Construction Labor Shortages in Wyoming and the Nation

Research & Planning
Wyoming DWS

December 2014

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Submitted for Preliminary Review December 2014.

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URL for this publication: http://doe.state.wy.us/w_r_research/constr_2014.pdf

"Your Source for Wyoming Labor Market Information"

Construction Labor Shortages in Wyoming and the Nation

by: Katelynd Faler, Senior Analyst

Recent media coverage of the construction industry suggests a shortage of workers, especially subcontractors, in the Rocky Mountain and High Plains region. The wealth of anecdotal evidence prompted Research & Planning (R&P) to closely examine construction industry growth, wages, and employment. In this report, we determine which construction occupations are facing a shortage in Wyoming and if support for training in these occupations would alleviate the state's shortage.

National and regional media often reported anecdotes of the construction worker shortage during the spring and summer of 2014, with headlines such as, "Labor Shortage Hampering Rebound of Utah's Housing Construction" (Beebe, 2014) and "Montana Sees Shortage in Construction Workers"(ABC Fox Montana, 2014). Articles in the *Denver Business Journal* (Proctor, 2014), *The Wall Street Journal* (Hudson, 2014), and *The Coloradoan* (Ferrier, 2014) all reported a shortage of skilled construction labor. At least four articles focusing on Wyoming were published in July and August 2014, with headlines such as "Wyoming Construction Contractors Struggle to Fill Rolls" (Bryan, 2014) and "Wyoming's Booming Construction Sector Facing Labor Shortage" (Orr, 2014). The labor shortage seems widely agreed upon, but a January 2014 report in *Labor Notes* (Gilpin, 2014) and an August 2014 article in the *New York Times* (Irwin, 2014) suggest that firms are perpetuating the idea of a skills gap out of reluctance to pay workers a competitive wage.

Before investing in subsidies or training, it is important to determine whether or not there is a labor shortage and where the labor shortage exists. If there is a shortage of subcontractors (such as electricians) in Wyoming's construction industry, and Wyoming invests in vocational training, the state could become an exporter of electricians if wages were greater in other parts of the country. However, if wages, benefits, and hours for electricians were more attractive in Wyoming, state-sponsored training could alleviate the shortage.

Methodology

Importance of a National and Regional Scope

Wyoming's dependence on nonresident labor is well documented in research and articles published by the Research & Planning (R&P) section of the Wyoming Department of Workforce Services. Nonresidents are defined as "individuals without a Wyoming-issued driver's license or at least four quarters of work history in Wyoming" (Jones, 2002). Leonard (2010) asserted that Wyoming employers first exhaust access to resident workers before recruiting more costly out-of-state employees, and that the percentage of nonresident labor increases significantly during boom times.

By linking administrative databases, R&P is able to identify demographic characteristics for Wyoming at the

industry and county levels. The Wyoming Wage Records administrative database includes all quarterly wages for approximately 92% of employees working in the state by year, quarter, and industry; R&P also has wage records for 10 partner states through 2011: Alaska, Colorado, Idaho, Montana, Nebraska, New Mexico, Oklahoma, South Dakota, Texas, and Utah (Harris, 2012). The Wyoming Unemployment Insurance (UI) administrative database includes information regarding a claimant's previous employer, gender, age, address, and education level (Harris, 2012). R&P also has access to driver's license files through a memorandum of understanding (MOU) with the Wyoming Department of Transportation.

Table 1 shows that the number of nonresidents employed in Wyoming at any time grew from 27,731 in 2000 to 50,716 in 2013, an increase of 82.9%. During that same time, the number of residents employed in Wyoming grew from 283,738 to 311,702 (9.9%), and the total number of persons working at any time increased from 311,469 to 362,418 (16.4%). The nonresident composition of Wyoming's total employment grew from 8.9% in 2000 to 14.0% in 2013.

Table 2 shows the same characteristics as in Table 1, but specific to the state's construction industry. The number of nonresidents in Wyoming's construction industry nearly doubled from 2000 (5,637) to 2013 (11,263). In 2000, nonresidents made up 16.4% of the construction industry, and by 2013 the share of nonresidents was 28.6%. Unexpectedly, during the contraction of the construction industry in Wyoming from 2009 to 2013, the number of nonresidents employed in the construction industry only declined by 0.3%, from 11,267 in 2009 to 11,237 in 2013, while the number of Wyoming residents employed in the construction industry fell from 34,973 to 28,094, or -19.7%.

Since the start of the continuing period

Table 1: Changes in Wyoming Employment Demographics Across All Industries, 2000, 2009, and 2013

	2000		2009		2013		% Change,
	N	Column %	N	Column %	N	Column %	2000 to 2013
Total	**311,469**	**100%**	**369,448**	**100%**	**362,418**	**100%**	**16.4%**
Nonresidents	27,731	8.9%	42,461	11.5%	50,716	14.0%	82.9%
Residents	283,738	91.1%	326,987	88.5%	311,702	86.0%	9.9%

Source: Research & Planning. Earnings in Wyoming by County, Age & Gender, 2000-2013 (http://doe.state.wy.us/LMI/earnings_tables/2014/index.htm).

Table 2: Changes in Wyoming Employment Demographics in Construction, 2000, 2009, and 2013

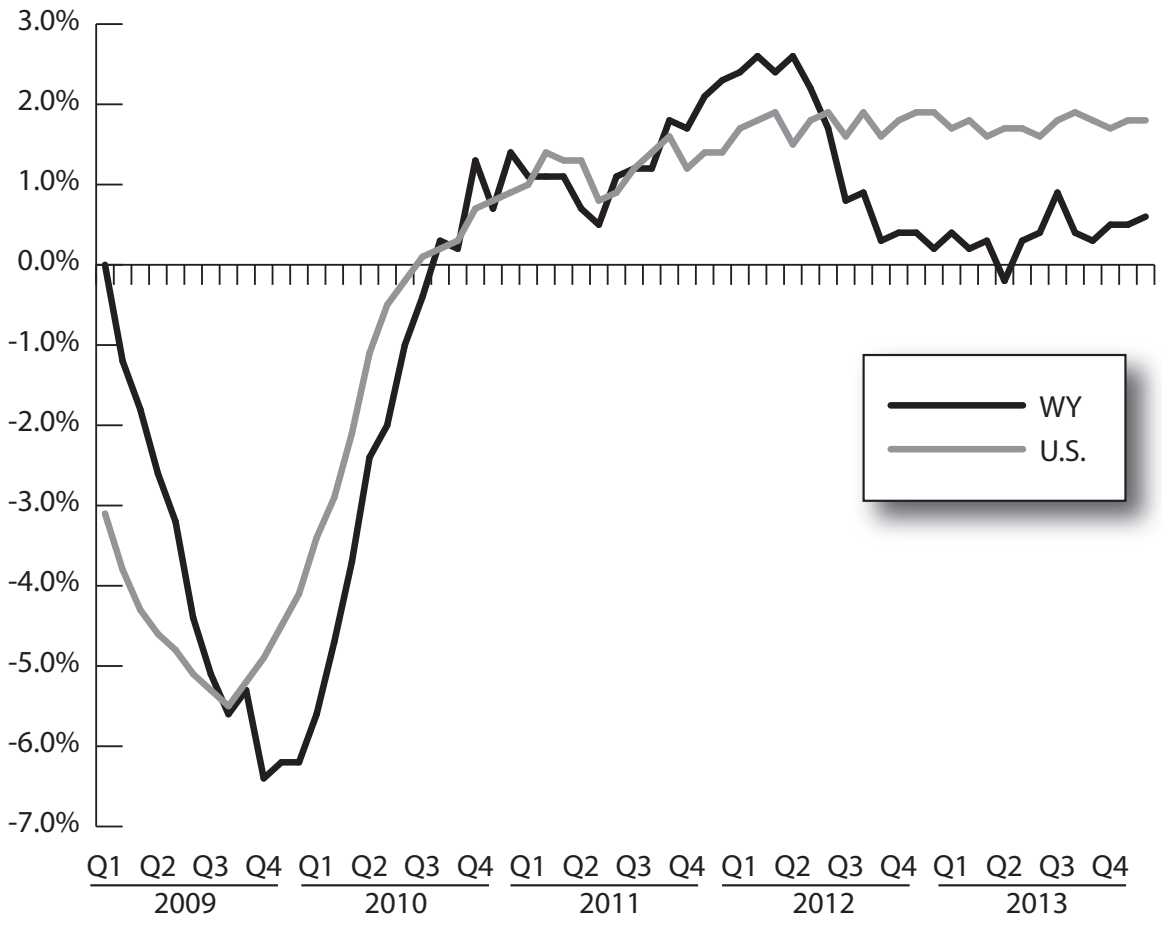
	2000		2009		2013		% Change,
	N	Column %	N	Column %	N	Column %	2000 to 2013
Total	**34,290**	**100%**	**46,240**	**100%**	**39,331**	**100%**	**14.7%**
Nonresidents	5,637	16.4%	11,267	24.4%	11,237	28.6%	99.3%
Residents	28,653	83.6%	34,973	75.6%	28,094	71.4%	-2.0%

Source: Research & Planning. Earnings in Wyoming by County, Age & Gender, 2000-2013 (http://doe.state.wy.us/LMI/earnings_tables/2014/industry.htm).

of economic recovery that began in third quarter 2010 (2010Q3), it is assumed Wyoming's dependence on nonresident labor will grow, so understanding the economic situation of both the region and the nation is essential to informed decision making.

Defining the Timeframe

The timeline for this study, 2009 to 2013, was chosen for two reasons. First, as of this writing, the most recently published Occupational Employment Statistics (OES), a Bureau of Labor Statistics (BLS) program, are dated May 2013, and selecting 2009 allows analysis of five years of data. Second, this time frame encompasses the trough of the Great Recession across the United States, 2009Q2 (National Bureau of Economic Research, 2010), and the trough of Wyoming's economic downturn, 2010Q2 (Bullard, 2014), which is illustrated in Figure 1. The 2009 to 2013 timeframe helps account for the redistribution of employment during the recovery (Moore, 2013).



Source: Quarterly Census of Employment and Wages.

Figure 1: Over-the-Year Percent Change in Total Unemployment Insurance Covered Employment in Wyoming and the U.S., 2009-2013

Defining the Region

For the purposes of this research, the region is defined by Wyoming, its surrounding states, and North Dakota (see Figure 2). Surrounding states are frequently used in studies done by R&P; in an example from 2004, surrounding states contributed 60% more to Wyoming's population and labor force than non-border states (Jones, 2006). Additionally, R&P has MOUs with all of Wyoming's surrounding states, giving R&P access to labor market information for Colorado, Idaho, Montana, Nebraska, South Dakota, and Utah. North Dakota was included in this paper because of the development in the Bakken formation, which has had far reaching effects on employment and wages (Batbold & Grunewald, 2013).

Figure 2: **Map of Wyoming and the Region**

Construction Industry and Selected Occupations

The BLS tracks industries, or sectors, by their North American Industry Classification System (NAICS) code and occupations by their Standard Occupational Classification (SOC) code. Activities of the construction industry, NAICS 23, include "erecting buildings and other structures (including additions); heavy construction other than buildings; and alterations, reconstruction, installation, and maintenance and repairs" (North American Industry Classification System, 2007, p. 17).

Using the BLS Occupational Employment Statistics Query System, a list of each occupation found in the construction sector in May 2013 was obtained in order to create a selected list of occupations in the industry. The initial list included 531 occupations and various measures of employment and wages. Each occupation's share of the construction industry was calculated from this information. The initial list was refined to a manageable 21 for further assessment using the critera described below. Examples of the eliminated occupations and the number of professions remaining after imposing the criterion are in parentheses.

Any occupation was eliminated if it:

1. Had no released employment estimate (bartenders, fine artists, and power distributors and dispatchers; 508);

2. Was too general to be of significance in this study (office and administrative support workers, helpers-

construction trades, and business & financial operations; 309);

3. Constituted less than 0.3% of total employment in the construction sector (fiberglass laminators and fabricators, compliance officers, & riggers; 60);

4. Had a national mean hourly wage under $20 (fence erectors, plasterers and stucco masons, & carpet installers; 36);

5. Could be performed off site (cost estimators & glaziers; 25);

6. Did not directly contribute to the erection of a building, heavy construction, or maintenance and repairs (first-line supervisors, who by definition spend 80% or more of their time supervising; 21).

The 21 selected construction sector occupations are listed in the Box by SOC code.

This list contains many of the subcontractor occupations mentioned by media articles cited in the introduction as well as some that are never mentioned.

Box: 21 Selected Construction Occupations and SOC Codes

SOC[a] Code	Occupation
47-2021	Brickmasons & Blockmasons
47-2031	Carpenters
47-2044	Tile & Marble Setters
47-2071	Paving, Surfacing, & Tamping Equipment Operators
47-2073	Operating Engineers & Other Construction Equipment Operators
47-2081	Drywall & Ceiling Tile Installers
47-2082	Tapers
47-2111	Electricians
47-2132	Insulation Workers, Mechanical
47-2152	Plumbers, Pipefitters, & Steamfitters
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	Welders, Cutters, Solderers, & Brazers
53-7021	Crane and Tower Operators
53-7032	Excavating & Loading Machine & Dragline Operators

[a]SOC = Standard Occupational Classification System.

With the exception of regional construction employment and wage data, publically available OES estimates were used in all aspects of this study. The regional construction analysis would not have been possible without the cooperation of the Colorado, Idaho, Montana, Nebraska, North Dakota, South Dakota, and Utah labor market information (LMI) shops and the Dallas Regional BLS Office.

Defining Labor Shortage

Though there is no universally agreed upon definition of a labor shortage, Burt S. Barnow of George Washington University describes a labor shortage as a period when demand for an occupation outstrips the supply of qualified workers at the prevailing wage, but pointed out the variances in this definition (2012). A labor shortage in economic terms occurs when there are more job openings than there are workers. A labor shortage in social terms, often used by the media, may occur when there is not an excess of workers (Barnow, 2012), or when an employer's desired quality of workers is not available at the wage offered by the employer (Veneri, 1999).

With this in mind, two distinct

definitions of shortage are adapted for this paper. The first term, *labor shortage,* will be applied to instances where there are too few people to fill employment needs at the prevailing wage, as indicated by a significant rise in real wages across all sectors and occupations. The second term, *occupational (skills) shortage*, is specific to a given profession, and will describe the cases when there are too few workers with appropriate skills to fill positions at the prevailing wage, as indicated by a rise in wages for that occupation above overall wages. For this paper, an occupational shortage will not describe the circumstances where there are too few workers with appropriate skills to fill positions at the wages employers want to pay.

For this research, economic indicators were used to identify shortages of selected occupations in the construction industry. According to Shah and Burke of the Centre for the Economics of Education and Training at Monash University, "the economic indicators approach tends to have more objectivity associated with it as it avoids the subjectivity of the employer and the analyst in the ad-hoc employer-based surveys and interviews" (2013, p. 18). The United Kingdom's Migratory Advisory Committee (2013) uses numerous "top-down indicators of shortage" (p. 239) when advising immigration policy, one of which is a "price-based indicator" (p. 238), which measures the "percentage change in real median pay" (p. 239) over time. A percentage change in real median pay is a reasonable indicator because "a shortage should push relative remuneration up while a surplus should push it down….As the market slowly adjusts to the shortage for particular skills by increasing wages, this trend will be observed as increasing wage differential over time" (Shah & Burke, 2013, p. 22).

Unless otherwise noted, analysis of all data in this publication is done in inflation-adjusted (real) 2013 dollars using conversion factor estimates by the Congressional Budget Office and the Office of Management and Budget, published by Robert Sahr in 2014. A situation is described as a labor shortage or an occupational shortage if there is a positive change in the inflation-adjusted median hourly wage over the time period of the study, 2009 to 2013.

This report only focuses on specific occupations in the construction sector, but a table of all occupations across all industries in the region and the corresponding percent changes in inflation adjusted wages is available online at http://doe.state.wy.us/w_r_research/constr_2014_occ_table.pdf.

Discussion

Is There a National Labor Shortage?

Identifying an occupational shortage in Wyoming begins by determining if there is a national labor shortage. As previously discussed, a labor shortage can be recognized by an increase in wages across all sectors and occupations. As shown in Table 3 (see page 9), estimates from both the QCEW and OES show an increase of 4.2% in average annual covered employment (128,607,842 in 2009 to 133,964,953 in 2013), and a 2.6% decrease in real median hourly wages for all occupations, from $17.32 in 2009 to $16.87 in 2013. Since covered

employment has increased but real wages have not kept up with inflation as of 2013, there is no labor shortage in the United States.

Is There a National Shortage of Workers in the Construction Industry?

