

# Employment Demographic Profile 2014 Update

## Occupational Epidemiology



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## Significance

Work-related injuries and illnesses are preventable, and control of occupational hazards is the most effective means of prevention. Research has shown relationships between demographic characteristics of workers and the risk of occupational injury or illness.<sup>1</sup> Additionally, every five years the National Institute for Occupational Safety and Health (NIOSH) and Council of State and Territorial Epidemiologists (CSTE) define a set of high-risk industry and occupation categories which demonstrate more than double the national injury, illness and fatality annual average rates.<sup>1</sup> Industries such as crop and animal production, metal and non-metal mining, oil and gas extraction, and truck transportation are identified as high-risk. Similarly, high-risk occupations include agricultural managers, fire fighters, construction laborers, and mining machine operators, to name a few.

Prior reports have identified Wyoming as having the nation's highest proportions of workers in the NIOSH identified industries and occupations at high-risk for fatal injury.<sup>2,3</sup> Wyoming also has a higher than average proportion of workers in occupations identified at high-risk for non-fatal injury or illness.<sup>3</sup> For these reasons, maintaining understanding the demographic and employment characteristics of Wyoming's working population is important to assess risk factors and circumstances that may contribute to injury, fatality and hazard exposure.

## Methods

The demographic and employment characteristics for civilian workers in Wyoming and the United States were obtained using data from the Bureau of Labor Statistics (BLS) Current Population Survey (CPS)<sup>4</sup>. This is a household survey, which has a more expansive scope than BLS employer surveys because it includes the self-employed, unpaid family workers, small-firm agricultural workers, and private household workers. The household survey also provides estimates of employment for demographic groups. The BLS recognizes CPS data as the "the official measure of the labor force for the nation."<sup>5</sup>

The BLS Geographic Profile of Employment and Unemployment (GP) summarizes annual averages from the CPS to describe employment statistics for the civilian non-institutional population, which consists of persons 16 years of age and older who are not inmates of institutions (e.g., penal and mental facilities, homes for the aged) and who are not on active duty in the armed forces. Within this population, the civilian labor force consists of employed and unemployed persons. Persons who are neither employed nor unemployed are not counted in the labor force data, such as retired persons and students.

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<sup>1</sup> Council of State and Territorial Epidemiologists. *Occupational Health Indicators: A Guide for Tracking Occupational Health Conditions and Their Determinants*. June 2015. Available: <http://www.cste.org/group/OHIndicators>

<sup>2</sup> Sewell, CM. *2012 Epidemiology Report on Occupational Fatalities and Non-Fatal Injuries*. Wyoming Department of Workforce Services. Available: <http://wyomingworkforce.org/data/epidemiology/>

<sup>3</sup> Mountain and Plains Education and Research Center. *Occupational Health Indicators in Wyoming: A Baseline Health Assessment, 2001-2009*. Available: <http://wyomingworkforce.org/data/epidemiology/>

<sup>4</sup> Bureau of Labor Statistics, Current Population Survey. Overview and data available: <http://www.bls.gov/cps/home.htm>

<sup>5</sup> Bureau of Labor Statistics, Current Population Survey. Quote citation: <http://www.bls.gov/lau/lauov.htm>

## Tables & Figures

**Table 1: Civilian labor force population and employment status, Wyoming and the United States, Age 16 and older, Annual averages, 2008-2013**

