WYOMING LABOR FORCE August 2011
TRENDS
Vol. 48 No. 8  Research & Planning

**TRAINING FOR WHAT?** *PART 5*

# Examining the Gender Wage Gap Among New Hires in Wyoming's Manufacturing Industry

*by: Tony Glover, Workforce Information Supervisor*

***This is the fifth installment in a series of articles examining Wyoming's manufacturing industry. This article analyzes new hires in Wyoming's manufacturing industry and across all industries in order to determine if a wage gap existed within the same occupation for male and female new hires. Within most occupations, there was no evidence of wage disparity between male and female new hires.***

Previous labor market analyses by the Research & Planning (R&P) section of the Wyoming Department of Workforce Services have shown that the gender wage gap in Wyoming is largely due to the industrial structure and distribution of occupations in the state (Jones, 2004, 2007, 2008, and Moore, 2011). Through a U.S. Department of Labor American Recovery and Reinvestment Act (ARRA) grant, R&P earlier this year took this prior research a step further by contrasting newly hired males and females with the same occupation across all industries and specifically in manufacturing.

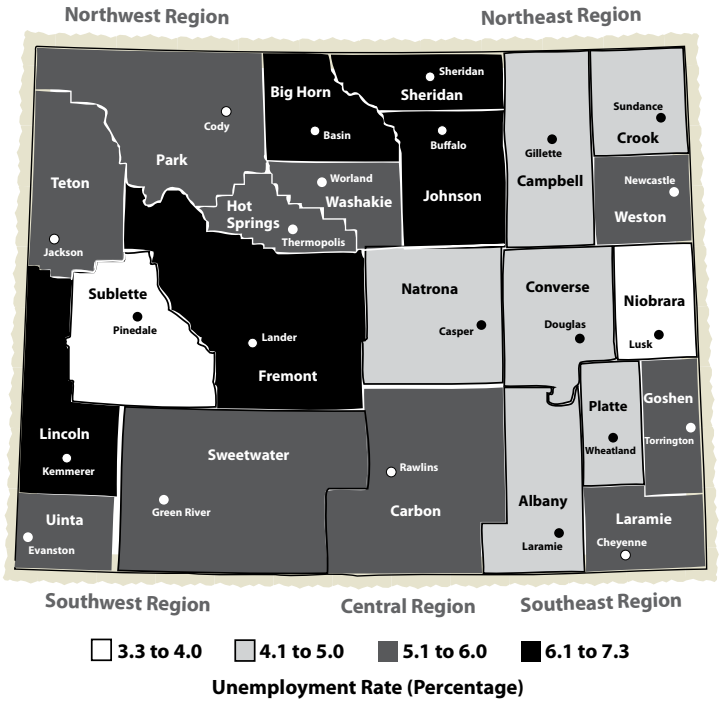
Research & Planning collected data from a random sample of 11,471 new hires from fourth quarter 2009 to third quarter 2010. These were employees who had not worked for their current employer in the previous 20 years. The data collected include occupations, wages, other benefits, skills, and employers' satisfaction with the work performed. Some new hires were excluded because they were paid a piece

(Text continued on page 3)

## HIGHLIGHTS

- **Excerpts from Research & Planning's Occasional Paper No. 5 — ARRA Labor Market Dynamics: An Overview of the American Recovery and Reinvestment Act of 2009 discuss how legislation is put in place in order to address new energy-efficient technologies and the effects these technologies could have on the regulatory environment. …** ***page 15***
- **Initial unemployment insurance claims decreased by 19.2% from year-ago levels. …** ***page 30***

**Unemployment Rate by Wyoming County, June 2011 (Not Seasonally Adjusted)**




# IN THIS ISSUE




## Wyoming Labor Force Trends

A monthly publication of the Wyoming Department of Workforce Services,
**Joan Evans, Director**

**Research & Planning**
**P.O. Box 2760**
**Casper, WY 82602-2760**
**dws-researchplanning@wyo.gov**
**307-473-3807**

**Tom Gallagher, Manager**

**Tony Glover, Workforce Information Supervisor**

**Carola Cowan, Bureau of Labor Statistics Programs Supervisor**

**Phil Ellsworth, Editor**
**Michael Moore, Associate Editor**

**Editorial Committee: David Bullard, Valerie A. Davis, Phil Ellsworth, and Michael Moore**

Contributors to *Wyoming Labor Force Trends* this month: David Bullard, Carola Cowan, Phil Ellsworth, Tony Glover, Margaret Hiatt, Douglas W. Leonard, and Michael Moore.

Subscriptions, additional copies, and back issues available free of charge.



**Department of Workforce Services Nondiscrimination Statement**
The Department of Workforce Services does not discriminate on the basis of race, color, religion, national origin, sex, age, or disability. It is our intention that all individuals seeking services from our agency be given equal opportunity and that eligibility decisions be based upon applicable statutes, rules, and regulations.

Mission statement available at http://doe.state.wy.us/LMI/mission.pdf.

ISSN 0512-4409

(Text continued from page 1)

rate or commission, and an hourly wage could not be determined. Others were excluded because the employee's gender was not known – primarily nonresidents for whom R&P did not have demographic information. This left an analysis pool of 8,745 workers (see Table 1, page 4). More information on this methodology can be found online at http://doe.state.wy.us/LMI/0211/a2.htm.

Data were aggregated at each industry and occupation level independently. At the finer levels of detail, which include a specific industry or occupation, analysis was restricted to cases where there were at least two males and two females. As a result, the number of new hires for all occupations exceeds the sum of the detail rows in the table.