Although there is no established labor shortage for the U.S. labor market as a whole, there may be shortages in particular sectors, so it is important to examine the current state of the national construction industry. According to the Current Employment Statistics (CES) program of the BLS, average annual seasonally adjusted employment decreased in the construction industry 3.1% from 2009 to 2013, in contrast to the overall employment increase of 4.2% (see Table 3). As a percentage of average total covered employment as measured by QCEW, CES estimates show the construction industry composed less of total employment in 2013 (4.4%) than in 2009 (4.7%). This national trend may be a function of limited demand for construction industry services during the time immediately following the end of the Great Recession, which lasted from 2007Q4 to 2009Q2 (NBER, 2010).

Table 3: 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	
	Year	**Employment[c]**	**Employment Change, 2009-2013**	**Average Hourly Wage[b]**	**Wage Change, 2009-2013**
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.

Sources:

[a]U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

[b]U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

[c]U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics.

In inflation-adjusted dollars, the construction sector's median hourly wage declined 1.7% from 2009 to 2013, a slower decline than the change in the median hourly wage of all occupations of -2.6% (see Table 3). Over this time, OES estimates show the median hourly wage for those employed in the construction sector was consistently about 18.4% higher than wages overall; the weighted median hourly wage in construction was $20.29 compared to $17.13 for all occupations. These relatively higher wages may attract labor to the construction industry should there be demand for it. Given this information, it is doubtful there is a nationwide labor shortage of construction workers.

Examining National Shortages

Is There a National Occupational Shortage of Selected Construction Occupations?

Though there is neither a national labor shortage nor a national construction labor shortage, shortages may still occur in particular

occupations. OES data were used to create Table 4, which shows the percent change in inflation-adjusted wages for selected construction occupations nationally and across all sectors. Occupations with anecdotal evidence suggesting a shortage, as discussed in the introduction, are presented in red text.

Table 5 (see page 11) categorizes the selected occupations into three groups based on their wage changes at the national level:

1. "Indicated National Occupational Shortages," or those occupations with a wage increase;

2. "Possible National Occupational Market Tightening," where occupational wages decreased but the decrease was slower than the decline in wages for all occupations (-2.6%); and

3. "Unlikely National Occupational Shortages," with occupational wage changes equal to or below the national decline.

Occupations which are often the center of shortage anecdotes from the media are in red text.

(Text continued on page 12)

Table 4: **National Percent Changes in Inflation Adjusted Wages for Selected Construction Occupations, 2009-2013**

SOC[a] Code	SOC[a] Title	% Change in Inflation Adjusted Wages, 2009-2013
47-2021	Brickmasons & Blockmasons	-8.1%
47-2031	Carpenters	-5.5%
47-2044	Tile & Marble Setters	-11.7%
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2.2%
47-2073	Operating Engineers & Other Construction Equipment Operators	-1.5%
47-2081	Drywall & Ceiling Tile Installers	-7.8%
47-2081	Electrical Power-Line Installers & Repairers	4.3%
47-2082	Tapers	-9.1%
47-2111	Electricians	-1.4%
47-2132	Insulation Workers, Mechanical	0.7%
47-2152	Plumbers, Pipefitters, & Steamfitters	-0.2%
47-2171	Reinforcing Iron & Rebar Workers	19.0%
47-2211	Sheet Metal Workers	-0.5%
47-4021	Elevator Installers & Repairers	4.9%
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	-9.2%
49-2098	Security & Fire Alarm Systems Installers	2.6%
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	-1.7%
49-9052	Telecommunications Line Installers & Repairers	-4.7%
51-4121	Welders, Cutters, Solderers, & Brazers	-2.7%
53-7021	Crane & Tower Operators	1.5%
53-7032	Excavating & Loading Machine & Dragline Operators	-0.3%
Total, All Occupations		**-2.6%**
All Construction Sector[b] Occupations		**-1.7%**

[a]Standard Occupational Classification System.

[b]North American Industry Classification System (NAICS) 23.

A more detailed table showing occupational employment & inflation adjusted wages by year can be found in Appendix Table A1.

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

Table 5: **Relative Likelihood of National Occupational Shortage**

Indicated National Occupational Shortages			Possible National Occupational Market Tightening			Unlikely National Occupational Shortages		
Occupation and SOC[a] Code	% Wage Change, 2009-2013	Weighted Average Median Hourly Wage, 2009-2013	Occupation and SOC[a] Code	% Wage Change, 2009-2013	Weighted Average Median Hourly Wage, 2009-2013	Occupation and SOC[a] Code	% Wage Change, 2009-2013	Weighted Average Median Hourly Wage, 2009-2013
Crane & Tower Operators (53-7021)	1.5%	$23.26	Electricians (47-2111)	-1.4%	$24.51	All Occupations	-2.6%	$17.13
Electrical Power-Line Installers & Repairers (47-2081)	4.3%	$30.22	Excavating & Loading Machine & Dragline Operators (53-7032)	-0.3%	$18.74	Brickmasons & Blockmasons (47-2021)	-8.2%	$23.48
Elevator Installers & Repairers (47-4021)	4.9%	$36.98	Heating, Air Conditioning, & Refrigeration Mechanics (49-9021)	-1.7%	$21.45	Carpenters (47-2031)	-5.5%	$19.99
Insulation Workers, Mechanical (47-2132)	0.7%	$19.23	Operating Engineers & Other Construction Equipment Operators (47-2073)	-1.5%	$20.61	Drywall & Celling Tile Installers (47-2081)	-7.9%	$18.66
Paving, Surfacing, & Tamping Equipment Operators (47-2071)	2.2%	$17.70	Plumbers, Pipefitters, & Steamfitters (47-2152)	-0.2%	$24.00	Tapers (47-2082)	-9.1%	$22.51
Reinforcing Iron & Rebar Workers (47-2171)	19.1%	$21.16	Sheet Metal Workers (47-2211)	-0.6%	$21.22	Telecom. Equipment Installers & Repairers, except Line Installers (49-2022)	-9.2%	$27.33
Security & Fire Alarm Systems Installers (49-2098)	2.6%	$19.86	All Construction Sector Occupations	-1.7%	$20.29	Telecom. Line Installers & Repairers (49-9052)	-4.1%	$25.80
						Tile & Marble Setters (47-2044)	-11.7%	$19.05
						Welders, Cutters, Solderers, & Brazers (51-4121)	-2.7%	$17.91

[a]Standard Occupational Classification System.
A more detailed table showing occupational employment and inflation adjusted wages by year can be found in Appendix Table A1.

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

(Text continued from page 10)

Indicated National Occupational Shortages

Each of the occupations presented in the first column of Table 5 had a real wage increase from 2009 to 2013. Over this time, weighted averages of the median wages for these occupations ranged between $17.70 for paving, surfacing, & tamping equipment operators and $36.98 for elevator installers & repairers. Of the 21 selected occupations, these are the most likely in a state of national occupational shortage where the demand for these occupations cannot be met with the current supply. Job openings for these occupations are growing at least as fast as the average for all occupations, according to the U.S. Department of Labor, Employment & Training Administration website O*NET.

Possible National Occupational Market Tightening

The wages for the occupations in the second column of Table 5 decreased during the study period, but the changes were less negative than the 2.6% decline in wages for all occupations. Electricians had the greatest weighted average of median wage for this group at $24.51, and excavating & loading and machine dragline operators had the lowest weighted average of median wages of this group at $18.74. All of these occupations have a faster than average projected growth rate (U.S. Department of Labor). The negative change in wages, though smaller than average, means it is probable the market clears for these occupations but it may be tightening. If supply cannot keep up with projected growth rates there may be a future shortage.

Unlikely National Occupational Shortages

Eight occupations from the list of selected construction occupations fall into this category. All had wages which declined between 2.7% and 11.7%. On average, telecommunications equipment installers & repairers, except line installers had the highest average median hourly wage at $27.37. Welders, cutters, solderers, & brazers had the smallest average median hourly wage of $17.91. This category was the only category to have occupations with a projected growth rate that is slower than average, including telecommunications equipment installers & repairers, except line installers; telecommunications line installers & repairers; and welders, cutters, solderers, & brazers. Brickmasons & blockmasons and carpenters were the only occupations in this column expected to grow much faster than average (U.S. Department of Labor). The decline in wages for these professions is a strong indicator that there is not a national occupational shortage for these cases.

Examining Regional Shortages

Is there a regional labor shortage?

United States Census Bureau population estimates show the region (Wyoming, surrounding states, and North Dakota) grew 5.2% from 2009 to 2013, compared to 3.1% growth for the U.S. as a whole, possibly a sign of net migration into the area (see Table 6, page 13). No state in the region grew at a rate less than the national average. North Dakota and Utah had the greatest regional population growth rates of 8.8% and 6.5%, respectively.

To match the Census report of

comparatively greater regional population growth, QCEW estimates show a greater rate of change in regional employment (6.2%) than at the national level (4.2%; see Table 7). Stronger regional job growth and the faster regional population increases may be linked, as workers in other parts of the country may have heard of opportunity in the area. In contrast to the greatest workforce growth in the region (North Dakota, 22.2%), Wyoming had the smallest change in total covered employment in the region (1.8%).

The regional median hourly wage was calculated using a weighted average of each state's OES data for all occupations. Regional wages declined 2.1% from $16.79 in 2009 to $16.44 in 2013, smaller than the national decline of 2.6% (see Table 8). However, national median hourly wages were greater each year than regional median hourly wages.

Regional median hourly wages dropped the most in Colorado (-4.7%) and Idaho (-6.4%). These were also the only states

Table 6: Percent Population Changes, 2009-2013

U.S.	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
3.1%	5.2%	4.1%	6.0%	3.7%	4.1%	3.1%	8.8%	4.7%	6.5%

A more detailed table showing population, total employment, and construction sector employment by year can be found in the Appendix Table A2.

Sources:

U.S. Census Bureau. Intercensal Estimates of the Components of Resident Population Change for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2010.

U.S. Census Bureau. Intercensal Estimates of the Components of Resident Population Change for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2013.

Table 7: Percent Total Employment Changes, 2009-2013

U.S.	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
4.2%	6.2%	1.8%	6.1%	2.7%	3.6%	3.5%	22.2%	3.9%	8.4%

A more detailed table showing population, total employment, and construction sector employment by year can be found in the Appendix Table A2.

Sources: U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Table 8: Percent Change in Inflation Adjusted Median Hourly Wages for All Occupations in the U.S., the Region, and Selected States, 2009-2013

	U.S.	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
2009 Wages	$17.32	$16.79	$17.59	$18.94	$15.68	$14.82	$15.62	$15.27	$14.18	$16.06
2013 Wages	$16.87	$16.44	$17.79	$18.04	$14.68	$14.79	$15.31	$17.14	$14.14	$16.00
% Wage Change, 2009-2013	-2.6%	-2.1%	1.1%	-4.7%	-6.4%	-0.2%	-2.0%	12.3%	-0.3%	-0.4%

A more detailed table showing wages by year and geographic area for all occupations can be found in Appendix Table A3.

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

with steeper drops in real wages than the national decrease of 2.6%. The only states in the region with real median hourly wage increases were North Dakota (12.3%) and Wyoming (1.1%). North Dakota's 12.3% increase in overall median hourly wages may indicate a more favorable labor market for dual-income families. These data show that it is possible an overall labor shortage exists in North Dakota and Wyoming. However, if there is a labor shortage in North Dakota and Wyoming, the increased wages could draw in more workers and return to equilibrium, all other factors being equal.

Is there a regional shortage of workers in the construction industry?

Although all occupations had employment and wage changes greater regionally than nationally, the construction sector employment and wage changes were smaller than their national counterparts. As shown in Table 9, the regional change in construction industry employment, as measured by OES, was -8.6%, compared to the national change of -3.1%. Just as the share of construction workers compared to total employment decreased nationally from 4.7% in 2009 to 4.4% in 2013, regional construction employment also decreased as a share of the total, from 6.4% to 5.6%.

There was considerable variation in the percent changes of construction industry employment

Table 9: 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% 391,838	$16.53	-2.1% -$0.34
	2012	6,538,336		$16.42	
	2013	6,701,498		$16.44	
	Year	**Employment**	**Employment Change, 2009-2013**	**Average Hourly Wage**	**Wage Change, 2009-2013**
Construction Sector (NAICS* 23)	2009	406,790		$21.00	
	2010	353,660		$21.02	
	2011	341,670	-8.6% -34.840	$20.75	-3.0% -$0.64
	2012	353,280		$20.30	
	2013	371,950		$20.36	

*NAICS = North American Industry Classification System.

Sources:

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

[a]U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Table 10: Construction Sector Employment Percent Changes, 2009-2013

U.S.[a]	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
-3.1%	-8.6%	-16.7%	-15.3%	-18.3%	-6.0%	-7.8%	54.3%	-5.9%	-7.0%

A more detailed table showing population, total employment, and construction sector employment by year can be found in Appendix Table A4.

Sources:

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

[a]U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics.

between states (see Table 10). Idaho (-18.3%) followed by Wyoming (-16.7%) and Colorado (-15.3%), had the greatest decreases in construction sector employment. Again, the outlier was North Dakota, the only state with an increase in construction sector employment between 2009 and 2013 (54.3%).

Employment changes do not always point to a shortage, however, and may indicate changing market demand. Changes in wages are a stronger indicator of labor or occupational shortages. OES estimates show the regional wage change for those working construction was -3.0%, a greater wage decrease than the national construction sector (-1.7%), the regional wages for all occupations (-2.1%), and the national wages for all occupations (-2.6%). However, regional construction wages where higher each year than wages overall.

The only two states with real wage increases in the construction sector were North Dakota (5.9%) and Montana (3.6%) (see Table 11). Wyoming, at -4.9%, had the greatest percent decrease in construction wages over time, but Wyoming's 2013 median hourly wage was $20.64, slightly above the regional average of $20.36, and similar to Montana ($20.76) and North Dakota ($21.07). At $21.94, Colorado offered the highest median hourly wage to construction workers, but had a wage decrease of 4.8%.

As regional construction wages decreased, there does not appear to be a shortage of construction workers in the region. However, this may not be the case in Montana and North Dakota where construction wages increased over time.

Is there a regional occupational shortage of selected construction occupations?

OES data were used to calculate the weighted inflation-adjusted median hourly wage changes for each of the selected construction occupations, aggregated in Table 12 (see page 16). The wage changes are calculated across all sectors, and the occupations with anecdotal evidence suggesting a shortage are shown in red text.

The results are again categorized into three lists in Table 13 (see page 17), based on the occupation's median hourly wage changes between 2009 and 2013:

1. "Indicated Regional Occupational Shortages," lists occupations with wage increases between 2009 and 2013;

2. "Possible Regional Occupational

Table 11: Percent Change in Inflation Adjusted Median Hourly Wages for Construction Sector Occupations (NAICS 23) in the U.S., the Region, and Selected States, 2009-2013

	U.S.	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
2009 Wages	$20.46	$21.00	$21.71	$23.05	$19.17	$20.05	$19.82	$19.89	$17.29	$20.24
2013 Wages	$20.11	$20.36	$20.64	$21.94	$18.45	$20.76	$19.16	$21.07	$16.92	$19.72
% Wage Change, 2009-2013	-1.7%	-3.0%	-4.9%	-4.8%	-3.8%	3.6%	-3.3%	5.9%	-2.1%	-2.6%

A more detailed table showing wages by year and geographic area for all occupations can be found in Appendix Table A5.

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

Market Tightening," has occupations with wages that decreased in real terms but the decrease was smaller than the regional decline of 2.1% for all occupations; and

3. "Unlikely Regional Occupational Shortages," contains occupations with wage changes below the decrease for all occupations.

Occupations in red have anecdotal support for a shortage. Wages for elevator installers & repairers and reinforcing iron & rebar workers are regionally suppressed and therefore not categorized in Table 13.