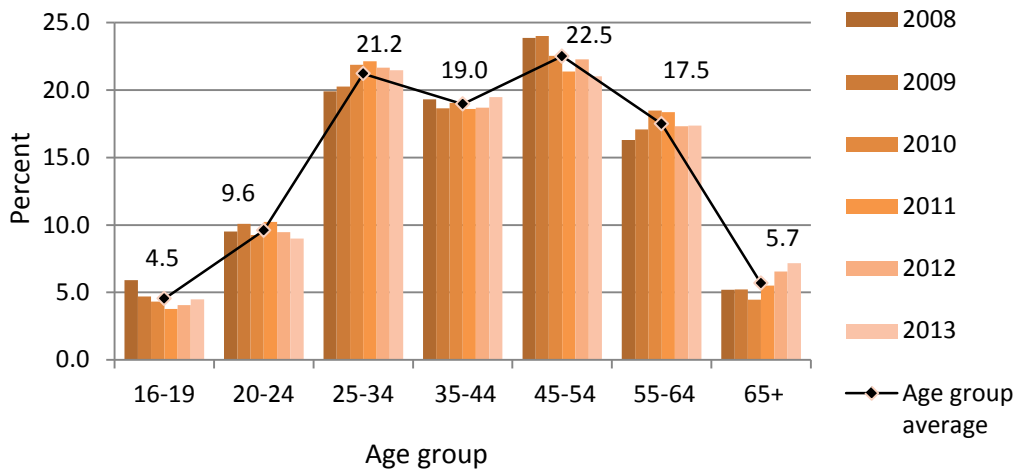
<b>WYOMING</b>					
	<b>Total civilian non-institutional population</b>	<b>Civilian labor force</b>	<b>Total civilian labor force employed</b>	<b>Percent of labor force employed</b>	<b>Percent of labor force unemployed</b>
<b>2008</b>	410,000	293,000	284,000	96.9	2.9
<b>2009</b>	417,000	299,000	279,000	93.3	6.5
<b>2010</b>	422,000	298,000	278,000	93.3	6.6
<b>2011</b>	430,000	308,000	290,000	94.2	5.9
<b>2012</b>	445,000	308,000	291,000	94.5	5.5
<b>2013</b>	450,000	307,000	293,000	95.4	4.6
<b>Average</b>	<b>429,000</b>	<b>302,167</b>	<b>285,833</b>	<b>94.6</b>	<b>5.3</b>
<b>UNITED STATES</b>					
<b>2008</b>	233,788,000	154,287,000	145,362,000	94.2	5.8
<b>2009</b>	235,801,000	154,142,000	139,877,000	90.7	9.3
<b>2010</b>	237,830,000	153,889,000	139,064,000	90.4	9.6
<b>2011</b>	239,618,000	153,617,000	139,869,000	91.1	8.9
<b>2012</b>	243,284,000	154,975,000	142,469,000	91.9	8.1
<b>2013</b>	245,679,000	155,389,000	143,929,000	92.6	7.4
<b>Average</b>	<b>239,333,333</b>	<b>154,383,167</b>	<b>141,761,667</b>	<b>91.8</b>	<b>8.2</b>
<i>Source: Bureau of Labor Statistics Geographic Profile of Employment and Unemployment &amp; Current Population Survey, <a href="http://www.bls.gov/opub/gp/laugp.htm">www.bls.gov/opub/gp/laugp.htm</a> (WY data), <a href="http://www.bls.gov/cps/tables.htm">www.bls.gov/cps/tables.htm</a> (U.S. data)</i>					

**Table 2: Demographics of employed workers, Wyoming and the United States, Age 16 and older, 2008-2013**

	WYOMING	UNITED STATES
<b>Total Employed</b>	<b>285,833</b>	<b>141,761,667</b>
<b>% Male</b>	55.1	53.0
<b>% Female</b>	44.9	47.0
<b>% Caucasian</b>	95.2	81.6
<b>% African American</b>	1.1	10.9
<b>% Other races</b>	3.7	7.4
<b>% Hispanic or Latino</b>	6.9	14.6
<b>% Age 16-19</b>	4.5	3.3
<b>% Age 20-24</b>	9.6	9.3
<b>% Age 25-34</b>	21.2	21.6
<b>% Age 35-44</b>	19.0	22.0
<b>% Age 45-54</b>	22.5	23.5
<b>% Age 55-64</b>	17.5	15.6
<b>% Age 65+</b>	5.7	4.7