For each occupation, wages for males and females were compared to determine whether a statistically significant difference in wages existed. For portions of the analysis that address manufacturing occupations specifically, the number of new hires, average wages, and standard deviation of wages were suppressed to protect confidentiality of data for employers and employees. The values in the statistical test column include "F" when the females were paid significantly more than males, "M" when males were paid significantly more than females, "No" when there was no significant difference between wages paid to females and males, and the field is left blank when no data were collected or were suppressed due to the two males/two females rule.

Across all industries and occupations, newly hired males were paid significantly more than newly hired females (see Table 1, row 1). The average hourly wage for males across all industries and occupations was $15.21, compared to $12.19 for females. The standard deviation in the Figure represents the distribution of wages paid for males and females. For example, while the average hourly wage for males was $15.21, some were paid more and others were paid less.

The Figure plots the distribution of wages paid to males and females based on the average wage and the standard deviation of the wage of each group, and demonstrates that there is overlap in the wage distributions of males and females. The statistical test applied to this analysis is referred to as a Student's t-test. It is designed to test the hypothesis that there is no difference between the earnings of males and females based not only on

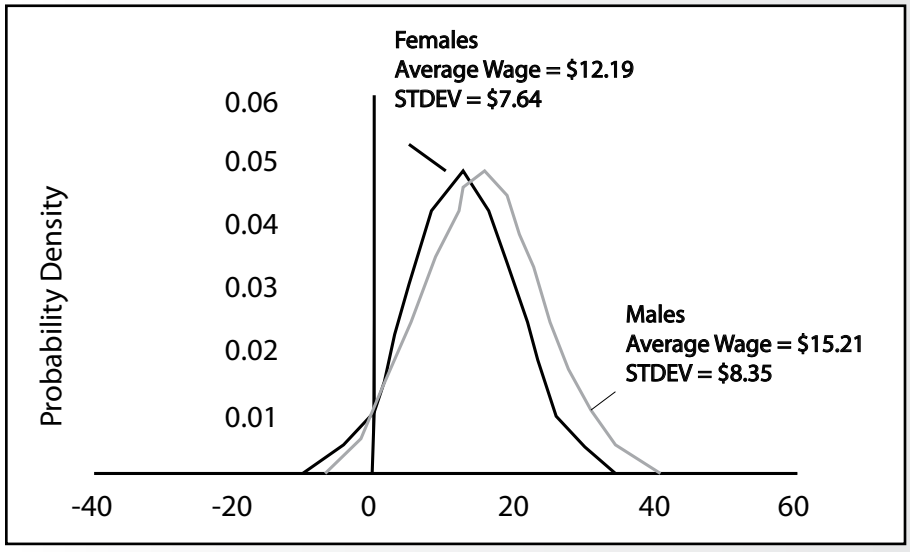



Figure: **Average Wage & Standard Deviation of Newly Hired Employees for All Occupations and All Industries, Males and Females, Wyoming**

(Text continued on page 10)

Table 1: **Gender Wage Comparison in Wyoming, All Occupations & All Industry and Manufacturing Detail Based on New Hires Survey, 2009Q4 to 2010Q3**