Indicated Regional Occupational Shortages

In addition to wage growth, the occupations in this category of Table 13 had wages that were between 22.0% (security & fire alarm systems installers) and 93.2% (electrical power-line installers & repairers) higher than the weighted average of regional median hourly wages for all occupations. Nationally, the above occupations are growing at least as fast as average, and had higher regional wages than national occupational wages

(Text continued on page 18)

Table 12: **Regional Percent Changes in Inflation Adjusted Wages for Selected Construction Occupations, 2009-2013**

SOC[a] Code	SOC[a] Title	% Change in Inflation Adjusted Wages, 2009-2013
47-2021	Brickmasons & Blockmasons	-14.1%
47-2031	Carpenters	-6.6%
47-2044	Tile & Marble Setters	-15.6%
47-2071	Paving, Surfacing, & Tamping Equipment Operators	-5.5%
47-2073	Operating Engineers & Other Construction Equipment Operators	1.3%
47-2081	Drywall & Ceiling Tile Installers	-7.7%
47-2081	Electrical Power-Line Installers & Repairers	4.6%
47-2082	Tapers	-9.8%
47-2111	Electricians	-0.8%
47-2132	Insulation Workers, Mechanical	12.8%
47-2152	Plumbers, Pipefitters, & Steamfitters	-1.6%
47-2171	Reinforcing Iron & Rebar Workers	ND
47-2211	Sheet Metal Workers	-3.1%
47-4021	Elevator Installers & Repairers	ND
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	-4.0%
49-2098	Security & Fire Alarm Systems Installers	9.0%
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	-1.3%
49-9052	Telecommunications Line Installers & Repairers	-7.3%
51-4121	Welders, Cutters, Solderers, & Brazers	-1.5%
53-7021	Crane & Tower Operators	1.5%
53-7032	Excavating & Loading Machine & Dragline Operators	6.5%
All Construction Sector[b] Occupations		**-3.0%**
Total, All Occupations		**-2.1%**

ND = Not disclosable due to confidentiality.

[a]Standard Occupational Classification System.

[b]North American Industry Classification System (NAICS) 23.

A more detailed table showing occupational employment and inflation adjusted wages by year can be found in Appendix Table A6.

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

Table 13: **Relative Likelihood of Regional Occupational Shortage**

Indicated Regional Occupational Shortages			Possible Regional Occupational Market Tightening			Unlikely Regional Occupational Shortages		
Occupation and SOC[a] Code	% Wage Change, 2009-2013	Weighted Average Median Hourly Wage, 2009-2013	Occupation and SOC[a] Code	% Wage Change, 2009-2013	Weighted Average Median Hourly Wage, 2009-2013	Occupation and SOC[a] Code	% Wage Change, 2009-2013	Weighted Average Median Hourly Wage, 2009-2013
Crane & Tower Operators (53-7021)	1.5%	$25.27	Electricians (47-2111)	-0.8%	$23.33	All Occupations	-2.1%	$16.59
Electrical Power-Line Installers & Repairers (47-2081)	4.6%	$32.05	Heating, Air Conditioning, & Refrigeration Mechanics (49-9021)	-1.3%	$21.20	All Construction Sector Occupations	-3.0%	$20.69
Excavating & Loading Machine & Dragline Operators (53-7032)	6.5%	$20.75	Plumbers, Pipefitters, & Steamfitters (47-2152)	-1.6%	$23.28	Brickmasons & Blockmasons (47-2021)	-14.1%	$22.96
Insulation Workers, Mechanical (47-2132)	12.8%	ND	Welders, Cutters, Solderers, & Brazers (51-4121)	-1.5%	$18.05	Carpenters (47-2031)	-6.6%	$17.83
Operating Engineers & Other Construction Equipment Operators (47-2073)	1.3%	$21.10				Drywall & Celling Tile Installers (47-2081)	-7.7%	$17.69
Security & Fire Alarm Systems Installers (49-2098)	9.0%	$20.10				Paving, Surfacing, & Tamping Equipment Operators (47-2071)	-5.5%	$18.76
						Sheet Metal Workers (47-2211)	-3.1%	$20.65
						Tapers (47-2082)	-9.8%	ND
						Telecom. Equipment Installers & Repairers, except Line Installers (49-2022)	-4.0%	$28.73
						Telecom. Line Installers & Repairers (49-9052)	-7.3%	$20.66
						Tile & Marble Setters (47-2044)	-15.6%	$18.78

ND = Not disclosable due to confidentiality.

[a]Standard Occupational Classification System.

A more detailed table showing occupational employment and inflation adjusted wages by year can be found in Appendix Table A6.

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

(Text continued from page 16)

(U.S. Department Of Labor, Employment & Training Administration). The only exception is security & fire alarm systems installers for 2009; this profession's regional median hourly wage was $19.05, compared to the national median hourly wage of $19.69. This information points to a regional shortage for these occupations, especially for crane & tower operators, electrical power-line installers & repairers, and security & fire alarm systems installers, which also experienced an increase in national inflation-adjusted wages.

Possible Regional Occupational Market Tightening

Wages decreased for these occupations, but did not have as great a decrease as wages for all occupations in the region. Except for welders, cutters, solderers, & brazers, these professions made slightly less regionally than nationally; workers in these positions may choose to work other places in the nation for higher pay. However, welders, cutters, solderers, & brazers are growing slower than average, whereas electricians, heating, air conditioning, & refrigeration mechanics, and plumbers, pipefitters, & steamfitters are all growing faster than average (U.S. Department Of Labor, Employment & Training Administration).

Unlikely Regional Occupational Shortages

Nine occupations from the list of selected construction occupations fall into this category.

These occupations had regional declines in wages beyond both the national and regional wage changes for all occupations. Paving, surfacing, & tamping equipment operators had a 5.5% decline in regional wages, but are nationally categorized in the "Indicated National Occupational Shortages" list for a 2.2% increase in wages. Until 2013, regional wages for this occupation were higher regionally than nationally. Sheet metal workers, previously in the category "Possible National Occupational Market Tightening," had a 3.1% decline in wages regionally, and made less regionally in every year except 2011. Telecommunications equipment installers and repairers, except line installers, was the only occupation in which regional wages were consistently higher than national wages in this category. Regional wages for this occupation declined from 2009 to 2013 (-4.0%), but not as fast as the national rate of -9.2%. The generally decreasing and lower regional wages for these occupations are not consistent with the criteria for a regional occupational shortage, but changes in the national labor market could alter the availability of these occupations within the region.

Examining Shortages in Wyoming

Is there a labor shortage in Wyoming?

Most states in the region had similar population and employment changes, though North Dakota experienced faster employment growth (22.2%) compared to population (8.8%). Wyoming, however, was the exception: employment growth in Wyoming was the smallest in the region (1.8%), lower than the state's 4.1% increase in population (see Tables 6 and 7).

Within the region, only Wyoming (1.1%) and North Dakota (12.3%) had wage increases for all occupations. Colorado

was the only state to have a greater overall median hourly wage than Wyoming, and each year Wyoming wages were slightly higher than national wages (see Table 8).

Overall wage increases indicate the possibility of a labor shortage in Wyoming, but the slow employment growth relative to population growth may mean there is a sufficient number of workers to fill positions in Wyoming, especially when compared with North Dakota, where wage and employment growth have exceeded population growth. Data supporting a labor shortage in Wyoming may be stronger than in most other states in the region, but it is not sufficient to demonstrate an unambiguous labor shortage.

Is there a shortage in Wyoming of workers in the construction industry?

Of the eight states in the region, Wyoming had the greatest decline in construction wages: median hourly wages in Wyoming's construction industry dropped 4.9% from $21.71 in 2009 to $20.64 in 2013, in contrast to the overall increase of 1.1% in Wyoming wages (see Table 14). Despite these declines, Wyoming's construction wages were above the regional median wage of $20.36 (see Table 9) and the national median wage of $20.11 (see Table 3).

Wyoming's construction employment declined 16.7% (26,610 in 2009 to 22,170 in 2013; see Table 14), the second largest drop in the region, followed only by Idaho at 18.3% (see Table 10). Of total Wyoming employment, the employment share of the construction industry fell from 8.7% in 2009 to 7.8% in 2013 according to QCEW estimates.

These wage and employment decreases in Wyoming's construction sector were more substantial than the regional and national changes, indicating that a shortage of construction workers in the state is unlikely.

Is there a state occupational shortage of selected construction occupations?

As in Table 12, OES data were used to calculate wage changes in Wyoming for the selected construction occupations. The wage changes are calculated across all sectors, and

Table 14: Wyoming 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	274,758		$17.59	
	2010	271,151		$17.99	
	2011	274,743	1.8%	$17.98	1.1%
	2012	278,595	4,926	$17.92	$0.20
	2013	279,684		$17.79	
	Year	**Employment**	**Employment Change, 2009-2013**	**Average Hourly Wage**	**Wage Change, 2009-2013**
Construction Sector (NAICS* 23)	2009	26,610		$21.71	
	2010	23,240		$21.88	
	2011	21,770	-16.7%	$21.31	-4.9%
	2012	22,410	-4,440	$20.70	-$1.07
	2013	22,170		$20.64	

*NAICS = North American Industry Classification System.

Sources:

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

[a]U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

the occupations with anecdotal evidence suggesting a shortage are shown in red text (see Table 15, page 20).

Table 16 (see page 21) breaks the occupations into groups based on the median hourly wage changes between 2009 and 2013. Unlike Tables 5 and 13, which have three groups, Table 16 has only two categories:

1. "Indicated Occupational Shortages in Wyoming," which lists occupations with wage increases equal to or greater than the 1.1% wage increase for all occupations; and

2. "Unlikely Occupational Shortages in Wyoming," containing occupations with negative wage changes.

Occupations in red have anecdotal support for a shortage. Elevator installers & repairers, reinforcing iron & rebar workers, and tapers are suppressed and therefore not categorized in Table 16.

Table 15: **Wyoming Percent Changes in Inflation Adjusted Wages for Selected Construction Occupations, 2009-2013**

SOC[a] Code	SOC[a] Title	% Change in Inflation Adjusted Wages, 2009-2013
47-2021	Brickmasons & Blockmasons	-1.8%
47-2031	Carpenters	-8.7%
47-2044	Tile & Marble Setters	-39.4%
47-2071	Paving, Surfacing, & Tamping Equipment Operators	-16.7%
47-2073	Operating Engineers & Other Construction Equipment Operators	4.3%
47-2081	Drywall & Ceiling Tile Installers	1.7%
47-2081	Electrical Power-Line Installers & Repairers	13.3%
47-2082	Tapers	ND
47-2111	Electricians	1.6%
47-2132	Insulation Workers, Mechanical	13.9%**
47-2152	Plumbers, Pipefitters, & Steamfitters	-0.5%
47-2171	Reinforcing Iron & Rebar Workers	ND
47-2211	Sheet Metal Workers	-2.8%**
47-4021	Elevator Installers & Repairers	ND
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	-10.9%
49-2098	Security & Fire Alarm Systems Installers	-5.9%
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	1.1%
49-9052	Telecommunications Line Installers & Repairers	5.4%
51-4121	Welders, Cutters, Solderers, & Brazers	-4.5%
53-7021	Crane & Tower Operators	10.0%
53-7032	Excavating & Loading Machine & Dragline Operators	37.4%
All Construction Sector[b] Occupations		**-4.9%**
Total, All Occupations		**1.1%**

ND = Not disclosable due to confidentiality.

**% Change in Inflation-Adjusted Wages, 2010, 2013

[a]Standard Occupational Classification System.

[b]North American Industry Classification System (NAICS) 23.

A more detailed table showing occupational employment and inflation adjusted wages by year can be found in Appendix Table A7.

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

Indicated Occupational Shortages in Wyoming

These occupations are discussed in further detail in the next section.

Unlikely Occupational Shortages in Wyoming

Nine occupations from the list of selected construction occupations fall into this category in Table 16. Most of these occupations also had wage declines regionally and nationally, except paving, surfacing, & tamping equipment operators, which had a 2.2% wage increase nationally, & security & fire alarm systems installers, which had a 9.0% wage increase regionally and 2.6% wage increase nationally. Of this group, telecommunications equipment installers & repairers, except line installers had the highest average median hourly wage at $25.28. Tile & marble setters had the lowest average median hourly wage of $17.24.

Wyoming wages for paving, surfacing, & tamping equipment operators; and

Table 16: **Relative Likelihood of Occupational Shortage in Wyoming**

Indicated Occupational Shortages in Wyoming			Unlikely Occupational Shortages in Wyoming		
Occupation and SOC[a] Code	% Wage Change, 2009-2013	Weighted Average Median Hourly Wage, 2009-2013	Occupation and SOC[a] Code	% Wage Change, 2009-2013	Weighted Average Median Hourly Wage, 2009-2013
All Occupations	1.1%	$17.85	All Construction Sector Occupations	-4.9%	$21.27
Crane & Tower Operators (53-7021)	10.0%	$29.46	Brickmasons & Blockmasons (47-2021)	-1.8%	$23.46
Drywall & Ceiling Tile Installers (47-2081)	1.7%	$18.77	Carpenters (47-2031)	-8.7%	$19.47
Electrical Power-Line Installers & Repairers (47-2081)	13.3%	$34.75	Paving, Surfacing, & Tamping Equipment Operators (47-2071)	-16.7%	$21.93
Electricians (47-2111)	1.6%	$26.03	Plumbers, Pipefitters, & Steamfitters (47-2152)	-0.5%	$20.89
Excavating & Loading Machine & Dragline Operators (53-7032)	37.4%	$25.16	Security & Fire Alarm Systems Installers (49-2098)	-5.9%	$20.71*
Heating, Air Conditioning, & Refrigeration Mechanics (49-9021)	1.1%	$19.58	Sheet Metal Workers (47-2211)	-2.8%*	$20.25*
Insulation Workers, Mechanical (47-2132)	13.9%*	$18.33*	Telecom. Equipment Installers & Repairers, except Line Installers (49-2022)	-10.9%	$25.28
Operating Engineers & Other Construction Equipment Operators (47-2073)	4.3%	$22.85	Tile & Marble Setters (47-2044)	-39.5%	$17.24*
Telecom. Line Installers & Repairers (49-9052)	5.4%	$20.49	Welders, Cutters, Solderers, & Brazers (51-4121)	-4.5%	$23.09

[a]Standard Occupational Classification System.

*Percent Changes 2010-2013.

A more detailed table showing occupational employment and inflation adjusted wages by year can be found in Appendix Table A7.

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

welders, cutters, solderers, & brazers were greater than regional and national wages. Plumbers, pipefitters, & steam fitters; telecommunications equipment installers & repairs; and tile & marble setters made less in Wyoming than both regionally and nationally.

Indicated Shortages in Wyoming

Addressing Occupational Shortages

There are a number of things to consider when investing in training or support for the selected occupations addressed in this paper. First, supporting specific occupations will not solve Wyoming's possible labor shortage and it is beyond the scope of this paper to address the situation. Second, training Wyoming workers for needed occupations and employing them outside their current position may contribute to shortages in other markets, such as retail, education, health care, and hospitality. Third, adding too significantly to the labor market's skill supply may depress wages for related occupations, all other things being equal. Fourth, supporting occupations with higher wages elsewhere could result in an export of skills. Fifth, certifying workers in occupations which are not clearly facing a shortage will extend workers' job searches and possibly further depress wages for that occupation. Finally, tracking results of supported occupations would be difficult, and results would be influenced by unpredictable outside sources, such as production in the Bakken, changes in the minimum wage, and enforcement of immigration law.

This section outlines the possible outcomes of augmenting the supply of each occupation in the category of "Indicated Occupational Shortage in Wyoming" in Table 16. Detailed employment and wage information for each occupation, by state, can be found in Appendix Tables A8, A9, A10, A11, A12, A13, and A14.

Crane & Tower Operators

Crane & tower operators, facing a national, regional, and state occupational shortage, had a 2013 median hourly wage of $32.77 in Wyoming. Montana was the only state in the region to offer higher wages than Wyoming ($33.03). North Dakota had the third highest wages in the region, at $26.68, above the national median hourly wage of $23.38.

From 2009 to 2013, employment of crane & tower operators in Wyoming fell from 140 to 100, but rose in most other states in the region. Both in terms of number employed and percent change, North Dakota had the greatest increase in employment for crane & tower operators (140 in 2009 to 360 in 2013), despite the fact that Wyoming and Montana had higher wages. This suggests workers may be going to North Dakota for reasons other than pay, such as more hours or better opportunities for other earners in the household, as North Dakota had the most rapidly growing wages in the region at 12.3%.

According to O*NET, training for crane & tower operators takes one to two years in addition to the two-part certification, practical and written, required by the Occupational Health & Safety Administration (OSHA) as of 2010; 17 states including Montana require additional licensing, and many employers want applicants to have a commercial driver's license and other endorsements.

Within the region, the National Commission for the Certification of Crane

Operators (NCCCO) has four practical exam test sites available for specific crane operator certifications, including one in Rock Springs, Wyoming. It is possible to hire an instructor to travel to a construction site and use a company's equipment to administer the test. Five sites in Wyoming offer the computer-based written test, but most are open for only a few hours two days each week (PSI Online).

Offering and advertising state-sponsored opportunities for NCCCO certification may make it possible to certify more crane & tower operators, but it is unclear whether or not the workers would remain in Wyoming.