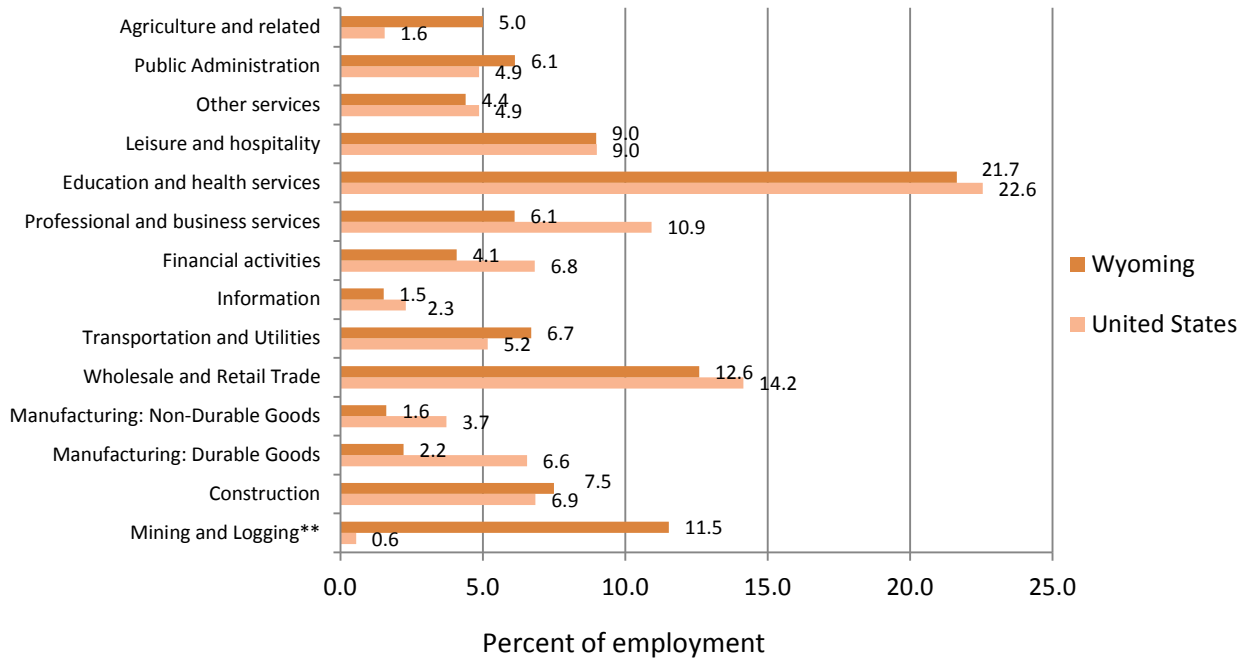
*Source: Bureau of Labor Statistics Geographic Profile of Employment and Unemployment & Current Population Survey, www.bls.gov/opub/gp/laugp.htm (WY data), www.bls.gov/cps/tables.htm (U.S. data)*

