8
Uinta	2.7	5.3	5.0	2.3	-0.3
Washakie	3.5	5.0	4.5	1.0	-0.5
Weston	3.2	3.6	3.4	0.2	-0.2
Wyoming	2.8	4.7	4.3	1.5	-0.4

Source: Wyoming Short-Term Occupational Projections, 2014-2016 (http://doe.state.wy.us/LMI/projections/2015/Short_term_Occs_2016.htm).

Construction Labor Shortages in Wyoming and the Nation

by Katelynd Faler, Senior Economist

In 2014, the national media reported shortages of skilled construction workers and laborers across the country, particularly in the Rocky Mountain Region. Local news outlets across Wyoming recounted rapidly increasing building costs and the inability of many businesses to find and attract skilled labor. Research & Planning (R&P) examined these claims to help decision makers better optimize training dollars.

Given Wyoming's documented dependence on nonresident labor, R&P found it necessary to take a national and regional scope in addition to examining information from the state. Nonresidents are defined as "individuals without a Wyoming-issued driver's license or at least four quarters of work history in Wyoming" (Jones, 2002). For this chapter, the region includes Wyoming, Colorado, Idaho, Montana, Nebraska, North Dakota, South Dakota, and Utah (see Figure 1).

The necessary information was gathered from administrative databases, U.S. Census information, and with cooperation from each regional state's Labor Market Information (LMI) office and the national Bureau of Labor Statistics office in Dallas in order to compare population changes, total employment changes, and construction industry changes. In addition, 21 construction occupations were selected for an in-depth analysis (see Table 1, page 18). The occupations in *italics* are often discussed in media articles about construction shortages.

For the purposes of this analysis, a labor shortage is defined as the case when there are too few people to fill employment needs for

Excerpted from the 2014 publication: Construction Labor Shortages in Wyoming and the Nation (http://doe.state.wy.us/LMI/w_r_research/constr_2014.pdf).

the economy as a whole. A significant rise in inflation-adjusted wages across all lines of work would indicate a labor shortage. A skills shortage occurs when there are too few workers with appropriate skills to fill positions at the market wage. The market wage can change with the work environment: for example, the market wage for a prison social worker may be different from the market wage for an elementary school social worker. In the case of a skills shortage, inflation-adjusted wages for the in-demand skill should increase significantly beyond changes for wages overall. Oftentimes, a skills shortage is reported when the wages employers are offering are less than the market wage, resulting in a somewhat one-sided report of a shortage. At other times, a skills shortage is confused with a labor shortage.



Figure 1: Map of Wyoming and the Region

Table 1: Twenty-one Selected Construction Occupations and SOC^a Codes

SOC ^a Code	Occupation
47-2021	<i>Brickmasons & Blockmasons</i>
47-2031	<i>Carpenters</i>
47-2044	<i>Tile & Marble Setters</i>
47-2071	Paving, Surfacing, & Tamping Equipment Operators
47-2073	Operating Engineers & Other Construction Equipment Operators
47-2081	<i>Drywall & Ceiling Tile Installers</i>
47-2082	Tapers
47-2111	<i>Electricians</i>
47-2132	Insulation Workers, Mechanical
47-2152	<i>Plumbers, Pipefitters, & Steamfitters</i>
47-2171	Reinforcing Iron & Rebar Workers
47-2211	Sheet Metal Workers
47-4021	Elevator Installers & Repairers
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers
49-2098	Security & Fire Alarm Systems Installers
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers
49-9051	Electrical Power-Line Installers & Repairers
49-9052	Telecommunications Line Installers & Repairers
51-4121	<i>Welders, Cutters, Solderers, & Brazers</i>
53-7021	Crane and Tower Operators
53-7032	Excavating & Loading Machine & Dragline Operators

^aSOC = Standard Occupational Classification.

On a small scale, investments in the labor force could influence skills shortages, which may occur because of lack of training opportunities. A labor shortage could be much harder to change because labor shortages may occur due to slow population growth, changes in immigration policy, and increased retirement rates.

Table 2a and Table 2b (see page 19) show employment for the overall economy, both nationally and regionally, increased between 2009 and 2013, but that overall inflation-adjusted wages decreased. Inflation-adjusted construction wages

decreased nationally and regionally, as well, but unlike the economy as a whole, employment in the construction industry decreased. Wage decreases in each of these cases demonstrate that a labor shortage is unlikely.

Wyoming's construction industry followed the same employment and wage patterns, and Wyoming's overall employment increased just as national and regional employment increased (see Table 3, page 20). However, Wyoming had an overall increase of 1.1% in inflation-adjusted wages. It may look small, but Wyoming was one of only two states in the region to experience wage growth. This information suggests that there may be a labor shortage in Wyoming, but that the shortage does not extend to Wyoming's construction industry.

Of the 21 occupations that were examined for this study, nine had an increase in wages at least as great as Wyoming's overall wage increase of 1.1% (see Table 4, page 20). The occupations in *italics* are most commonly mentioned in media articles about construction shortages. Brickmasons and blockmasons; carpenters; plumbers, pipefitters & steamfitters; tile & marble setters; and welders, cutters, solderers & brazers are also often found in anecdotes about construction shortages, but R&P did not find evidence to support those claims; the inflation-adjusted wages for these occupations decreased between 2009 and 2013.

Wage increases do not tell the whole story. For example, heating, air conditioning, & refrigeration mechanics & installers make less than the region's average of \$21.20 per hour. Wages may be increasing, but workers with these skills may choose to seek work in other states, or not work until wages are more favorable in Wyoming.

For electrical power-line installers and repairers, excavating & loading machine & dragline operators, and telecommunications line installers & repairers, wages are higher in other industries, such as the utility industry, the

mining, oil and gas industry, and the information industry, respectively. Until construction industry wages match wages of other industries, workers with these skills may choose to work in another industry.

In the remaining occupations in Table 4, Wyoming experienced relatively high and relatively fast growing wages, but in nearly all cases employment decreased in Wyoming and increased in North Dakota, even at times when Wyoming wages were significantly higher than those in North Dakota.

This complicates supporting these occupations for which a skills shortage is suspected, because it cannot be guaranteed that workers who receive training support or job matching services will remain in Wyoming. Any programs sponsoring these occupations should be carefully thought out and monitored. Support may include job matching services and making high school students who choose not to pursue post-secondary education aware of these opportunities. Support may also be more costly, such as ensuring access to commercial driver's license courses, importing professionals to teach certification classes, and providing training scholarships for these occupations.

This report opens the door for many future projects. Further research may include looking for shortages in

Table 2a: National Total Covered and Construction Industry Employment and Inflation-Adjusted Wages (2013 Dollars), 2009-2013

	Year	Employment ^a	Employment Change, 2009-2013	Average Hourly Wage ^b	Wage
					Change, 2009-2013
Total Covered Employment	2009	128,607,842		\$17.32	
	2010	127,820,442		\$17.38	
	2011	129,411,095	4.2%	\$17.15	-2.6%
	2012	131,696,378	5,357,111	\$16.95	-\$0.45
	2013	133,964,953		\$16.87	
Construction Sector (NAICS* 23)	2009	6,017,333		\$20.46	
	2010	5,518,750		\$20.46	
	2011	5,531,667	-3.1%	\$20.25	-1.7%
	2012	5,645,167	-188,000	\$20.14	-\$0.35
	2013	5,829,333		\$20.11	

*NAICS = North American Industry Classification System.

^aU.S. Dept. of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

^bU.S. Dept. of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

^cU.S. Dept. of Labor, Bureau of Labor Statistics, Current Employment Statistics.

Table 2b: Regional Total Covered and Construction Industry Employment and Inflation-Adjusted Wages (2013 Dollars), 2009-2013

	Year	Employment ^a	Employment Change, 2009-2013	Average Hourly Wage	Wage
					Change, 2009-2013
Total Covered Employment	2009	6,309,659		\$16.79	
	2010	6,268,446		\$16.78	
	2011	6,369,321	6.2%	\$16.53	-2.1%
	2012	6,538,336	391,838	\$16.42	-\$0.34
	2013	6,701,498		\$16.44	
Construction Sector (NAICS* 23)	2009	406,790		\$21.00	
	2010	353,660		\$21.02	
	2011	341,670	-8.6%	\$20.75	-3.0%
	2012	353,280	-34,840	\$20.30	-\$0.64
	2013	371,950		\$20.36	

*NAICS = North American Industry Classification System.

U.S. Dept. of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

^aU.S. Dept. of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Table 3: Percent Changes in Employment and Inflation Adjusted Median Hourly Wages for All Occupations and the Construction Industry in the U.S., the Region, and Selected States, 2009-2013

Total, All Industries

	U.S.	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
Employment ^a	4.2%	6.2%	1.8%	6.1%	2.7%	3.6%	3.5%	22.2%	3.9%	8.4%
Inflation Adjusted Median Hourly Wages ^b	-2.6%	-2.1%	1.1%	-4.7%	-6.4%	-0.2%	-2.0%	12.3%	-0.3%	-0.4%

Construction Industry

	U.S. ^c	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
Employment ^b	-3.1%	-8.6%	-16.7%	-15.3%	-18.3%	-6.0%	-7.8%	54.3%	-5.9%	-7.0%
Inflation Adjusted Median Hourly Wages ^b	-1.7%	-3.0%	-4.9%	-4.8%	-3.8%	3.6%	-3.3%	5.9%	-2.1%	-2.6%

Sources:

^aU.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

^bU.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

^cU.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics.

other industries and regular updates on this current research; training programs related to these skills shortages could be monitored for their effectiveness; and new reports could offer breakdowns of shortages on a county-by-county basis.

References

Jones, S. (2002). Defining residency for the Wyoming workforce. *Wyoming Labor Force Trends*, 39(11). Retrieved February 24, 2015, from <http://doe.state.wy.us/LMI/1102/a1.htm>

Table 4: Indicated Skills Shortages in Wyoming

Occupation	Percent Wyoming Wage Increase	Wyoming Median Hourly Wage	North Dakota Median Hourly Wage
Crane & Tower Operators	10.0%	\$29.46	\$25.92
Drywall & Ceiling Tile Installers	1.7%	\$18.77	\$17.77
Electrical Power-Line Installers & Repairers	13.3%	\$34.75	\$30.97
Electricians	1.6%	\$26.03	\$24.01
Excavating & Loading Machine & Dragline Operators	37.4%	\$25.16	\$21.11
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	1.1%	\$19.58	\$21.32
Insulation Workers, Mechanical	13.9%	\$18.33	\$18.41
Operating Engineers & Other Construction Equipment Operators	4.3%	\$22.85	\$22.50
Telecommunications Line Installers & Repairers	5.4%	\$20.49	\$24.36

Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

Unemployment Insurance Statistics Show State Continued Growth in 2014

By: Sherry Wen, Principal Economist

In the five years following the economic downturn of 2009, Wyoming’s unemployment insurance (UI) covered employment experienced an increase of 16 consecutive quarters of slow but steady growth. According to the most recent Quarterly Census of Employment and Wages (QCEW) data available, growth rates from fourth quarter 2010 (2010Q4) to 2014Q3 ranged from 0.2% to 2.5%. In comparison, growth rates in the 16 quarters before the downturn (2005Q1 to 2008Q4) ranged from 2.3% to 4.8%. Over the past year, the state’s seasonally adjusted unemployment rate dropped from 4.4% in December 2013 to 4.2% in December 2014.

Statewide UI Benefits Expenses

The Wyoming Department of Workforce Services UI division paid a total of \$65.95 million in UI benefits to unemployed workers in

For more information:
<http://doe.state.wy.us/LMI/ui.htm>

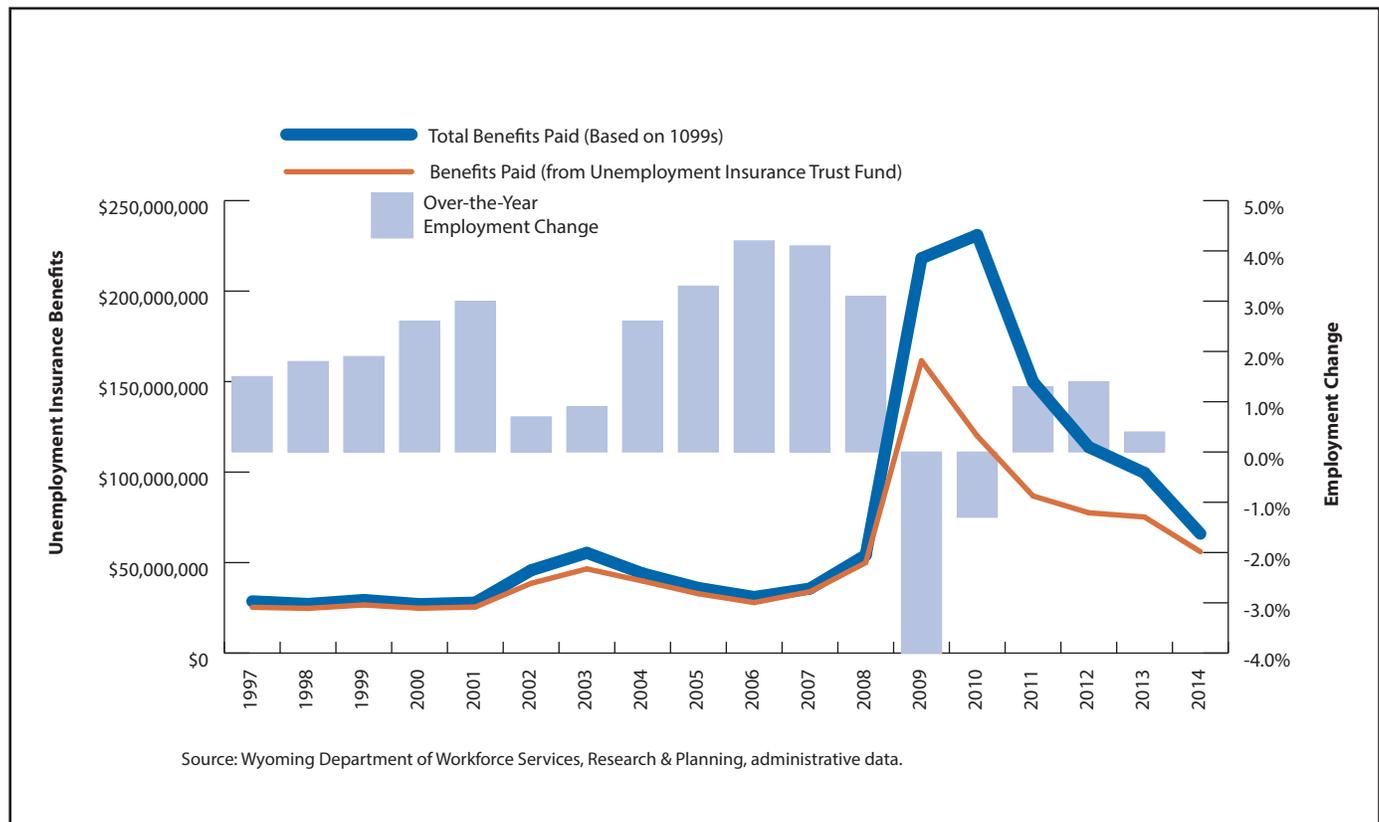


Figure 1: Wyoming Unemployment Insurance (UI) Benefits Paid and Statewide UI Covered Employment Over the Year Changes, 1997 to 2014

2014, a 33.8% decrease from the previous year (\$99.57 million in 2013). This continued the decline that started in 2011 but at a faster speed than the previous two years (-24.1% in 2012 and -12.5% in 2013; see Figure 1, page 21). However, UI benefit expenses in 2014 were still nearly double the average of pre-downturn years (1997 to 2008; \$36.8 million). Figure 1 shows Wyoming's downturn in 2009 and 2010, with decreases of 4.0% and 1.3%, respectively, in statewide annual average UI covered employment (which accounts for 94.4% of Wyoming wage and salary employment; Bullard, 2015). This article

uses the 12 pre-downturn years (1997 to 2008) average for comparison. Among the total benefits paid, 85.0% (\$56.03 million) was from the state UI trust fund and paid to the Wyoming liable claimants for regular UI benefits. The other 15.0% (\$9.92 million) was paid by federal Emergency Unemployment Compensation (EUC) funds and other reimbursable UI programs, such the federal UI program that provides benefit to federal employees. The annual average UI benefit paid from the state UI Trust Fund for the pre-downturn years was \$33.02 million, nearly half of 2014's level.

Table 1: Unemployment Insurance (UI) Benefits Expenses in Wyoming by Industry, 2013 and 2014

	2013		2014		Over-the-Year Change	
	UI Benefits	% of Total	UI Benefits	% of Total	\$	%
Agriculture	865,341	0.9%	433,123	0.7%	-432,218	-49.9%
Mining	8,431,724	8.5%	5,122,627	7.8%	-3,309,097	-39.2%
Utilities	219,988	0.2%	212,907	0.3%	-7,081	-3.2%
Construction	30,010,567	30.1%	20,421,232	31.0%	-9,589,335	-32.0%
Manufacturing	3,705,644	3.7%	2,436,208	3.7%	-1,269,436	-34.3%
Wholesale Trade	2,517,129	2.5%	1,576,038	2.4%	-941,091	-37.4%
Retail Trade	6,113,475	6.1%	3,712,526	5.6%	-2,400,949	-39.3%
Transportation & Warehousing	4,129,781	4.1%	2,797,413	4.2%	-1,332,368	-32.3%
Information	675,370	0.7%	396,700	0.6%	-278,670	-41.3%
Finance & Insurance	833,746	0.8%	674,428	1.0%	-159,318	-19.1%
Real Estate & Rental & Leasing	1,309,383	1.3%	961,608	1.5%	-347,775	-26.6%
Professional & Technical Services	3,161,380	3.2%	2,240,165	3.4%	-921,215	-29.1%
Mgmt.of Companies & Enterprises	69,738	0.1%	35,568	0.1%	-34,170	-49.0%
Administrative & Waste Services	5,913,490	5.9%	3,654,693	5.5%	-2,258,797	-38.2%
Educational Services	1,972,916	2.0%	1,177,034	1.8%	-795,882	-40.3%
Health Care & Social Assistance	5,222,037	5.2%	3,757,375	5.7%	-1,464,662	-28.0%
Arts, Entertainment, & Recreation	1,169,055	1.2%	883,049	1.3%	-286,006	-24.5%
Accommodation & Food Services	9,749,762	9.8%	6,990,507	10.6%	-2,759,255	-28.3%
Other Services (Exc. Public Admin.)	3,369,122	3.4%	1,711,084	2.6%	-1,658,038	-49.2%
Public Administration	6,669,364	6.7%	4,477,608	6.8%	-2,191,756	-32.9%
Nonclassified*	3,458,415	3.5%	2,273,033	3.4%	-1,185,382	-34.3%
Total	99,567,427	100.0%	65,944,926	100.0%	-33,622,501	-33.8%

*The nonclassified industry designation is used when the firm does not provide information for proper North American Industry Classification System (NAICS) coding. Most of the firms in the "unclassified" industry are out-of-state companies. Source: Wyoming Department of Workforce Services, Research & Planning, administrative data.

Industry Distribution of UI Benefits

Nearly one-third (31.0%, or \$20.42 million, see Table 1, page 22, and Figure 2) of total UI benefits in 2014 were paid to workers in the construction industry. Those from the accommodation & food services industry collected 10.6% (\$6.99 million), followed by mining (7.8%, or \$5.12 million). All industries except utilities experienced double-digit decreases in UI benefit expenses from 2013. UI benefits paid to agriculture, other services (except public administration), and management of companies & enterprises dropped to nearly half their levels of 2013, with -49.9%, -49.2%, and -49.0%, respectively. Statewide UI benefit expenses decreased a total of \$33.62 million over the year (-33.8%) and nearly one-third of that was from construction (-\$9.59 million, or 28.5%). All industries' changes in 2014 indicate that Wyoming's economy was in much better condition than the year before.

UI Benefit Recipients and Exhaustees

In 2014, Wyoming had a total of 19,232 unemployed workers who received UI benefits, a 19.4% decrease from the previous year's level (23,854 in 2013; see Table 2, page 25). It was the fifth year of decline since the peak year of 2009, which had 37,251 unemployed workers receiving UI benefits (see Figure 3, page 24). There were also fewer UI recipients who exhausted regular UI benefits, a total of 4,257 UI exhaustees in 2014 compared with 6,098 exhaustees in 2013, a 30.2% decrease. These significant reductions in 2014 on both UI recipients and exhaustees indicate that the state economy improved. The pre-downturn years' average was 15,643 UI recipients and 3,351 exhaustees.