| | | | All Industries - 184 Occupations | | | | | Manufacturing - 11 Occupations | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Males | | Females | | | | |
| SOC Code | Title | Number of New Hires | Average Wage | STDEV Wage | Average Wage | STDEV Wage | Statistical Difference Between Males and Females | Job Typically Found in Manufacturing | Statistical Difference Between Males and Females |
| **00-0000** | **Total all occupations** | **8,745** | **$15.21** | **$8.35** | **$12.19** | **$7.64** | **M** | **Yes** | **M** |
| 11-1021 | General & Operations Managers | 7 | $22.92 | $7.21 | $31.55 | $13.28 | No | Yes | |
| 11-3031 | Financial Managers | 12 | $38.05 | $9.92 | $28.15 | $12.68 | No | Yes | |
| 11-9032 | Education Administrators, Elementary & Secondary School | 4 | $43.83 | $2.72 | $34.38 | $4.17 | No | | |
| 11-9141 | Property, Real Estate, & Community Association Managers | 12 | $16.53 | $4.29 | $14.76 | $3.43 | No | | |
| 11-9151 | Social & Community Svc. Managers | 7 | $19.99 | $7.20 | $13.94 | $5.44 | No | | |
| 11-9199 | Managers, All Other | 10 | $23.10 | $10.30 | $27.84 | $26.99 | No | Yes | |
| 13-1151 | Training & Development Specialists | 6 | $18.48 | $9.12 | $16.97 | $6.10 | No | Yes | |
| 13-1161 | Market Research Analysts | 6 | $27.98 | $13.59 | $15.65 | $3.33 | No | Yes | |
| 13-1199 | Business Op. Specialists, All Other | 11 | $38.02 | $16.50 | $15.67 | $4.33 | M | Yes | |
| 13-2011 | Accountants & Auditors | 37 | $28.63 | $14.67 | $25.09 | $14.32 | No | Yes | |
| 13-2072 | Loan Officers | 18 | $18.45 | $5.97 | $17.47 | $9.91 | No | | |
| 13-2082 | Tax Preparers | 7 | $10.39 | $1.95 | $17.17 | $7.01 | No | | |
| 13-2099 | Financial Specialists, All Other | 6 | $22.48 | $13.02 | $18.62 | $7.29 | No | | |
| 15-1141 | Database Administrators | 5 | $22.36 | $10.54 | $17.00 | $8.54 | No | Yes | |
| 15-1151 | Computer User Support Specialists | 17 | $12.73 | $4.10 | $10.22 | $0.50 | M | | |
| 15-1199 | Computer Occupations, All Other | 5 | $20.28 | $13.74 | $11.04 | $1.47 | No | Yes | |
| 17-3011 | Architectural & Civil Drafters | 5 | $21.50 | $4.95 | $16.17 | $4.86 | No | Yes | |
| 17-3022 | Civil Engineering Technicians | 7 | $14.60 | $2.88 | $14.25 | $0.35 | No | | |
| 17-3031 | Surveying & Mapping Technicians | 14 | $15.83 | $7.91 | $12.88 | $3.75 | No | | |
| 19-2031 | Chemists | 5 | $24.07 | $12.29 | $14.98 | $1.81 | No | Yes | |
| 19-4031 | Chemical Technicians | 11 | $17.55 | $6.46 | $15.70 | $6.03 | No | Yes | |
| 19-4041 | Geological & Petroleum Technicians | 15 | $21.62 | $8.92 | $14.50 | $2.12 | M | Yes | |
| 19-4061 | Social Science Research Assistants | 8 | $13.14 | $4.16 | $11.72 | $3.52 | No | | |
| 19-4091 | Environmental Science & Protection Technicians, Including Health | 15 | $13.90 | $3.63 | $12.04 | $3.29 | No | | |
| 21-1011 | Substance Abuse & Behavioral Disorder Counselors | 5 | $18.79 | $1.70 | $28.99 | $9.83 | No | | |
| 21-1015 | Rehabilitation Counselors | 40 | $9.85 | $2.33 | $10.12 | $2.29 | No | | |
| 21-1021 | Child, Family, & School Social Workers | 19 | $14.31 | $7.93 | $11.39 | $2.57 | No | | |
| 21-1023 | Mental Health & Substance Abuse Social Workers | 4 | $15.60 | $6.50 | $13.50 | $3.53 | No | | |
| 21-1093 | Social & Human Service Assistants | 34 | $10.71 | $2.60 | $14.95 | $16.92 | No | | |
| 21-1099 | Community & Social Service Specialists, All Other | 8 | $11.48 | $5.99 | $12.96 | $4.08 | No | | |
| 23-1011 | Lawyers | 13 | $46.00 | $51.78 | $60.24 | $39.77 | No | Yes | |
| 23-2011 | Paralegals & Legal Assistants | 27 | $12.32 | $4.36 | $14.91 | $3.61 | No | | |
| 25-1194 | Voc. Ed.Teachers, Postsecondary | 13 | $20.71 | $5.77 | $25.53 | $14.89 | No | | |

F = Females are paid statistically more than males.

M = Males are paid statistically more than females.

No = There is no statistical difference between what females are paid and what males are paid.

*Table continued on page 5*

*Table continued from page 4*

**Table 1: Gender Wage Comparison in Wyoming, All Occupations & All Industry and Manufacturing Detail Based on New Hires Survey, 2009Q4 to 2010Q3**

| | | | All Industries - 184 Occupations | | | | | Manufacturing - 11 Occupations | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Males | | Females | | | | |
| SOC Code | Title | Number of New Hires | Average Wage | STDEV Wage | Average Wage | STDEV Wage | Statistical Difference Between Males and Females | Job Typically Found in Manufacturing | Statistical Difference Between Males and Females |
| 25-2011 | Preschool Teachers, Exc. Special Ed. | 7 | $15.50 | $0.71 | $12.84 | $2.92 | No | | |
| 25-2021 | Elementary School Teachers, Except Special Education | 14 | $22.18 | $2.55 | $23.03 | $5.85 | No | | |
| 25-2031 | Secondary School Teachers, Except Special & Vocational Education | 9 | $27.51 | $8.85 | $23.79 | $1.88 | No | | |
| 25-3021 | Self-Enrichment Education Teachers | 9 | $25.17 | $10.68 | $11.71 | $4.88 | M | | |
| 25-3098 | Substitute Teachers | 107 | $12.87 | $3.70 | $12.40 | $4.37 | No | | |
| 25-3099 | Teachers & Instructors, All Other | 8 | $15.52 | $2.67 | $14.87 | $4.92 | No | | |
| 25-4031 | Library Technicians | 40 | $11.30 | $2.30 | $9.93 | $1.88 | No | | |
| 25-9041 | Teacher Assistants | 42 | $11.04 | $1.80 | $11.36 | $2.63 | No | | |
| 25-9099 | Education, Training, & Library Workers, All Other | 17 | $10.59 | $1.08 | $12.14 | $3.36 | No | | |
| 27-1024 | Graphic Designers | 16 | $11.04 | $2.87 | $12.68 | $1.85 | No | Yes | |
| 27-1026 | Merchandise Displayers & Window Trimmers | 34 | $11.69 | $2.62 | $10.85 | $1.82 | No | | |
| 27-2022 | Coaches & Scouts | 10 | $14.17 | $6.60 | $9.13 | $2.36 | No | | |
| 27-3011 | Radio & Television Announcers | 11 | $14.51 | $7.63 | $10.26 | $1.63 | No | | |
| 27-3022 | Reporters & Correspondents | 9 | $11.18 | $1.50 | $9.84 | $2.55 | No | | |
| 27-3031 | Public Relations Specialists | 6 | $16.43 | $10.01 | $10.00 | $0.71 | No | | |
| 27-4012 | Broadcast Technicians | 6 | $9.59 | $3.20 | $7.50 | $0.43 | No | | |
| 27-4021 | Photographers | 6 | $8.98 | $2.18 | $8.50 | $1.39 | No | | |
| 29-1071 | Physician Assistants | 4 | $36.30 | $23.05 | $40.84 | $1.18 | No | | |
| 29-1141 | Registered Nurses | 63 | $26.60 | $7.32 | $25.27 | $11.41 | No | Yes | |
| 29-2041 | Emergency Med. Tech. & Paramedics | 11 | $12.69 | $3.45 | $11.86 | $3.49 | No | | |
| 29-2051 | Dietetic Technicians | 8 | $10.50 | $0.71 | $10.14 | $1.16 | No | | |
| 31-1011 | Home Health Aides | 7 | $17.17 | $9.00 | $11.47 | $1.94 | No | | |
| 31-1014 | Nursing Aides, Orderlies, & Attendants | 103 | $11.29 | $1.09 | $11.40 | $2.36 | No | | |
| 31-2022 | Physical Therapist Aides | 10 | $9.50 | $0.71 | $10.10 | $1.91 | No | | |
| 31-9096 | Veterinary Assistants & Laboratory Animal Caretakers | 17 | $11.75 | $6.18 | $9.46 | $2.13 | No | | |
| 31-9099 | Healthcare Support Workers, All Other | 13 | $13.67 | $1.89 | $9.99 | $1.16 | M | | |
| 33-3012 | Correctional Officers & Jailers | 19 | $18.47 | $4.33 | $15.57 | $3.04 | No | | |
| 33-9032 | Security Guards | 55 | $12.19 | $4.98 | $10.53 | $3.87 | No | Yes | |
| 33-9091 | Crossing Guards | 26 | $15.53 | $3.87 | $12.80 | $2.37 | M | | |
| 33-9092 | Lifeguards, Ski Patrol, & Other Rec. Protective Service Workers | 44 | $9.23 | $2.72 | $8.33 | $1.45 | No | | |
| 33-9099 | Protective Service Workers, All Other | 10 | $10.58 | $2.63 | $12.94 | $3.44 | No | | |
| 35-1012 | First-Line Supervisors/Managers of Food Preparation & Serving Workers | 23 | $18.11 | $11.54 | $13.46 | $4.58 | No | Yes | |