**Figure 1: Percent of employed workers by age, Age 16 and older, Wyoming, 2008-2013**



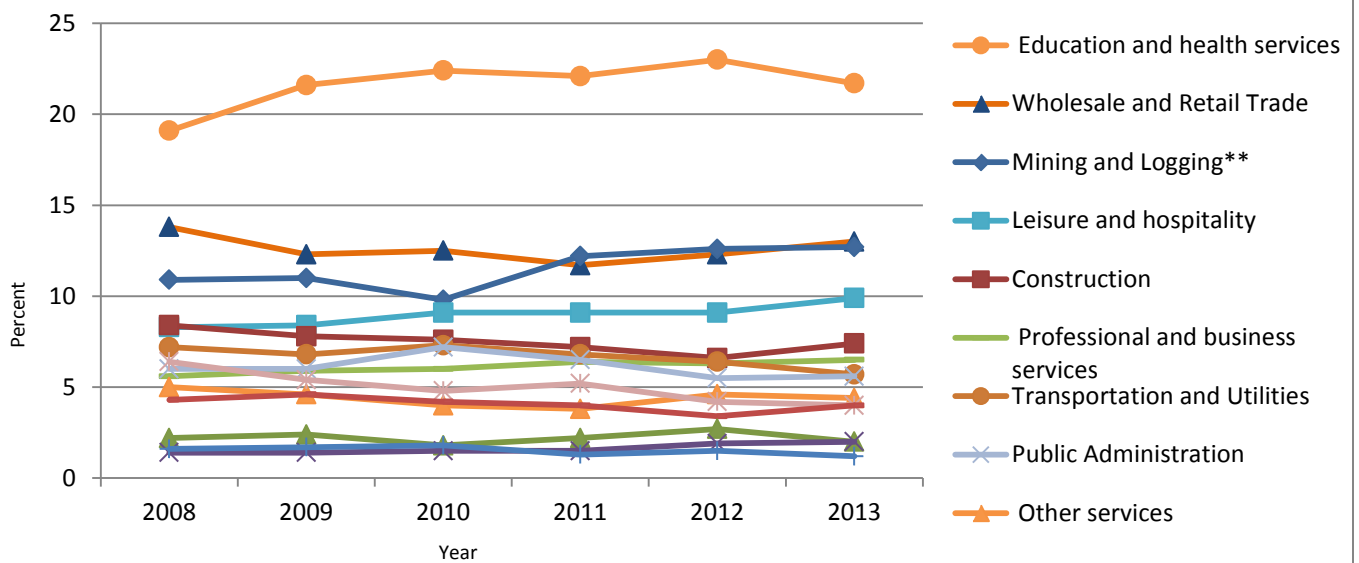
*Source: Bureau of Labor Statistics Current Population Survey, Tabulated using DataFerrett (dataferrett.census.gov)  
 Note: Data point labels represent age group average*

**Figure 2: Average annual percent of employed workers by industry, Wyoming and the United States, 2008-2013\***



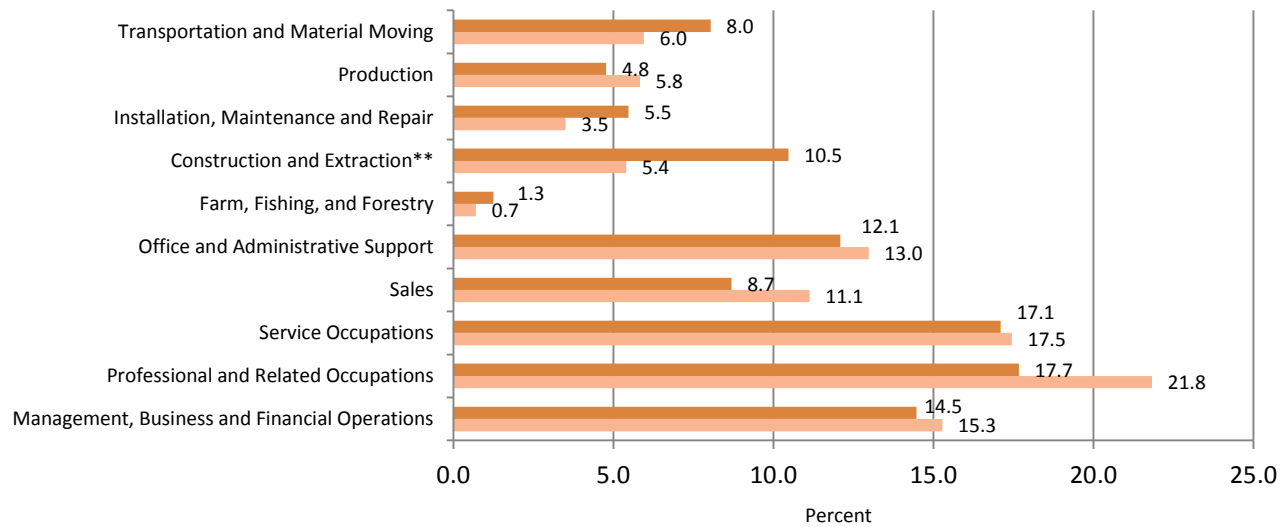
Source: Bureau of Labor Statistics Geographic Profile of Employment and Unemployment & Current Population Survey, [www.bls.gov/opub/gp/laugp.htm](http://www.bls.gov/opub/gp/laugp.htm) (WY data), [www.bls.gov/cps/tables.htm](http://www.bls.gov/cps/tables.htm) (U.S. data)  
 Industry classification using 2012 Census Industry Codes ([www.bls.gov/cps/documentation.htm#oi](http://www.bls.gov/cps/documentation.htm#oi))  
 \*Note: U.S. data only available through 2011