At the county level, out-of state UI recipients in 2014 made up nearly one quarter (23.7%) of

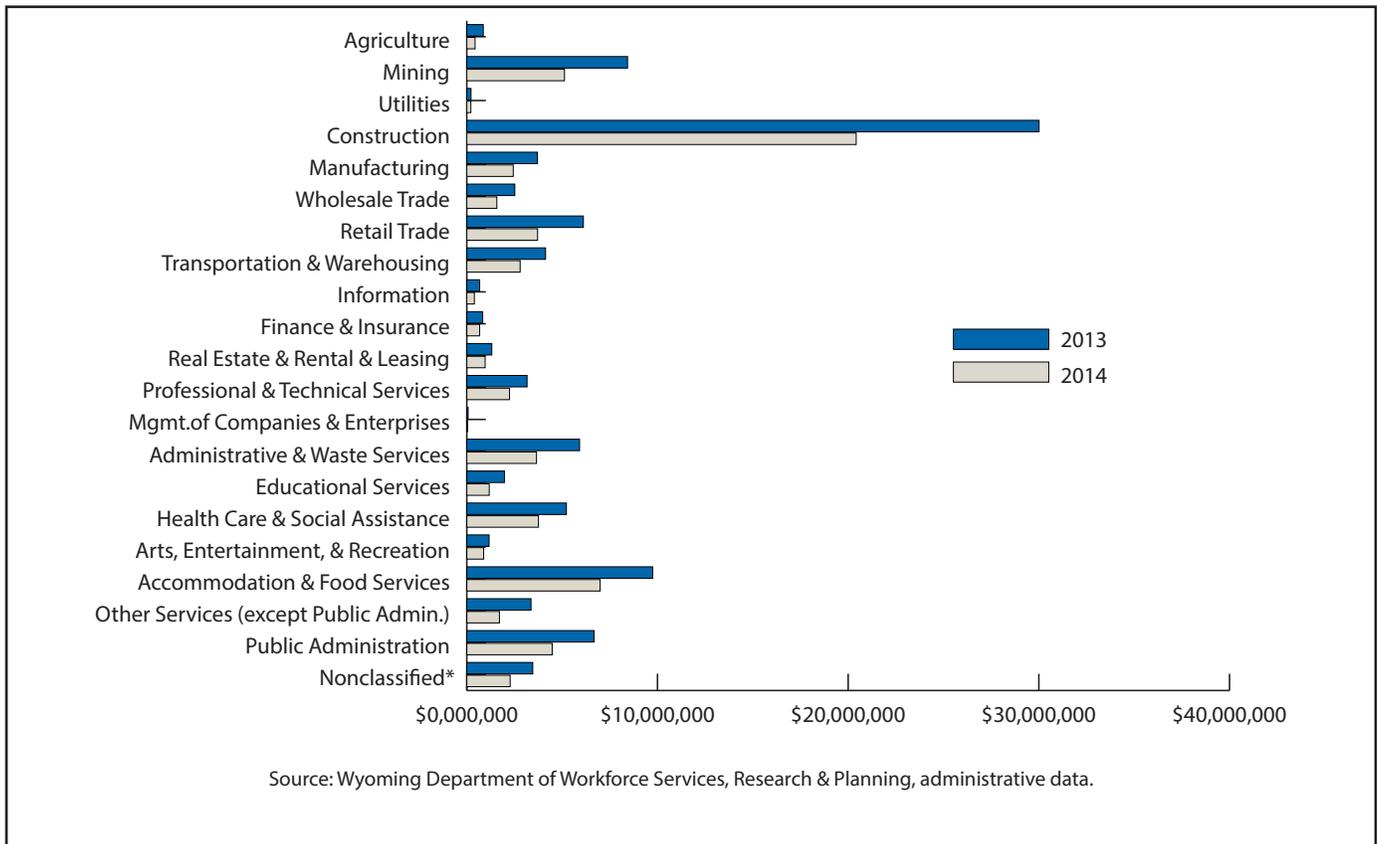


Figure 2: Unemployment Insurance Benefits in Wyoming by Industry Sector, 2013 and 2014

total UI recipients in Wyoming. Laramie, Natrona, and Teton counties had the largest percentages of UI recipients, with 13.0%, 11.1%, and 6.5%, respectively. All counties showed a decrease in UI recipients from the previous year and all but two, Albany and Carbon counties, actually experienced double-digit reductions. This improvement was much stronger than in 2013, in which six counties showed more UI recipients than the year before.

The exhaustion rate is the number of exhaustees divided by the number of UI recipients in the year. It indicates the hardship of re-employment for unemployed workers and usually will be higher during economic downturns. The statewide UI exhaustion rate dropped to 22.1% in 2014, very close to the pre-downturn years' average of 21.4%. It was 35.8% in 2010, the highest since 1997.

At the industry level (see Table 3, page 26), only utilities and finance & insurance sent approximately the same number of unemployed

workers to collect UI benefits in 2014 as in 2013, while all other industries showed a decline in UI recipients over the year. Among industries in terms of absolute values, construction had the greatest change in number of UI benefit recipients (1,207, or -17.4%) from 2013 to 2014, and mining fell by 612 (-32.0%). Wholesale trade and other services showed the largest percentage decreases, with -44.4% (342 recipients) and -35.0% (269) for the same time period.

In terms of the UI exhaustion rate, 2014 had a mixed picture in which a majority of industries experienced a lower rate than 2013. Five industries had a larger UI exhaustion rate. This mixed picture was better than the previous year's, in which nearly half (nine) of the industries showed an increase in exhaustion rates. This might indicate that the re-employment opportunity in 2014 for a few industries in Wyoming had no improvement or worsened since 2013, although the average exhaustion rate dropped from 25.6% in 2013 to 22.1% in 2014.

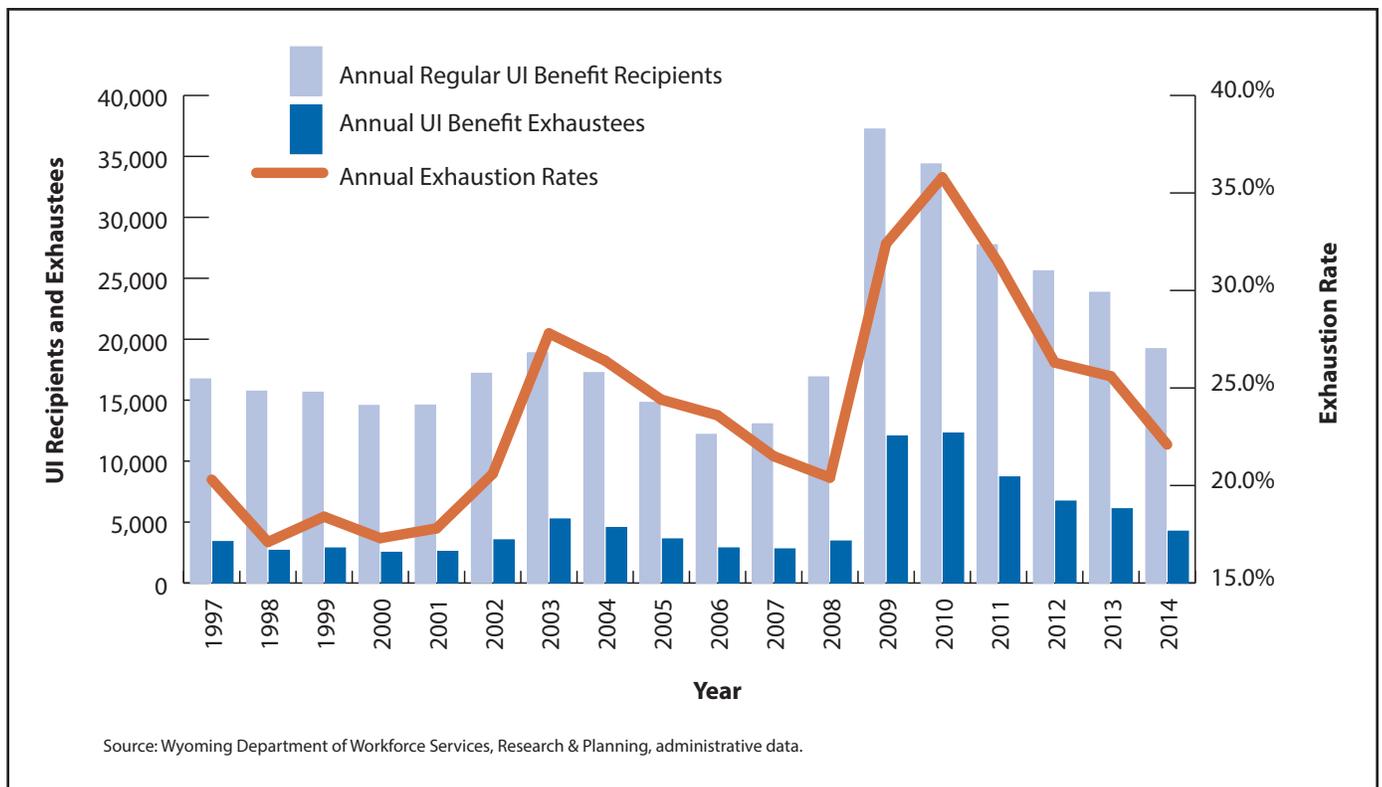


Figure 3: Unemployment Insurance (UI) Benefit Recipients, Exhaustees, and Exhaustion Rate in Wyoming, 1997 to 2014

Table 2: Unemployment insurance (UI) Recipients in Wyoming by County 2013 and 2014

County	2013		2014		Over-the-Year Changes	
	UI Recipients	% of total	UI Recipients	% of total	UI Recipients	% Changes
Albany	672	2.8%	617	3.2%	-55	-8.2%
Big Horn	342	1.4%	289	1.5%	-53	-15.5%
Campbell	1,509	6.3%	939	4.9%	-570	-37.8%
Carbon	406	1.7%	374	1.9%	-32	-7.9%
Converse	322	1.3%	269	1.4%	-53	-16.5%
Crook	210	0.9%	140	0.7%	-70	-33.3%
Fremont	1,545	6.5%	1,216	6.3%	-329	-21.3%
Goshen	323	1.4%	236	1.2%	-87	-26.9%
Hot Springs	135	0.6%	98	0.5%	-37	-27.4%
Johnson	287	1.2%	208	1.1%	-79	-27.5%
Laramie	2,840	11.9%	2,506	13.0%	-334	-11.8%
Lincoln	528	2.2%	432	2.2%	-96	-18.2%
Natrona	2,721	11.4%	2,140	11.1%	-581	-21.4%
Niobrara	38	0.2%	31	0.2%	-7	-18.4%
Park	922	3.9%	814	4.2%	-108	-11.7%
Platte	236	1.0%	200	1.0%	-36	-15.3%
Sheridan	1,073	4.5%	860	4.5%	-213	-19.9%
Sublette	274	1.1%	202	1.1%	-72	-26.3%
Sweetwater	1,351	5.7%	1,054	5.5%	-297	-22.0%
Teton	1,443	6.0%	1,241	6.5%	-202	-14.0%
Uinta	636	2.7%	509	2.6%	-127	-20.0%
Washakie	247	1.0%	187	1.0%	-60	-24.3%
Weston	147	0.6%	110	0.6%	-37	-25.2%
Out-of-State	5,634	23.6%	4,548	23.6%	-1,086	-19.3%
Unclassified*	13	0.1%	12	0.1%	-1	-7.7%
Total	23,854	100.0%	19,232	100.0%	-4,622	-19.4%

Source: Wyoming Department of Workforce Services, Research & Planning, administrative data.

Finance & insurance had the highest exhaustion rate (35.7%) in 2014, followed by other services (32.0%) and management of companies & enterprises (30.8%). These three industries were also among the five industries previously mentioned with an increased exhaustion rate over the year. It is difficult to explain the potential reasons because there is no significant common factor among these industries such as seasonality. Construction and manufacturing showed the lowest exhaustion rates in 2014 with 18.0% and 19.3%, respectively.

Other Demographic Information of UI Recipients

Residential status

Nearly one-quarter (23.6% or 4,548 recipients) of the UI recipients in 2014 were nonresidents (see Table 4, page 27). Among industries with more than 1,000 total UI recipients, more than one-third (38.3%, or 1,058) were nonresidents in the accommodation & food services industry, nearly one-third (31.6%, or 375) were nonresidents

Table 3: UI Recipients and Benefit Exhaustion Rates by Industry, 2013 and 2014

Industry	UI Recipients		Over-the-Year Changes		UI Exhaustion Rate	
	2013	2014	N	%	2013	2014
Agriculture	196	149	-47	-24.0%	34.7%	22.1%
Mining	1,911	1,299	-612	-32.0%	23.4%	20.5%
Utilities	39	39	0	0.0%	17.9%	20.5%
Construction	6,918	5,711	-1,207	-17.4%	22.3%	18.0%
Manufacturing	1,007	814	-193	-19.2%	23.0%	19.3%
Wholesale Trade	771	429	-342	-44.4%	19.1%	25.2%
Retail Trade	1,436	1,097	-339	-23.6%	31.5%	29.8%
Transportation & Warehousing	883	741	-142	-16.1%	24.0%	22.8%
Information	132	100	-32	-24.2%	34.1%	26.0%
Finance & Insurance	206	207	1	0.5%	30.1%	35.7%
Real Estate & Rental & Leasing	265	254	-11	-4.2%	31.7%	21.3%
Professional & Technical Services	636	545	-91	-14.3%	27.4%	25.3%
Mgmt.of Companies & Enterprises	16	13	-3	-18.8%	25.0%	30.8%
Administrative & Waste Services	1,322	1,100	-222	-16.8%	30.2%	23.5%
Educational Services	389	300	-89	-22.9%	34.4%	22.0%
Health Care & Social Assistance	1,265	1,169	-96	-7.6%	29.3%	22.2%
Arts, Entertainment, & Recreation	288	265	-23	-8.0%	27.8%	23.8%
Accommodation & Food Services	3,267	2,765	-502	-15.4%	23.1%	20.1%
Other Services (Except Public Administration)	769	500	-269	-35.0%	30.2%	32.0%
Public Administration	1,521	1,187	-334	-22.0%	29.0%	28.3%
Nonclassified*	617	548	-69	-11.2%	34.4%	30.7%
Total	23,854	19,232	-4,622	-19.4%	25.6%	22.1%

*The nonclassified industry designation is used when the firm does not provide information for proper North American Industry Classification System (NAICS) coding. Most of the firms in the "unclassified" industry are out-of-state companies.
Source: Wyoming Department of Workforce Services, Research & Planning, administrative data.

in public administration, and a little over a quarter (25.5%, or 1,459) were nonresidents in construction.

Gender and age

More than two-thirds (68.4%) of UI recipients in 2014 were male, but female workers had more difficulty getting re-employed after being laid off than males did (see Figure 4, page 27). The exhaustion rate for females was 26.9%, compared to 19.9% for male recipients. In terms of age, the older the claimant, the higher the exhaustion rate. This indicates that in general, older unemployed

workers in Wyoming had more difficulty finding re-employment after being laid off than younger individuals did (see Figure 5, page 28).

Number of employers in base period and base period earnings

Figure 6 (see page 28) shows that more than half of the 2014 UI recipients worked for two or more employers in their base period. About one-fourth of all recipients worked for three or more employers. Additionally, the more employers they worked for, the lower the UI exhaustion rate (see Table 5, page 28).

Table 4: Wyoming UI Recipients by Industry and Residency, 2014

Industry	Wyoming Residents		Out-of-State Residents		Total	
	UI Recipients	Industry %	UI Recipients	Industry %	UI Recipients	Statewide %
Agriculture	119	79.9%	30	20.1%	149	0.8%
Mining	1,069	82.3%	230	17.7%	1,299	6.8%
Utilities	33	84.6%	6	15.4%	39	0.2%
Construction	4,252	74.5%	1,459	25.5%	5,711	29.7%
Manufacturing	762	93.6%	52	6.4%	814	4.2%
Wholesale Trade	388	90.4%	41	9.6%	429	2.2%
Retail Trade	954	87.0%	143	13.0%	1,097	5.7%
Transportation & Warehousing	619	83.5%	122	16.5%	741	3.9%
Information	90	90.0%	10	10.0%	100	0.5%
Finance & Insurance	188	90.8%	19	9.2%	207	1.1%
Real Estate & Rental & Leasing	214	84.3%	40	15.7%	254	1.3%
Professional & Technical Services	418	76.7%	127	23.3%	545	2.8%
Mgmt.of Companies & Enterprises	7	53.8%	6	46.2%	13	0.1%
Administrative & Waste Services	963	87.5%	137	12.5%	1,100	5.7%
Educational Services	264	88.0%	36	12.0%	300	1.6%
Health Care & Social Assistance	1,073	91.8%	96	8.2%	1,169	6.1%
Arts, Entertainment, & Recreation	228	86.0%	37	14.0%	265	1.4%
Accommodation & Food Services	1,707	61.7%	1,058	38.3%	2,765	14.4%
Other Services	377	75.4%	123	24.6%	500	2.6%
Public Administration	812	68.4%	375	31.6%	1,187	6.2%
Nonclassified*	147	26.8%	401	73.2%	548	2.8%
Total	14,684	76.4%	4,548	23.6%	19,232	100.0%

*The nonclassified industry designation is used when the firm does not provide information for proper North American Industry Classification System (NAICS) coding. Most of the firms in the “unclassified” industry are out-of-state companies. Source: Wyoming Department of Workforce Services, Research & Planning, administrative data.

One possible reason might be that those who frequently moved from job to job had a more transferable skills, which made finding re-employment easier.

Figure 7 (see page 28) shows that the higher the wages an individual made before layoff, the lower the UI exhaustion rate. Higher pre-layoff wages usually enable individuals to qualify for

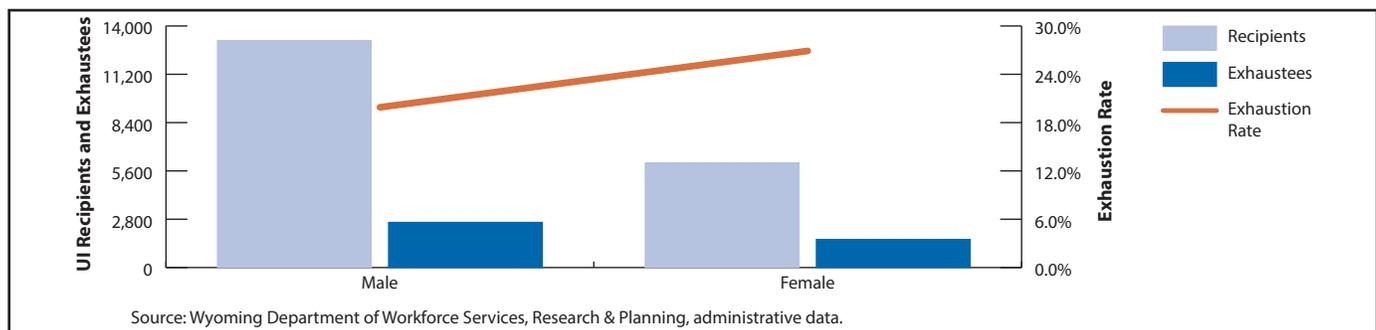


Figure 4: 2014 Wyoming UI Recipients, Exhaustees, and Exhaustion Rate by Gender

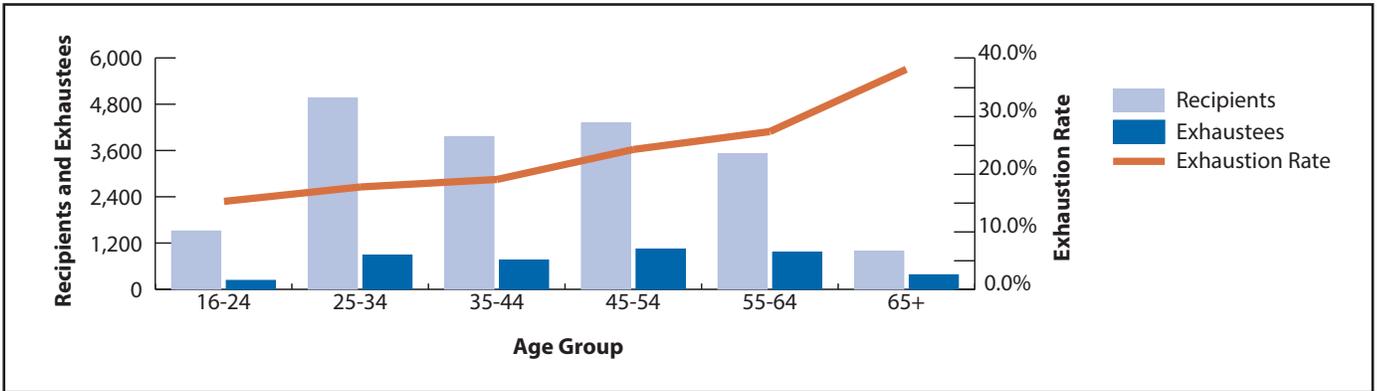


Figure 5: 2014 Wyoming UI Recipients, Exhaustees, and Exhaustion Rate by Age

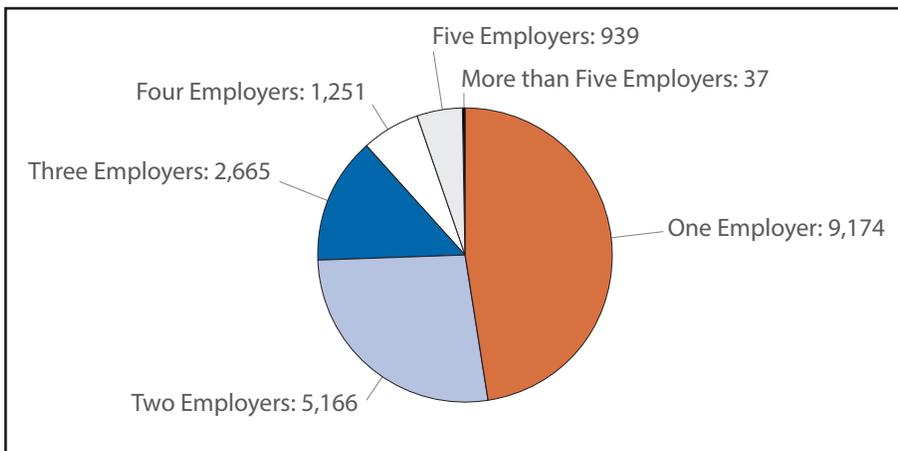


Figure 6: Distribution of 2014 UI Recipients by Number of Employers Worked for in Base Period

Table 5: Exhaustion Rate for Wyoming UI Recipients by Number of Employers in Base Period, 2014

Number of Employers	Exhaustion Rate
One	23.2%
Two	22.3%
Three	20.8%
Four	19.4%
Five or More	19.0%
Unknown	0.0%

more weeks of UI benefits. This could give these individuals more time to look for a job before they exhausted their UI benefits.