O*NET shows 36% of all crane & tower operators in the nation work in the construction industry, 25% in manufacturing, 11% in mining, quarrying, and oil and gas, 11% in transportation and warehousing, and 17% in other industries. Across all industries nationwide, crane & tower operators have a median hourly wage of $23.38. The highest wages are in the construction (NAICS 23) and transportation and warehousing sectors (NAICS 48-49), which offer respective median hourly wages of $26.33 and $26.68. All other things being equal, crane & tower operators would work in construction or transportation industries over others.

Drywall & Ceiling Tile Installers

Nationally and regionally, drywall & ceiling tile installers' employment and wages declined significantly from 2009 to 2013. In 2013, regional wages of $16.90 were less than the national median hourly wages ($17.89), but Wyoming's wages for drywall & ceiling tile installers were the highest in the region at $18.65. Wyoming was the only state in this analysis with an increase in wages. Montana and North Dakota were the only states that saw an increase in employment of drywall & ceiling tile installers, 100.0% and 3.8% respectively, although wages were lower and still declining in both states.

The BLS' Occupational Outlook Handbook states that entry level positions for drywall & ceiling tile installers do not require a high school diploma, but O*NET shows that 73% of employers prefer a candidate with a high school diploma or equivalent and that a few months to one year of on-the-job training is sufficient. Options for three-year apprenticeships exist, but are not always preferred over direct drywall experience.

Of all drywall & ceiling tile installers, 80% were employed in the construction sector (NAICS 23) on a national basis, where median wages for this category were $17.95 per hour, slightly higher than the median wage across all industries of $17.89. All else being equal, it can be inferred that drywall & ceiling tile installers are not being lured out of construction by higher wages in another industry.

Support for drywall & ceiling tile installers may include a focus on job matching services, but it is unclear if trained workers would remain in Wyoming.

Electrical Power-Line Installers & Repairers

Wage increases nationally (4.3%), regionally (4.6%), and statewide (13.3%) are indicators of a widespread occupational shortage. In 2013, the regional median hourly wage for electrical

power-line installers & repairers was $32.72, greater than the national median hourly wage of $30.85; Wyoming had the fastest growing wage and second highest 2013 wage ($36.62) in the region. Only Idaho offered a greater 2013 median wage of $38.11 per hour but had the second highest rate of increase at 13.0%.

Corresponding to the national occupational rise in wages, national employment grew 2.2% between 2009 and 2013. Regional wages were nearly two dollars higher than national wages, but employment dropped by 6.6% in the region. A net decrease of workers in this occupation occurred most significantly in the states offering the two highest wages: Idaho and Wyoming. Montana and North Dakota had the highest increase in workers, followed closely by South Dakota.

Of all electrical power-line installers & repairers, 53% were employed in the utilities industry (NAICS 22). The average national wage for this occupation in the utilities industry was $32.50, much higher than median hourly wage of $26.59 for the 29% of electrical power-line installers & repairers in the construction sector. Overall, electrical power-line installers & repairers may prefer to work in utilities, resulting in further difficulty attracting electrical power-line installers & repairers to work in construction.

Job postings for line installers often call for several years of experience in addition to a certificate from an accredited lineman program, where apprenticeships to the journeyman level can last three to five years. According to the BLS' Occupational Outlook handbook, admission into an apprenticeship program often requires passing a drug screen, having a high school diploma with classes in algebra, and an adequate score on an aptitude test.

A relatively long training time may make it difficult for supply to meet acute demand for electrical power-line installers & repairers, but a longer training time does not explain why higher and increasing wages in Idaho and Wyoming have not corresponded with an increase in occupational employment. A possible reason for this may be how utility companies allocate their employees who may then work in an area on a temporary basis.

Support for this occupation may include coordinating with utility companies, raising awareness of job opportunities in high schools and junior colleges, or sponsorship of classes geared towards the aptitude tests required for apprenticeships. Regardless, the construction industry may need to raise wages to attract electrical power-line installers & repairers away from the utilities industry. Increasing the number of graduates from apprenticeship programs in Wyoming may still fail to augment the supply of electrical power-line installers & repairers which does not seem to directly respond to higher wages.

Electricians

From 2009 to 2013, inflation adjusted median hourly wages for electricians declined 1.4% nationally to $24.28 and by 0.8% regionally to $22.99. The percent decreases in both areas were smaller than the percent decreases in wages for all occupations, indicating that working as an electrician is still relatively more attractive than many other occupations.

Wages for North Dakota and Wyoming

electricians increased 12.0% and 1.6% respectively, a rate comparable to the states' wage increase for all occupations. Wages were similar: $25.15 in North Dakota and $25.86 in Wyoming. Montana, with a wage increase for electricians of 7.1%, was the only state to offer higher 2013 wages than North Dakota and Wyoming ($27.63).

Nationally and regionally, employment of electricians declined 6.3% and 3.0%, respectively. The only states in the region with employment increases were North Dakota (74.1%) and South Dakota (5.4%).

Nationally, 67% of electricians were employed in the construction sector where the median hourly wage was $23.45 in 2013. This is slightly below the national wage across all industries of $24.28 which indicates that electricians working in other industries (23%) or those who are self-employed (10%) have higher median wages and may prefer to work outside the construction sector.

The Department of Fire Prevention and Electrical Safety licenses electricians in Wyoming. As in most states, Wyoming requires a four-year registered apprenticeship under the supervision of a journeyman or master electrician. Wyoming also mandates both 576 hours "of successfully completed electrically related classroom instruction," and a passing score on a written exam for journeymen electricians. These requirements are more stringent than a number of other states in the region. Ensuring apprentices' access to classroom instruction and the availability of licensed electricians to train apprentices may help alleviate the shortage.

Wyoming licensed electricians are offered reciprocity in every state in the region; with occasional exceptions, most other states in the region also have mutual reciprocity. This gives electricians a high degree of regional mobility, enabling workers to accept temporary positions in other states when conditions are favorable, and may explain some of the regional employment changes. Thus, electricians trained in the state cannot be guaranteed to stay even though Wyoming offers relatively high regional wages.

Excavating & Loading Machine & Dragline Operators

State and regional wage increases of 37.4% and 6.5% are indicators of an occupational shortage for excavating & loading machine & dragline operators. Wages decreased 0.3% nationally, but at a slower rate than the decrease of 2.6% for all occupations. Nebraska (14.5%) and Utah (3.4%) were the only regional states besides Wyoming with wage increases in the given time frame.

The fact that Wyoming's 2013 average hourly wage ($27.67) was significantly higher than the region as a whole ($21.15) or the nation ($18.70) making the state an attractive place to work in this occupation. However occupational employment in Wyoming declined 14.7%, similar to the regional employment decline of 16.4% and the national employment decline of 22.8%. The only state in the region to see a positive employment change for excavating & loading machine & dragline operators was North Dakota (52.4%). This finding suggests that workers may be more attracted to working conditions or opportunities for increased hours in North Dakota, rather than greater base pay in Wyoming.

Excavating & loading machine & dragline operators work primarily in construction (NAICS 23, 39%) or mining, quarrying, and oil and gas extraction (NAICS 21, 28%); 11% are self-employed and the remaining 22% work in other industries. The national median hourly wage in NAICS 21 was $19.32 per hour, greater than wages for excavating & loading machine & dragline operators in construction ($18.35) and across all sectors ($18.70). Higher wages in mining, quarrying, and oil and gas extraction may draw some excavating & loading machine & dragline operators away from construction.

On-the-job training for this occupation may take up to one year according to O*net, and education for excavating & loading machine & dragline operators rarely requires more than a high school diploma. Some employers may prefer applicants to have a valid commercial driver's license or special endorsements, but many only require a small amount of previous experience.

Support for this occupation may include job matching services, but the effects of this support would likely be ambiguous given the occupational growth in North Dakota.

Heating, Air Conditioning, & Refrigeration Mechanics

For the nation and the region, the respective 1.7% and 1.3% wage decreases do not indicate a clear shortage of heating, air conditioning, & refrigeration mechanics, but the labor market may be tightening in these areas as the wage decreases were smaller than the national and regional wage decreases for all occupations of 2.6% and 2.1%. OES estimates show a national employment increase of 3.0% for this occupation, a smaller increase than the overall employment change of 4.2% as reported by QCEW, but regionally employment for heating, air conditioning, & refrigeration mechanics increased by 8.2%, over the QCEW regionally reported employment change of 6.2%.

For this occupation, the state with the highest growth in hourly wages in the region was Montana at 20.4% for a 2013 hourly wage of $24.12; Montana also had the second highest growth rate in employment for heating, air conditioning, & refrigeration mechanics (25.5%). Other states with a real hourly wage increase in the region were Nebraska, South Dakota, and Utah. Contrary to nearly all other critical construction occupations examined in this section, wages for this occupation decreased in North Dakota by 10.1%. Regardless of the wage decrease, employment of heating, air conditioning, & refrigeration mechanics grew 106.4% in North Dakota, the greatest occupational employment increase in the region.

The positive wage change for heating, air conditioning, & refrigeration mechanics of 1.1% in Wyoming indicates a shortage in the state, but an occupational shortage is not as clearly indicated as other cases because the change is equivalent to the state wage growth for all occupations. Wyoming's 2013 heating, air conditioning, & refrigeration mechanics' average hourly wage of $19.62 was the second lowest in the region, lower than both national and regional hourly wages of $21.10 and $21.00, respectively.

Of all heating, air conditioning, & refrigeration mechanics, 64% were employed in the construction industry and the remainder were chiefly self-employed (O*NET). The majority (78%) of employers require post-secondary education or certification, and long term

on-the-job training and three-to-five year apprenticeships are commonly desired qualifications. Apprenticeships are sometimes offered through local chapters of the Air Conditioning Contractors of America and Associated Builders and Contractors and others (Occupational Outlook Handbook). Depending on the type of work, an Environmental Protection Agency certification is sometimes required. Laramie County Community College offers a Heating, Ventilation, and Air Conditioning/ Refrigeration (HVAC/R) certification at a cost of about $6,000 for a two semester program.

Higher wages in Wyoming could attract heating, air conditioning, & refrigeration mechanics to the state, but this is not necessarily the case. Tuition support for HVAC/R certification at Laramie County Community College may also encourage students to pursue training in HVAC/R over other vocations, but it would not ensure against occupational migration to the Bakken.

Insulation Workers, Mechanical

For the nation as a whole, wages increased 0.7% and employment decreased 6.3%. Regional data suppression limits the reliability of wage and employment data for insulation workers, mechanical and 2009 Wyoming wage and employment data are unavailable for this occupation. From 2010 to 2013, Wyoming's average hourly wage increased 13.9%, similar to North Dakota's increase of 13.5% over the same time. These were likely the greatest regional increases for insulation workers, mechanical, in the region. The real median 2013 hourly wage in Wyoming ($20.15) was also comparable to North Dakota's wage ($20.20), the highest in the region. Despite the comparability in wages, employment changes were vastly different: North Dakota had the greatest regional increase in employment (47.8%) and Wyoming had the second greatest decrease (-8.7%).

Employment of insulation workers, mechanical is heavily dependent on the health of the construction industry, which employs 91% of this occupation. The majority (76%) of employers do not require more than a high school diploma or equivalent and less than one year of on-the-job training is required (O*Net). Certification is not usually required unless the insulation workers, mechanical specializes in asbestos removal.

Support for this occupation may include job matching services and raising awareness for this vocation among high school students.

Operating Engineers & Other Construction Equipment Operators

Nationally, real hourly wages of operating engineers & other construction equipment operators decreased by 1.5% to $20.45 per hour, and employment decreased by 7.4% suggesting that there is no national shortage for this occupation, though employment as an operating engineer may still be relatively more attractive than other occupations where wages decreased an average of 2.6% nationally. In contrast, regional wages increased 1.3% to $21.05 and the regional employment increased 11.9%, indicating a possible regional occupational shortage. Wyoming offered the highest regional hourly wages of $22.56 in 2013, an increase of 4.3%; employment increased by 23.4%. North Dakota's wages were comparable, but only increased by 0.7% between 2009 and 2013. However, North Dakota had the greatest occupational employment increase in the region (72.8%).

Since 58% of operating engineers & other construction equipment operators work in

construction (NAICS 23) where they make a national median wage of $21.17, and 19% work in the government sector (NAICS 99) with a national median hourly wage of $18.75, workers trained in this occupation may be more likely to choose to work in construction over other industries.

O*NET reports that 67% of employers require at least a high school diploma, and often a post-secondary certificate. A clean driving record and drug testing are often other requirements, with some employers preferring a commercial driver's license. Ensuring access to commercial driver's license training may help potential workers meet employment requirements, but operating engineers & other construction equipment operators may not necessarily remain in Wyoming.

Telecommunications Line Installers & Repairers

For the country as a whole, telecommunications line installers & repairers' wages declined by 4.7% to $25.30 and regional median hourly wages declined 7.3% to $19.82. Despite decreasing wages, regional employment increased by 10.4% in contrast to the national decline in employment of telecommunications line installers and repairers of 23.2%. The decline in wages suggests that there is no shortage regionally or nationally, but the incongruent changes in employment indicate that this occupation may not directly respond to wage changes.

Four states in the region had positive changes in telecommunications line installers & repairers' wages: Idaho (6.9%), North Dakota (18.9%), South Dakota (7.9%), and Wyoming (5.4%). Median hourly wages were greatest in North Dakota at $24.56, followed by Wyoming ($21.78). However, employment decreased in each of these states by 15.2% and 4.3% respectively. In contrast, Utah had the lowest 2013 wages ($17.93) a wage decline of 20.3%, but a rise in employment of telecommunications line installers & repairers of 66.7%, showing again that employment and wages have no clear link.

Compared to others in the selected list of construction occupations, most (64%) of telecommunications line installers & repairers in the country are employed in the information sector (NAICS 51) (O*NET). Wages for this occupation in the Information sector are much higher than in construction: $29.85 compared to $18.89 in 2013.

Unlike electrical power-line installers & repairers, positions for telecommunications line installers & repairers do not often require apprenticeships. Several months to a year or more of on-the-job training for high school graduates is common. Some employers prefer applicants with some college or vocational training, especially in telecommunications or electronics. As Wyoming has neither nationally competitive wages nor the highest regional wages, it is unlikely compensation oriented telecommunications line installers & repairers would remain in the state if training support was provided for this occupation.

Conclusion

Shortcomings and Further Research

This research is significantly limited by the assumptions established in the Introduction. First, construction occupations of note were likely overlooked in the process

of establishing the occupations to consider in more detail. Also, the definition of a shortage is incomplete, accounting only for wage changes. A more complete analysis would account for changes in employment, and consider cases where changes in technology may increase wages but decrease employment or demand for an occupation.

Other shortcomings of this research are the data obtained from BLS. Data measuring the same indicators vary across the QCEW, CES, and OES programs. Most significantly, though OES is likely the most reliable source of national wage data, it is not a time series, meaning variations in wages may be a result of measures taken from that year's random sample, as opposed to variation in the market.

The findings of this paper leave room for many future studies. Updating wage and employment changes as additional data become available may show how the market is adapting to wage changes, and may help determine if shortages are frictional or structural. Continuing to update this research with new data may also allow for the observation of occupations in the "Possible Occupational Market Tightening" category.

Within Wyoming, it may be beneficial for researchers to break out occupational wage and employment data by county. This may show that, in certain cases, the state may find it beneficial to provide incentives for an individual to work on a temporary basis in a particular area of the state. As the process for determining occupational shortages is distilled, extending the analysis to various industries may be of interest as well.

Summary

This research suggests that the media anecdotes of shortages of brickmasons & blockmasons; carpenters; drywall & ceiling tile installers; electricians; plumbers, pipefitters, & steamfitters; tile & marble setters; welders; and cutters, solderers, & brazers, are not always supported by data. This paper shows that the most likely occupations with a shortage in Wyoming are crane & tower operators; drywall & ceiling tile installers; electrical power-line installers & repairers; electricians; excavating & loading machine & dragline operators; heating, air conditioning, & refrigeration mechanics; insulation workers; mechanical, operating engineers & other construction equipment operators; and telecommunications line installers & repairers.

In some cases, such as crane & tower operators and electrical power-line installers & repairers, shortages may be the result of a national and regional skills shortage. In other instances the findings of this research show that Wyoming may not be offering competitive wages or benefits to attract a given skill, possibly the case for heating, air conditioning, & refrigeration mechanics and telecommunications line installers & repairers. At times, data suggest that higher base pay may not always be the reason for individuals to work in the locations they do. Working in other states such as Montana or North Dakota could have added benefits of more hours, overtime pay, bonuses, or health insurance that are not offered in Wyoming, none of which are measured in this paper.

Overall, programs supporting certain occupations should be considered carefully, as there may be unexpected outcomes. Carefully monitoring implementation of such programs could help determine their efficacy and suggest improvements for the future.