F = Females are paid statistically more than males.

M = Males are paid statistically more than females.

No = There is no statistical difference between what females are paid and what males are paid.

*Table continued on page 6*

*Table continued from page 5*

**Table 1: Gender Wage Comparison in Wyoming, All Occupations & All Industry and Manufacturing Detail Based on New Hires Survey, 2009Q4 to 2010Q3**

| | | All Industries - 184 Occupations | | | | | Manufacturing - 11 Occupations | |
|---|---|---|---|---|---|---|---|---|
| | | | Males | | Females | | | |
| SOC Code | Title | Number of New Hires | Average Wage | STDEV Wage | Average Wage | STDEV Wage | Statistical Difference Between Males and Females | Job Typically Found in Manufacturing | Statistical Difference Between Males and Females |
| 35-2011 | Cooks, Fast Food | 18 | $8.17 | $1.01 | $7.96 | $1.01 | No | | |
| 35-2012 | Cooks, Institution & Cafeteria | 30 | $10.47 | $0.52 | $11.10 | $2.28 | No | Yes | |
| 35-2014 | Cooks, Restaurant | 69 | $9.71 | $2.24 | $9.89 | $3.52 | No | | |
| 35-2015 | Cooks, Short Order | 9 | $8.63 | $1.14 | $8.00 | $0.00 | No | | |
| 35-2019 | Cooks, All Other | 6 | $11.28 | $2.78 | $10.38 | $3.36 | No | | |
| 35-2021 | Food Preparation Workers | 32 | $8.93 | $1.27 | $8.82 | $1.57 | No | | |
| 35-3011 | Bartenders | 67 | $10.42 | $7.48 | $8.23 | $1.65 | No | | |
| 35-3021 | Combined Food Preparation & Serving Workers, Incl. Fast Food | 132 | $7.87 | $0.67 | $7.90 | $0.66 | No | Yes | |
| 35-3022 | Counter Attendants, Cafeteria, Food Concession, & Coffee Shop | 94 | $8.04 | $2.00 | $7.77 | $1.08 | No | Yes | M |
| 35-3031 | Waiters & Waitresses | 60 | $7.38 | $0.14 | $10.09 | $4.12 | F | | |
| 35-9011 | Dining Room & Cafeteria Attendants & Bartender Helpers | 21 | $8.60 | $2.22 | $8.56 | $2.41 | No | | |
| 35-9021 | Dishwashers | 42 | $8.17 | $1.00 | $8.21 | $0.85 | No | Yes | |
| 35-9031 | Hosts & Hostesses, Restaurant, Lounge, & Coffee Shop | 21 | $7.92 | $0.38 | $8.40 | $1.91 | No | | |
| 35-9099 | Food Preparation & Serving Related Workers, All Other | 7 | $10.91 | $0.79 | $7.96 | $0.54 | M | | |
| 37-2011 | Janitors & Cleaners, Except Maids & Housekeeping Cleaners | 177 | $11.21 | $3.01 | $11.03 | $2.55 | No | Yes | |
| 37-2012 | Maids & Housekeeping Cleaners | 144 | $9.91 | $2.97 | $9.45 | $2.10 | No | | |
| 37-3011 | Landscaping & Groundskeeping Workers | 239 | $10.79 | $2.67 | $10.32 | $3.15 | No | | |
| 37-3012 | Pesticide Handlers, Sprayers, & Applicators, Vegetation | 59 | $12.05 | $2.55 | $10.76 | $1.29 | M | | |
| 39-2021 | Nonfarm Animal Caretakers | 20 | $8.71 | $2.14 | $8.79 | $1.18 | No | | |
| 39-3021 | Motion Picture Projectionists | 7 | $7.88 | $0.88 | $7.95 | $0.65 | No | | |
| 39-3031 | Ushers, Lobby Attendants, & Ticket Takers | 5 | $7.38 | $0.18 | $14.08 | $4.19 | F | | |
| 39-3091 | Amusement & Rec. Attendants | 69 | $9.20 | $2.41 | $9.02 | $3.09 | No | | |
| 39-7012 | Travel Guides | 13 | $14.71 | $7.59 | $9.00 | $0.00 | M | | |
| 39-9011 | Child Care Workers | 111 | $8.52 | $1.87 | $9.13 | $2.62 | No | | |
| 39-9021 | Personal & Home Care Aides | 50 | $9.25 | $0.29 | $10.41 | $2.28 | F | | |
| 39-9031 | Fitness Trainers & Aerobics Instructors | 49 | $14.50 | $8.46 | $12.26 | $5.77 | No | Yes | |
| 39-9032 | Recreation Workers | 25 | $9.17 | $1.33 | $10.97 | $2.96 | F | | |
| 39-9099 | Personal Care & Service Workers, All Other | 8 | $12.12 | $3.23 | $8.31 | $1.18 | M | | |