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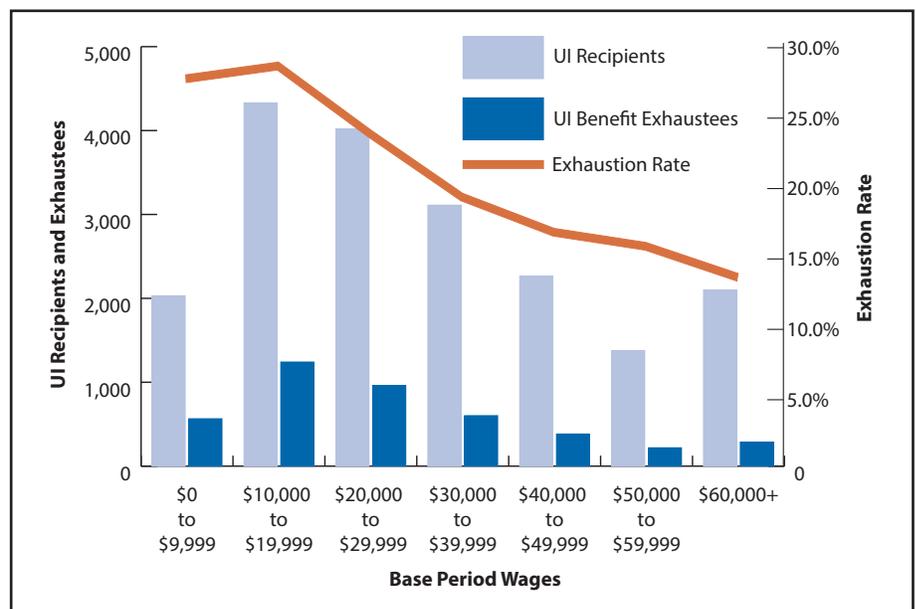


Figure 7: 2014 Wyoming UI Recipients, Exhaustees, and Exhaustion Rate by Base Period Wages

Truck Drivers, Construction Laborers Top-Paid Among Occupations with the Most New Hires in Wyoming

by: Lisa Knapp, Senior Analyst

Since fourth quarter 2009 (2009Q4), the Research & Planning (R&P) section of the Wyoming Department of Workforce Services has conducted the New Hires Job Skills Survey. The purpose of this survey is to capture information about jobs that are filled in the state, such as occupation, typical job duties, wages and benefits, license and certification requirements, and necessary job skills. A new hire is defined as “an employee who, during a particular quarter, started working for an employer he or she had not worked for since 1992, the first year for which wage records are available.” (Knapp, 2011)

The New Hires Job Skills Survey is sent to a random sample of employers each quarter. Since the survey began, R&P has attained at least a 70% response rate per quarter. For the estimates provided in this article, data from eight quarters (2012Q3–2014Q2) were used. For more information on the methodology used for this survey and the full statistical results, please visit <http://doe.state.wy.us/LMI/newhires.htm>.

Table 1 contains wage and turnover statistics for the 10 occupations with the largest number of new hires during the estimation period. Overall, there were 251,490 new hires between 2012Q3 and 2014Q2. The median wage paid to new hires across all occupations and industries was \$12.00 per

hour. In Table 1, *turnover rate* refers to the percentage of new hires no longer working for the same employer one quarter after hire; the average turnover rate for all new hires from 2012Q3 to 2014Q2 was 24.0%. Only three of these 10 jobs had a median wage higher than the median wage of all occupations

Table 1: Number of Wyoming Jobs Filled by New Hires, Median Hourly Wage, and Turnover One Quarter After Hire by Occupation, 2012Q3-2014Q2

SOC Code	Occupation Title	Estimated Number of New Hires	Median Hourly Wage	Turnover Rate
35-2021	Combined Food Preparation & Serving Workers	13,283	\$8.00	41.1
41-2031	Retail Salespersons	10,358	\$9.00	24.1
53-3032	Truck Drivers, Heavy & Tractor-Trailer	10,140	\$19.00	21.1
47-2061	Construction Laborers	9,888	\$14.00	35.8
41-2011	Cashiers	9,332	\$8.75	26.7
35-3031	Waiters & Waitresses	9,249	\$3.25	27.8
37-2012	Maids & Housekeeping Cleaners	7,675	\$8.50	45.7
35-2014	Cooks, Restaurant	6,070	\$10.00	28.0
37-3011	Landscaping & Groundskeeping Workers	6,005	\$12.00	33.0
43-9061	Office Clerks, General	5,898	\$13.00	14.5
Total, All Occupations		251,490	\$12.00	24.0

Source: Wyoming New Hires Job Skills Survey, Research & Planning.

SOC = Standard Occupational Classification.

Turnover Rate = percentage of new hires not still working for that employer one quarter after hire.

combined: office clerks, general (\$13.00); construction laborers (\$14.00); and truck drivers, heavy & tractor-trailer (\$19.00). The turnover rate was greatest among maids & housekeeping cleaners (45.7%) and combined food preparation & serving workers, including fast food (41.1%), while office clerks, general (14.5%) and truck drivers, heavy & tractor-trailer (21.1%) had the lowest turnover rates.

The distribution of jobs by gender and occupation for the 10 largest occupations are shown in Table 2. Females accounted for 35.2% of all new hires, compared to 48.1% for males. Nonresidents, defined as “individuals without a

Wyoming-issued driver’s license or at least four quarters of work history in Wyoming” (Jones, 2002) made up the remaining 16.7% of all jobs. Females constituted a larger proportion of new hires among office clerks, general (68.8%); cashiers (54.6%); and maids & housekeeping cleaners (53.2%). In comparison, males made up a larger proportion of newly hired truck drivers, heavy & tractor-trailer (82.2%); construction laborers (70.6%); and cooks, restaurants (61.6%). The occupations with the largest proportions of nonresidents were maids & housekeeping cleaners (31.8%) and construction laborers (25.9%).

Table 3 (see page 31) shows the distribution

Did You Know?

In 2009Q4, R&P began administering a New Hires Job Skills Survey in order to enhance what is already known about the dynamics of the labor market records by collecting a rich level of survey detail that is not available through administrative records, including occupation, rate of compensation, benefits, skills, and employer satisfaction with a new hire’s skills. For more information, see <http://doe.state.wy.us/LMI/newhires.htm>.

Table 2: Number of Wyoming Jobs Filled by New Hires and Percent Male, Female, or Nonresident by Occupation, 2012Q3-2014Q2

SOC Code	Occupation Title	Estimated Number of New Hires	% Female	% Male	% Nonresident
35-3021	Combined Food Preparation & Serving Workers	13,283	39.7	37.7	22.6
41-2031	Retail Salespersons	10,358	49.3	37.2	13.6
53-3032	Truck Drivers, Heavy & Tractor-Trailer	10,140	7.0	82.2	10.8
47-2061	Construction Laborers	9,888	3.6	70.6	25.9
41-2011	Cashiers	9,332	54.6	27.6	17.8
35-3031	Waiters & Waitresses	9,249	53.0	22.1	24.9
37-2012	Maids & Housekeeping Cleaners	7,675	53.2	15.0	31.8
35-2014	Cooks, Restaurant	6,070	21.1	61.6	17.3
37-3011	Landscaping & Groundskeeping Workers	6,005	21.1	61.0	17.8
43-9061	Office Clerks, General	5,898	68.8	20.7	10.5
Total, All Occupations		251,490	35.2	48.1	16.7

Source: Wyoming New Hires Job Skills Survey. Research & Planning, WY DWS.

SOC = Standard Occupational Classification.

Nonresident workers are defined as "individuals without a Wyoming-issued driver's license or at least four quarters of work history in Wyoming." Jones, S. (2002). Defining residency for the Wyoming workforce. *Wyoming Labor Force Trends*, 39(11). Retrieved February 24, 2015, from <http://doe.state.wy.us/LMI/1102/a1.htm>.

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of new hires in the 10 largest occupations by age group and occupation. Overall, half of all new hires (50.3%) were younger than age 35, and 17.3% were nonresidents, whose age is unknown. The largest proportion of new hires age 35 or older worked as truck drivers, heavy & tractor trailer (54.3%) and office clerks, general (44.5%). Comparatively, the largest proportion of those younger than age 35 worked as combined food preparation & serving workers, including fast food (61.3%) and as retail salespersons (60.5%).

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- Jones, S. (2002). Defining residency for the Wyoming workforce. *Wyoming Labor Force Trends*, 39(11). Retrieved February 24, 2015, from <http://doe.state.wy.us/LMI/1102/a1.htm>

Table 3: Number of Wyoming Jobs Filled by New Hires and Percent by Age Group and Occupation, 2012Q3-2014Q2

SOC Code	Occupation Title	Est. New Hires	% by Age Group							% Nonresident
			Under 20	20 to 24	25 to 34	35 to 44	45 to 54	55 to 64	65+	
35-3021	Combined Food Prep. & Serving Workers	13,283	30.0	16.7	14.6	10.4	3.7	0.9	0.0	23.7
41-2031	Retail Salespersons	10,358	18.4	20.9	21.2	10.2	10.8	3.2	1.7	13.6
53-3032	Truck Drivers, Heavy & Tractor-Trailer	10,140	1.7	9.6	23.7	21.6	17.4	12.7	2.6	10.8
47-2061	Construction Laborers	9,888	6.5	17.8	19.4	14.2	12.2	3.8	0.1	25.9
41-2011	Cashiers	9,332	16.4	16.5	19.8	12.7	9.5	6.6	0.2	18.3
35-3031	Waiters & Waitresses	9,249	17.1	16.3	22.7	9.4	3.4	3.9	1.6	25.7
37-2012	Maids & Housekeeping Cleaners	7,675	17.6	16.4	13.2	9.5	5.1	1.6	0.9	35.7
35-2014	Cooks, Restaurant	6,070	16.8	17.2	23.6	10.9	9.0	4.0	0.0	18.5
37-3011	Landscaping & Groundskeeping Workers	6,005	19.5	14.1	20.1	13.6	9.1	3.9	1.3	18.5
43-9061	Office Clerks, General	5,898	6.2	17.7	20.4	17.7	13.6	12.6	0.5	11.1
Total, All Occupations		251,490	11.4	16.4	22.5	14.2	10.8	6.2	1.2	17.3

Source: Wyoming New Hires Job Skills Survey. Research & Planning, WY DWS.

Nonresident workers are defined as "individuals without a Wyoming-issued driver's license or at least four quarters of work history in Wyoming." Jones, S. (2002). Defining residency for the Wyoming workforce. *Wyoming Labor Force Trends*, 39(11). Retrieved February 24, 2015, from <http://doe.state.wy.us/LMI/1102/a1.htm>.

Gender Wage Gap: Compared to Males, Females Earned 59% in 2014

by: Michael Moore, Research Analyst

Females working in Wyoming in 2014 were paid 59 cents for every dollar paid to males working in Wyoming on average in 2014. In other words, females' earnings were 59.0% of males' earnings. Excluding periods of rapid expansion or economic decline, average annual earnings for women have been between 59.0% and 60.7% of males' earnings for most years since 2003.

In 2014, the average annual earnings for females working in Wyoming at any time was \$27,126 compared to \$46,006 for males. These numbers do not take into account several

important factors, such as the type of job worked or the number of hours worked.

Wyoming's gender wage gap is the result of the state's industrial composition, as higher paying jobs in industries such as construction and mining are often dominated by males. As noted by Jones (2008), "men in Wyoming, especially those working in an expansion-related industry, receive comparatively high pay while women in Wyoming receive comparatively low or average pay."

As shown in Figure 1 and Table 1 (see page 33), Wyoming's gender wage gap is also dictated

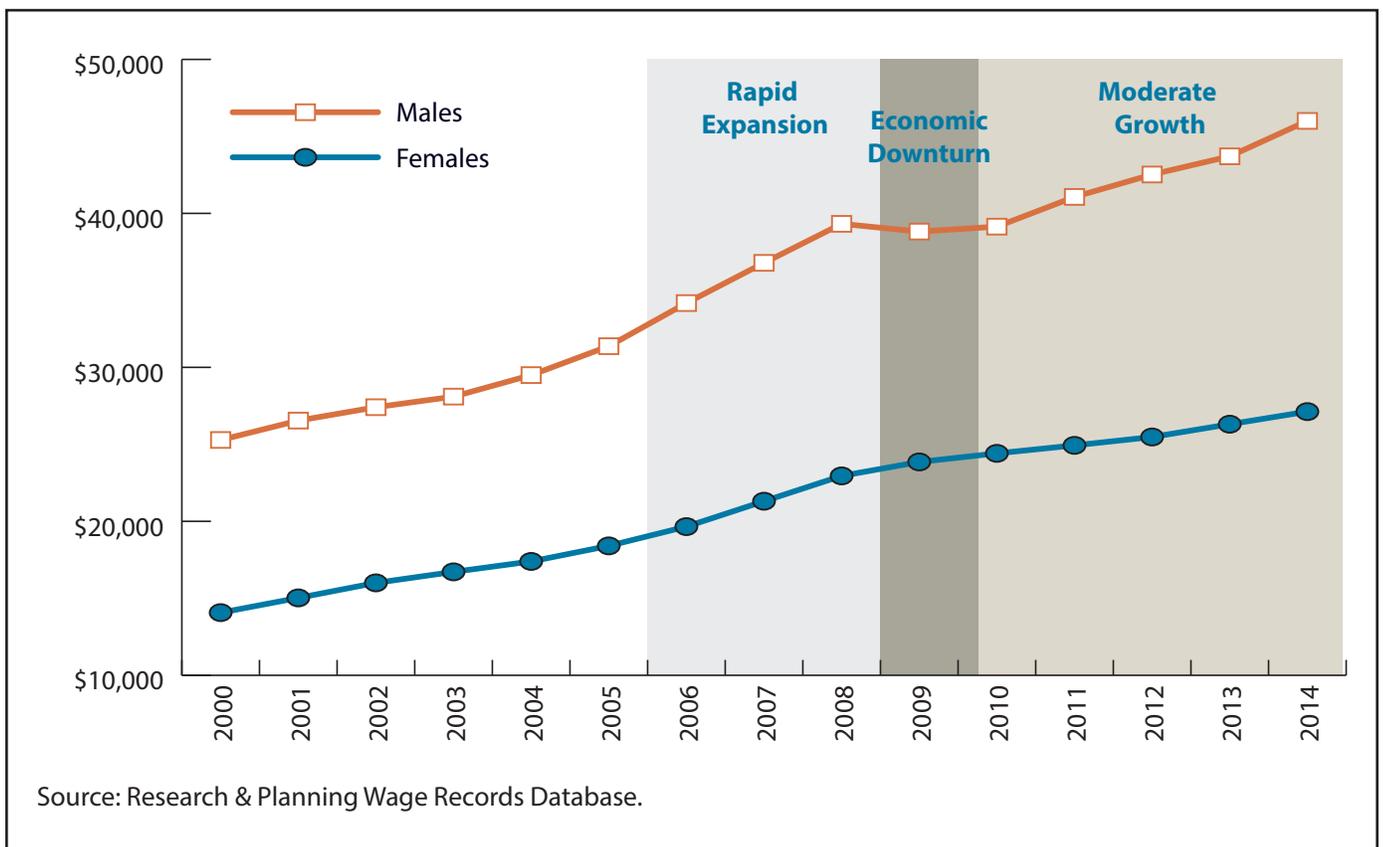


Figure 1: Average Annual Earnings for Males and Females Working in Wyoming at Any Time, 2000-2014

by economic conditions. When Wyoming adds more high paying jobs in these types of industries during an economic expansion, the wage gap widens. When the economy contracts and these jobs go away, the wage gap narrows.

From 2003 to 2005, the gender wage gap was relatively stable at about 59% (see Table 1). Then from 2006 to 2008 – a period of rapid economic expansion for the state – the wage gap widened, as females earned between 57.5% and 58.4% of males' earnings.

Wyoming's economy contracted from first quarter 2009 (2009Q1) to first quarter 2010 (2010Q1), as average monthly employment, total wages, and average weekly wage all decreased from previous year levels for five consecutive quarters (Bullard, 2011). During this economic downturn, Wyoming lost thousands of jobs,

particularly in the construction and mining industries; because of this, the wage gap narrowed, and women's earnings increased to approximately 62% of the earnings of males.

During the four years of moderate growth (2011-2014) since the end of the economic downturn, Wyoming's gender wage gap has been closer to 59% or 60% each year.

The data presented in this chapter represent a four-quarter period from quarter four through quarter three. For example, "2014" is comprised of data for fourth quarter 2013 (2013Q4) through third quarter 2014 (2014Q3), the most recent quarter for which data were available at the time of publication. These numbers will be revised to include data from each calendar year, and will be available at http://doe.state.wy.us/LMI/earnings_tables/2014/index.htm.

Table 1: Average Annual Earnings and Total Number of Persons Working in Wyoming at Any Time by Gender, 2000-2014

		Earnings				Females as a % of Males	Employment			
		Females	Males	Non- residents	Total		Females	Males	Non- residents	Total
	2000	\$14,071	\$25,283	\$3,886	\$18,554	55.7%	133,997	149,667	27,702	311,366
	2001	\$15,028	\$26,543	\$4,997	\$19,361	56.6%	134,882	153,509	36,072	324,463
	2002	\$16,003	\$27,411	\$5,609	\$20,359	58.4%	134,597	153,962	33,868	322,427
	2003	\$16,718	\$28,099	\$5,861	\$20,936	59.5%	134,166	154,112	35,688	323,966
	2004	\$17,396	\$29,497	\$6,330	\$22,071	59.0%	136,640	157,962	33,939	328,541
	2005	\$18,405	\$31,375	\$7,471	\$23,640	58.7%	138,692	162,046	32,607	333,345
Rapid Expansion	2006	\$19,657	\$34,174	\$9,084	\$25,423	57.5%	141,509	169,585	40,892	351,986
	2007	\$21,307	\$36,786	\$10,943	\$27,395	57.9%	146,039	178,523	47,850	372,412
	2008	\$22,951	\$39,321	\$12,073	\$29,363	58.4%	148,279	184,481	51,258	384,018
Economic Downturn	2009	\$23,858	\$38,818	\$11,882	\$29,833	61.5%	146,286	181,130	41,972	369,388
Moderate Growth	2010	\$24,414	\$39,139	\$12,761	\$30,488	62.4%	143,371	174,512	36,037	353,920
	2011	\$24,933	\$41,069	\$13,476	\$31,658	60.7%	144,463	177,413	38,392	360,268
	2012	\$25,478	\$42,525	\$14,247	\$32,440	59.9%	144,260	177,578	43,232	365,070
	2013	\$26,307	\$43,706	\$14,475	\$33,176	60.2%	142,921	174,936	46,009	363,866
	2014	\$27,126	\$46,006	\$15,233	\$33,948	59.0%	139,712	169,652	58,374	367,738

Source: Research & Planning Wyoming Wage Records Database.

Industry

As shown in Table 2, Wyoming's gender wage gap was widest in 2014 in health care & social assistance, where females (\$32,034) earned just 44.7% of males (\$71,590). The substantial disparity in pay within this industry is due in part to the large number of females working in lower paying nursing jobs. The wage gap was narrowest in construction (80.7%); however, that was likely due to females making up just 7.3% of total employment at any time.

The gender wage gap was narrowest in public

administration (79.8%) and educational services (76.7%), two industries that have high percentages of workers age 55 and older and jobs that require postsecondary education (Knapp, 2013). The gender wage gap was also narrower in leisure & hospitality (74.3%), the industry that paid the lowest earnings to both females (\$11,577) and males (\$15,582) in 2014.

County

As noted by Holmes (2014), the gender wage gap is wider in counties where jobs in the mining industry

Table 2: Average Annual Earnings for Individuals Working in Wyoming at Any Time by Gender and Industry, 2014

Industry	Earnings			Employment				
	Females	Males	Females' Earnings as a % of Males' Earnings	Females	Males	Non-residents*	Total	Females as a % of Total Employment
Ag., Forestry, Fishing, & Hunting	\$17,632	\$27,121	65.0%	757	2,303	827	3,887	19.5%
Mining	\$54,530	\$74,562	73.1%	3,086	25,922	4,872	33,880	9.1%
Construction	\$28,143	\$34,873	80.7%	3,072	24,828	14,025	41,925	7.3%
Manufacturing	\$31,097	\$57,968	53.6%	2,295	8,729	1,024	12,048	19.0%
Wholesale Trade, Transp., Utilities, & Warehousing	\$31,976	\$54,887	58.3%	4,949	18,607	2,493	26,049	19.0%
Retail Trade	\$16,954	\$26,889	63.1%	19,047	16,356	5,123	40,526	47.0%
Information	\$29,688	\$46,020	64.5%	1,628	2,375	355	4,358	37.4%
Financial Activities	\$34,200	\$62,047	55.1%	7,374	4,849	959	13,182	55.9%
Prof. & Business Services	\$28,162	\$45,809	61.5%	9,127	12,872	4,546	26,545	34.4%
Educational Services	\$33,852	\$44,113	76.7%	21,809	10,175	2,114	34,098	64.0%
Health Care & Social Assist.	\$32,034	\$71,590	44.7%	26,544	6,232	2,186	34,962	75.9%
Leisure & Hospitality	\$11,577	\$15,582	74.3%	22,003	16,838	16,466	55,307	39.8%
Other Services	\$20,547	\$37,618	54.6%	3,828	4,628	1,631	10,087	37.9%
Public Administration	\$34,498	\$43,215	79.8%	14,193	14,938	1,753	30,884	46.0%
All	\$27,126	\$46,006	59.0%	139,712	169,652	58,374	367,738	38.0%

Source: Research & Planning Wyoming Wage Records Database.

*Nonresidents are defined as "individuals without a Wyoming issued driver's license or at least four quarters of work history in Wyoming." Jones, S. (2002). Defining residency for the Wyoming workforce. Wyoming Labor Force Trends, 39(11). Retrieved May 23, 2013, from <http://doe.state.wy.us/LMI/1102/a1.htm>

make up a high percentage of the total jobs worked. As Table 3 shows, this wider wage gap can be seen in Sweetwater (45.1%), Sublette (50.2%), and Campbell (51.7%) counties. In other words, females in these three counties made 45.1 cents, 50.2 cents, and 51.7 cents, respectively, for each dollar paid to males.

The wage gap was narrowest in Teton County, where females earned \$29,808 compared to \$37,877 earned by males (78.7%). The wage gap was also narrower in Laramie County (75.7%), which has a high proportion of jobs in the public administration industry and very few jobs in mining.

New Hires

As previously mentioned, the numbers presented in this article cannot account for several key factors, such as the type of job worked and the number of hours worked because the administrative data collected in Research & Planning's (R&P) Wage Records Database does not include that level of detail. Because of this, one cannot make the conclusion with this information that there is wage disparity between males and females in the same occupation.

However, R&P's New Hires Job Skills Survey (see page 29) makes it possible to determine if there is a discrepancy in pay between males and females in the same occupation. As mentioned on page 29, the New Hires Survey collects information on the specific occupation for which an individual was hired and the number of hours an individual worked in that job, a rich level of detail that was not available to R&P prior to 2009.