**Figure 3: Annual percent of employed workers by industry, Wyoming, 2008-2013**



Source: Bureau of Labor Statistics Geographic Profile of Employment and Unemployment & Current Population Survey, [www.bls.gov/opub/gp/laugp.htm](http://www.bls.gov/opub/gp/laugp.htm)  
 Industry classification using 2012 Census Industry Codes ([www.bls.gov/cps/documentation.htm#oi](http://www.bls.gov/cps/documentation.htm#oi))

**Figure 4: Average annual percent of employed workers by occupation, Wyoming and the United States, 2008-2013\***



Source: Bureau of Labor Statistics Geographic Profile of Employment and Unemployment & Current Population Survey, [www.bls.gov/opub/gp/laugp.htm](http://www.bls.gov/opub/gp/laugp.htm) (WY data), [www.bls.gov/cps/tables.htm](http://www.bls.gov/cps/tables.htm) (U.S. data)

Occupation classification using 2012 Census Occupation Codes ([www.bls.gov/cps/documentation.htm#oi](http://www.bls.gov/cps/documentation.htm#oi))

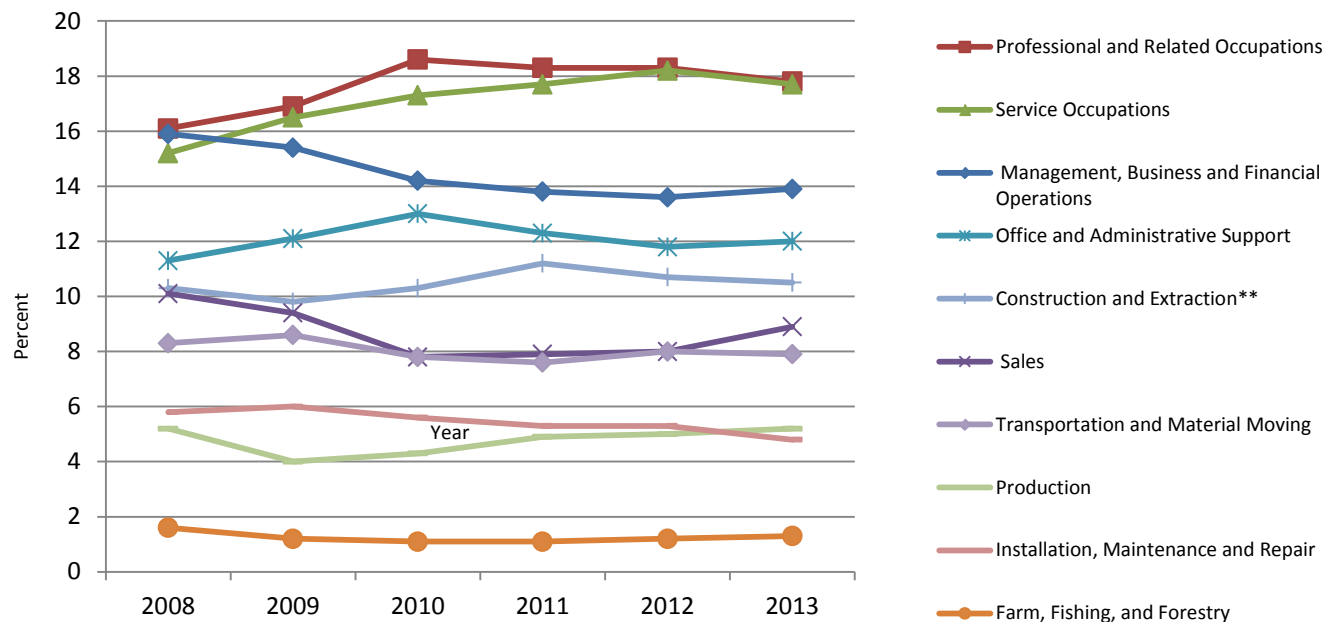
\*U.S. data only available through 2011

\*\*Includes several mining, and oil and gas labor occupations

■ Wyoming

■ United States

**Figure 5: Annual percent of employed workers by occupation, Wyoming, 2008-2013**



Source: Bureau of Labor Statistics Geographic Profile of Employment and Unemployment & Current Population Survey, [www.bls.gov/opub/gp/laugp.htm](http://www.bls.gov/opub/gp/laugp.htm)

Occupation classification using 2012 Census Occupation Codes ([www.bls.gov/cps/documentation.htm#oi](http://www.bls.gov/cps/documentation.htm#oi))

\*\*Includes several mining, and oil and gas labor occupations

## Key Observations

- In 2013, there were approximately 293,000 employed civilian workers in Wyoming. Wyoming's unemployment rate was lower than the national average that year (4.6% and 7.4%, respectively). **(Table 1)**
- Wyoming's average percentage of the workforce in agriculture industries is three times higher than the national average (5.0% compared to 1.6% respectively). **(Figure 2)**
- Wyoming consistently has a high percentage of workers in transportation occupations (8.0%) and exceeds the national average (6.0%). **(Figure 4)**