F = Females are paid statistically more than males.

M = Males are paid statistically more than females.

No = There is no statistical difference between what females are paid and what males are paid.

*Table continued on page 7*

*Table continued from page 6*

**Table 1: Gender Wage Comparison in Wyoming, All Occupations & All Industry and Manufacturing Detail Based on New Hires Survey, 2009Q4 to 2010Q3**

| | | | All Industries - 184 Occupations | | | | | Manufacturing - 11 Occupations | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Males | | Females | | | | |
| SOC Code | Title | Number of New Hires | Average Wage | STDEV Wage | Average Wage | STDEV Wage | Statistical Difference Between Males and Females | Job Typically Found in Manufacturing | Statistical Difference Between Males and Females |
| 41-1011 | First-Line Supervisors/Managers of Retail Sales Workers | 16 | $17.90 | $8.40 | $15.05 | $6.06 | No | Yes | |
| 41-2011 | Cashiers | 238 | $8.53 | $1.11 | $8.50 | $1.27 | No | Yes | |
| 41-2021 | Counter & Rental Clerks | 93 | $11.94 | $3.92 | $9.70 | $2.89 | M | Yes | |
| 41-2022 | Parts Salespersons | 22 | $12.88 | $4.29 | $13.13 | $3.67 | No | | |
| 41-2031 | Retail Salespersons | 187 | $9.89 | $3.30 | $9.34 | $1.74 | No | Yes | |
| 41-3011 | Advertising Sales Agents | 23 | $10.14 | $2.53 | $14.90 | $19.85 | No | | |
| 41-3021 | Insurance Sales Agents | 26 | $17.71 | $6.35 | $20.99 | $33.42 | No | | |
| 41-3099 | Sales Rep., Services, All Other | 24 | $23.92 | $12.08 | $12.99 | $5.69 | M | Yes | |
| 41-4011 | Sales Rep., Wholesale & Mfg., Technical & Scientific Products | 7 | $19.91 | $6.99 | $19.97 | $4.45 | No | Yes | |
| 41-4012 | Sales Representatives, Wholesale & Manufacturing, Except Technical & Scientific Products | 45 | $22.64 | $9.48 | $17.56 | $18.81 | No | Yes | M |
| 41-9022 | Real Estate Sales Agents | 6 | $25.50 | $22.61 | $14.75 | $5.30 | No | | |
| 41-9041 | Telemarketers | 4 | $8.52 | $0.73 | $10.00 | $0.00 | No | | |
| 41-9099 | Sales & Related Workers, All Other | 10 | $15.68 | $6.15 | $12.25 | $4.74 | No | Yes | |
| 43-1011 | First-Line Supervisors/Mgrs. of Office & Admin. Support Workers | 7 | $20.54 | $8.54 | $15.62 | $5.52 | No | Yes | |
| 43-3011 | Bill & Account Collectors | 13 | $13.33 | $1.54 | $12.76 | $2.82 | No | | |
| 43-3031 | Bookkeeping, Accounting, & Auditing Clerks | 144 | $12.99 | $5.13 | $13.56 | $4.24 | No | Yes | |
| 43-3071 | Tellers | 123 | $11.22 | $2.67 | $10.30 | $1.81 | No | | |
| 43-4051 | Customer Service Representatives | 28 | $12.71 | $3.95 | $11.81 | $5.34 | No | Yes | |
| 43-4071 | File Clerks | 23 | $8.25 | $1.09 | $9.79 | $1.63 | F | Yes | |
| 43-4081 | Hotel, Motel, & Resort Desk Clerks | 49 | $11.88 | $5.34 | $9.53 | $1.60 | M | | |
| 43-4171 | Receptionists & Information Clerks | 106 | $9.50 | $0.87 | $10.91 | $2.38 | F | Yes | |
| 43-4181 | Reservation & Transportation Ticket Agents & Travel Clerks | 16 | $11.83 | $4.54 | $11.10 | $2.12 | No | | |
| 43-5021 | Couriers & Messengers | 14 | $11.89 | $2.57 | $12.48 | $6.21 | No | | |
| 43-5031 | Police, Fire, & Ambulance Dispatchers | 14 | $13.59 | $2.86 | $13.67 | $3.89 | No | | |
| 43-5032 | Dispatchers, Except Police, Fire, & Ambulance | 8 | $14.51 | $5.42 | $10.50 | $0.71 | No | Yes | |
| 43-5071 | Shipping, Receiving, & Traffic Clerks | 30 | $13.51 | $5.69 | $11.63 | $3.91 | No | Yes | |
| 43-5081 | Stock Clerks & Order Fillers | 81 | $11.02 | $3.33 | $9.71 | $1.71 | M | Yes | No |
| 43-5111 | Weighers, Measurers, Checkers, & Samplers, Recordkeeping | 4 | $10.25 | $3.18 | $9.48 | $2.09 | No | Yes | |
| 43-6011 | Executive Secretaries & Administrative Assistants | 57 | $15.19 | $4.04 | $14.13 | $3.67 | No | Yes | |