From 2009Q4 to 2010Q3, for example, R&P collected data on 184 occupations across all industries for which there was a minimum of two observations each for males and females (Glover, 2011). Of those 184 new hires occupations, females had higher wages than males in nine, while males had higher wages than females in 31. There was no statistical difference between the earnings of males and females in

Table 3: Average Annual Earnings and Number of Individuals Working in Wyoming by Gender and County, 2014

County	Earnings			Employment	
	Females	Males	Females' Earnings as a % of Males' Earnings	Females	Males
Albany	\$27,718	\$38,659	71.7%	7,718	8,167
Big Horn	\$24,289	\$40,026	60.7%	2,135	2,703
Campbell	\$30,870	\$59,729	51.7%	12,112	18,889
Carbon	\$24,720	\$46,541	53.1%	3,441	3,959
Converse	\$26,472	\$47,031	56.3%	3,001	3,468
Crook	\$22,596	\$39,118	57.8%	1,247	1,175
Fremont	\$25,220	\$37,736	66.8%	9,436	9,542
Goshen	\$24,449	\$33,694	72.6%	2,583	2,437
Hot Springs	\$23,543	\$40,256	58.5%	1,183	1,146
Johnson	\$22,950	\$35,917	63.9%	1,815	1,900
Laramie	\$28,973	\$38,256	75.7%	23,741	25,251
Lincoln	\$21,836	\$47,500	46.0%	2,955	3,292
Natrona	\$28,720	\$51,572	55.7%	20,800	26,197
Niobrara	\$23,176	\$32,225	71.9%	587	465
Park	\$25,304	\$40,674	62.2%	7,020	6,982
Platte	\$22,973	\$32,532	70.6%	1,823	1,881
Sheridan	\$26,061	\$37,586	69.3%	7,001	6,884
Sublette	\$28,911	\$57,636	50.2%	1,988	3,317
Sweetwater	\$27,922	\$61,979	45.1%	10,345	15,936
Teton	\$29,808	\$37,877	78.7%	7,662	9,733
Uinta	\$23,560	\$45,616	51.6%	4,687	4,979
Washakie	\$24,260	\$40,513	59.9%	1,959	2,205
Weston	\$22,845	\$39,277	58.2%	1,340	1,234
Unspecified	\$18,575	\$37,703	49.3%	3,133	7,910
Total	\$27,126	\$46,006	59.0%	139,712	169,652

Source: Research & Planning Wyoming Wage Records Database.

the other 144 occupations.

The continued collection data of data through New Hires Survey will make it possible to better analyze wage disparity at the occupational level.

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Benefits: Access to Medical Insurance, Retirement Plans Declines in 2014

By Lisa Knapp, Senior Economist

The Wyoming Benefits Survey provides important insight into changes in the state’s economy by allowing benefit offerings to be measured using a standardized methodology, revealing trends in benefits by full- or part-time status, employee size, industry, and other characteristics.

Figure 1 contains the percent of Wyoming jobs that were offered selected benefits by industry in third quarter 2014 (2014Q3). Overall, 62.0% of jobs were offered medical insurance, 61.6% were offered retirement plans, 60.5% were offered paid vacation leave, and 44.1% were offered paid sick leave. The largest proportion of jobs offered any of these benefits were in state & local government where 86.6% of jobs were offered medical insurance, 83.4% were offered retirement plans, 80.2% were offered paid vacation leave, and 73.4% were offered paid sick leave. In contrast, the lowest proportion of jobs offered most of these benefits were in the leisure & hospitality industry. Of those

jobs, 15.8% were offered medical insurance and only 23.1% were offered retirement plans. Paid vacation time was offered to 36.3% of those jobs while paid sick leave was offered to 21.9%.

Figure 2 (see page 38) contains a quarterly moving average of the proportion of jobs offered selected benefits over 20 quarters from 2009Q4 through 2014Q3. The proportion of jobs offered medical insurance declined from 68.6% in 2009Q4 to 62.0% in 2014Q3. Similarly, in 2009Q4, 67.8% of jobs were offered retirement plans but only 61.6% were offered the benefit in 2014Q3. The proportion of jobs offered paid vacation leave stayed relatively steady between 2009Q4 (60.4%) and 2014Q3 (61.5%) while the proportion of jobs offered paid sick leave increased slightly from 41.5% in 2009Q4 to 44.1% in 2014Q3.

For more information, see <http://doe.state.wy.us/LMI/benefits.htm>

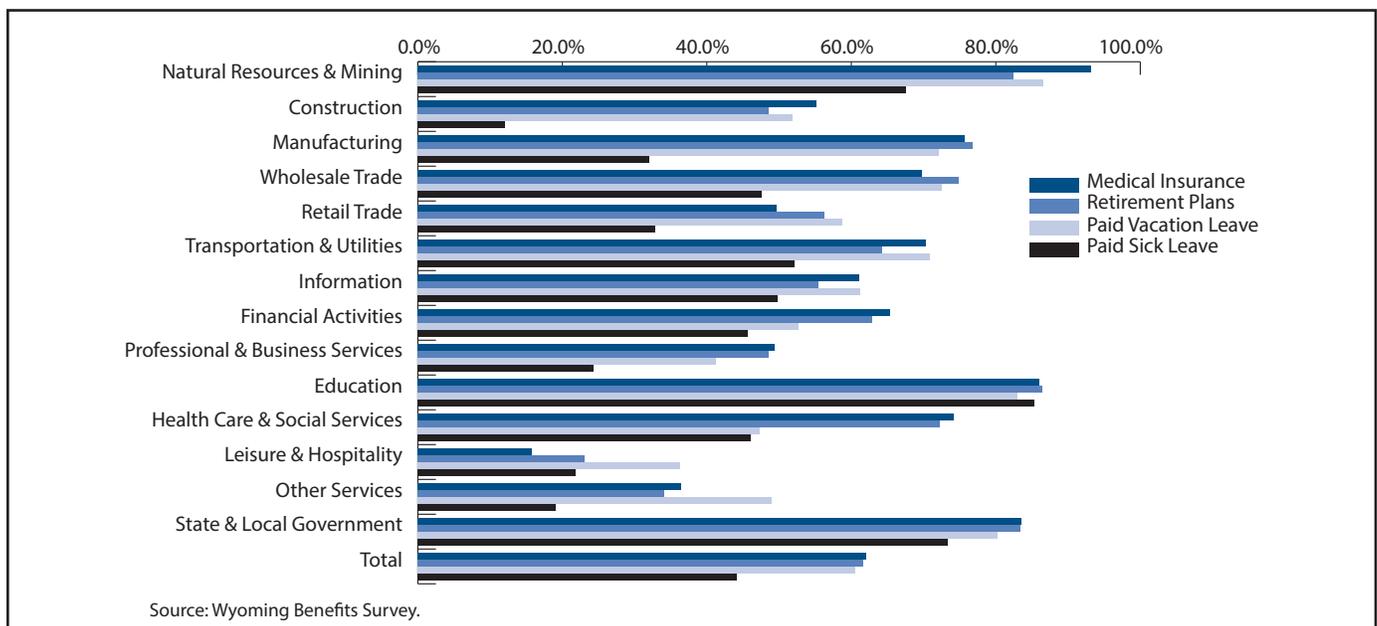


Figure 1: Percent of Wyoming Jobs Offered Selected Benefits by Industry, 2014Q3

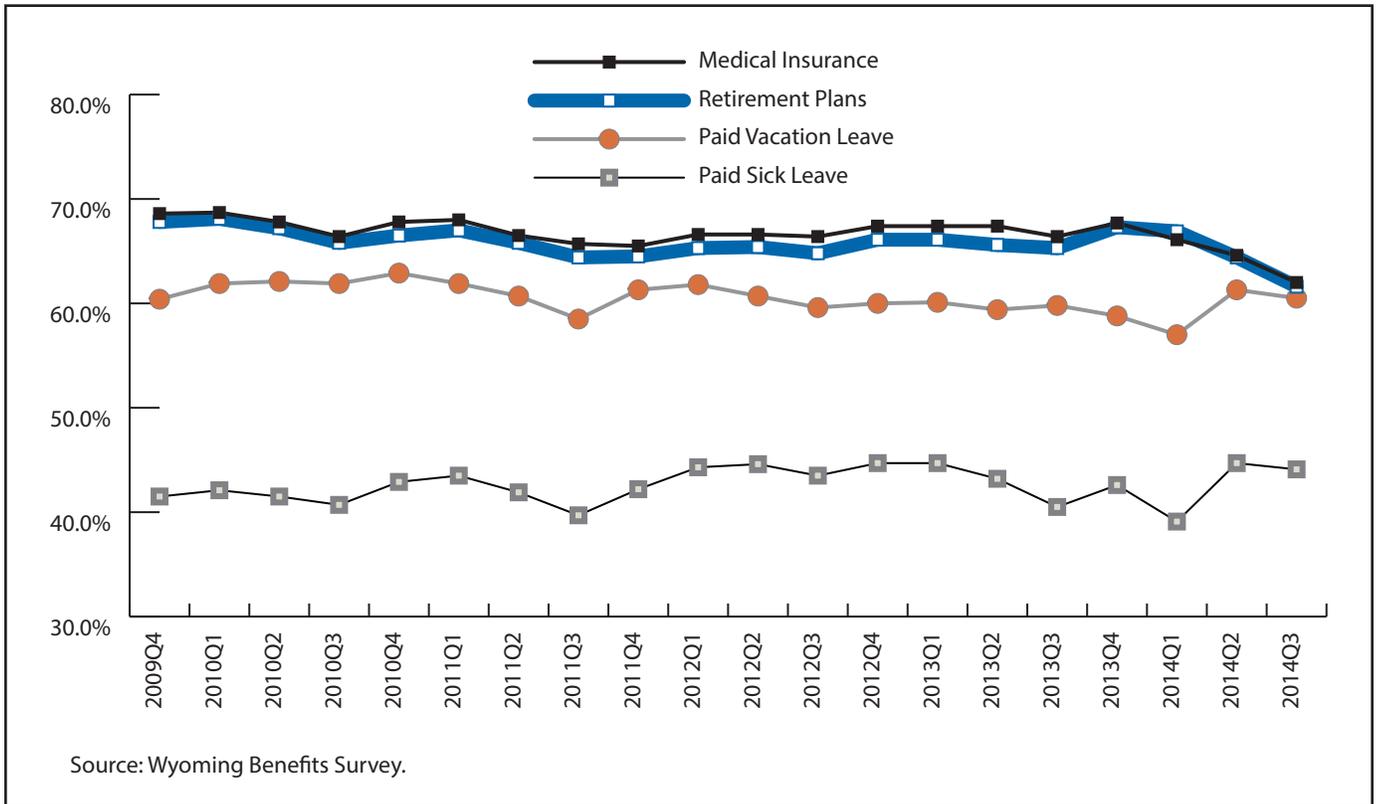


Figure 2: Percentage of Wyoming Jobs Offered Selected Benefits Between 2009Q4 and 2014Q3



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Planning vs. Performance: Why Outcome Wages May Fall Short of Accountability Measures

By: Lynae Hammer, Office Support Specialist

Under the Workforce Innovation and Opportunity Act (WIOA), an in-demand industry sector or occupation is defined as “(i) an industry sector that has a substantial current or potential impact (including through jobs that lead to economic self-sufficiency and opportunities for advancement) on the State, regional, or local economy, as appropriate, and that contributes to the growth or stability of other supporting businesses, or the growth of other industry sectors; or (ii) an occupation that currently has or is projected to have a number of positions (including positions that lead to economic self-sufficiency and opportunities for advancement) in an industry sector so as to have a significant impact on the State, regional, or local economy, as appropriate” (Workforce Innovation and Opportunity Act, 2014). When selecting occupations to designate as in-demand, language such as “economic self-sufficiency” offers a definition that is too vague to objectively and reliably determine which occupations meet the criteria. An hourly wage rate of \$10.10 per hour, the wage to which President Obama has called to raise the federal minimum wage (Executive Office of the President, 2014), could provide the operational definition of “economic self-sufficiency.” However, with many other interpretations of the term, a clear and unambiguous definition is needed to guide the decision of which occupational training programs to subsidize. Consideration of the statistical information needed for both planning and performance measures is essential when identifying an occupation as in-demand.

In addition to the planning phase of workforce

development, WIOA mandates the use of multiple indicators as accountability measures of the adult and dislocated worker programs during the performance phase. These indicators include employee retention during the second and fourth quarters after exit from the program and the median quarterly earnings, or the earnings collected over a three-month period, during the second quarter after exit from the program (Workforce Innovation and Opportunity Act, 2014). Unemployment Insurance (UI) wage records provide these quarterly earnings as well as detailed information for employees from required quarterly UI reports. These administrative records provide wage and employment information for approximately 92% of Wyoming’s workforce (Harris, 2014).

While the planning and performance measures complement each other in theory, in practice they may not. Therefore, recognizing the difference between these measures is necessary throughout the workforce development system. During the planning phase, occupational wages and projections are used to identify high-demand and high-growth occupations. The wage data used to make these determinations come from the Occupational Employment Statistics (OES) survey, which provides the average hourly rate of compensation for an occupation across each industry. The OES estimates for May 2013 data updated to the September 2014 Employment Cost Index can be found at http://doe.state.wy.us/LMI/OES_toc.htm. On the other hand, during the performance phase, the accountability outcome wages are measured based on the actual level of median earnings of the participants of the training



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programs after completion (WIOA, 2014). This difference in measurement between the hourly rate of compensation earned in planning and the level of wages earned during performance measurement might create the appearance that the state is using WIOA funds for ineffective training programs.

To determine which occupations meet the criteria addressed in WIOA in Wyoming, the Wyoming Workforce Development Council (WWDC) asked Research & Planning (R&P) to use labor market projections and other labor market information to compile a list of high-demand, high-growth occupations. The WWDC is the governor-appointed state workforce investment board whose mission is to “shape strategies and policies to develop, recruit and retain Wyoming’s workforce” (Wyoming Workforce Development Council, 2015).

In response to the WWDC’s request, R&P produced a list of occupations in Wyoming using the following criteria: an hourly wage of at least \$14.00 and a growth of 200 jobs in the next decade (Glover, 2014). The list of occupations can be found in the PowerPoint presentation titled, “Workforce Opportunities in

Wyoming: Developing a Data-Driven Approach to Public Sector Investment and Evaluation” at http://doe.state.wy.us/LMI/presentations/WWDC_September_2014.pdf. Twenty-seven occupations matched these standards, including maintenance & repair workers, general (Standard Occupational Classification 49-9071), which is used as an example throughout this article. Table 1 (see page 41) shows the list that meets the current standards of a high-demand, high-wage occupation.

As stated earlier, the outcome wages measured during the performance phase may not match the anticipated wages during the planning phase. It is not always the case that a person who is trained to work in a high-demand occupation, such as a welder earning an average wage of \$23.59 per hour according to OES, will earn the equivalent quarterly wage according to wage records. There are many factors that contribute to the difference in wages between the planning and performance measures of WIOA. These factors include worker experience, industry stability, and employer-provided benefits, most of which are not evident or available during

(Text continued on page 42)

Table 1: Wyoming Occupational Projections and Average OES^a Based Hourly Wage for Occupations with an Hourly Wage of Greater than or Equal to \$14.00 and Projected Employment Growth of More than or Equal to 200 Jobs Over the Next Decade

WWDC ^b Criteria	SOC Code	SOC Title	Employment		Change		Hourly Wage	Typical Education
			2012	2022	N	%		
Yes	47-2031	Carpenters	3,908	4,706	798	20.4	\$19.66	H.S. diploma or equiv.
Yes	49-9041	Industrial Machinery Mechanics	2,407	3,115	708	29.4	\$27.21	Post-Secondary Cert.
No	29-1141	Registered Nurses	4,738	5,619	881	18.6	\$29.56	Associate's degree
No	53-3032	Heavy & Tractor-Trailer Truck Drivers	7,081	7,901	820	11.6	\$22.28	H.S. diploma or equiv.
No	11-1021	General & Operations Mgrs.	5,352	6,153	801	15	\$45.94	Associate's degree
No	43-3031	Bookkeeping, Accounting, & Auditing Clerks	4,718	5,396	678	14.4	\$17.52	H.S. diploma or equiv.
No	47-2061	Construction Laborers	3,907	4,567	660	16.9	\$15.61	H.S. diploma or equiv.
No	43-6014	Secretaries & Admin. Assist., Exc. Legal, Medical, & Executive	4,787	5,412	625	13.1	\$16.08	H.S. diploma or equiv.
No	47-1011	First-Line Supervisors of Const. Trades & Extraction Workers	3,743	4,323	580	15.5	\$31.68	H.S. diploma or equiv.
No	49-9071	Maint. & Repair Workers, General	3,966	4,442	476	12	\$20.03	H.S. diploma or equiv.
No	43-9061	Office Clerks, General	5,630	6,087	457	8.1	\$14.61	H.S. diploma or equiv.
No	47-2111	Electricians	2,751	3,171	420	15.3	\$25.82	Post-Secondary Cert.
No	25-2021	Elementary School Teachers, Except Special Education	2,649	3,031	382	14.4	\$27.63	Bachelor's or Master's degree
No	41-4012	Sales Reps., Wholesale & Mfg., Exc. Tech. & Scientific Products	2,115	2,494	379	17.9	\$28.18	Bachelor's degree
No	47-2073	Operating Engineers & Other Const. Equipment Operators	5,543	5,917	374	6.7	\$23.66	H.S. diploma or equiv.
No	43-6013	Medical Secretaries	1,169	1,534	365	31.2	\$15.06	H.S. diploma or some college
No	53-7062	Laborers & Freight, Stock, & Material Movers, Hand	2,269	2,625	356	15.7	\$15.15	H.S. diploma or equiv.
No	47-5013	Service Unit Operators, Oil, Gas, & Mining	3,130	3,472	342	10.9	\$24.04	H.S. diploma or equiv.
No	43-4051	Customer Service Reps.	1,919	2,260	341	17.8	\$14.14	H.S. diploma or equiv.
No	51-4121	Welders, Cutters, Solderers, & Brazers	2,437	2,732	295	12.1	\$23.59	Post-Secondary Cert. or A.A.
No	13-2011	Accountants & Auditors	1,887	2,161	274	14.5	\$29.77	Bachelor's degree
No	43-1011	First-Line Supervisors of Office & Admin. Support Workers	1,928	2,170	242	12.6	\$22.37	On-job training or A.A.
No	41-1011	First-Line Supervisors of Retail Sales Workers	3,735	3,973	238	6.4	\$19.02	On-job training or A.A.
No	53-3033	Light Truck or Delivery Drivers	1,475	1,692	217	14.7	\$17.35	H.S. diploma or equiv.
No	47-2141	Painters, Const. & Maintenance	1,092	1,304	212	19.4	\$17.62	H.S. diploma or equiv.
No	47-2152	Plumbers, Pipefitters, & Steamfitters	1,085	1,294	209	19.3	\$20.35	H.S. diploma or equiv.
No	47-5071	Roustabouts, Oil & Gas	2,044	2,253	209	10.2	\$19.42	H.S. diploma or less

^aOccupational Employment Statistics.

^bWyoming Workforce Development Council.

Source: Wyoming's Occupational Projections 2012 to 2022 and Wyoming's Occupational Employment Statistics 2013. Wyoming Department of Workforce Services, Research & Planning. Tony Glover, WYDWS Research and Planning. 08/01/2014.

(Text continued from page 40)

the planning phase of workforce development. Using R&P's New Hires Survey, further detail from multiple industries about occupational compensation — both direct and indirect, as well as the human capital brought to those jobs — becomes available (Moore & Knapp, 2014).

The New Hires Survey results for fourth quarter 2011 (2011Q4) to third quarter 2013 (2013Q3) can be found at <http://doe.state.wy.us/LMI/newhires.htm>. The definition of a new hire is “an employee who, during a particular quarter, started working for an employer he or she had not worked for since at least 1992,” (Knapp, 2011). These results reveal the demographics of the new hires – such as age, gender, and residency – and the skills important to the employer, the average hourly wage of the new hires, and the percent of hires employed with the same employer after one quarter. These details can provide an understanding of why employees do not earn the direct compensation they were trained to earn, whether they are earning higher or lower wages. This article will use maintenance & repair workers, general (SOC 49-9071) as an example because of the available data collected from the New Hires Survey for most industries.

When selecting occupations during the planning phase of workforce development that earn an hourly wage of at least \$14.00, the OES hourly wage for all industries in Wyoming was used. Because the average wage of an occupation varies among industries, it is likely that some employees will not earn the wage expected when the occupation was selected. For example, the average hourly wage for maintenance & repair workers, general, for all industries was \$20.03. However, the average hourly wage for the maintenance and repair workers, general, working in real estate, rental, & leasing was only \$13.79. Many employees who are trained for the maintenance & repair workers, general, occupation will not obtain employment in higher paying industries, such as utilities, which had an average hourly wage of \$24.42 at placement.

According to Table 2 (see page 43), in the first quarter after hire, at least 81.1% of employees will not earn the quarterly wage in wage records that they were trained to earn under the current standards of an in-demand occupation. In later quarters of their career, employees may be more likely to earn wages above \$14.00 per hour.

The characteristics of the industry will also affect the wages that employers choose to pay their employees. If the work in an industry takes place during specific seasons, such as construction, employers may be forced to pay a higher direct wage. New hires earned \$13.25 per hour in the construction industry and \$13.50 per hour in mining. These wages are higher than in more stable and less seasonal industries, such as administrative, support, & waste management (\$10.00 per hour) and accommodation and food services (\$11.00 per hour) at the time of hire.

The experience level of a new hire will affect the outcome wage at placement in an in-demand occupation. As shown in Table 2, the hourly wage of hires during their quarter of placement is often much less than the OES wage. The level of experience may also contribute to the significant difference in the OES and the hourly wage from the New Hires Survey. For example, the average hourly wage from OES for maintenance & repair workers, general, in the mining industry of \$32.56 was significantly higher than the New Hires Survey average hourly wage of \$13.50. Looking further down on Table 2, the percentages in the age group section indicate that all of the new hires were under the age of 35, and one-third of the new hires were age 19 or younger. This suggests that the new hires were inexperienced and therefore, earned a lower wage than the Wyoming average.