- Compared to other states and the nation<sup>6</sup>, Wyoming consistently has the highest percentage of workers in the mining and logging industry (11.5%) as well as the highest percentage of workers in construction and extraction occupations (10.5%). **(Figures 2 & 4)**
- Wyoming's workforce is less racially and ethnically diverse compared to national averages. **(Table 2)**
- The percentage of workers age 65 and older in Wyoming has increased the last six years from 5.2% in 2008 to 7.2% in 2013. **(Figure 1)**

## Limitations

These data are helpful to describe the workforce, but are not a direct measure of occupational risks or hazards. These data also represent only estimates of the total population based on monthly probability household samples; they are not direct counts and may underestimate the size of the workforce in occupations and industries that employ out-of-state, migratory workforces. Workers under the age of 16, active-duty military and inmates are also not included in the estimates.

## Conclusions

Wyoming is uniquely characterized by its small population size and high proportion of the workforce in high-risk industries. Compared to all other states, Wyoming consistently has the highest percentage of workers in the mining industry as well as the highest percentage of workers in construction and extraction occupations. Additionally, Wyoming's average percentage of the workforce in agriculture industries is nearly three times higher than the national average.

## Recommendations

Future studies and surveillance efforts should continue to explore occupational injury, illness and fatality trends with a lens on the potential influence of or impact on workforce demographics and characteristics. Factors such as age, geographic location, and education level, as well as industry and occupation can all play a role in determining the risk of exposure and injury occurrence and severity. Identifying whether certain demographic populations are disproportionately represented in injury and illness statistics will better inform efforts for targeted prevention activities and outreach.

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<sup>6</sup> Council of State and Territorial Epidemiologists (CSTE), *Occupational Health Indicators Data, Employment Profile, 2010*. Available at <http://www.cste.org/?OHIndicators>