F = Females are paid statistically more than males.

M = Males are paid statistically more than females.

No = There is no statistical difference between what females are paid and what males are paid.

*Table continued on page 8*

*Table continued from page 7*

**Table 1: Gender Wage Comparison in Wyoming, All Occupations & All Industry and Manufacturing Detail Based on New Hires Survey, 2009Q4 to 2010Q3**

| | | All Industries - 184 Occupations | | | | | | Manufacturing - 11 Occupations | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Males | | Females | | | | |
| SOC Code | Title | Number of New Hires | Average Wage | STDEV Wage | Average Wage | STDEV Wage | Statistical Difference Between Males and Females | Job Typically Found in Manufacturing | Statistical Difference Between Males and Females |
| 43-6014 | Secretaries, Except Legal, Medical, & Executive | 190 | $13.09 | $8.53 | $11.57 | $3.41 | No | Yes | |
| 43-9021 | Data Entry Keyers | 31 | $11.73 | $3.89 | $12.06 | $3.57 | No | Yes | |
| 43-9041 | Insurance Claims & Policy Processing Clerks | 35 | $11.78 | $0.38 | $11.81 | $2.92 | No | | |
| 43-9051 | Mail Clerks & Mail Machine Operators, Except Postal Service | 5 | $8.38 | $1.59 | $8.83 | $1.26 | No | | |
| 43-9061 | Office Clerks, General | 150 | $10.13 | $2.12 | $11.25 | $3.21 | F | Yes | |
| 43-9071 | Office Machine Operators, Except Computer | 5 | $7.25 | $0.00 | $12.39 | $2.61 | F | | |
| 43-9199 | Office & Administrative Support Workers, All Other | 18 | $10.25 | $2.19 | $12.26 | $3.92 | No | | |
| 45-2091 | Agricultural Equipment Operators | 20 | $12.98 | $2.82 | $27.16 | $26.53 | No | | |
| 45-2092 | Farmworkers & Laborers, Crop, Nursery, & Greenhouse | 44 | $10.36 | $2.37 | $8.52 | $0.78 | M | | |
| 45-2093 | Farmworkers, Farm & Ranch Animals | 94 | $11.14 | $3.05 | $11.01 | $3.20 | No | | |
| 45-4011 | Forest & Conservation Workers | 11 | $11.53 | $1.44 | $12.60 | $0.55 | No | | |
| 47-1011 | First-Line Supervisors/Managers of Construction Trades & Extraction Workers | 28 | $29.33 | $11.15 | $11.88 | $4.42 | M | Yes | |
| 47-2031 | Carpenters | 65 | $18.73 | $5.68 | $17.67 | $2.52 | No | Yes | |
| 47-2061 | Construction Laborers | 162 | $13.65 | $3.97 | $13.26 | $3.77 | No | Yes | |
| 47-2073 | Operating Engineers & Other Construction Equipment Operators | 80 | $18.24 | $3.51 | $12.60 | $5.19 | M | Yes | |
| 47-2111 | Electricians | 76 | $21.57 | $6.57 | $20.00 | $7.07 | No | Yes | |
| 47-2141 | Painters, Construction & Maintenance | 19 | $13.51 | $4.32 | $8.50 | $0.00 | M | Yes | |
| 47-3014 | Helpers--Painters, Paperhangers, Plasterers, & Stucco Masons | 9 | $13.71 | $3.26 | $11.25 | $1.77 | No | | |
| 47-4011 | Construction & Building Inspectors | 15 | $26.70 | $15.07 | $11.24 | $1.33 | M | | |
| 47-4071 | Septic Tank Servicers & Sewer Pipe Cleaners | 11 | $14.78 | $4.12 | $14.26 | $6.02 | No | | |
| 47-5099 | Extraction Workers, All Other | 149 | $16.01 | $4.01 | $15.00 | $3.11 | No | | |
| 49-3023 | Auto. Service Tech. & Mechanics | 59 | $13.81 | $4.97 | $10.17 | $2.75 | M | Yes | |
| 49-3042 | Mobile Heavy Equipment Mechanics, Except Engines | 30 | $22.64 | $6.01 | $9.90 | $0.00 | M | Yes | |
| 49-3093 | Tire Repairers & Changers | 28 | $10.95 | $2.57 | $11.00 | $1.41 | No | Yes | |
| 49-9041 | Industrial Machinery Mechanics | 51 | $21.67 | $7.76 | $17.94 | $9.25 | No | Yes | |
| 49-9043 | Maintenance Workers, Machinery | 17 | $17.62 | $6.41 | $16.50 | $0.00 | No | Yes | |
| 49-9052 | Telecommunications Line Installers & Repairers | 13 | $13.86 | $1.88 | $24.17 | $22.41 | No | | |

F = Females are paid statistically more than males.