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Appendix Table A1: **National Employment and Wages of Selected Occupations in the U.S., 2009-2013**

		Employment		Wages		
Occupation and SOC Code	**Year**	**Employment**	**% Change, 2009-2013**	**Median Hourly Wage ($2013)**	**% Change, 2009-2013**	**Weighted Average Median Wage, 2009-2013**
Total, All Occupations	2009	130,647,610		$17.32		
	2010	127,097,160		$17.38		
	2011	128,278,550	1.5%	$17.15	-2.6%	$17.13
	2012	130,287,700		$16.95		
	2013	132,588,810		$16.87		
Total, All Construction Sector Occupations	2009	6,497,870		$20.46		
	2010	5,662,980		$20.46		
	2011	5,543,800	-10.8%	$20.25	-1.7%	$20.29
	2012	5,611,950		$20.14		
	2013	5,797,170		$20.11		
Brickmasons & Blockmasons (47-2021)	2009	87,780		$24.40		
	2010	68,520		$24.10		
	2011	62,560	-33.1%	$23.29	-8.1%	$23.48
	2012	57,090		$22.65		
	2013	58,730		$22.41		
Carpenters (47-2031)	2009	743,760		$20.61		
	2010	620,410		$20.30		
	2011	578,910	-21.9%	$19.92	-5.5%	$19.99
	2012	567,820		$19.47		
	2013	580,570		$19.47		
Crane & Tower Operators (53-7021)	2009	40,770		$23.04		
	2010	39,510		$23.75		
	2011	41,070	2.0%	$23.13	1.5%	$23.26
	2012	43,040		$23.05		
	2013	41,580		$23.38		
Drywall & Ceiling Tile Installers (47-2081)	2009	102,880		$19.41		
	2010	82,320		$19.17		
	2011	75,520	-22.3%	$18.41	-7.8%	$18.66
	2012	75,810		$18.14		
	2013	79,950		$17.89		
Electrical Power-Line Installers and Repairers (49-9051)	2009	108,980		$29.58		
	2010	105,540		$29.81		
	2011	105,570	2.2%	$29.96	4.3%	$30.22
	2012	112,450		$30.84		
	2013	111,350		$30.85		
Electricians (47-2111)	2009	579,150		$24.63		
	2010	514,760		$24.79		
	2011	512,290	-6.3%	$24.54	-1.4%	$24.51
	2012	519,850		$24.30		
	2013	542,680		$24.28		
Elevator Installers & Repairers (47-4021)	2009	23,450		$36.05		
	2010	20,430		$36.42		
	2011	20,440	-9.3%	$37.36	4.9%	$36.98
	2012	19,700		$37.37		
	2013	21,270		$37.81		

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

(Table continued on page 36)

(Table continued from page 37)

Appendix Table A1: National Employment and Wages of Selected Occupations in the U.S., 2009-2013

		Employment		Wages		
Occupation and SOC Code	Year	Employment	% Change, 2009-2013	Median Hourly Wage ($2013)	% Change, 2009-2013	Weighted Average Median Wage, 2009-2013
Excavating & Loading Machine & Dragline Operators (53-7032)	2009	57,990		$18.76		
	2010	49,140		$18.96		
	2011	47,530	-22.8%	$18.60	-0.3%	$18.74
	2012	45,020		$18.67		
	2013	44,780		$18.70		
Heating, Air Conditioning, & Refrigeration Mechanics & Installers (49-9021)	2009	244,410		$21.45		
	2010	224,320		$21.85		
	2011	231,160	3.0%	$21.59	-1.7%	$21.45
	2012	240,480		$21.28		
	2013	251,700		$21.10		
Insulation Workers, Mechanical (47-2132)	2009	29,620		$19.34		
	2010	28,100		$19.34		
	2011	28,600	-6.3%	$18.91	0.7%	$19.23
	2012	28,220		$19.10		
	2013	27,740		$19.47		
Operating Engineers & Other Construction Equipment Operators (47-2073)	2009	368,200		$20.76		
	2010	334,730		$20.75		
	2011	335,410	-7.4%	$20.66	-1.5%	$20.61
	2012	335,160		$20.42		
	2013	340,950		$20.45		
Paving, Surfacing, & Tamping Equipment Operators (47-2071)	2009	54,850		$17.76		
	2010	51,830		$17.54		
	2011	54,120	1.6%	$17.56	2.2%	$17.70
	2012	54,460		$17.47		
	2013	55,720		$18.16		
Plumbers, Pipefitters, & Steamfitters (47-2152)	2009	400,970		$24.18		
	2010	358,790		$23.96		
	2011	349,320	-12.4%	$23.77	-0.2%	$24.00
	2012	340,370		$23.96		
	2013	351,380		$24.13		
Reinforcing Iron & Rebar Workers (47-2171)	2009	24,200		$20.60		
	2010	19,590		$19.74		
	2011	15,730	-28.6%	$18.91	19.0%	$21.16
	2012	15,330		$22.38		
	2013	17,280		$24.52		
Security & Fire Alarm Systems Installers (49-2098)	2009	63,690		$19.69		
	2010	57,390		$19.78		
	2011	56,330	-13.2%	$19.68	2.6%	$19.86
	2012	53,960		$20.01		
	2013	55,300		$20.19		

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

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Appendix Table A1: **National Employment and Wages of Selected Occupations in the U.S., 2009-2013**

		Employment		Wages		
Occupation and SOC Code	Year	Employment	% Change, 2009-2013	Median Hourly Wage ($2013)	% Change, 2009-2013	Weighted Average Median Wage, 2009-2013
Sheet Metal Workers (47-2211)	2009	146,690		$21.22		
	2010	131,600		$21.42		
	2011	130,670	-8.6%	$21.27	-0.5%	$21.22
	2012	133,420		$21.11		
	2013	134,110		$21.10		
Tapers (47-2082)	2009	24,050		$23.20		
	2010	17,690		$23.37		
	2011	15,340	-33.0%	$22.35	-9.1%	$22.51
	2012			$22.08		
	2013			$21.10		
Telecommunications Equipment Installers & Repairers, Except Line Installers (49-2022)	2009	189,850		$29.00		
	2010	190,100		$28.10		
	2011	199,240	10.3%	$26.85	-9.2%	$27.33
	2012	208,220		$26.59		
	2013	209,350		$26.32		
Telecommunications Line Installers & Repairers (49-9052)	2009	156,350		$26.55		
	2010	156,350		$26.12		
	2011	148,930	-23.2%	$25.75	-4.7%	$25.80
	2012	133,040		$25.07		
	2013	120,050		$25.30		
Tile & Marble Setters (47-2044)	2009	41,140		$20.45		
	2010	31,670		$19.57		
	2011	28,630	-26.9%	$18.46	-11.7%	$19.05
	2012	27,050		$18.06		
	2013	30,090		$18.06		
Welders, Cutters, Solderers, and Brazers (51-4121)	2009	357,740		$18.14		
	2010	314,260		$18.21		
	2011	316,290	-1.5%	$17.88	-2.7%	$17.91
	2012	329,710		$17.70		
	2013	352,250		$17.66		

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

Appendix Table A2: Population, Total Employment, Construction Sector Employment, and Percent and Total Change, 2009-2013, for the U.S., Region, Wyoming, and Selected States, 2009-2013

	Year	U.S.		Region		Wyoming		Colorado		Idaho	
Population	Year	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)
	2009[a]	306,771,529		14,078,606		559,851		4,972,195		1,554,439	
	2010[b]	309,326,295		14,268,718		564,460		5,048,196		1,570,718	
	2011[b]	311,582,564	3.1%	14,432,431	5.2%	567,329	4.1%	5,118,400	6.0%	1,583,930	3.7%
	2012[b]	313,873,685	9,357,310	14,612,781	737,378	576,626	22,807	5,189,458	296,172	1,595,590	57,697
	2013[b]	316,128,839		14,815,984		582,658		5,268,367		1,612,136	
Total Employment[c]	Year	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)
	2009	128,607,842		6,309,659		274,758		2,201,427		613,814	
	2010	127,820,442		6,268,446		271,151		2,176,986		605,571	
	2011	129,411,095	4.2%	6,369,321	6.2%	274,743	1.8%	2,213,059	6.1%	607,504	2.7%
	2012	131,696,378	5,357,111	6,538,336	391,838	278,595	4,926	2,266,503	134,370	614,463	16,500
	2013	133,964,953		6,701,498		279,684		2,335,797		630,314	
Construction Sector Employment (NAICS 23)[d]	Year	N[e]	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)
	2009	6,017,333		406,790		26,610		145,670		38,820	
	2010	5,518,750		353,660		23,240		120,240		32,520	
	2011	5,531,667	-3.1%	341,670	-8.6%	21,770	-16.7%	113,610	-15.3%	30,770	-18.3%
	2012	5,645,167	-188,000	353,280	-34,840	22,410	-4,440	114,920	-22,310	30,260	-7,110
	2013	5,829,333		371,950		22,170		123,360		31,710	

Sources:

[a]U.S. Census Bureau. Intercensal Estimates of the Components of Resident Population Change for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2010.

[b]U.S. Census Bureau. Intercensal Estimates of the Components of Resident Population Change for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2013.

[c]U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

[d]U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

[e]U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics.

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Table A2: Population, Total Employment, Construction Sector Employment, and Percent and Total Change, 2009-2013, for the U.S., Region, Wyoming, and Selected States, 2009-2013

	Year	Montana		Nebraska		North Dakota		South Dakota		Utah	
Population	Year	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)
	2009[a]	983,982		1,812,683		664,968		807,067		2,723,421	
	2010[b]	990,527		1,829,838		674,344		816,211		2,774,424	
	2011[b]	997,600	4.1% 31,183	1,841,749	3.1% 55,833	684,867	8.8% 58,425	823,772	4.7% 37,810	2,814,784	6.5% 177,451
	2012[b]	1,005,494		1,855,350		701,345		834,047		2,854,871	
	2013[b]	1,015,165		1,868,516		723,393		844,877		2,900,872	
Total Employment[c]	Year	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)
	2009	421,566		901,470		349,560		389,360		1,157,704	
	2010	419,231		896,936		358,635		389,198		1,150,737	
	2011	422,726	3.6% 15,318	901,584	3.5% 31,159	379,432	22.2% 77,548	393,744	3.9% 15,289	1,176,530	8.4% 96,729
	2012	430,315		920,295		411,709		400,475		1,215,983	
	2013	436,884		932,629		427,108		404,649		1,254,433	
Construction Sector Employment (NAICS 23)[d]	Year	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)	N	Change, 2009-2013 (% and N)
	2009	26,360		48,410		20,520		22,060		78,340	
	2010	23,690		44,160		21,920		20,780		67,110	
	2011	23,380	-6.0% -1,570	41,860	-7.8% -3,780	23,060	54.3% 11,140	21,100	-5.9% -1,1310	66,120	-7.0% -5,460
	2012	24,200		42,390		28,920		21,000		69,180	
	2013	24,790		44,630		31,660		20,750		24,790	

Sources:
[a]U.S. Census Bureau. Intercensal Estimates of the Components of Resident Population Change for the United States, Regions, States, and Puerto Rico: April 1, 2000 to July 1, 2010.
[b]U.S. Census Bureau. Intercensal Estimates of the Components of Resident Population Change for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2013.
[c]U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.
[d]U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.
[e]U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics.

Appendix Table A3: Inflation Adjusted Median Hourly Wages and Percent Change in Wages for All Occupations (SOC 00-0000) in the U.S., the Region, Wyoming, and Selected States, 2009-2013

Year	U.S.	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
2009	$17.32	$16.79	$17.59	$18.94	$15.68	$14.82	$15.62	$15.27	$14.18	$16.06
2010	$17.38	$16.78	$17.99	$18.89	$15.53	$14.90	$15.57	$15.49	$14.34	$16.07
2011	$17.15	$16.53	$17.98	$18.45	$15.02	$14.63	$15.34	$15.94	$14.27	$15.95
2012	$16.95	$16.42	$17.92	$18.09	$14.79	$14.70	$15.22	$16.63	$14.19	$15.97
2013	$16.87	$16.44	$17.79	$18.04	$14.68	$14.79	$15.31	$17.14	$14.14	$16.00
% Wage Change, 2009-2013	-2.6%	-2.1%	1.1%	-4.7%	-6.4%	-0.2%	-2.0%	12.3%	-0.3%	-0.4%

Source: U.S. Department of Labor, Bureau of Labor Statistics (BLS), Occupational Employment Statistics (OES).

Appendix Table A4: Employment Changes in the Construction Sector in the U.S., the Region, Wyoming, and Selected States, 2009-2013

Year	U.S.[a]	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
2009	6,017,333	406,790	26,610	145,670	38,820	26,360	48,410	20,520	22,060	78,340
2010	5,518,750	353,660	23,240	120,240	32,520	23,690	44,160	21,920	20,780	67,110
2011	5,531,667	341,670	21,770	113,610	30,770	23,380	41,860	23,060	21,100	66,120
2012	5,645,167	353,280	22,410	114,920	30,260	24,200	42,390	28,920	21,000	69,180
2013	5,829,333	371,950	22,170	123,360	31,710	24,790	44,630	31,660	20,750	72,880
% Construction Employment Change, 2009-2013	-3.1%	-8.6%	-16.7%	-15.3%	-18.3%	-6.0%	-7.8%	54.3%	-5.9%	-7.0%

Source: U.S. Department of Labor, Bureau of Labor Statistics (BLS), Occupational Employment Statistics (OES).
[a]Source: U.S. Department of Labor, Bureau of Labor Statistics, Current Employment Statistics (CES).

Appendix Table A5: Wage Changes in the Construction Sector in the U.S., the Region, Wyoming, and Selected States, 2009-2013

Year	U.S.	Region	Wyoming	Colorado	Idaho	Montana	Nebraska	North Dakota	South Dakota	Utah
2009	$20.46	$21.00	$21.71	$23.05	$19.17	$20.05	$19.82	$19.89	$17.29	$20.24
2010	$20.46	$21.02	$21.88	$23.08	$19.47	$20.04	$19.86	$20.18	$17.35	$20.30
2011	$20.25	$20.75	$21.31	$22.83	$19.61	$19.80	$19.19	$20.18	$17.22	$20.17
2012	$20.14	$20.30	$20.70	$22.08	$18.78	$20.00	$18.92	$20.63	$17.14	$19.63
2013	$20.11	$20.36	$20.64	$21.94	$18.45	$20.76	$19.16	$21.07	$16.92	$19.72
% Construction Employment Change, 2009-2013	-1.7%	-3.0%	-4.9%	-4.8%	-3.8%	3.6%	-3.3%	5.9%	-2.1%	-2.6%

Source: U.S. Department of Labor, Bureau of Labor Statistics (BLS), Occupational Employment Statistics (OES).