The opportunity for an employer to offer indirect compensation will influence the average wage of an in-demand occupation. Indirect compensation includes health benefits, paid leave, and retirement benefits. According to the

(Text continued on page 44)

Table 2: New Hires Survey Results for Maintenance and Repair Workers, General (SOC 49-9071) by Industry for Two Years (2011Q4 – 2013Q3)

	Total	Mining	Utilities	Construction	Manufacturing	Wholesale Trade	Real Estate, Rental, & Leasing	Admin., Support & Waste Mgmt.	Accommodation & Food Services	Other Svcs. (Exc. Public Admin.)	Public Admin.	
Number	2,075	56	61	79	98	N/D	390	22	768	58	367	
Percent	100.0%	2.7%	2.9%	3.8%	4.7%	N/D	18.8%	1.1%	37.0%	2.8%	17.7%	
Average Hourly Wage for New Hire	\$12.69	\$13.50	\$24.42	\$13.25	\$17.00	\$14.50	\$12.00	\$10.00	\$11.00	\$16.54	\$12.00	
OES Based Average Hourly Wage for Industry (May 2013)	\$20.03	\$32.56	\$35.45	\$13.40	\$31.69	\$16.41	\$13.79	\$17.25	\$15.52	\$15.43	\$19.52	
% Offered Benefits	Health Insurance	50.1	33.3	100.0	50.0	50.0	50.0	49.1	0.0	54.5	60.0	32.6
	Retirement	45.2	33.3	100.0	50.0	50.0	0.0	36.4	0.0	54.5	60.0	32.6
	Paid Leave	48.4	33.3	100.0	50.0	50.0	50.0	50.9	0.0	54.5	60.0	32.6
Skills Selected as "Important" (%)	Service Orientation	63.7	33.3	27.8	50.0	60.0	0.0	65.5	100.0	63.6	80.0	69.6
	Critical Thinking	80.8	33.3	77.8	100.0	100.0	50.0	67.3	100.0	90.9	100.0	76.1
	Reading Comprehension	57.4	33.3	100.0	100.0	100.0	0.0	60.0	100.0	36.4	60.0	73.9
	Technology Design	52.9	0.0	77.8	50.0	50.0	50.0	36.4	0.0	63.6	40.0	63.0
	Operation & Control	74.4	33.3	94.4	0.0	30.0	50.0	60.0	100.0	90.9	60.0	93.5
Employers' Satisfaction with New Hires' Skills	Satisfied	63.5	100.0	100.0	50.0	80.0	100.0	65.5	100.0	54.5	80.0	54.3
	Not Satisfied	5.2	0.0	0.0	50.0	0.0	0.0	9.1	0.0	0.0	0.0	6.5
	Neither	23.3	0.0	0.0	0.0	0.0	0.0	5.5	0.0	45.5	20.0	21.7
	Other	8.1	0.0	0.0	0.0	20.0	0.0	20.0	0.0	0.0	0.0	17.4
Average Weekly Hours	20 or Less	13.7	0.0	11.8	0.0	30.0	0.0	21.3	0.0	0.0	25.0	30.0
	21-35	24.7	0.0	0.0	0.0	0.0	0.0	14.9	0.0	55.6	0.0	12.5
	36 or More	61.6	100.0	88.2	100.0	70.0	100.0	63.8	100.0	44.4	75.0	57.5
Gender	Female	20.1	33.3	16.7	0.0	0.0	0.0	23.6	0.0	27.3	0.0	19.6
	Male	69.0	66.7	83.3	100.0	90.0	100.0	67.3	100.0	54.5	100.0	76.1
	Nonresident	10.9	0.0	0.0	0.0	10.0	0.0	9.1	0.0	18.2	0.0	4.3
Age Group	19 and Younger	11.0	33.3	0.0	0.0	10.0	0.0	0.0	100.0	9.1	0.0	28.3
	20-24	18.0	33.3	27.8	50.0	10.0	100.0	18.2	0.0	18.2	0.0	13.0
	25-34	22.7	33.3	44.4	0.0	20.0	0.0	27.3	0.0	18.2	60.0	17.4
	35-44	12.9	0.0	16.7	50.0	20.0	0.0	29.1	0.0	0.0	40.0	10.9
	45-54	15.2	0.0	11.1	0.0	10.0	0.0	7.3	0.0	27.3	0.0	13.0
	55-64	6.1	0.0	0.0	0.0	20.0	0.0	3.6	0.0	9.1	0.0	6.5
	65 and Older	1.3	0.0	0.0	0.0	0.0	0.0	3.6	0.0	0.0	0.0	0.0
	Unknown	12.8	0.0	0.0	0.0	10.0	0.0	10.9	0.0	18.2	0.0	10.9
Turnover	% Still Working 1 Quarter After Hire	85.7	100.0	100.0	0.0	80.0	100.0	83.6	100.0	100.0	40.0	73.9

* Average hourly wage for industry from BLS Occupational Employment Statistics program.

"N/D" = not discloseable due to confidentiality

LAH, R&P DWS, 10/20/2014, WY LMI New Hires Survey Results

(Text continued from page 42)

New Hires Survey results, half of the employers in wholesale trade offered health insurance and paid leave to their employees. Maintenance & repair workers, general, in this industry earned \$16.41 per hour on average, and were paid \$14.50 at placement. In the accommodation & food services industry, employers were more likely to offer health insurance, paid leave, and retirement benefits. However, with these benefits often come lower hourly wages. Maintenance & repair workers, general, in the accommodation and food services industry earned an average of \$15.52 per hour and only \$11.00 per hour in the first quarter of hire.

Wyoming may train employees to work in occupations that earn well over \$14.00 per hour. However, it is not guaranteed that, after the second and fourth quarter of hire, the quarterly wages from wage records will reflect the high OES wages that motivated the training program in the first place. As stated in the first paragraph of this article, an in-demand occupation is one that “has or is projected to have a number of positions (including positions that lead to economic self-sufficiency and opportunities for advancement) in an industry sector so as to have a significant impact on the State” (WIOA, 2014). To determine if an occupation will “lead to economic self-sufficiency,” a high OES hourly wage alone may be not be enough. Wages at placement may be lower, but taking into account indirect compensation, job stability, and opportunity to gain experience may offset low outcome wages. More than just the average hourly wage needs to be considered when selecting occupations for which to fund training and measuring the workforce outcomes of the training programs.

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Wyoming New Business Formation in 2012 and 2013

by: Sherry Wen, Principal Economist

From 2012 to 2013, new business formation in Wyoming continued an upward trend from 2010 and 2011. However, the combined four years of growth after the economic downturn years of 2008 and 2009 was much slower than the previous growth from the downturn years of 2002 and 2003 in terms of the growth pace and the formation level. The construction industry finally showed a notable recovery in 2013 after four consecutive years of decline – the largest in history. New business formation in mining dropped to the historical low again in 2012 and 2013.

New business formation and the rate of business formation are important indices of economic growth. They represent new sources of jobs, wages, and tax revenues for the state and local communities. The Research & Planning (R&P) section of the Department of Workforce Services (DWS) has been conducting new business formation research since 1995 (Yu, 1995).

Wyoming's new business formation reached its lowest point since 1996 in 2009 (1,832 new firms). However, as shown

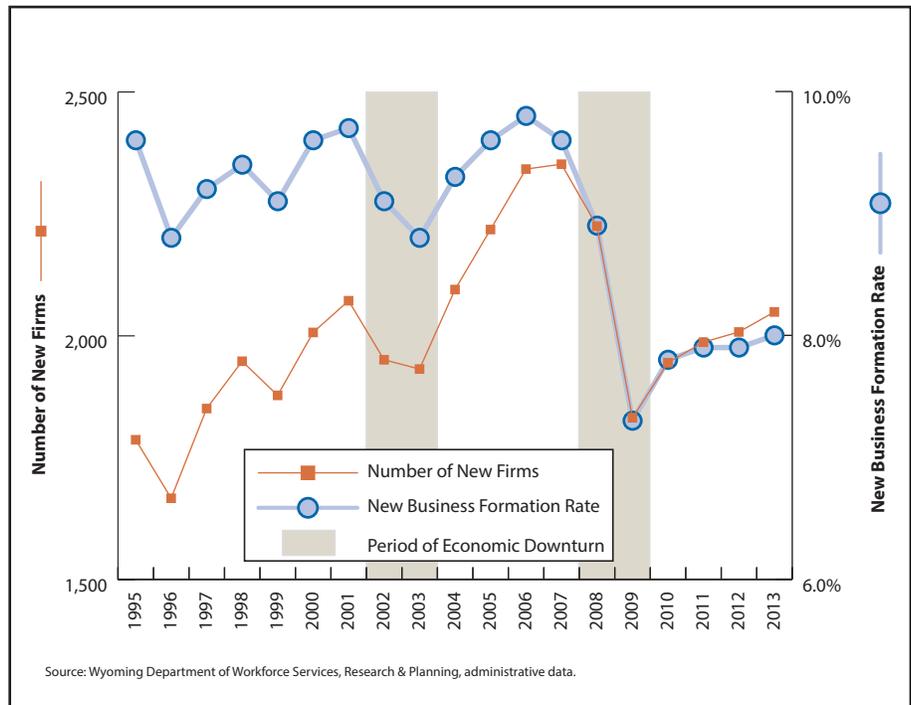


Figure 1: Wyoming History of New Business and Formation Rate, 1997-2013

in Figure 1, the number of new firms in Wyoming increased each year from 2010 to 2013, with a total of 2,008 new firms in 2012 and 2,049 new firms in 2013. Figure 1 also shows two periods of economic downturn in Wyoming: 2002 to 2003 and 2008 to 2009. During the four years after the first downturn (2004 to 2007), the average growth rate was 5.1%. However, during the four years after the second downturn (2010 to 2013), the growth rate was only 2.9%. The growth rate is calculated by dividing the number of new businesses by the number of existing businesses.

This slower pace of growth in new business formation was not isolated. The existing firms' expansion that could be represented by the state annual average employment (jobs in QCEW; Bullard and Brennan, 2014) also showed slower and insignificant growth during this period. The 2007-08 national financial crisis may have largely limited the ability to get loans to start or expand a business (Klein, 2014). The long lasting uncertainty of the national economy may have also affected business owners' confidence on expansion.

New firms contributed

8,283 jobs in 2012 and 7,786 jobs in 2013, which counted for 3.0% and 2.8% of state average employment, respectively. They also contributed \$184.0 million in wages in 2012 and \$170.4 million in 2013, equal to 1.5% and 1.4% state total wages, respectively. The total number of new firms in 2013 increased slightly (2.0%) from the previous year, but the associated initial jobs decreased 6.0%, and total wages decreased 7.4%. These opposite movements could be due to the proportion of small sized firms and low paying firms. The average firm size in 2013 was 3.8 jobs, down from 4.1 jobs in 2012. The highest average firm size was 4.8 jobs per firm in 1999.

During the past two years (2012 and 2013), the southeast region of Wyoming (see Figure 2) was the fastest growing region in the state in terms of number of new firms and surpassed the southwest region, which had been the fastest growing region for more than a decade (see Figure 3, page 47). The southeast gained more than a quarter (26.4%, or 541 new firms) of Wyoming's total new firms in 2013 (see Table 1, page 48). The southwest was second with 495 firms (24.2%), followed by the central region, which gained 350 firms (17.1%). The northeast region expanded by 333 firms (16.3%), behind the central region for the third time in the past eight years. The northwest region added the fewest number of new firms in

A *new business* is defined as a business that did not exist before but now actively provides goods or services, and hires employees and pays them wages. New branches of existing firms or the reopening of firms after temporarily closing are not considered new firms. By law, if a person or a cooperative plans to start a new business in Wyoming and hire workers, he or she must register with the Department of Workforce Services' Unemployment Insurance (UI) division and indicate what kind of business activity the firm plans to conduct, the county or counties in which the firm will locate, and other related information. The UI division will then set up a new UI account for them. A new branch of an existing firm will not have a new UI account. It will be under the same UI account as its parent company. The successor of an existing firm will not count as a new business in this research, either. The word firms in this article refers to UI accounts.

the state (259, or 12.6%). The southeast was the only region in the state showing consecutive growth over the past four years from the trough year 2009, and it was the only region that surpassed its pre-downturn peak level (527 firms in 2007) in 2013. In contrast, both the southwest

and northeast regions were flat or continued declining in their new business formation level, and reached record lows in 2012, then experienced limited growth in 2013. The lower price of coal and natural gas, less demand for both, and the tighter pollution regulations (McCarty, Elmquist,

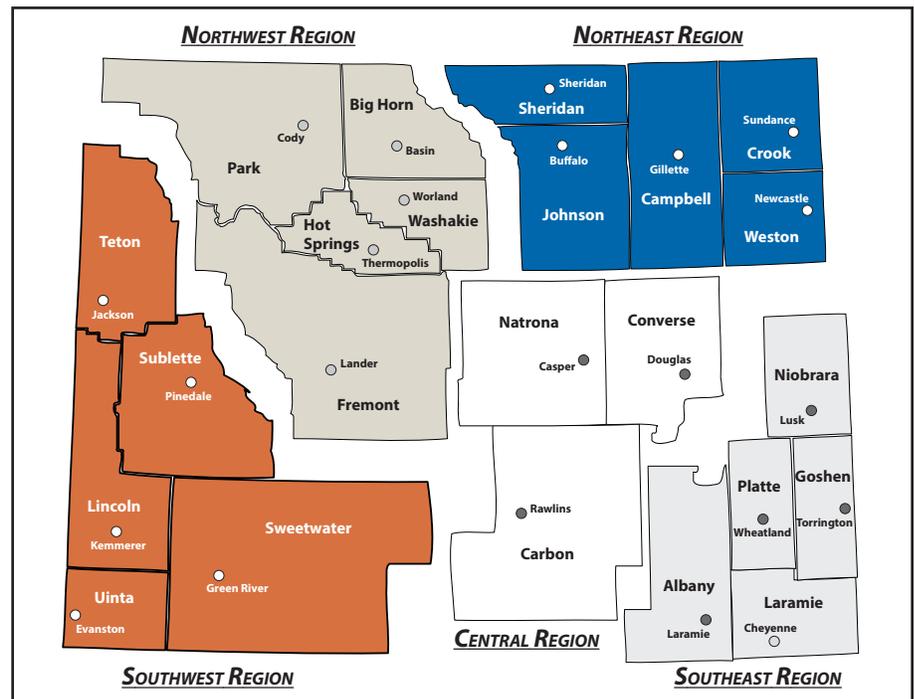


Figure 2: Map of Wyoming Regions and Counties

and Milford, 2014) and permit reviews (Lynds and Toner, 2014) might be among the main reasons for slower development in these two regions. As of 2013, the new business formation level in the southwest region was only at 71.7% of its peak year's level (690 new firms in 2006).

Laramie County added the largest share of all new firms (359, or 17.5%) in 2013, followed by Natrona (252, or 12.3%) and Teton (251, or 12.2%) counties. Laramie County also provided the largest share of jobs (1,100, or 14.1%) and wages (\$22.1 million, or 13.0%) among new businesses. With a similar number of new businesses, Natrona County gained more jobs (928, or 11.9%) than Teton County (560, jobs or 7.2%), but less wages (\$17.4 million, or 10.2%, compared to \$20.3 million, or 11.9%). This could mean that Natrona had a larger proportion of larger new firms but more lower-paying jobs

compared to Teton County in 2013. This kind of formation structure could be very different from year to year, even for the same county. For example, Laramie County had almost the same number of new firms in 2012 (358) as in 2013 (359), but this similar number of new firms in 2012 contributed 720 more jobs (65.5% more) and more than double the wages (\$27.6 million more, or 124.8%) than those in 2013.

Construction has led all industries in new business formation in Wyoming for years (see Figure 4, page 49). In 2013, construction again contributed the largest share of new business (384, or 18.7% of the state's total; see Table 2, page 50). Among all industries in Wyoming, construction experienced the longest and largest decline during and after the state's economic downturn. After four years of consecutive decline from its peak year of

2007, which had 614 new firms, new firm formation in the construction industry reached its trough in 2011 (310 new firms) at nearly half of its peak level. There was no significant recovery in 2012, with only six more new firms (1.9%) from 2011. In 2013 construction had a notable upturning trend, increasing 21.5% from the previous year. However, the number of new hires was still lower than pre-downturn years' levels (1999 to 2007). This long and steep contraction and slow recovery have never been seen before. The most recent housing and finance crises combined recession might have made recovery and expansion extremely difficult for this industry.

The professional & technical services industry was the second largest contributor of the number of new firms. A total of 316 (15.4% of state total) new businesses opened in 2013, which surpassed the previous peak year's level (301 firms in 2008). Administrative & waste services ranked third, with 176 new firms (8.6%) in 2013. Other services experienced continued growth and ranked third for three years (2010 to 2012) before a decrease in new firms in 2013 (169 new firms, or 8.2% of the state's total).

The larger number of new firms in an industry does not necessarily make it a bigger job or wage contributor among industries. It depends more on the industry's characteristics,

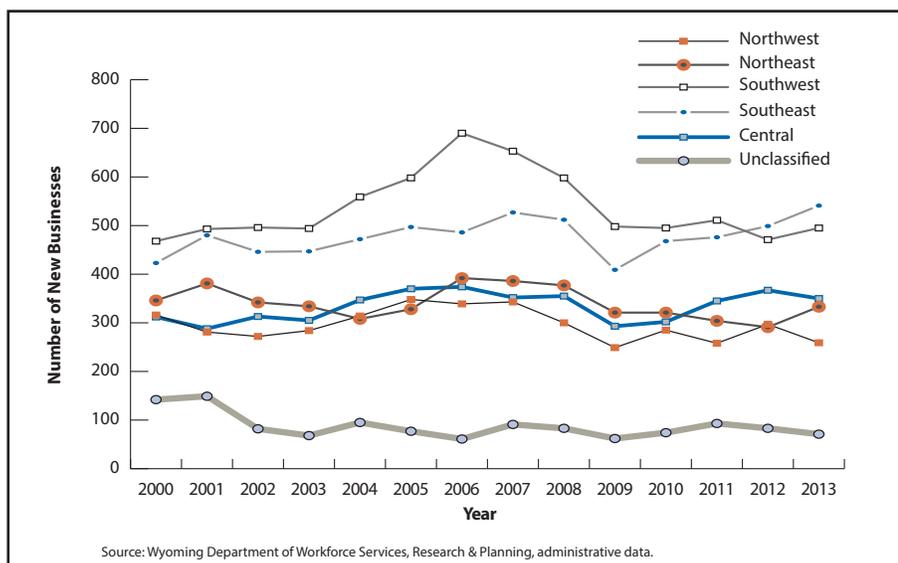


Figure 3: Wyoming New Business Formation by Region, 2000-2013

labor, high tech, and knowledge concentration levels. For example, professional & technical services gained 316 new firms in 2013 but only led to 579 associated jobs, while retail trade had less than one-third of that number in new firms (89) but gained more than double the amount of new jobs (1,326).

In 2013, new firms in accommodation & food services contributed the largest number of jobs (1,402, or 18.0% of the state's total), followed by retail trade (1,326 jobs, or 17.0%) and construction

(1,308 jobs, or 16.8%). Professional & technical services was the largest wage contributor among new firms, with \$29.5 million (17.3% of the state's total). Construction was the second, paying \$24.7 million (14.5%) in wages, followed by retail trade with \$22.2 million (13.0%).

After two years of slow growth in 2010 and 2011, new business formation in mining decreased to the trough year's (2009) level of 66 new firms with 66 in 2012 and 67 in 2013. This was the lowest number of new businesses in mining since 1999. Lower

Table 1: Wyoming New Firms, Associated Initial Jobs^a, and Wages by Region and County, 2012 and 2013

Regions and Counties	2012						2013					
	New Firms		Initial Jobs		Total Wages		New Firms		Initial Jobs		Total Wages	
	N	%	N	%	\$	%	N	%	N	%	\$	%
Northwest	297	14.8%	837	10.1%	\$14,441,482	7.9%	259	12.6%	682	8.8%	\$13,615,266	8.0%
Big Horn	33	1.6%	71	0.9%	\$1,185,587	0.6%	26	1.3%	30	0.4%	\$476,659	0.3%
Fremont	119	5.9%	302	3.6%	\$6,811,854	3.7%	107	5.2%	277	3.6%	\$7,646,716	4.5%
Hot Springs	20	1.0%	56	0.7%	\$586,378	0.3%	9	0.4%	19	0.2%	\$292,937	0.2%
Park	101	5.0%	310	3.7%	\$3,882,683	2.1%	82	4.0%	219	2.8%	\$3,411,433	2.0%
Washakie	24	1.2%	98	1.2%	\$1,974,980	1.1%	35	1.7%	137	1.8%	\$1,787,521	1.0%
Northeast	291	14.5%	1,007	12.2%	\$22,137,064	12.0%	333	16.3%	1,444	18.5%	\$21,103,886	12.4%
Campbell	117	5.8%	500	6.0%	\$15,486,509	8.4%	130	6.3%	658	8.5%	\$8,471,939	5.0%
Crook	9	0.4%	36	0.4%	\$239,396	0.1%	29	1.4%	103	1.3%	\$2,103,304	1.2%
Johnson	33	1.6%	105	1.3%	\$1,724,679	0.9%	38	1.9%	103	1.3%	\$2,101,316	1.2%
Sheridan	111	5.5%	314	3.8%	\$3,753,251	2.0%	115	5.6%	506	6.5%	\$6,794,626	4.0%
Weston	21	1.0%	52	0.6%	\$933,229	0.5%	21	1.0%	74	1.0%	\$1,632,701	1.0%
Southwest	471	23.5%	1,258	15.2%	\$29,217,889	15.9%	495	24.2%	1,380	17.7%	\$40,056,144	23.5%
Lincoln	69	3.4%	169	2.0%	\$2,043,909	1.1%	68	3.3%	135	1.7%	\$4,545,840	2.7%
Sublette	38	1.9%	188	2.3%	\$2,824,805	1.5%	34	1.7%	103	1.3%	\$2,604,103	1.5%
Sweetwater	117	5.8%	278	3.4%	\$8,103,590	4.4%	109	5.3%	500	6.4%	\$11,196,921	6.6%
Teton	195	9.7%	480	5.8%	\$13,347,128	7.3%	251	12.2%	560	7.2%	\$20,341,696	11.9%
Uinta	52	2.6%	143	1.7%	\$2,898,457	1.6%	33	1.6%	82	1.1%	\$1,367,584	0.8%
Southeast	499	24.9%	2,348	28.3%	\$58,118,596	31.6%	541	26.4%	1,671	21.5%	\$33,236,009	19.5%
Albany	81	4.0%	275	3.3%	\$3,430,628	1.9%	107	5.2%	306	3.9%	\$5,008,915	2.9%
Goshen	34	1.7%	147	1.8%	\$3,544,289	1.9%	33	1.6%	127	1.6%	\$1,610,298	0.9%
Laramie	358	17.8%	1,820	22.0%	\$49,760,698	27.1%	359	17.5%	1,100	14.1%	\$22,135,460	13.0%
Niobrara	8	0.4%	21	0.3%	\$179,596	0.1%	8	0.4%	18	0.2%	\$283,610	0.2%
Platte	18	0.9%	85	1.0%	\$1,203,385	0.7%	34	1.7%	120	1.5%	\$4,197,726	2.5%
Central	367	18.3%	1,402	16.9%	\$30,868,570	16.8%	350	17.1%	1,288	16.5%	\$29,947,824	17.6%
Carbon	39	1.9%	299	3.6%	\$8,670,956	4.7%	46	2.2%	210	2.7%	\$9,068,442	5.3%
Converse	63	3.1%	215	2.6%	\$4,208,648	2.3%	52	2.5%	150	1.9%	\$3,431,973	2.0%
Natrona	265	13.2%	888	10.7%	\$17,988,966	9.8%	252	12.3%	928	11.9%	\$17,447,409	10.2%
Others ^b	83	4.1%	1,431	17.3%	\$29,171,611	15.9%	71	3.5%	1,321	17.0%	\$32,394,710	19.0%
Statewide	2,008	100.0%	8,283	100.0%	\$183,955,212	100.0%	2,049	100.0%	7,786	100.0%	\$170,353,839	100.0%

^aInitial Jobs represent the starting level employment, which is the highest average quarterly employment during the first two quarters a firm is in business.