M = Males are paid statistically more than females.

No = There is no statistical difference between what females are paid and what males are paid.

*Table continued on page 9*

*Table continued from page 8*

**Table 1: Gender Wage Comparison in Wyoming, All Occupations & All Industry and Manufacturing Detail Based on New Hires Survey, 2009Q4 to 2010Q3**

| | | | All Industries - 184 Occupations | | | | | Manufacturing - 11 Occupations | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Males | | Females | | | | |
| SOC Code | Title | Number of New Hires | Average Wage | STDEV Wage | Average Wage | STDEV Wage | Statistical Difference Between Males and Females | Job Typically Found in Manufacturing | Statistical Difference Between Males and Females |
| 49-9071 | Maint. & Repair Workers, General | 129 | $12.40 | $4.52 | $9.25 | $2.30 | M | Yes | |
| 49-9098 | Helpers--Installation, Maintenance, & Repair Workers | 59 | $13.90 | $10.61 | $11.50 | $2.65 | No | Yes | |
| 49-9099 | Installation, Maintenance, & Repair Workers, All Other | 40 | $14.80 | $7.25 | $13.41 | $4.54 | No | Yes | |
| 51-1011 | First-Line Supervisors/Managers of Production & Operating Workers | 10 | $28.91 | $11.79 | $17.70 | $13.72 | No | Yes | |
| 51-2092 | Team Assemblers | 5 | $9.50 | $1.32 | $8.38 | $0.53 | No | Yes | |
| 51-2099 | Assemblers & Fabricators, All Other | 17 | $11.38 | $2.67 | $10.92 | $2.74 | No | Yes | No |
| 51-3011 | Bakers | 11 | $7.75 | $0.35 | $10.77 | $2.49 | F | Yes | |
| 51-3021 | Butchers & Meat Cutters | 12 | $11.77 | $3.75 | $9.00 | $0.00 | M | Yes | |
| 51-3099 | Food Processing Workers, All Others | 5 | $8.78 | $0.32 | $11.74 | $2.83 | No | | |
| 51-4121 | Welders, Cutters, Solderers, & Brazers | 89 | $19.82 | $7.73 | $24.20 | $16.22 | No | Yes | |
| 51-6011 | Laundry & Dry-Cleaning Workers | 28 | $8.86 | $0.57 | $9.12 | $1.37 | No | | |
| 51-6031 | Sewing Machine Operators | 6 | $15.25 | $0.35 | $9.25 | $1.55 | M | Yes | |
| 51-6099 | Textile, Apparel, & Furnishings Workers, All Other | 9 | $10.63 | $2.06 | $10.14 | $1.33 | No | Yes | |
| 51-8099 | Plant & System Operators, All Other | 7 | $15.20 | $3.29 | $10.62 | $0.88 | M | | |
| 51-9023 | Mixing & Blending Machine Setters, Operators, & Tenders | 8 | $13.53 | $8.58 | $11.50 | $4.95 | No | Yes | |
| 51-9061 | Inspectors, Testers, Sorters, Samplers, & Weighers | 43 | $21.93 | $11.71 | $24.12 | $12.10 | No | Yes | |
| 51-9111 | Packaging & Filling Machine Operators & Tenders | 16 | $13.63 | $3.32 | $11.42 | $2.25 | No | Yes | No |
| 51-9198 | Helpers--Production Workers | 60 | $12.63 | $3.49 | $10.76 | $3.82 | No | Yes | No |
| 51-9199 | Production Workers, All Other | 19 | $15.27 | $3.61 | $9.33 | $2.98 | M | Yes | |
| 53-3021 | Bus Drivers, Transit & Intercity | 17 | $11.73 | $2.07 | $10.83 | $3.82 | No | | |
| 53-3022 | Bus Drivers, School | 23 | $14.45 | $3.76 | $14.09 | $3.04 | No | | |
| 53-3031 | Driver/Sales Workers | 43 | $11.97 | $3.83 | $11.94 | $3.92 | No | Yes | |
| 53-3032 | Truck Drivers, Heavy & Tractor-Trailer | 428 | $17.46 | $5.33 | $15.84 | $3.95 | M | Yes | No |
| 53-3033 | Truck Drivers, Light or Delivery Svcs. | 102 | $11.35 | $3.90 | $10.99 | $3.51 | No | Yes | |
| 53-3041 | Taxi Drivers & Chauffeurs | 20 | $11.27 | $2.01 | $9.25 | $2.21 | M | | |
| 53-3099 | Motor Vehicle Operators, All Other | 7 | $12.34 | $4.46 | $12.50 | $0.00 | No | | |
| 53-6099 | Transportation Workers, All Other | 11 | $11.81 | $3.37 | $11.60 | $4.77 | No | | |
| 53-7051 | Industrial Truck & Tractor Operators | 43 | $15.50 | $4.12 | $14.59 | $1.74 | No | Yes | No |
| 53-7061 | Cleaners of Vehicles & Equipment | 68 | $10.11 | $3.23 | $9.31 | $2.16 | No | Yes | |
| 53-7062 | Laborers and Freight, Stock, & Material Movers, Hand | 147 | $11.92 | $4.19 | $9.64 | $1.71 | M | Yes | No |
| 53-7063 | Machine Feeders & Offbearers | 10 | $9.30 | $2.03 | $10.24 | $2.39 | No | Yes | |
| 53-7064 | Packers & Packagers, Hand | 36 | $8.90 | $2.06 | $8.66 | $1.79 | No | Yes | No |

F = Females are paid statistically more than males.