Appendix Table A6: **Regional Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
	Total, All Occupations	**2009**	**6,412,520**		**$16.79**		
		2010	**6,240,160**		**$16.78**		
		2011	**6,304,380**	**3.3%**	**$16.53**	**-2.1%**	**$16.59**
		2012	**6,452,770**		**$16.42**		
		2013	**6,621,780**		**$16.44**		
	All Construction Sector Occupations	2009	406,790		$21.00		
		2010	353,660		$21.02		
		2011	341,670	-8.6%	$20.75	-3.0%	$20.69
		2012	353,280		$20.30		
		2013	371,950		$20.36		
47-2021	Brickmasons & Blockmasons	2009	4,910		$24.35		
		2010	3,940		$24.54		
		2011	3,610	-27.1%	$22.22	-14.1%	$22.96
		2012	3,670		$22.10		
		2013	3,580		$20.92		
47-2031	Carpenters	2009	50,890		$18.43		
		2010	43,590		$18.29		
		2011	41,230	-17.4%	$17.80	-6.6%	$17.83
		2012	40,790		$17.23		
		2013	42,010		$17.22		
47-2044	Tile & Marble Setters	2009	2,624		$20.37		
		2010	2,040		$19.54		
		2011	1,742	-11.3%	$17.98	-15.6%	$18.78
		2012	1,830		$17.98		
		2013	1,810		$17.20		
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2009	3,310		$19.19		
		2010	3,130		$18.99		
		2011	3,300	2.1%	$18.87	-5.5%	$18.76
		2012	3,380		$18.62		
		2013	3,340		$18.14		
47-2073	Operating Engineers & Other Construction Equipment Operators	2009	30,500		$20.79		
		2010	27,390		$21.22		
		2011	30,760	11.9%	$21.42	1.3%	$21.10
		2012	32,020		$21.06		
		2013	34,130		$21.05		
47-2081	Drywall & Ceiling Tile Installers	2009	8,590		$18.32		
		2010	6,820		$18.17		
		2011	5,600	-23.4%	$17.52	-7.7%	$17.69
		2012	6,230		$17.30		
		2013	6,580		$16.90		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A6: **Regional Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
47-2082	Tapers	2009	ND	ND	$20.02	-9.8%	ND
		2010	ND		$19.35		
		2011	ND		$18.81		
		2012	ND		$18.43		
		2013	ND		$18.05		
47-2111	Electricians	2009	36,940	-3.0%	$23.18	-0.8%	$23.33
		2010	32,680		$23.53		
		2011	31,780		$23.64		
		2012	32,820		$23.35		
		2013	35,850		$22.99		
47-2132	Insulation Workers, Mechanical	2009	ND	ND	$17.43	12.8%	ND
		2010	ND		ND		
		2011	ND		ND		
		2012	ND		ND		
		2013	ND		$19.66		
47-2152	Plumbers, Pipefitters, & Steamfitters	2009	25,260	-13.1%	$23.27	-1.6%	$23.28
		2010	19,000		$23.74		
		2011	19,750		$23.65		
		2012	19,350		$22.90		
		2013	21,960		$22.90		
47-2171	Reinforcing Iron & Rebar Workers	2009	ND	ND	ND	ND	ND
		2010	ND		ND		
		2011	ND		ND		
		2012	ND		ND		
		2013	ND		ND		
47-2211	Sheet Metal Workers	2009	7,680	3.8%	$20.92	-3.1%	$20.65
		2010	7,620		$19.40		
		2011	7,340		$21.85		
		2012	7,330		$20.89		
		2013	7,910		$20.28		
47-4021	Elevator Installers & Repairers	2009	ND	ND	ND	ND	ND
		2010	ND		ND		
		2011	ND		ND		
		2012	ND		ND		
		2013	ND		ND		
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2009	8,960	11.9%	$29.76	-4.0%	$28.73
		2010	9,410		$28.78		
		2011	8,920		$28.36		
		2012	10,320		$28.30		
		2013	10,530		$28.55		

[a]SOC = Standard Occupational Classification System.

ND = Not disclosable due to confidentiality.

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

(Table continued on page 43)

(Table continued from page 42)

Appendix Table A6: **Regional Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
49-2098	Security & Fire Alarm Systems Installers	2009	3,372		$19.05		
		2010	3,092		$20.47		
		2011	2,570	-47.5%	$19.88	9.0%	$20.10
		2012	1,920		$21.06		
		2013	1,770		$20.76		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	2009	11,030		$21.27		
		2010	10,160		$21.38		
		2011	10,680	8.2%	$21.27	-1.3%	$21.20
		2012	11,350		$21.09		
		2013	11,930		$21.00		
49-9051	Electrical Power-Line Installers & Repairers	2009	8,550		$31.29		
		2010	8,070		$31.65		
		2011	7,570	-6.5%	$31.99	4.6%	$32.05
		2012	8,200		$32.62		
		2013	7,990		$32.72		
49-9052	Telecommunications Line Installers & Repairers	2009	4,030		$21.39		
		2010	4,420		$21.51		
		2011	4,720	10.4%	$20.54	-7.3%	$20.66
		2012	4,920		$20.18		
		2013	4,450		$19.82		
51-4121	Welders, Cutters, Solderers, & Brazers	2009	23,180		$18.12		
		2010	19,550		$18.47		
		2011	20,190	6.4%	$17.95	-1.5%	$18.05
		2012	22,020		$17.92		
		2013	24,660		$17.85		
53-7021	Crane & Tower Operators	2009	1,630		$25.33		
		2010	1,580		$25.02		
		2011	1,540	14.1%	$25.04	1.5%	$25.27
		2012	1,840		$25.17		
		2013	1,860		$25.71		
53-7032	Excavating & Loading Machine & Dragline Operators	2009	5,420		$19.86		
		2010	4,450		$20.53		
		2011	4,690	-16.4%	$20.96	6.5%	$20.75
		2012	5,020		$21.34		
		2013	4,530		$21.15		

[a]SOC = Standard Occupational Classification System.

ND = Not disclosable due to confidentiality.

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

Appendix Table A7: **Wyoming Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
	Total, All Occupations	2009	282,450		$17.59		
		2010	269,910		$17.99		
		2011	272,570	-1.3%	$17.98	1.1%	$17.85
		2012	278,040		$17.92		
		2013	278,910		$17.79		
	All Construction Sector Occupations	2009	26,610		$21.71		
		2010	23,240		$21.88		
		2011	21,770	-16.7%	$21.31	-4.9%	$21.27
		2012	22,410		$20.70		
		2013	22,170		$20.64		
47-2021	Brickmasons & Blockmasons	2009	260		$23.46		
		2010	260		$22.10		
		2011	220	-23.1%	$24.83	-1.8%	$23.46
		2012	250		$23.97		
		2013	200		$23.05		
47-2031	Carpenters	2009	3,020		$20.58		
		2010	2,630		$20.26		
		2011	2,530	-10.6%	$18.89	-8.7%	$19.47
		2012	2,530		$18.67		
		2013	2,700		$18.78		
47-2044	Tile & Marble Setters	2009	ND		$22.82		
		2010	40		$22.31		
		2011	50	175.0%	$20.23	-39.4%	$17.24[b]
		2012	50		$17.74		
		2013	110		$13.82		
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2009	220		$22.39		
		2010	220		$23.27		
		2011	120	9.1%	$24.40	-16.7%	$21.93
		2012	200		$22.37		
		2013	240		$18.66		
47-2073	Operating Engineers & Other Construction Equipment Operators	2009	4,740		$21.63		
		2010	4,430		$24.46		
		2011	5,600	23.4%	$23.35	4.3%	$22.85
		2012	5,550		$22.41		
		2013	5,850		$22.56		
47-2081	Drywall & Ceiling Tile Installers	2009	230		$18.34		
		2010	260		$19.13		
		2011	310	-4.3%	$18.39	1.7%	$18.77
		2012	240		$19.39		
		2013	220		$18.65		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A7: **Wyoming Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
47-2082	Tapers	2009	No Data	No Data	No Data	No Data	No Data
		2010	No Data		No Data		
		2011	No Data		No Data		
		2012	No Data		No Data		
		2013	No Data		No Data		
47-2111	Electricians	2009	2,830	-7.1%	$25.45	1.6%	$26.03
		2010	2,810		$26.37		
		2011	2,730		$26.15		
		2012	2,580		$26.33		
		2013	2,630		$25.86		
47-2132	Insulation Workers, Mechanical	2009	No Data	-8.7%[b]	No Data	13.9%[b]	$18.33[b]
		2010	230		$17.69		
		2011	240		$17.55		
		2012	220		$18.13		
		2013	210		$20.15		
47-2152	Plumbers, Pipefitters, & Steamfitters	2009	1,930	-47.2%	$19.77	-0.5%	$20.89
		2010	1,430		$22.18		
		2011	1,070		$22.11		
		2012	1,010		$21.17		
		2013	1,020		$19.67		
47-2171	Reinforcing Iron & Rebar Workers	2009	70	No Data	$22.11	No Data	No Data
		2010	50		$22.86		
		2011	No Data		No Data		
		2012	No Data		No Data		
		2013	No Data		No Data		
47-2211	Sheet Metal Workers	2009	No Data	-21.9%[b]	No Data	-2.8%[b]	$20.25[b]
		2010	320		$20.94		
		2011	300		$19.93		
		2012	280		$19.73		
		2013	250		$20.36		
47-4021	Elevator Installers & Repairers	2009	No Data	No Data	No Data	No Data	No Data
		2010	No Data		No Data		
		2011	No Data		No Data		
		2012	No Data		No Data		
		2013	No Data		No Data		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A7: Wyoming Employment and Wages of Selected Construction Occupations, 2009-2013

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2009	410		$28.99		
		2010	360		$23.68		
		2011	360	34.1%	$22.81	-10.9%	$25.28
		2012	390		$24.38		
		2013	550		$25.82		
49-2098	Security & Fire Alarm Systems Installers	2009	ND		$19.64		
		2010	50		$21.75		
		2011	50	20.0%[b]	$22.26	-5.9%	$20.71[b]
		2012	70		$20.77		
		2013	60		$18.48		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	2009	380		$19.40		
		2010	410		$20.20		
		2011	470	21.1%	$19.71	1.1%	$19.58
		2012	540		$19.08		
		2013	460		$19.62		
49-9051	Electrical Power-Line Installers & Repairers	2009	620		$32.33		
		2010	550		$33.87		
		2011	400	-32.3%	$35.59	13.3%	$34.75
		2012	390		$36.97		
		2013	420		$36.62		
49-9052	Telecommunications Line Installers & Repairers	2009	230		$20.66		
		2010	420		$20.32		
		2011	380	-4.3%	$20.27	5.4%	$20.49
		2012	400		$20.06		
		2013	220		$21.78		
51-4121	Welders, Cutters, Solderers, & Brazers	2009	2,500		$23.24		
		2010	2,250		$24.58		
		2011	1,880	-7.6%	$23.22	-4.5%	$23.09
		2012	2,360		$22.28		
		2013	2,310		$22.18		
53-7021	Crane & Tower Operators	2009	140		$29.78		
		2010	150		$28.29		
		2011	130	-28.6%	$27.88	10.0%	$29.46
		2012	120		$29.50		
		2013	100		$32.77		
53-7032	Excavating & Loading Machine & Dragline Operators	2009	950		$20.14		
		2010	620		$24.59		
		2011	770	-14.7%	$27.10	37.4%	$25.16
		2012	1,080		$26.64		
		2013	810		$27.67		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

Appendix Table A8: **Colorado Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
	Total, All Occupations	2009	2,234,250	2.7%	$18.94	-4.7%	$18.48
		2010	2,157,690		$18.89		
		2011	2,179,060		$18.45		
		2012	2,226,160		$18.09		
		2013	2,295,000		$18.04		
	All Construction Sector Occupations	2009	145,670	-15.3%	$23.05	-4.8%	$22.61
		2010	120,240		$23.08		
		2011	113,610		$22.83		
		2012	114,920		$22.08		
		2013	123,360		$21.94		
47-2021	Brickmasons & Blockmasons	2009	1,620	-41.4%	$24.28	-12.0%	$23.16
		2010	1,290		$23.73		
		2011	1,230		$22.85		
		2012	1,180		$22.78		
		2013	950		$21.37		
47-2031	Carpenters	2009	14,630	-25.2%	$20.59	-8.7%	$19.62
		2010	12,520		$20.28		
		2011	11,810		$19.37		
		2012	10,960		$18.68		
		2013	10,950		$18.79		
47-2044	Tile & Marble Setters	2009	880	-37.5%	$21.03	-14.6%	$18.86
		2010	600		$19.08		
		2011	550		$16.83		
		2012	620		$18.18		
		2013	550		$17.96		
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2009	1,350	11.1%	$21.12	-12.4%	$19.64
		2010	1,200		$20.31		
		2011	1,300		$19.77		
		2012	1,310		$18.66		
		2013	1,500		$18.50		
47-2073	Operating Engineers & Other Construction Equipment Operators	2009	8,890	-15.9%	$22.07	-7.8%	$21.24
		2010	7,020		$21.41		
		2011	6,740		$21.40		
		2012	6,650		$20.76		
		2013	7,480		$20.36		
47-2081	Drywall & Ceiling Tile Installers	2009	3,860	-33.7%	$18.91	-7.7%	$18.23
		2010	2,800		$18.50		
		2011	2,120		$17.58		
		2012	2,330		$18.23		
		2013	2,560		$17.45		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A8: Colorado Employment and Wages of Selected Construction Occupations, 2009-2013

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
47-2082	Tapers	2009	800	-43.8%	$20.18	-7.3%	$19.59
		2010	470		$19.52		
		2011	380		$19.50		
		2012	480		$19.54		
		2013	450		$18.71		
47-2111	Electricians	2009	13,330	-1.1%	$23.94	-3.5%	$23.91
		2010	11,720		$24.23		
		2011	11,450		$24.46		
		2012	11,930		$23.95		
		2013	13,180		$23.10		
47-2132	Insulation Workers, Mechanical	2009	290	41.1%[b]	$17.29	-2.2%	$17.26[b]
		2010	390		$17.54		
		2011	390		$17.49		
		2012	410		$16.74		
		2013	ND		$16.90		
47-2152	Plumbers, Pipefitters, & Steamfitters	2009	8,700	-11.7%	$23.56	-2.0%	$23.32
		2010	7,220		$23.32		
		2011	6,840		$23.81		
		2012	6,730		$22.75		
		2013	7,680		$23.10		
47-2171	Reinforcing Iron & Rebar Workers	2009	90	ND	$17.12	6.4%	ND
		2010	30		$17.60		
		2011	ND		$17.55		
		2012	ND		$17.80		
		2013	ND		$18.21		
47-2211	Sheet Metal Workers	2009	2,520	-4.8%	$20.28	2.7%	$21.29
		2010	2,320		$20.99		
		2011	2,080		$22.33		
		2012	2,080		$22.31		
		2013	2,400		$20.83		
47-4021	Elevator Installers & Repairers	2009	230	-17.4%	$29.48	16.0%	$32.67
		2010	180		$28.68		
		2011	100		$34.87		
		2012	220		$36.93		
		2013	190		$34.21		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A8: **Colorado Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2009	4,630	-5.4%	$30.75	0.4%	$30.88
		2010	4,630		$30.76		
		2011	3,970		$31.08		
		2012	4,410		$30.99		
		2013	4,380		$30.87		
49-2098	Security & Fire Alarm Systems Installers	2009	1,450	-65.5%	$20.52	15.4%	$21.91
		2010	1,290		$21.63		
		2011	820		$21.76		
		2012	610		$24.56		
		2013	500		$23.69		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	2009	3,900	-7.4%	$23.44	-5.3%	$23.36
		2010	3,700		$23.90		
		2011	3,620		$24.14		
		2012	3,640		$23.10		
		2013	3,610		$22.19		
49-9051	Electrical Power-Line Installers & Repairers	2009	2,470	-2.8%	$32.33	6.1%	$33.20
		2010	1,910		$32.08		
		2011	1,900		$33.51		
		2012	2,340		$33.64		
		2013	2,400		$34.32		
49-9052	Telecommunications Line Installers & Repairers	2009	1,060	-8.5%	$21.05	-8.9%	$21.91
		2010	1,310		$22.63		
		2011	1,220		$23.93		
		2012	1,390		$22.00		
		2013	970		$19.18		
51-4121	Welders, Cutters, Solderers, & Brazers	2009	3,880	19.8%	$19.52	-5.5%	$18.94
		2010	3,230		$19.34		
		2011	3,440		$19.12		
		2012	3,720		$18.46		
		2013	4,650		$18.44		
53-7021	Crane & Tower Operators	2009	410	36.6%	$26.73	-0.6%	$25.40
		2010	440		$23.59		
		2011	580		$24.97		
		2012	690		$25.18		
		2013	560		$26.58		
53-7032	Excavating & Loading Machine & Dragline Operators	2009	1,450	-29.7%	$21.67	-0.5%	$22.21
		2010	1,280		$22.98		
		2011	1,210		$22.29		
		2012	1,170		$22.55		
		2013	1,020		$21.56		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