^bOthers include all firms missing county information, having more than one county location (multi-county firms), having foreign locations, and out-of-state firms.

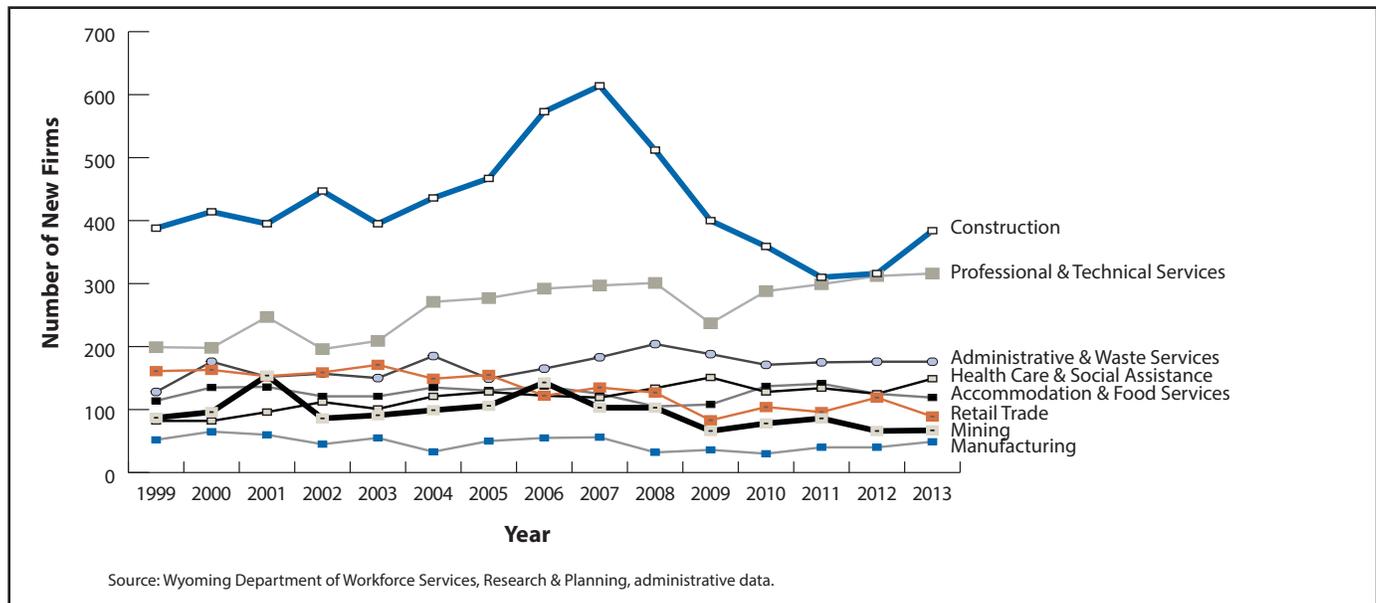


Figure 4: Number of New Wyoming Firms by Selected Industries, 1999-2013

energy prices and more environmental protection regulations might be among the main reasons.

In order to show a more detailed distribution of new firms by region and industry, data from 2012 and 2013 are combined in Table 3 (see page 51). About half of the 4,057 new firms established in these two years were located in two regions of the state: the southeast (25.6%) and southwest (23.8%). However, the industry distribution among different locations around the state was quite different. More than one-fourth (27.1%) of new mining firms were located in central region, and only 9.0% of new mining firms opened in the southeast. More than half (56.5%) of the new firms in management of companies & enterprises were located in the southwest, and only 4.3% were in the northeast. As the fastest growing region in Wyoming, the southeast gained the largest share of new firms from a variety of industries. For example, more than one-third (42.9%) of new firms in educational services, 35.3% in information, and 32.2% in professional & technical services were in this region. Natural resources, transportation conditions, geographic location, population, and special projects such as pipeline, wind mill, and highway construction are some of the main factors that caused the large

uneven industry distributions.

Formation rate by industry represents what proportion of an industry was new in a given year. Table 4 (see page 52) shows that some industries' formation rates fluctuated widely from year to year, such as mining (19.2% in 2001 and 5.8% in 2009) and educational services (23.3% in 2002 and 9.5% in 2012). The majority of the industries had relatively stable formation rates over the last 14 years (2000 to 2013). In 2013, five industries had formation rates of more than 10%: educational services (12.6%), administrative & waste services (12.0%), professional & technical services (11.7%), construction (10.9%), and transportation & warehousing (10.4%).

The majority (81.1%) of the new firms started in 2012 and 2013 were small sized, with five or fewer employees (see Table 5, page 53). Some of them (6.0% of state total) only hired temporary employees for the first two quarters in operation. These firms' average quarterly employment was zero for both beginning quarters, but their wage data show that they paid someone during these two quarters. A little more than one-tenth (10.3%) of the new firms started at the middle size with six to 20 employees and only 2.6% started with a large size (21 or more employees). The similar

Table 2: New Firms, Initial Jobs, and Annual Wages by Industry for 2012 and 2013

Industry	2012						2013					
	New Firms		Initial Jobs		Total Wages		New Firms		Initial Jobs		Total Wages	
	N	%	N	%	\$	%	N	%	N	%	\$	%
Agriculture	27	1.3%	86	1.0%	1,477,426	0.8%	41	2.0%	111	1.4%	3,094,925	1.8%
Mining	66	3.3%	436	5.3%	18,417,929	10.0%	67	3.3%	336	4.3%	13,014,503	7.6%
Utilities	2	0.1%	3	0.0%	7,765	0.0%	2	0.1%	5	0.1%	193,131	0.1%
Construction	316	15.7%	1,285	15.5%	26,928,524	14.6%	384	18.7%	1,308	16.8%	24,707,427	14.5%
Manufacturing	40	2.0%	180	2.2%	4,169,039	2.3%	49	2.4%	197	2.5%	3,769,588	2.2%
Wholesale Trade	96	4.8%	178	2.1%	5,467,930	3.0%	90	4.4%	174	2.2%	4,589,039	2.7%
Retail Trade	119	5.9%	408	4.9%	3,963,427	2.2%	89	4.3%	1,326	17.0%	22,155,660	13.0%
Transp. & Warehousing	123	6.1%	611	7.4%	9,531,323	5.2%	112	5.5%	388	5.0%	16,054,270	9.4%
Information	21	1.0%	20	0.2%	1,164,813	0.6%	30	1.5%	123	1.6%	1,717,245	1.0%
Finance & Insurance	97	4.8%	111	1.3%	4,324,109	2.4%	93	4.5%	92	1.2%	5,332,062	3.1%
Real Estate & Rental & Leasing	63	3.1%	158	1.9%	3,338,111	1.8%	84	4.1%	179	2.3%	4,693,390	2.8%
Prof. & Technical Services	312	15.5%	582	7.0%	20,962,951	11.4%	316	15.4%	579	7.4%	29,445,620	17.3%
Mgmt.of Companies & Enterprises	14	0.7%	22	0.3%	2,864,179	1.6%	9	0.4%	20	0.3%	703,581	0.4%
Administrative & Waste Services	176	8.8%	340	4.1%	5,505,795	3.0%	176	8.6%	399	5.1%	7,071,947	4.2%
Educational Services	21	1.0%	36	0.4%	663,477	0.4%	28	1.4%	83	1.1%	1,185,976	0.7%
Health Care & Social Assistance	125	6.2%	735	8.9%	35,447,669	19.3%	149	7.3%	424	5.4%	10,749,164	6.3%
Arts, Ent., & Recreation	34	1.7%	115	1.4%	594,118	0.3%	34	1.7%	140	1.8%	2,344,458	1.4%
Accomm. & Food Services	125	6.2%	1,597	19.3%	10,917,617	5.9%	119	5.8%	1,402	18.0%	10,603,904	6.2%
Other Services	221	11.0%	541	6.5%	6,051,281	3.3%	169	8.2%	380	4.9%	5,768,434	3.4%
Government	10	0.5%	839	10.1%	22,157,729	12.0%	8	0.4%	120	1.5%	3,159,515	1.9%
Total	2,008	100.0%	8,283	100.0%	183,955,212	100.0%	2,049	100.0%	7,786	100.0%	170,353,839	100.0%

distribution pattern on firm sizes has been consistent since 1993 (Yu, 1997), when this kind of research was first available. Among private industries, accommodation & food services was the only one that had more than one-tenth (17.6%) of its new firms started at the large size. In mining, 6.8% of new firms started with 21 or more employees. On the other hand, all or nearly all of the new firms in utilities (100%) and finance & insurance (99%) opened with five or fewer employees. Some of these (25.0% or more of the total) only used temporary employees.

Information about the prospects of a business

surviving in a given industry and location could help individuals who are planning to open a business. This information may also help the Wyoming Business Council and other public and private funding sources for new ventures develop practical strategies to ensure greater return on investment when establishing a new firm.

Due to limited information on business transitions such as selling, merging, and dividing, R&P only considers firm survival relative to the original owners in this research. Some firms may still operate but have changed ownership. Those firms would not be included in these

Table 3: Distribution of Wyoming New Firms by Industry and Region, 2012 and 2013 Combined

Industry	Region							Total, All New Wyoming Firms Column	
	NW	NE	SW	SE	Central	Non.	Total	N	%
Agriculture	26.5%	14.7%	8.8%	29.4%	20.6%	0.0%	100.0%	68	1.7%
Mining	12.8%	24.1%	24.1%	9.0%	27.1%	3.0%	100.0%	133	3.3%
Utilities	ND	ND	ND	ND	ND	ND	100.0%	4	0.1%
Construction	13.7%	16.6%	21.0%	26.6%	18.0%	4.1%	100.0%	700	17.3%
Manufacturing	15.7%	22.5%	15.7%	23.6%	22.5%	0.0%	100.0%	89	2.2%
Wholesale Trade	14.5%	15.6%	16.7%	26.9%	19.9%	6.5%	100.0%	186	4.6%
Retail Trade	14.9%	13.9%	30.3%	22.6%	15.9%	2.4%	100.0%	208	5.1%
Trans. & Warehousing	13.2%	15.7%	19.6%	20.4%	28.1%	3.0%	100.0%	235	5.8%
Information	11.8%	9.8%	29.4%	35.3%	7.8%	5.9%	100.0%	51	1.3%
Finance & Insurance	8.9%	8.9%	32.1%	21.6%	15.8%	12.6%	100.0%	190	4.7%
Real Estate & Rental & Leasing	11.6%	21.8%	26.5%	19.7%	19.0%	1.4%	100.0%	147	3.6%
Professional & Technical Services	11.0%	11.0%	27.7%	32.2%	14.0%	4.1%	100.0%	628	15.5%
Mgmt.of Companies & Enterprises	8.7%	4.3%	56.5%	17.4%	8.7%	4.3%	100.0%	23	0.6%
Admin. & Waste Services	13.6%	9.9%	19.9%	32.1%	16.8%	7.7%	100.0%	352	8.7%
Educational Services	8.2%	4.1%	30.6%	42.9%	14.3%	0.0%	100.0%	49	1.2%
Health Care & Social Assistance	17.9%	15.7%	17.9%	29.2%	18.2%	1.1%	100.0%	274	6.8%
Arts, Entertainment, & Recreation	19.1%	10.3%	39.7%	16.2%	14.7%	0.0%	100.0%	68	1.7%
Accomm. & Food Services	18.0%	21.7%	23.0%	20.5%	16.0%	0.8%	100.0%	244	6.0%
Other Svcs. (Exc. Public Admin.)	13.1%	21.5%	26.7%	20.8%	16.4%	1.5%	100.0%	390	9.6%
Government	11.1%	16.7%	16.7%	27.8%	16.7%	11.1%	100.0%	18	0.4%
Total	13.7%	15.4%	23.8%	25.6%	17.7%	3.8%	100.0%	4,057	100.0%

ND = not discloseable due to confidentiality.

Regions: NW = northwest; NE = northeast; SW = southwest; SE = southeast; Non. = nonclassified. For more information, see see Figure 2, page 46.

survival counts. A quick verification study was done in 1999 (Yu, 1999) and the result indicated that the methodology used in this survival study could closely represent all new firms' survival situations.

There are many factors that could impact a firm's survivability, such as the supply and demand situation for a specific product or service the firm provides, competition from similar businesses, government policies, supply of required labor, and location.

One year after its opening, if a firm is still reporting its employment and wage information to the DWS UI Tax Division, it is considered as having survived one year. The one-year survival

rate is the result of one year survivals divided by the total number of firms that reached their one year anniversary date. The same method is used to determine survival rates for two, three, or more years. In order to obtain a general pattern of survival rates in Wyoming and avoid variation in individual years, R&P used all records since fourth quarter 1992 (1992Q4) that met the specific requirement for each survival rate.

Statewide, more than two-thirds (69.0%) of all new firms survived one year after opening and more than one-third (34.3%) were still active after five years (see Table 6, page 54). The survival rates get smaller as the years in business increase. Industries face different challenges in their operations and their survival rates could vary considerably. For

Table 4: Wyoming New Business Formation Rates by Industry, 2000-2013

Industry	Year													
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Agriculture	8.8%	10.7%	8.0%	8.0%	7.7%	7.6%	8.6%	7.0%	7.2%	8.4%	6.7%	8.9%	5.7%	8.6%
Mining	13.4%	19.2%	10.2%	10.4%	10.9%	11.0%	13.6%	9.3%	9.0%	5.8%	6.9%	7.6%	6.0%	6.1%
Utilities	4.3%	2.2%	3.2%	8.2%	1.0%	3.1%	3.0%	4.0%	3.8%	1.7%	3.3%	2.5%	1.7%	1.7%
Construction	13.6%	12.7%	14.0%	12.2%	13.2%	13.5%	15.7%	16.0%	12.8%	10.2%	9.5%	8.6%	8.9%	10.9%
Manufacturing	9.8%	9.2%	7.0%	8.5%	5.1%	7.7%	8.6%	8.5%	5.0%	5.7%	5.0%	6.6%	6.6%	8.0%
Wholesale Trade	10.6%	11.5%	7.7%	8.6%	9.2%	10.4%	9.0%	8.6%	7.1%	5.5%	6.7%	7.0%	7.4%	7.0%
Retail Trade	6.0%	5.7%	6.0%	6.4%	5.6%	5.8%	4.5%	5.1%	4.8%	3.2%	4.1%	3.8%	4.8%	3.6%
Transp. & Warehousing	13.7%	11.4%	13.9%	10.8%	12.0%	14.5%	14.1%	12.1%	13.6%	8.4%	8.2%	11.8%	11.6%	10.4%
Information	9.8%	9.5%	7.2%	5.4%	7.6%	6.9%	7.8%	5.8%	6.7%	6.3%	5.8%	7.5%	5.7%	7.9%
Finance & Insurance	8.6%	6.3%	7.2%	7.3%	6.2%	8.1%	7.3%	8.0%	7.0%	6.5%	8.3%	7.0%	8.3%	8.0%
Real Est. & Rental & Leasing	9.7%	8.4%	9.1%	8.8%	10.0%	11.3%	8.6%	9.1%	8.6%	5.5%	7.8%	6.1%	6.0%	7.9%
Prof. & Technical Services	11.6%	13.6%	10.8%	11.4%	14.1%	13.6%	13.4%	12.9%	12.6%	9.7%	11.5%	11.6%	11.7%	11.7%
Mgmt. of Companies & Enterprises	14.3%	9.9%	12.5%	17.9%	16.7%	11.9%	11.6%	6.0%	7.1%	8.0%	5.3%	4.6%	10.1%	6.5%
Administrative & Waste Services	17.7%	14.4%	14.4%	13.4%	15.9%	12.5%	13.4%	14.4%	15.3%	13.8%	12.3%	12.3%	12.0%	12.0%
Educational Services	15.3%	13.2%	23.3%	20.0%	14.6%	14.4%	15.1%	17.6%	9.8%	15.1%	17.1%	13.9%	9.5%	12.6%
Health Care & Social Assistance	6.2%	7.3%	8.3%	7.2%	8.1%	8.2%	7.7%	7.3%	7.9%	8.6%	7.0%	7.2%	6.5%	7.0%
Arts, Ent., & Recreation	8.0%	9.2%	7.5%	6.9%	10.6%	9.1%	4.5%	6.4%	7.5%	6.0%	5.1%	7.6%	8.3%	8.3%
Acc. & Food Svcs.	7.9%	8.0%	7.0%	7.0%	7.7%	7.2%	7.6%	7.0%	5.8%	5.9%	7.4%	7.5%	6.5%	6.2%
Other Svcs. (Exc. Public Admin.)	10.3%	11.2%	8.9%	10.1%	9.4%	9.7%	10.6%	11.0%	10.9%	8.2%	11.1%	11.8%	11.7%	9.8%
Total	10.3%	10.4%	9.7%	9.4%	10.0%	10.2%	10.4%	10.2%	9.5%	7.8%	8.3%	8.4%	8.4%	8.5%

example, among all private industries, 62.6% of new firms in health care & social assistance were still in business three years after opening, and only 36.1% in construction were still in operation. Construction showed the lowest survival rates across all different years. This may directly relate to the large portion of temporary projects such as roads, oil and gas pipelines, buildings, etc. Firms in agriculture had the second highest three-year survival rate (60.1%), followed by firms in utilities with 57.8% and real estate & rental & leasing with 57.0%. For the long

term (10 years), firms in agriculture and utilities did the best, with more than one-third still active after 10 years in business.

As mentioned previously, a firm's location could be a very important factor to survivability. For example, 100% of firms in utilities survived one year in business in the northwest region, but only 58.3% survived one year in the central region. On the other hand, firms in agriculture, construction, real estate & rental & leasing, and

Table 5: Distribution of New Wyoming Firms by Industry and Initial Firm Size^a in 2012 and 2013 Combined

Industry	Initial Firm ^a Size in Number of Employees									
	Temp Hiring ^b		1-5		6-20		≥21		Total	
	N	%	N	%	N	%	N	%	N	%
Agriculture	2	2.9%	58	85.3%	8	11.8%	0	0.0%	68	100.0%
Mining	4	3.0%	98	73.7%	22	16.5%	9	6.8%	133	100.0%
Utilities	1	25.0%	3	75.0%	0	0.0%	0	0.0%	4	100.0%
Construction	44	6.3%	543	77.6%	99	14.1%	14	2.0%	700	100.0%
Manufacturing	4	4.5%	71	79.8%	10	11.2%	4	4.5%	89	100.0%
Wholesale Trade	6	3.2%	167	89.8%	12	6.5%	1	0.5%	186	100.0%
Retail Trade	2	1.0%	171	82.2%	31	14.9%	4	1.9%	208	100.0%
Transp. & Warehousing	12	5.1%	197	83.8%	20	8.5%	6	2.6%	235	100.0%
Information	7	13.7%	41	80.4%	1	2.0%	2	3.9%	51	100.0%
Finance & Insurance	56	29.5%	132	69.5%	2	1.1%	0	0.0%	190	100.0%
Real Estate & Rental & Leasing	14	9.5%	120	81.6%	12	8.2%	1	0.7%	147	100.0%
Prof. & Technical Svcs.	27	4.3%	572	91.1%	25	4.0%	4	0.6%	628	100.0%
Mgmt.of Companies & Enterprises	1	4.3%	21	91.3%	1	4.3%	0	0.0%	23	100.0%
Admin. & Waste Svcs.	38	10.8%	295	83.8%	16	4.5%	3	0.9%	352	100.0%
Educational Services	4	8.2%	42	85.7%	2	4.1%	1	2.0%	49	100.0%
Health Care & Social Assist.	2	0.7%	235	85.8%	33	12.0%	4	1.5%	274	100.0%
Arts, Entertainment, & Recreation	2	2.9%	50	73.5%	15	22.1%	1	1.5%	68	100.0%
Acc. & Food Svcs.	5	2.0%	114	46.7%	82	33.6%	43	17.6%	244	100.0%
Other Svcs. (Exc. Public Admin.)	14	3.6%	352	90.3%	22	5.6%	2	0.5%	390	100.0%
Government	0	0.0%	7	38.9%	5	27.8%	6	33.3%	18	100.0%
Total	245	6.0%	3,289	81.1%	418	10.3%	105	2.6%	4,057	100.0%

^aInitial firm size is the highest average quarterly employment during the first two quarters of opening.

^bThe firm size temp hiring refers to firms that reported payroll but no employees (hired only temporary employees).

professional & technical services, showed the highest one-year survival rates in the central region compared with all other regions. Some industries had very similar one-year survival rates in all five regions of the state, such as health care & social assistance, ranging from 82.0% to 83.2%.