Appendix Table A9: **Idaho Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
	Total, All Occupations	2009	614,520		$15.68		
		2010	594,750		$15.53		
		2011	592,730	-0.2%	$15.02	-6.4%	$15.14
		2012	598,540		$14.79		
		2013	613,000		$14.68		
	All Construction Sector Occupations	2009	38,820		$19.17		
		2010	32,520		$19.47		
		2011	30,770	-18.3%	$19.61	-3.8%	$19.10
		2012	30,260		$18.78		
		2013	31,710		$18.45		
47-2021	Brickmasons & Blockmasons	2009	420		$21.29		
		2010	220		$23.27		
		2011	210	-52.4%	$21.60	-1.7%	$21.57
		2012	200		$20.86		
		2013	200		$20.93		
47-2031	Carpenters	2009	6,520		$17.19		
		2010	4,790		$17.43		
		2011	4,100	-43.3%	$17.48	-4.1%	$17.01
		2012	3,310		$16.03		
		2013	3,700		$16.48		
47-2044	Tile & Marble Setters	2009	110		$17.45		
		2010	110		$17.81		
		2011	140	154.5%	$17.56	-9.3%	$16.73
		2012	180		$16.41		
		2013	280		$15.82		
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2009	300		$16.95		
		2010	270		$18.21		
		2011	330	26.7%	$17.72	8.8%	$17.82
		2012	380		$17.68		
		2013	380		$18.44		
47-2073	Operating Engineers & Other Construction Equipment Operators	2009	2,050		$19.47		
		2010	1,900		$19.48		
		2011	1,970	-3.9%	$19.68	7.3%	$19.88
		2012	1,890		$19.90		
		2013	1,970		$20.89		
47-2081	Drywall & Ceiling Tile Installers	2009	730		$16.96		
		2010	730		$17.40		
		2011	610	-16.4%	$16.50	-8.1%	$16.52
		2012	690		$15.97		
		2013	610		$15.59		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]Weighted average omits 2010.
[c]2010-2013.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A9: **Idaho Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
47-2082	Tapers	2009	230		$22.02		
		2010	180		$18.77		
		2011	170	-34.8%	$17.38	-26.2%	$18.22
		2012	270		$16.25		
		2013	150		$16.24		
47-2111	Electricians	2009	3,320		$23.50		
		2010	2,950		$24.58		
		2011	2,780	-16.3%	$23.91	-9.7%	$23.15
		2012	2,710		$22.37		
		2013	2,780		$21.21		
47-2132	Insulation Workers, Mechanical	2009	No Data		No Data		
		2010	ND		$17.35		
		2011	200	ND	$18.43	-0.3%	ND
		2012	160		$17.72		
		2013	100		$17.30		
47-2152	Plumbers, Pipefitters, & Steamfitters	2009	1,880		$20.54		
		2010	No Data		No Data		
		2011	1,750	-25.5%	$19.38	-2.3%	$20.07[b]
		2012	1,530		$20.18		
		2013	1,400		$20.08		
47-2171	Reinforcing Iron & Rebar Workers	2009	No Data		$0.00		
		2010	110		$19.12		
		2011	ND	ND	$19.01	5.0%	ND
		2012	110		$18.16		
		2013	70		$20.08		
47-2211	Sheet Metal Workers	2009	990		$21.02		
		2010	570		$19.33		
		2011	580	-6.1%	$18.53	-10.2%	$18.99
		2012	770		$16.61		
		2013	930		$18.87		
47-4021	Elevator Installers & Repairers	2009	No Data		No Data		
		2010	No Data		No Data		
		2011	No Data	No Data	No Data	No Data	No Data
		2012	No Data		No Data		
		2013	No Data		No Data		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]Weighted average omits 2010.
[c]2010-2013.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A9: **Idaho Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2009	No Data		No Data		
		2010	490		$26.72		
		2011	500	53.1%[c]	$25.81	-24.2%[c]	$23.17[c]
		2012	680		$21.88		
		2013	750		$20.26		
49-2098	Security & Fire Alarm Systems Installers	2009	190		$15.55		
		2010	190		$17.48		
		2011	190	10.5%	$17.27	22.0%	$17.78
		2012	190		$19.53		
		2013	210		$18.97		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	2009	1,080		$17.85		
		2010	1,170		$17.96		
		2011	1,190	16.7%	$17.99	-3.4%	$17.76
		2012	1,290		$17.81		
		2013	1,260		$17.25		
49-9051	Electrical Power-Line Installers & Repairers	2009	1,300		$33.74		
		2010	890		$35.79		
		2011	860	-36.2%	$35.96	13.0%	$35.97
		2012	800		$37.62		
		2013	830		$38.11		
49-9052	Telecommunications Line Installers & Repairers	2009	No Data		No Data		
		2010	100		$18.76		
		2011	110	0.0%[c]	$19.68	6.9%[c]	$19.60[c]
		2012	100		$19.88		
		2013	100		$20.06		
51-4121	Welders, Cutters, Solderers, & Brazers	2009	2,500		$15.70		
		2010	2,010		$16.26		
		2011	1,910	-16.0%	$15.86	2.7%	$15.97
		2012	1,830		$15.96		
		2013	2,100		$16.12		
53-7021	Crane & Tower Operators	2009	90		$23.43		
		2010	80		$23.40		
		2011	60	44.4%	$18.50	2.3%	$22.60
		2012	90		$21.84		
		2013	130		$23.96		
53-7032	Excavating & Loading Machine & Dragline Operators	2009	550		$19.12		
		2010	450		$18.22		
		2011	500	-27.3%	$18.30	-5.5%	$18.42
		2012	480		$18.25		
		2013	400		$18.06		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]Weighted average omits 2010.
[c]2010-2013.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

Appendix Table A10: **Montana Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
	Total, All Occupations	2009	432,240		$14.82		
		2010	424,300		$14.90		
		2011	425,110	1.6%	$14.63	-0.2%	$14.77
		2012	432,380		$14.70		
		2013	439,110		$14.79		
	All Construction Sector Occupations	2009	26,360		$20.05		
		2010	23,690		$20.04		
		2011	23,380	-6.0%	$19.80	3.6%	$20.13
		2012	24,200		$20.00		
		2013	24,790		$20.76		
47-2021	Brickmasons & Blockmasons	2009	230		$25.46		
		2010	230		$22.17		
		2011	250	13.0%	$20.92	-17.9%	$21.77
		2012	280		$19.97		
		2013	260		$20.91		
47-2031	Carpenters	2009	5,610		$18.03		
		2010	4,100		$17.72		
		2011	3,780	-36.4%	$17.55	-1.1%	$17.73
		2012	3,500		$17.37		
		2013	3,570		$17.83		
47-2044	Tile & Marble Setters	2009	190		$13.64		
		2010	160		$12.21		
		2011	160	-57.9%	$11.42	-2.0%	$12.44
		2012	140		$11.71		
		2013	80		$13.37		
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2009	210		$20.73		
		2010	190		$20.99		
		2011	260	66.7%	$21.04	-1.1%	$20.86
		2012	340		$21.13		
		2013	350		$20.49		
47-2073	Operating Engineers & Other Construction Equipment Operators	2009	2,710		$21.69		
		2010	2,530		$21.18		
		2011	2,660	29.5%	$21.22	-0.1%	$21.52
		2012	3,310		$21.70		
		2013	3,510		$21.68		
47-2081	Drywall & Ceiling Tile Installers	2009	ND		$22.36		
		2010	80		$17.45		
		2011	110	100%[b]	$17.27	-21.3%	$17.21[b]
		2012	120		$16.48		
		2013	160		$17.59		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]2009-2012.
[d]Weighted average omits 2010.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A10: Montana Employment and Wages of Selected Construction Occupations, 2009-2013

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
47-2082	Tapers	2009	70	ND	$22.49	-24.9%	ND
		2010	ND		$22.24		
		2011	ND		$20.77		
		2012	40		$16.90		
		2013	ND		$16.89		
47-2111	Electricians	2009	2,150	-0.5%	$25.81	7.1%	$26.61
		2010	1,950		$26.78		
		2011	1,860		$26.42		
		2012	1,990		$26.39		
		2013	2,140		$27.63		
47-2132	Insulation Workers, Mechanical	2009	ND	ND	$27.75	-11.4%[c]	ND
		2010	ND		$31.42		
		2011	ND		$27.58		
		2012	70		$24.59		
		2013	No Data		No Data		
47-2152	Plumbers, Pipefitters, & Steamfitters	2009	1,530	25.5%	$25.40	-2.9%	$25.08[d]
		2010	No Data		No Data		
		2011	1,320		$25.42		
		2012	1,610		$25.01		
		2013	1,920		$24.66		
47-2171	Reinforcing Iron & Rebar Workers	2009	No Data	No Data	No Data	No Data	No Data
		2010	No Data		No Data		
		2011	No Data		No Data		
		2012	No Data		No Data		
		2013	No Data		No Data		
47-2211	Sheet Metal Workers	2009	600	-15.0%	$19.10	26.6%	$20.98
		2010	710		$20.10		
		2011	540		$21.63		
		2012	470		$20.52		
		2013	510		$24.17		
47-4021	Elevator Installers & Repairers	2009	70	No Data	$30.61	No Data	No Data
		2010	No Data		No Data		
		2011	No Data		No Data		
		2012	No Data		No Data		
		2013	No Data		No Data		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]2009-2012.
[d]Weighted average omits 2010.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A10: **Montana Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2009	400		$29.19		
		2010	530		$22.26		
		2011	590	80.0%	$24.99	1.8%	$26.85
		2012	710		$27.58		
		2013	720		$29.72		
49-2098	Security & Fire Alarm Systems Installers	2009	250		$20.16		
		2010	190		$19.81		
		2011	200	-52.0%	$20.04	12.9%	$20.41
		2012	100		$20.09		
		2013	120		$22.76		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	2009	470		$20.03		
		2010	620		$19.65		
		2011	510	25.5%	$20.56	20.4%	$21.25
		2012	570		$21.66		
		2013	590		$24.12		
49-9051	Electrical Power-Line Installers & Repairers	2009	540		$33.68		
		2010	690		$35.95		
		2011	720	9.3%	$36.64	5.8%	$35.82
		2012	710		$36.65		
		2013	590		$35.65		
49-9052	Telecommunications Line Installers & Repairers	2009	500		No Data		
		2010	420		$18.76		
		2011	450	-36.0%	$19.68	6.9%[c]	$19.55[c]
		2012	340		$19.88		
		2013	320		$20.06		
51-4121	Welders, Cutters, Solderers, & Brazers	2009	970		$19.01		
		2010	960		$18.51		
		2011	890	17.5%	$17.96	-14.6%	$17.82
		2012	1,110		$17.69		
		2013	1,140		$16.23		
53-7021	Crane & Tower Operators	2009	80		$25.64		
		2010	90		$27.12		
		2011	110	50.0%	$26.48	28.8%	$28.21
		2012	90		$27.28		
		2013	120		$33.03		
53-7032	Excavating & Loading Machine & Dragline Operators	2009	400		$21.39		
		2010	260		$18.69		
		2011	220	-52.5%	$20.03	-2.1%	$20.44
		2012	210		$20.76		
		2013	190		$20.95		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]2009-2012.
[d]Weighted average omits 2010.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

Appendix Table A11: **Nebraska Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
	Total, All Occupations	2009	916,770		$15.62		
		2010	901,690		$15.57		
		2011	904,630	1.1%	$15.34	-2.0%	$15.41
		2012	914,830		$15.22		
		2013	927,150		$15.31		
	All Construction Sector Occupations	2009	48,410		$19.82		
		2010	44,160		$19.86		
		2011	41,860	-7.8%	$19.19	-3.3%	$19.40
		2012	42,390		$18.92		
		2013	44,630		$19.16		
47-2021	Brickmasons & Blockmasons	2009	790		$21.95		
		2010	590		$24.85		
		2011	580	-26.6%	$19.24	-5.7%	$21.45
		2012	560		$20.18		
		2013	580		$20.71		
47-2031	Carpenters	2009	6,260		$16.13		
		2010	5,280		$16.24		
		2011	5,350	1.9%	$16.41	-2.8%	$16.04
		2012	5,850		$15.81		
		2013	6,380		$15.69		
47-2044	Tile & Marble Setters	2009	210		$16.79		
		2010	180		$16.28		
		2011	100	-85.7%	$17.39	23.1%	$16.64
		2012	110		$15.19		
		2013	30		$20.66		
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2009	440		$15.83		
		2010	440		$15.42		
		2011	480	6.8%	$14.99	-9.7%	$14.96
		2012	450		$14.32		
		2013	470		$14.29		
47-2073	Operating Engineers & Other Construction Equipment Operators	2009	2,860		$16.82		
		2010	2,500		$16.86		
		2011	1,970	-19.9%	$17.47	2.1%	$17.09
		2012	2,140		$17.27		
		2013	2,290		$17.18		
47-2081	Drywall & Ceiling Tile Installers	2009	630		$16.74		
		2010	710		$17.21		
		2011	650	-7.9%	$17.05	-4.3%	$16.76
		2012	880		$16.68		
		2013	580		$16.02		

[a]SOC = Standard Occupational Classification System.

ND = Not disclosable due to confidentiality.

[b]Weighted average omits 2010.

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

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Appendix Table A11: **Nebraska Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
47-2082	Tapers	2009	180		$21.12		
		2010	190		$20.89		
		2011	200	-22.2%	$20.10	1.8%	$20.64
		2012	190		$19.87		
		2013	140		$21.49		
47-2111	Electricians	2009	4,970		$21.43		
		2010	4,450		$21.47		
		2011	4,250	-17.5%	$20.81	-6.4%	$20.99
		2012	4,220		$21.03		
		2013	4,100		$20.07		
47-2132	Insulation Workers, Mechanical	2009	80		$17.06		
		2010	180		ND		
		2011	200	37.5%	$19.06	12.5%	$18.74[b]
		2012	190		$18.85		
		2013	110		$19.19		
47-2152	Plumbers, Pipefitters, & Steamfitters	2009	3,620		$27.62		
		2010	4,020		$27.72		
		2011	3,580	-14.4%	$26.58	-13.2%	$26.20
		2012	3,220		$24.39		
		2013	3,100		$23.97		
47-2171	Reinforcing Iron & Rebar Workers	2009	No Data		No Data		
		2010	No Data		No Data		
		2011	No Data	No Data	No Data	No Data	No Data
		2012	50		$20.42		
		2013	130		$19.11		
47-2211	Sheet Metal Workers	2009	1,040		$21.43		
		2010	910		$20.16		
		2011	850	-26.0%	$21.31	-9.2%	$20.61
		2012	800		$20.40		
		2013	770		$19.47		
47-4021	Elevator Installers & Repairers	2009	220		$38.08		
		2010	120		ND		
		2011	100	ND	$41.80	ND	ND
		2012	ND		$40.28		
		2013	No Data		No Data		

[a]SOC = Standard Occupational Classification System.

ND = Not disclosable due to confidentiality.

[b]Weighted average omits 2010.

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

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Appendix Table A11: Nebraska Employment and Wages of Selected Construction Occupations, 2009-2013

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2009	1,280		$27.93		
		2010	1,110		$25.65		
		2011	1,250	0.8%	$24.29	-12.3%	$25.39
		2012	1,420		$24.71		
		2013	1,290		$24.49		
49-2098	Security & Fire Alarm Systems Installers	2009	330		$17.82		
		2010	350		$18.00		
		2011	380	-21.2%	$18.67	10.6%	$18.58
		2012	280		$19.02		
		2013	260		$19.71		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	2009	1,900		$21.24		
		2010	1,460		$20.64		
		2011	1,620	-3.2%	$21.11	3.3%	$21.27
		2012	1,550		$21.27		
		2013	1,840		$21.93		
49-9051	Electrical Power-Line Installers & Repairers	2009	1,160		$26.80		
		2010	1,610		$27.51		
		2011	1,490	5.2%	$28.05	0.8%	$27.51
		2012	1,520		$27.91		
		2013	1,220		$27.00		
49-9052	Telecommunications Line Installers & Repairers	2009	700		$21.63		
		2010	650		$19.87		
		2011	760	28.6%	$17.58	-13.3%	$19.06
		2012	700		$17.75		
		2013	900		$18.75		
51-4121	Welders, Cutters, Solderers, & Brazers	2009	4,380		$16.43		
		2010	3,520		$16.09		
		2011	3,350	-2.1%	$15.87	0.5%	$16.25
		2012	3,840		$16.26		
		2013	4,290		$16.51		
53-7021	Crane & Tower Operators	2009	250		$22.37		
		2010	250		$25.53		
		2011	210	-12.0%	$25.11	-14.4%	$23.26
		2012	260		$23.92		
		2013	220		$19.14		
53-7032	Excavating & Loading Machine & Dragline Operators	2009	660		$15.79		
		2010	540		$16.01		
		2011	640	-19.7%	$15.57	14.5%	$16.41
		2012	610		$16.90		
		2013	530		$18.07		

[a]SOC = Standard Occupational Classification System.

ND = Not disclosable due to confidentiality.

[b]Weighted average omits 2010.

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

Appendix Table A12: **North Dakota Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
	Total, All Occupations	**2009**	**353,630**	**19.6%**	**$15.27**	**12.3%**	**$16.14**
		2010	**355,710**		**$15.49**		
		2011	**371,630**		**$15.94**		
		2012	**403,290**		**$16.63**		
		2013	**422,930**		**$17.14**		
	All Construction Sector Occupations	2009	20,520	54.3%	$19.89	5.9%	$20.46
		2010	21,920		$20.18		
		2011	23,060		$20.18		
		2012	28,920		$20.63		
		2013	31,660		$21.07		
47-2021	Brickmasons & Blockmasons	2009	200	-50.0%	$26.55	0.0%	$26.58
		2010	180		$26.98		
		2011	120		$25.83		
		2012	170		$26.74		
		2013	100		$26.55		
47-2031	Carpenters	2009	2,390	18.4%	$16.58	6.0%	$16.85
		2010	2,820		$16.39		
		2011	2,760		$16.75		
		2012	3,010		$16.92		
		2013	2,830		$17.57		
47-2044	Tile & Marble Setters	2009	ND	ND	$24.31	-45.6%	$16.69
		2010	ND		$25.17		
		2011	90		$20.08		
		2012	40		$14.23		
		2013	60		$13.23		
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2009	100	310.0%[c]	$18.70	12.9%	$20.07[c]
		2010	160		$19.11		
		2011	310		$20.05		
		2012	410		$20.80		
		2013	ND		$21.11		
47-2073	Operating Engineers & Other Construction Equipment Operators	2009	2,350	72.8%	$22.23	0.7%	$22.50
		2010	2,210		$23.12		
		2011	2,430		$22.78		
		2012	2,960		$22.19		
		2013	4,060		$22.38		
47-2081	Drywall & Ceiling Tile Installers	2009	260	3.8%	$18.18	-2.9%	$17.77
		2010	190		$18.18		
		2011	190		$17.08		
		2012	280		$17.68		
		2013	270		$17.65		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A12: North Dakota Employment and Wages of Selected Construction Occupations, 2009-2013

SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
			Employment		Wages		
47-2082	Tapers	2009	80		$16.43		
		2010	40		$20.00		
		2011	50	ND	$17.07	5.1%	ND
		2012	ND		$17.60		
		2013	ND		$17.26		
47-2111	Electricians	2009	1,970		$22.45		
		2010	2,020		$23.37		
		2011	2,000	74.1%	$23.56	12.0%	$24.01
		2012	2,600		$24.54		
		2013	3,430		$25.15		
47-2132	Insulation Workers, Mechanical	2009	ND		$17.80		
		2010	230		$15.51		
		2011	130	47.8%[b]	$19.54	13.5%	$18.41[b]
		2012	230		$18.03		
		2013	340		$20.20		
47-2152	Plumbers, Pipefitters, & Steamfitters	2009	1,020		$22.77		
		2010	1,070		$24.16		
		2011	1,040	56.9%	$24.44	-7.3%	$22.97
		2012	1,200		$23.29		
		2013	1,600		$21.10		
47-2171	Reinforcing Iron & Rebar Workers	2009	No Data		No Data		
		2010	No Data		No Data		
		2011	No Data	No Data	No Data	No Data	No Data
		2012	No Data		No Data		
		2013	ND		$25.25		
47-2211	Sheet Metal Workers	2009	600		$19.85		
		2010	710		$19.53		
		2011	850	20.0%	$18.18	-18.6%	$18.21
		2012	580		$17.53		
		2013	720		$16.15		
47-4021	Elevator Installers & Repairers	2009	ND		$36.57		
		2010	110		$36.81		
		2011	No Data	No Data	No Data	No Data	No Data
		2012	No Data		No Data		
		2013	No Data		No Data		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A12: **North Dakota Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2009	610		$30.03		
		2010	550		$29.55		
		2011	440	-39.3%	$28.84	2.1%	$29.77
		2012	410		$29.84		
		2013	370		$30.67		
49-2098	Security & Fire Alarm Systems Installers	2009	100		ND		
		2010	140		$18.14		
		2011	130	0.0%[c]	$18.24	34.5%[b]	ND
		2012	100		$19.12		
		2013	ND		$24.39		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	2009	470		$23.43		
		2010	400		$21.06		
		2011	500	106.4%	$19.52	-10.1%	$21.32
		2012	620		$21.73		
		2013	970		$21.06		
49-9051	Electrical Power-Line Installers & Repairers	2009	550		$30.14		
		2010	740		$31.37		
		2011	700	40.0%	$30.06	4.8%	$30.97
		2012	1,000		$31.29		
		2013	770		$31.60		
49-9052	Telecommunications Line Installers & Repairers	2009	330		$20.65		
		2010	320		$24.67		
		2011	350	-15.2%	$24.52	18.9%	$24.36
		2012	350		$27.24		
		2013	280		$24.56		
51-4121	Welders, Cutters, Solderers, & Brazers	2009	2,570		$18.30		
		2010	2,030		$19.51		
		2011	2,390	14.8%	$19.93	13.0%	$19.78
		2012	2,910		$20.24		
		2013	2,950		$20.68		
53-7021	Crane & Tower Operators	2009	140		$23.93		
		2010	140		$22.97		
		2011	90	157.1%	$22.51	11.5%	$25.92
		2012	320		$28.18		
		2013	360		$26.68		
53-7032	Excavating & Loading Machine & Dragline Operators	2009	420		$23.04		
		2010	450		$19.96		
		2011	520	52.4%	$20.89	-8.4%	$21.11
		2012	640		$20.84		
		2013	640		$21.11		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

Appendix Table A13: **South Dakota Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
	Total, All Occupations	**2009**	**392,890**	**2.6%**	**$14.18**	**-0.3%**	**$14.22**
		2010	**387,590**		**$14.34**		
		2011	**392,670**		**$14.27**		
		2012	**398,680**		**$14.19**		
		2013	**402,990**		**$14.14**		
	All Construction Sector Occupations	2009	22,060	-5.9%	$17.29	-2.1%	$17.19
		2010	20,780		$17.35		
		2011	21,100		$17.22		
		2012	21,000		$17.14		
		2013	20,750		$16.92		
47-2021	Brickmasons & Blockmasons	2009	280	14.3%	$20.99	-13.9%	$19.41
		2010	250		$20.25		
		2011	270		$19.04		
		2012	290		$18.99		
		2013	320		$18.07		
47-2031	Carpenters	2009	4,120	-9.7%	$15.41	-1.4%	$15.22
		2010	4,030		$15.19		
		2011	3,730		$15.04		
		2012	3,760		$15.27		
		2013	3,720		$15.19		
47-2044	Tile & Marble Setters	2009	No data	ND	No data	No Data	No Data
		2010	No data		No data		
		2011	ND		$17.60		
		2012	50		$17.34		
		2013	ND		$17.43		
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2009	210	-28.6%	$16.61	11.4%	$17.70
		2010	230		$18.04		
		2011	230		$17.52		
		2012	170		$18.09		
		2013	150		$18.51		
47-2073	Operating Engineers & Other Construction Equipment Operators	2009	1,930	-5.2%	$18.65	-6.1%	$18.06
		2010	1,590		$18.64		
		2011	1,760		$17.89		
		2012	1,710		$17.62		
		2013	1,830		$17.51		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]Weighted average omits 2010.
[d]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A13: South Dakota Employment and Wages of Selected Construction Occupations, 2009-2013

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
47-2081	Drywall & Ceiling Tile Installers	2009	360	-2.8%	$16.48	-9.6%	$15.77
		2010	360		$16.32		
		2011	370		$16.20		
		2012	370		$14.91		
		2013	350		$14.90		
47-2082	Tapers	2009	70	-28.6%[d]	$15.45	5.7%[d]	$16.00[d]
		2010	70		$16.37		
		2011	50		$15.94		
		2012	50		$16.33		
		2013	No Data		No Data		
47-2111	Electricians	2009	1,660	5.4%	$21.07	-5.4%	$20.57
		2010	1,550		$21.03		
		2011	1,640		$20.66		
		2012	1,660		$20.20		
		2013	1,750		$19.94		
47-2132	Insulation Workers, Mechanical	2009	ND	No Data	$15.26	No Data	No Data
		2010	70		$14.20		
		2011	90		$16.07		
		2012	No Data		No Data		
		2013	No Data		No Data		
47-2152	Plumbers, Pipefitters, & Steamfitters	2009	1,230	-15.4%	$18.81	-0.5%	$18.80
		2010	1,010		$19.41		
		2011	1,040		$18.31		
		2012	1,050		$18.76		
		2013	1,040		$18.72		
47-2171	Reinforcing Iron & Rebar Workers	2009	ND	0.0%[b]	$13.84	37.1%	No Data
		2010	30		$15.38		
		2011	No data		No data		
		2012	30		$15.34		
		2013	30		$18.98		
47-2211	Sheet Metal Workers	2009	410	14.6%	$13.29	26.5%	$18.32[c]
		2010	520		ND		
		2011	420		$20.24		
		2012	410		$23.11		
		2013	470		$16.81		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]Weighted average omits 2010.
[d]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A13: South Dakota Employment and Wages of Selected Construction Occupations, 2009-2013

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
47-4021	Elevator Installers & Repairers	2009	No Data	No Data	No Data	No Data	No Data
		2010	No Data		No Data		
		2011	No Data		No Data		
		2012	No Data		No Data		
		2013	50		$41.48		
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2009	570	-21.1%	$26.99	-4.7%	$26.59
		2010	510		$27.04		
		2011	480		$26.60		
		2012	510		$26.45		
		2013	450		$25.73		
49-2098	Security & Fire Alarm Systems Installers	2009	ND	ND	$15.08	19.9%	ND
		2010	ND		$15.59		
		2011	50		$20.87		
		2012	80		$20.82		
		2013	110		$18.08		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	2009	820	4.9%	$18.60	7.4%	$19.12
		2010	810		$18.63		
		2011	710		$19.15		
		2012	810		$19.19		
		2013	860		$19.98		
49-9051	Electrical Power-Line Installers & Repairers	2009	770	9.1%	$29.03	5.4%	$29.29
		2010	800		$28.86		
		2011	820		$28.61		
		2012	710		$29.25		
		2013	840		$30.61		
49-9052	Telecommunications Line Installers & Repairers	2009	580	5.2%	$19.34	7.9%	$19.41
		2010	510		$19.21		
		2011	540		$18.82		
		2012	590		$18.68		
		2013	610		$20.86		
51-4121	Welders, Cutters, Solderers, & Brazers	2009	2,240	29.0%	$15.53	-1.3%	$15.31
		2010	2,170		$15.52		
		2011	2,650		$15.25		
		2012	2,700		$14.99		
		2013	2,890		$15.33		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]Weighted average omits 2010.
[d]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A13: South Dakota Employment and Wages of Selected Construction Occupations, 2009-2013

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
53-7021	Crane & Tower Operators	2009	60	33.3%	$20.22	6.1%	$21.19
		2010	90		$21.15		
		2011	60		$21.31		
		2012	70		$21.65		
		2013	80		$21.46		
53-7032	Excavating & Loading Machine & Dragline Operators	2009	340	-2.9%	$16.20	-5.2%	$16.10
		2010	280		$17.16		
		2011	250		$16.46		
		2012	280		$15.47		
		2013	330		$15.36		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]2010-2013.
[c]Weighted average omits 2010.
[d]2009-2012.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

Appendix Table A14: **Utah Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
	Total, All Occupations	**2009**	**1,185,770**		**$16.06**		
		2010	**1,148,520**		**$16.07**		
		2011	**1,165,980**	**4.8%**	**$15.95**	**-0.4%**	**$16.01**
		2012	**1,200,850**		**$15.97**		
		2013	**1,242,690**		**$16.00**		
	All Construction Sector Occupations	2009	78,340		$20.24		
		2010	67,110		$20.30		
		2011	66,120	-7.0%	$20.17	-2.6%	$20.01
		2012	69,180		$19.63		
		2013	72,880		$19.72		
47-2021	Brickmasons & Blockmasons	2009	1,110		$27.76		
		2010	920		$27.76		
		2011	730	-12.6%	$23.94	-26.1%	$24.80
		2012	740		$23.12		
		2013	970		$20.51		
47-2031	Carpenters	2009	8,340		$18.83		
		2010	7,420		$19.00		
		2011	7,170	-2.2%	$18.02	-11.6%	$17.95
		2012	7,870		$17.31		
		2013	8,160		$16.65		
47-2044	Tile & Marble Setters	2009	1,250		$21.78		
		2010	950		$21.82		
		2011	660	-39.2%	$20.25	-15.5%	$20.74
		2012	640		$20.38		
		2013	760		$18.40		
47-2071	Paving, Surfacing, & Tamping Equipment Operators	2009	480		$17.35		
		2010	420		$16.79		
		2011	270	-47.9%	$18.12	7.9%	$17.55
		2012	120		$17.20		
		2013	250		$18.73		
47-2073	Operating Engineers & Other Construction Equipment Operators	2009	4,970		$20.15		
		2010	5,210		$20.94		
		2011	7,630	43.7%	$21.94	7.5%	$21.40
		2012	7,810		$21.72		
		2013	7,140		$21.66		
47-2081	Drywall & Ceiling Tile Installers	2009	2,520		$18.48		
		2010	1,690		$18.63		
		2011	1,240	-27.4%	$18.42	-8.8%	$17.94
		2012	1,320		$17.08		
		2013	1,830		$16.86		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]Weighted average omits 2010.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A14: **Utah Employment and Wages of Selected Construction Occupations, 2009-2013**

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
47-2082	Tapers	2009	190		$18.19		
		2010	320		$19.18		
		2011	360	52.6%	$18.71	-10.3%	$18.18
		2012	350		$18.28		
		2013	290		$16.31		
47-2111	Electricians	2009	6,710		$21.74		
		2010	5,230		$21.21		
		2011	5,070	-13.0%	$22.65	2.5%	$21.99
		2012	5,130		$22.12		
		2013	5,840		$22.28		
47-2132	Insulation Workers, Mechanical	2009	230		$17.75		
		2010	230		$18.71		
		2011	340	30.4%	$20.88	10.8%	$19.70
		2012	370		$20.49		
		2013	300		$19.66		
47-2152	Plumbers, Pipefitters, & Steamfitters	2009	5,350		$22.57		
		2010	4,250		$22.14		
		2011	3,110	-21.5%	$23.64	8.1%	$23.21
		2012	3,000		$23.77		
		2013	4,200		$24.40		
47-2171	Reinforcing Iron & Rebar Workers	2009	180		$22.57		
		2010	230		$23.32		
		2011	200	-5.6%	$21.49	-21.4%	$21.02
		2012	190		$19.18		
		2013	170		$17.74		
47-2211	Sheet Metal Workers	2009	1,520		$24.77		
		2010	1,560		$25.24		
		2011	1,720	22.4%	$25.26	-11.2%	$23.74
		2012	1,940		$22.07		
		2013	1,860		$22.00		
47-4021	Elevator Installers & Repairers	2009	140		$32.84		
		2010	150		$33.71		
		2011	ND	128.6%	$35.81	9.6%	$34.88[b]
		2012	330		$35.17		
		2013	320		$36.01		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]Weighted average omits 2010.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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Appendix Table A14: Utah Employment and Wages of Selected Construction Occupations, 2009-2013

			Employment		Wages		
SOC[a] Code	Occupation Title	Year	Employment	Percent Employment Change, 2009-2013	Median Hourly Wage	Percent Wage Change, 2009-2013	Weighted Average Median Wage, 2009-2013
49-2022	Telecommunications Equipment Installers & Repairers, Except Line Installers	2009	1,060		$29.48		
		2010	1,230		$29.64		
		2011	1,330	90.6%	$28.51	1.0%	$29.11
		2012	1,790		$28.25		
		2013	2,020		$29.77		
49-2098	Security & Fire Alarm Systems Installers	2009	1,060		$20.35		
		2010	890		$20.78		
		2011	750	-51.9%	$19.10	-4.0%	$19.93
		2012	490		$19.14		
		2013	510		$19.54		
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	2009	2,010		$20.15		
		2010	1,590		$21.15		
		2011	2,060	16.4%	$19.95	0.7%	$20.37
		2012	2,330		$20.47		
		2013	2,340		$20.30		
49-9051	Electrical Power-Line Installers & Repairers	2009	1,140		$31.16		
		2010	880		$32.09		
		2011	680	-19.3%	$30.38	-2.3%	$31.32
		2012	730		$32.59		
		2013	920		$30.44		
49-9052	Telecommunications Line Installers & Repairers	2009	630		$22.49		
		2010	690		$21.55		
		2011	910	66.7%	$18.29	-20.3%	$18.96
		2012	1,050		$16.74		
		2013	1,050		$17.93		
51-4121	Welders, Cutters, Solderers, & Brazers	2009	4,140		$18.05		
		2010	3,380		$18.61		
		2011	3,680	4.6%	$17.82	-4.4%	$17.85
		2012	3,550		$17.69		
		2013	4,330		$17.25		
53-7021	Crane & Tower Operators	2009	460		$25.73		
		2010	340		$26.74		
		2011	300	-37.0%	$26.19	-5.5%	$25.20
		2012	200		$21.13		
		2013	290		$24.33		
53-7032	Excavating & Loading Machine & Dragline Operators	2009	650		$19.11		
		2010	570		$19.66		
		2011	580	-6.2%	$20.60	3.4%	$19.77
		2012	550		$19.82		
		2013	610		$19.75		

[a]SOC = Standard Occupational Classification System.
ND = Not disclosable due to confidentiality.
[b]Weighted average omits 2010.
Source: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Employment Statistics.

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