New firms' survival rates also vary largely by firm size (see Figure 5, page 55). In general, larger sized firms had higher survival rates than the middle and small sized firms. Firms started with only temporary employees showed the lowest survival rates. For example, 82.9% of larger sized firms still in business after one year opening and nearly half (48.2%) survived after three years, compared with the initial temp hiring firms in which a little more than one-third (34.0%) survived after one year and 17.4% after three years. Larger

firms may have prepared better than other sized firms from the beginning and may have had a greater ability to compete.

New business formation in Wyoming has shown a continued upward growth for four years (2010 to 2013) from the trough year of 2009. However, the growth rate was much slower than the one after the previous downturn of 2002 to 2003. Construction, which has always been the leading industry in terms of new business formation in Wyoming, finally showed a notable upturn in 2013 after four years in a large decline. New business formation in mining dropped to the lowest level again in 2012 and 2013 after two years (2010 and 2011) of slow growth. Lower energy prices, lack of demand, and more environmental protection regulations are believed to be among the main reasons.

Table 6: Wyoming Business Survival Rate by Industry

Industry	Number of Years					
	1	2	3	4	5	10
Agriculture	78.5%	68.8%	60.1%	54.7%	50.9%	34.2%
Mining	73.6%	60.7%	50.2%	44.3%	39.0%	22.2%
Utilities	73.5%	60.0%	57.8%	50.8%	52.6%	33.3%
Construction	57.7%	44.0%	36.1%	29.9%	26.0%	14.1%
Manufacturing	72.5%	59.6%	50.1%	44.6%	39.8%	21.9%
Wholesale Trade	73.6%	57.1%	47.2%	39.7%	33.9%	18.9%
Retail Trade	74.5%	59.9%	49.2%	42.0%	35.4%	19.0%
Transportation & Warehousing	67.9%	53.9%	44.2%	36.8%	32.5%	17.6%
Information	66.7%	51.3%	44.0%	37.6%	32.7%	15.3%
Finance & Insurance	68.2%	56.4%	46.5%	42.0%	37.3%	24.4%
Real Estate & Rental & Leasing	76.8%	65.5%	57.0%	50.2%	45.4%	30.5%
Professional & Technical Services	71.5%	57.6%	48.3%	42.4%	37.0%	22.0%
Mgmt. of Companies & Enterprises	76.6%	60.7%	55.8%	44.9%	37.0%	30.0%
Administrative & Waste Services	63.9%	50.6%	41.3%	33.9%	29.0%	15.9%
Educational Services	72.7%	61.0%	52.2%	44.0%	38.6%	19.9%
Health Care & Social Assistance	82.8%	70.8%	62.6%	54.5%	49.0%	32.3%
Arts, Entertainment, & Recreation	70.4%	58.6%	48.6%	42.0%	35.9%	20.6%
Acc. & Food Svcs.	73.1%	57.0%	47.5%	39.9%	35.3%	17.3%
Other Svcs. (Exc. Public Admin.)	67.9%	52.4%	42.4%	34.8%	30.1%	15.5%
Government	93.2%	91.6%	88.7%	86.0%	83.7%	75.7%
Total	69.0%	55.2%	46.0%	39.2%	34.3%	19.6%

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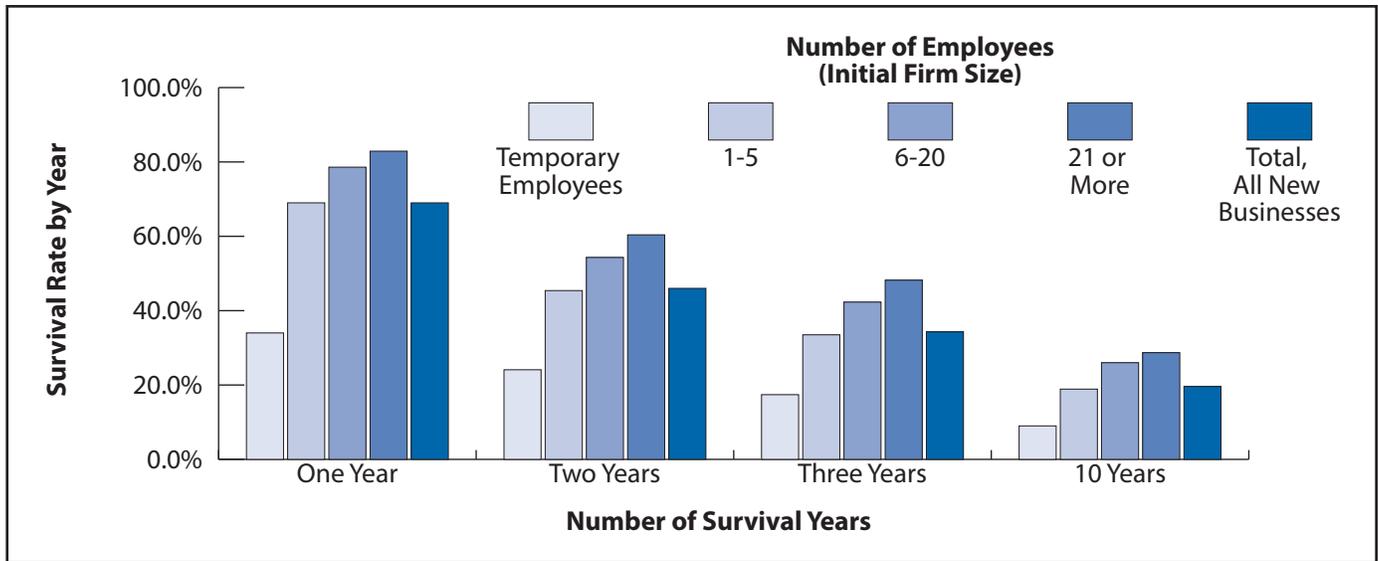
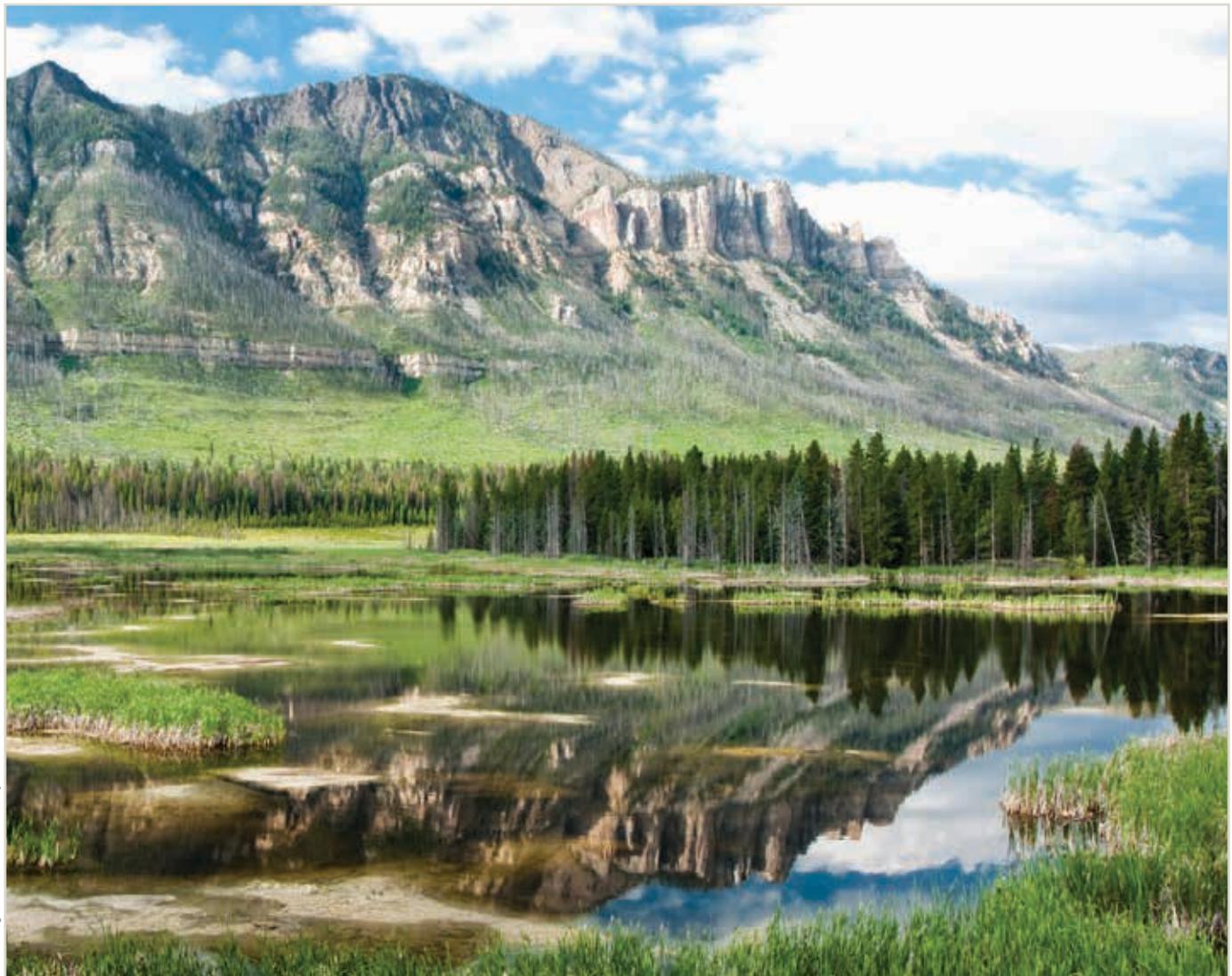


Figure 5: New Wyoming Firms by Firm Size, 1999-2013



iStockphoto/PHOTOSBYJIM

Workers' Compensation Claims Continue Downward Trend

By Patrick Manning, Principal Economist

From third quarter 2013 (2013Q3) to third quarter 2014 (2014Q3), the average injury rate in Wyoming was 11.5 injuries per 1,000 workers, and the rate of workers' compensation claims continued its downward trend since 2004Q3 (see Figure 1). The highest rate of injury was 15.6 per 1,000 workers, which occurred in 2007Q1. In 2012Q4, the injury rate dropped below 11 injuries per 1,000 workers (10.5) for the first time in ten years. Over the last decade, the rate was 13.0 injuries per 1,000 workers.

Table 1 (see page 57) shows the rate of injury by industry from 2004Q3 to 2014Q3. The manufacturing industry experienced the most injuries per 1,000 workers at 20.3 (a slight uptick from 19.9 in the 2014 Annual Report), while the financial activities sector had the lowest injury rate of 4.7 per 1,000 workers.

Figure 2 (see page 57) shows the injury

rate of selected industries by year and quarter. In addition to having the highest injury rate, the manufacturing sector also experienced the most variation over the last decade, while financial activities experienced the least variation. Educational & health services, the largest sector in terms of average employment, demonstrated very little variation in injury rates over the past decade. While natural resources & mining still exhibited a relatively high rate of injury of 14.6 per 1,000 workers, rates in this industry have fallen the most of any industry over the past decade, with the rate dropping by approximately one injury per 1,000 workers per year on average.

Figure 3 (see page 57) displays the top five most frequently occurring injuries from 2004Q3 through 2014Q3. These five injuries accounted for nearly two-thirds of all injuries, with sprains (29.0%) and strains (5.8%) accounting for slightly over one-third of all

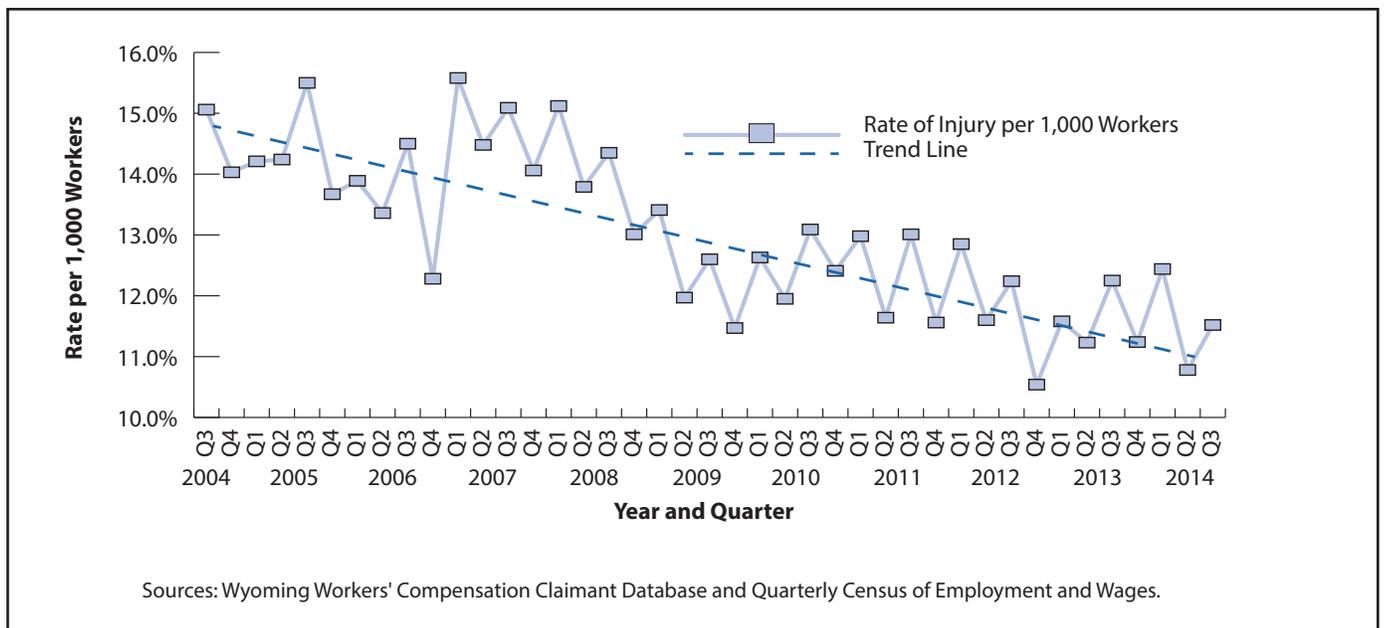


Figure 1: Rate of Injury per 1,000 Workers in Wyoming, 2004Q3 to 2014Q3

injuries. The most common types of injury are not strongly affected by the age of the worker nor by the industry in which the injury occurred. The exceptions are that burns commonly occur

in leisure & hospitality while injuries involving foreign bodies are common in the construction and manufacturing industries.

While not all factors that cause workplace accidents can be completely controlled, safety efforts by businesses and the Wyoming Occupational Safety and Health Administration (OSHA) appear to be reducing workplace injury rates.

Table 1: Average Rate of Workers' Compensation Injuries per 1,000 Workers in Wyoming, 2004Q3 to 2014Q3

NAICS Group	Average Rate of Injury per 1,000 Workers	Average Employment
Manufacturing	20.3	10,187
Construction	17.3	23,431
Natural Res. & Mining	14.6	28,551
Other Services	12.0	8,267
Trade, Transp., & Utilities	11.7	52,373
Leisure & Hospitality	11.6	34,532
Education & Health Svcs.	11.2	58,074
Public Administration	6.6	24,775
Information	6.3	4,623
Prof. & Business Svcs.	6.0	17,672
Financial Activities	4.7	11,009
Total	13.0	273,494

Sources:
Wyoming Workers' Compensation Claimant Database.
Quarterly Census of Employment and Wages.

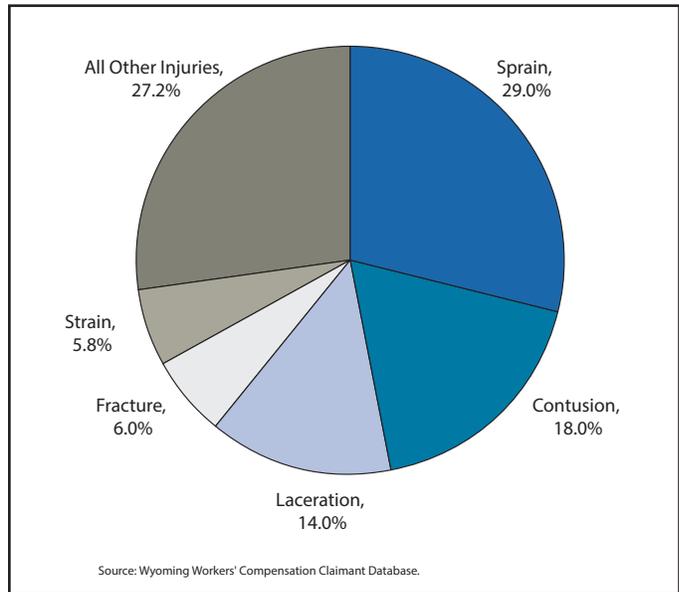


Figure 3: Five Most Frequently Occurring Injuries in Wyoming, 2004Q3 to 2014Q3

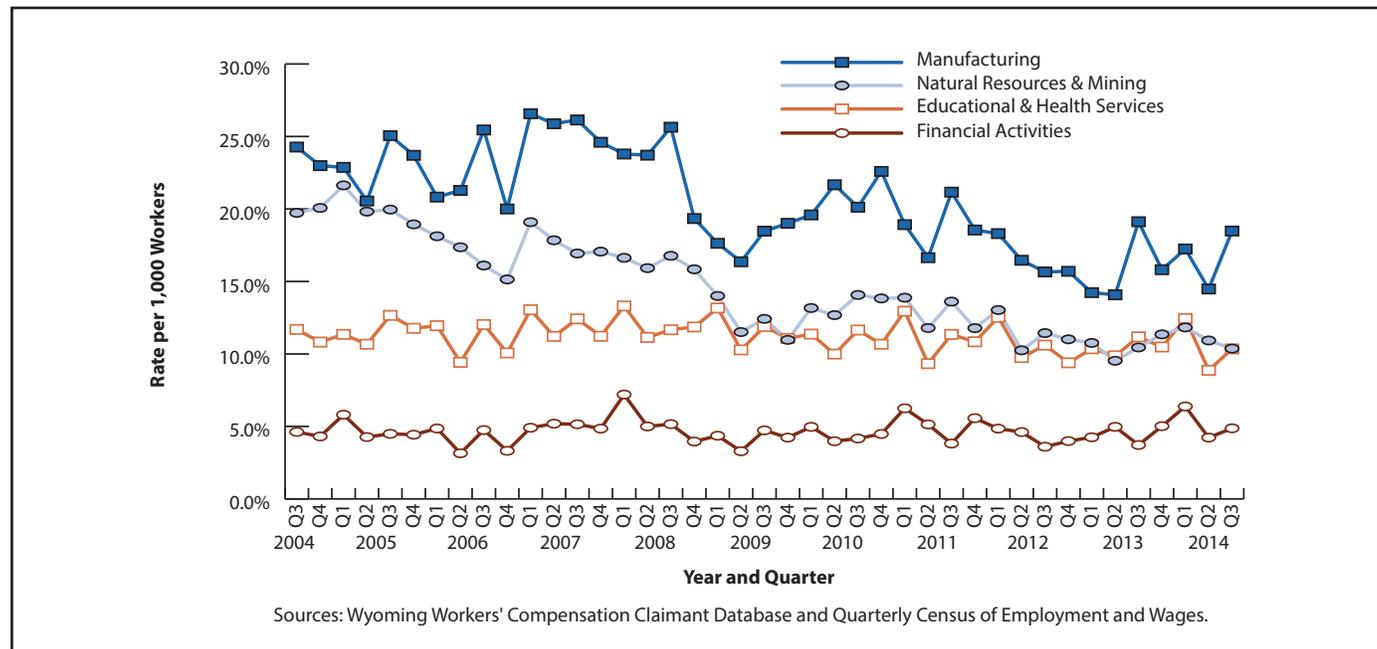


Figure 2: Injury Rate per 1,000 Workers for Selected Industries in Wyoming, 2004Q3 to 2014Q3

Wyoming Occupational Fatalities Decrease to 26 in 2013

by: David Bullard, Senior Economist

The number of occupational fatalities fell from 35 in 2012 to 26 in 2013, a decrease of nine deaths (-25.7%; see Figure 1). On average, from 1992-2013 there were 34 occupational fatalities each year.

Variations in fatalities from year to year are to some extent the result of the random nature of work-related accidents. Furthermore, there is not always a direct relationship between workplace fatalities and workplace safety. For example, suicides and homicides that occur in the workplace are included as occupational fatalities. In other cases, a sudden illness may be nearly coincidental with an accident that results in a workplace fatality. Occupational fatalities

are counted in the state where the injury occurred, not necessarily the state of residence or the state of death.

of deaths occurred in natural resources & mining (nine, or 34.6% of all deaths; see Table). Within that category, five deaths were in agriculture (19.2%) and four deaths (15.4%) were in

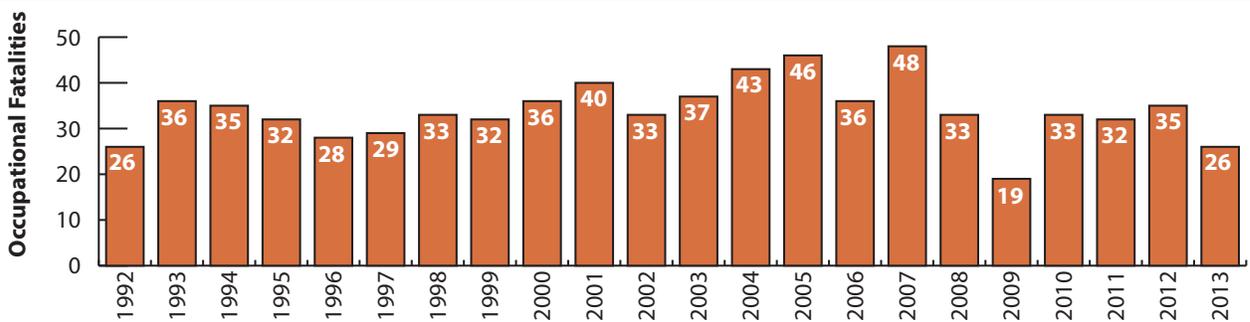
In 2013, the largest number

Table: Wyoming Occupational Fatalities by Selected Industry, 2013

Industry	Number	Col. %
Natural Resources & Mining	9	34.6%
Agriculture, Forestry, Fishing, & Hunting	5	19.2%
Mining, Quarrying, & Oil & Gas Extraction	4	15.4%
Manufacturing	4	15.4%
Trade, Transportation, & Utilities	7	26.9%
Retail Trade	3	11.5%
Transportation & Warehousing	4	15.4%
All Other Industries	6	23.1%
Total	26	100.0%

Note: Data for 2013 are preliminary.

Source: U.S. Department of Labor, Bureau of Labor Statistics, in cooperation with State and Federal agencies, Census of Fatal Occupational Injuries.



Source: U.S. Department of Labor, Bureau of Labor Statistics, Census of Fatal Occupational Injuries, in cooperation with State and Federal Agencies.
 Note: Data for 2013 are preliminary. Data for all other years are revised and final.

Figure 1: Wyoming Occupational Fatalities, 1992-2013

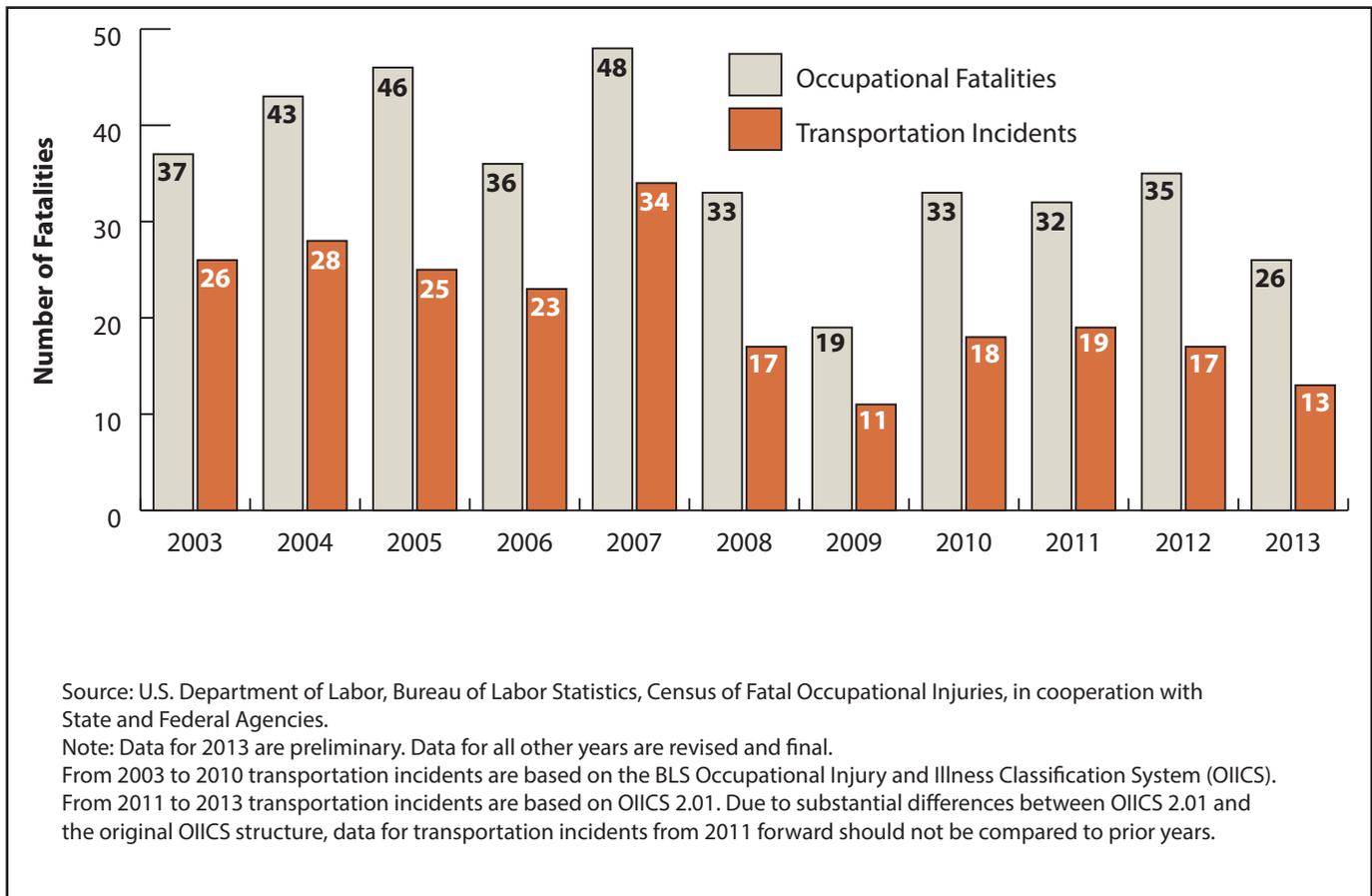


Figure 2: Wyoming Occupational Fatalities and Transportation Incidents, 2003-2013

mining (including oil & gas). Four deaths occurred in manufacturing (15.4%), four in transportation & warehousing (15.4%), and three in retail trade (11.5%). Half (50.0%) of workplace fatalities were the result of transportation incidents (see Figure 2).

From 2003-2013, transportation incidents made up 59.5% of all workplace deaths. Transportation incidents include highway crashes as well as incidents involving aircraft and other vehicles.

Data Sources

These fatality counts are compiled by the Census of Fatal Occupational Injuries (CFOI) program (a joint effort of Research & Planning and the U.S. Bureau of Labor Statistics, or BLS) and may not match those from other programs, such as the Occupational Safety and Health Administration (OSHA) because of differences in scope and methodology. In addition to regular wage and salary employees, CFOI counts include volunteer workers and self-employed individuals. The CFOI program utilizes a wide variety of data sources, such as OSHA reports, workers' compensation data, vital records, coroner's reports, media reports, and police reports of vehicle crashes. Additionally, similar data sources from other states are routinely used to identify workplace fatalities. For example, a worker fatally injured in a highway incident in Wyoming may be covered by workers' compensation in another state. That information is made available to R&P as part of data sharing agreements between the states and federal government (BLS).

For official definitions used in the CFOI program, please visit <http://stats.bls.gov/iif/oshcfdef.htm>.

Just the Facts

State Capital	Cheyenne
Governor	Governor Matt Mead, 32nd Governor, Assumed Office Jan. 3, 2011 – Cheyenne
Most Liveable State – National Ranking ¹	4th in 2012 – 5th in 2011 – 6th in 2010
Nicknames	Equality State – Big Wyoming – Cowboy State
State Dinosaur & State Fossil	Triceratops & Knightia
State Flower & State Tree	Indian Paintbrush & Plains Cottonwood
State Bird & State Fish	Western Meadowlark & Cutthroat Trout
State Butterfly & Reptile	Sheridan's Green Hairstreak & Horned Toad
State Mammal & State Gemstone	Bison & Jade
1st National Park	Yellowstone - Established March 1, 1872
1st National Monument	Devil's Tower - Established September 24, 1906
Admitted to Statehood - Date & Rank	July 10, 1890 – 44th State

Excerpted from *Wyoming 2015 – Just the Facts*, published May 12, 2015, by the Wyoming Department of Administration & Information, Economic Analysis Division. Prepared by Amy Bittner, Senior Economist. See page 64 for footnotes.

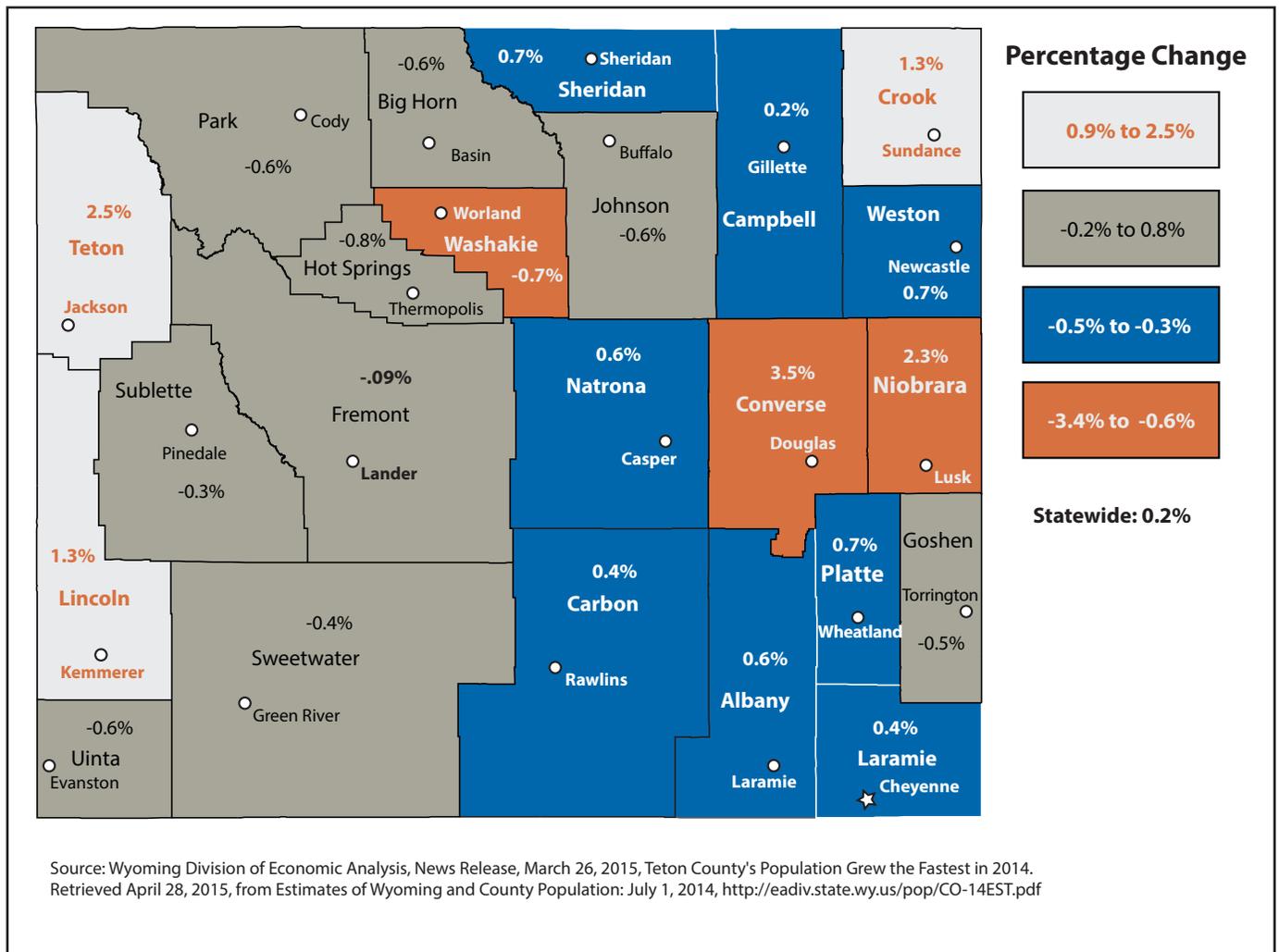


Figure 1: Estimated Change in Population in Wyoming by County, July 2013 to July 2014.

Just the Facts

Table 1: Number of Live Births, Low Birth Weight Births, Births to Teens, and Deaths in Wyoming by Month, 2013 and 2014

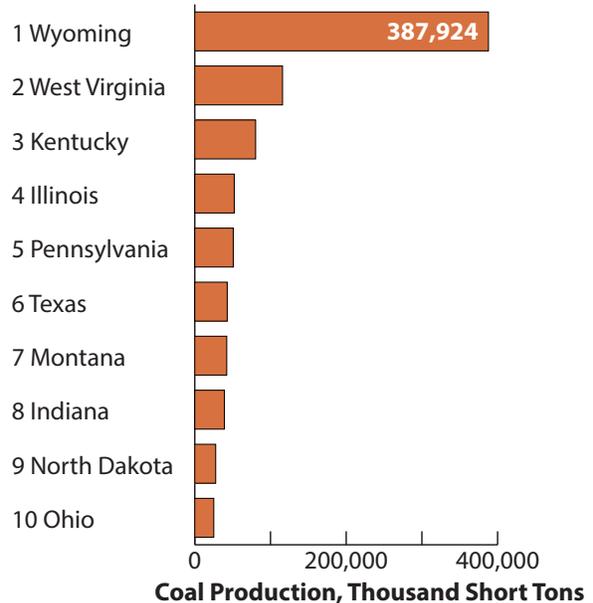
	Live Births		Low Birth Weight		Births to Teens		Deaths	
	2013	2014	2013	2014	2013	2014	2013	2014
January	599	624	51	67	44	53	425	423
February	531	581	37	48	27	52	344	358
March	600	609	55	51	39	49	417	355
April	636	649	66	44	54	43	376	329
May	711	636	68	53	52	37	370	372
June	614	629	55	48	41	35	330	421
July	708	734	60	64	55	48	380	383
August	669	701	48	76	50	50	347	372
September	625	616	38	54	40	42	319	395
October	677	674	72	73	55	60	359	377
November	622	551	49	40	47	34	373	382
December	625	391	55	32	36	21	420	251
Total	7,617	7,395	654	650	540	524	4,460	4,418

Data on births, deaths, marriages and divorces are documented and compiled by Vital Statistics Services. For technical questions or more information please contact Vital Statistical Services at (307) 777-7591 or you can visit their website for information at http://health.wyo.gov/rfhd/vital_records/reports.html. Retrieved May 11, 2015.

Table 2: Wyoming Rank in United States in Energy Consumption, Expenditures, Production, Prices, and Environment

	Wyoming Rank
Consumption	
Total Energy per Capita	1
Expenditures	
Total Energy per Capita	3
Production	
Total Energy	2
Crude Oil	9
Natural Gas	5
Coal	1
Electricity	31
Prices	
Natural Gas	43
Electricity	38
Environment	
Carbon Dioxide Emissions	31

Source: Energy Information Administration. Retrieved from <http://www.eia.gov/state/?sid=WY>. Updated March 27, 2014.



Source: U.S Energy Information Administration. Retrieved April 28, 2015, from <http://www.eia.gov/state/rankings/#/series/48>

Figure 2: Ranking of Top 10 Coal-Producing States in the U.S., 2013

Just the Facts

	Most Recent Period		
	Year	Value	Rank
Demography			
Total Population ²	2014	584,153	50
Total Male Population ²	2013	297,278	50
Total Female Population ²	2013	285,380	50
% of Population - Under 18 Years Old ²	2013	23.6%	18
% of Population - 65 Years & Older ²	2013	13.5%	41
Median Age ²	2013	36.8	37
<i>Note: Population data are July 1 estimates unless otherwise noted. The 2013 total state population estimate was revised in 2014, therefore the 2013 gender estimates will not sum to 2013 state total.</i>			
Weather & Geography			
Total Area (sq. miles) ²	2010	97,813	10
Water Area (sq. miles) ²	2010	720	37
Mean Elevation (ft) ³	2014	6,700	2
% of Land in Rural Areas ²	2010	99.8%	2
% of Land Owned by the Federal Government ⁴	2010	48.2%	6
% of Land Owned by State Government ⁵	2014	6.2%	-
Recreation & Tourism			
Land Ownership in Wyoming (sq. miles):			
National Park Service ⁶	2013	3,744	5
U.S. Forest Service ⁷	2014	14,398	10
Bureau of Land Management ⁸	2013	27,150	4
Visitors to State Parks & Recreational Areas ⁹	2010	3,066,115	41
WY Lodging Sales (millions of dollars) ¹⁰	FY14	\$527.3	-
<i>Note: FY - Fiscal Year (July 1 - June 30)</i>			
Crime & Law Enforcement			
Crimes ¹¹	2012	14,383	50
Crimes per 100,000 Persons ¹¹	2012	2,495	43
Violent Crimes per 100,000 Persons ¹¹	2012	201.4	46
Education			
% of Population, 25 yrs. & older, completed high-school ¹²	2013	93.5%	1
% of Population, 25 yrs. & older, with a Bachelor's Degree ¹²	2013	26.6%	34
ACT Average Composite Score (range 1-36) ¹³	2013	19.8	43
Estimated Average Salary of Teachers (\$) ¹⁴	2013	\$57,920	15
Average Teacher's Salary as % of Average Annual Wages ¹⁵	2012	129.1%	9
Health & Social Welfare			
% of Persons not Covered by Health Insurance ¹²	2013	13.4%	26
% of Private Sector Establishments that Offer Health Insurance ¹⁶	2012	41.2%	46
% of Population Enrolled in Medicare ¹⁷	2012	14.9%	42
Housing			
Residential Building Permits ²	2014	1,901	47
Existing Home Sales, Single family homes ¹⁹	2013	5,513	-
Median Housing Value of Owner-Occupied Housing Units (\$) ¹²	2013	\$195,500	18
Homeownership Rate ²	2014	70.8%	12

Excerpted from *Wyoming 2015 – Just the Facts*, published May 12, 2015, by the Wyoming Department of Administration & Information, Economic Analysis Division. Prepared by Amy Bittner, Senior Economist. See footnotes, page 64.

Just the Facts

	Most Recent Period		
	Year	Value	Rank
Wyoming's Economy			
Median Household Income ¹²	2013	\$58,752	13
Personal Bankruptcies per 100,000 Persons ³⁹	2013	200	35
Retail and Food Services Taxable Sales (billions \$) ¹⁰	FY14	\$6.34	-
Rate of New Firms as % of Existing Firms ²¹	2011	23.6%	27
Wyoming Annual Inflation Rate ²²	4Q14	1.1%	-
Exports - Origin of Movement Series (billions \$) ²³	2014	\$1.76	47
Employment & Labor			
Average Annual Pay (\$) ²⁴	2013	\$44,972	23
State Minimum Wage Rate (\$ per hour) ²⁵	2015	\$5.15	44
Civilian Labor Force ²⁶	2014	306,928	50
Employed ²⁶	2014	293,689	50
Unemployed ²⁶	2014	13,239	49
Unemployment Rate ^{24, 26}	2014	4.3%	7*
Total Non-farm Employment (jobs) ^{24, 26}	2014	292,500	50
% of Job in Mining ^{24, 26}	2014	9.3%	1
<i>*Ranking of unemployment rate is lowest rate to highest</i>			
Tax Environment			
Individual Income Tax Rate ^{18, 27}	2015	0.0%	44
Corporate Income Tax Rate ^{18, 27}	2015	0.0%	47
State Sales Tax Rate ^{18, 27}	2015	4.0%	38
Gasoline Tax Rate (\$/gallon) ^{18,27}	2015	\$0.24	30
Cigarette Tax Rate (\$/pack) ^{18, 27}	2015	\$0.60	39
State & Local Excise Collections Per Capita ^{2, 27}	FY12	\$283	50
Estimated Burden of Major Taxes for a 3-Person Family with Income of \$50,000 - Cheyenne ^{28, **}	2013	\$1,845	50
<i>**Compares the largest city in each state. Major taxes include state income, property, sales, and auto.</i>			
Mining, Energy & the Environment			
Coal Production (millions of short tons) ²⁹	2014	392.75	1
Natural Gas Production (billions of cubic feet) ^{30, 31}	2014	1,980	5
Crude Oil Production (millions of barrels) ^{30, 31}	2014	76.1	8
Trona Production (millions of short tons) ²⁹	2014	17.1	1
% of Electricity Generated Through Renewable Resources ³¹	2010	8.9%	19
Avg. Monthly Electric Bill for Residential Customers ³¹	2012	\$85.00	45
Toxic Releases: Total Pollution Released (millions of pounds) ³²	2012	17.2	39
Transportation			
Number of Farms and Ranches ³³	2014	11,700	39
Average Farm Size (acres) ³³	2014	2,598	1
U.S. Agriculture Exports (millions \$) ³⁴	2013	\$415.2	40
Government			
Per Capita State & Local Gov't Total Expenditures ³⁵	2011	\$15,313	3
Per Capita Homeland Security Grants ³⁶	2013	\$5.94	3
Population per State Legislator ³⁷	2013	6,747	47
% of Eligible Population Reported Voting ²	2012	58.9%	38

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Just the Facts

- ¹Congressional Quarterly (CQ) Press, State Rankings
- ²U.S. Census Bureau
- ³U.S. Department of the Interior, U.S. Geological Survey
- ⁴Congressional Research Office
- ⁵University of Wyoming, Department of Geography & Recreation
- ⁶National Park Service (NPS)
- ⁷U.S. Forest Service (USFS)
- ⁸Bureau of Land Management (BLM)
- ⁹National Association of State Park Directors
- ¹⁰Wyoming Economic Analysis Division using data from WY Dept. of Revenue
- ¹¹CQ Press using data from Federal Bureau of Investigation (FBI)
- ¹²U.S. Census Bureau, American Community Survey (ACS), 1-year estimates
- ¹³The American College Testing Program
- ¹⁴National Education Association (NEA), Washington D.C.
- ¹⁵CQ Press using data from National Education Association, Washington D.C.
- ¹⁶U.S. Department of HHS, Agency for Healthcare Research & Quality
- ¹⁷U.S. Department of HHS, Centers for Medicare & Medicaid Services
- ¹⁸U.S. Department of HHS, National Center for Health Statistics
- ¹⁹Wyoming Department of Revenue
- ²⁰CQ Press using data from Administrative Office of the U.S. Courts
- ²¹CQ Press using data from U.S. Small Business Administration
- ²²Wyoming Economic Analysis Division
- ²³U.S. Census Bureau, Foreign Trade Division
- ²⁴U.S. Department of Labor, Bureau of Labor Statistics (BLS)
- ²⁵U.S. Dept. of Labor, Employment Standards Administration
- ²⁶Wyoming Department of Workforce Services, Research and Planning
- ²⁷Tax Foundation
- ²⁸Government of the District of Columbia, Tax Rates and Tax Burdens publication
- ²⁹Wyoming State Inspector of Mines
- ³⁰Wyoming Oil and Gas Conservation Commission
- ³¹U.S. Department of Energy, Energy Information Administration
- ³²U.S. Environmental Protection Agency, Office of Pollution, Prevention, & Toxics Info.Mgmt.
- ³³USDA, National Agricultural Statistics Service (NASS)
- ³⁴USDA, Economic Research Service
- ³⁵CQ Press using data from U.S. Census Bureau, Governments Division
- ³⁶CQ Press using data from U.S. Department of Homeland Security
- ³⁷CQ Press using data from National Conference of State Legislators



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