M = Males are paid statistically more than females.

No = There is no statistical difference between what females are paid and what males are paid.

(Text continued from page 3)

the average wage but also the distribution of the wages in the two groups. The significance level selected for the current work was p = .05 on both ends of the distributions. As discussed earlier, the results of the statistical analysis for row 1 of Table 1 show that males are paid significantly more than females; in statistical terms, there is only a 5% (p = .05) chance that the same results could be reached randomly. This statistical test gives confidence that there is a significant difference between the wages of males and females.

In some instances, a wage gap between males and females within a specific occupation may not exist across all industries, but is present in that same occupation in the manufacturing industry. For example, while there is no statistical difference between males and females hired as counter attendants, cafeteria, food concession, & coffee shop across all industries, there is a statistical difference between male and female new hires in the manufacturing industry (see Table 1).

Another occupation of interest, which is traditionally male-dominated and one of the fastest growing occupations in Wyoming, is truck drivers, heavy & tractor-trailer. Across all industries, males were paid significantly

## *Training for What?*

## An In-Depth Analysis of Wyoming's Manufacturing Industry

**The three most recent issues of *Wyoming Labor Force Trends* have included articles analyzing Wyoming's manufacturing industry. This type of research and analysis can be performed for any of Wyoming's industries by the Research & Planning section of the Wyoming Department of Workforce Services.**

**Training for What? Part 1: Manufacturing Sector in Wyoming Small but Growing**
http://doe.state.wy.us/LMI/0611/a1.htm

**Training for What? Part 2: New Hires and Occupational Projections in Wyoming's Manufacturing Industry**
http://doe.state.wy.us/LMI/0611/a2.htm

**Training for What? Part 3: Training Needs for Wyoming's Manufacturing Industry**
http://doe.state.wy.us/LMI/trends/0711/a1.htm

**Training for What? Part 4: Skills Needs in Manufacturing**
http://doe.state.wy.us/LMI/trends/0711/a2.htm

**Training for What? Part 5: Examining the Wage Gap Among New Hires in Manufacturing**
http://doe.state.wy.us/LMI/trends/0811/a1.htm

more than females; within the manufacturing industry, however, there was no statistical difference. One of the suggested solutions to address gender wage inequity is to recruit females to traditionally higher-paying, male-dominated occupations. Applying this strategy to the truck drivers occupation may not achieve the desired result.

Research & Planning has collected data on 184 occupations across all industries for which there is a minimum of two observations for males and two observations for females (see Table 2). Female new hires had significantly higher wages for 9 of the occupations. Males had significantly higher wages for 31 occupations, and the remaining 144 occupations showed no statistical differences between the earnings of males and females.

**Table 2: Summary Statistics for the Gender Wage Comparisons, Wyoming**

| | Number of Occupations | |
|---|---|---|
| Observation | All Industries | Mfg. |
| Total F (Female) | 9 | 0 |
| Total M (Male) | 31 | 3 |
| Total Not Significant | 144 | 8 |
| **Total Observations** | **184** | **11** |

Within the manufacturing industry, R&P collected data on 11 occupations; in 3 instances, males were paid significantly more than females, while there was no significant difference within the remaining 8 occupations.

Care should be taken exploring the remainder of the data in Table 1, as it is expected that future iterations of this analysis may yield differing results. The statistical analysis used for this research is sensitive to the number of cases observed. A larger number of observations allows a greater confidence in the results. For example, it is unlikely that the results for the occupation of cashiers, for which there were 238 new hires across all industries, will change in future analysis. In contrast, only 7 home health aides were hired during this period; the information for this occupation presented in Table 1 could be drastically changed if one higher paying employer hired 3 home health aides in the next survey panel.

Several variables that need to be considered in subsequent analyses are:

- Age
- Experience of individual in industry
- Residency status of new hire
- Benefits offered
- Job characteristics
- Industry

The experience level of workers was not examined, which could explain some of the differences that were observed. For example, this analysis may be comparing 10 males who have worked in manufacturing for 10 years to 7 females who are just entering the manufacturing industry. The same concepts apply to age, job characteristics, and the remainder of the previously mentioned variables.

This current analysis is a byproduct of research conducted under R&P's ARRA grant to study the impact of current legislation on energy efficiency related occupations. Those studies were designed to determine if there is a difference in earnings between occupations in energy efficient defined companies and all others. For example, do electricians working on windmills and solar panels earn more than electricians in residential construction? To do an in-depth analysis of issues related to gender wage inequities across Wyoming and within specific industries

in Wyoming would require additional funding, as the work is not covered by an existing R&P grant. Research funded by the ARRA grant can be found online at http://doe.state.wy.us/LMI/energy.htm.

*Workforce Information Supervisor Tony Glover can be reached at (307) 473-3826 or tony.glover@wyo.gov.*

## References

Jones, S. (2004). Worker residency determination — Wyoming stepwise procedure. *Wyoming Labor Force Trends, 41* (8). Retrieved May 3, 2011, from http://doe.state.wy.us/LMI/0804/a1supp.htm

Jones, S. (2007). Demographic effects of Wyoming's energy-related expansions. *Wyoming Labor Force Trends, 44* (4). Retrieved April 19, 2011, from http://doe.state.wy.us/LMI/0407/a1.htm

Jones, S. (2008). Examining the wage gap in Wyoming's counties. *Wyoming Labor Force Trends, 45* (8). Retrieved April 19, 2011, from http://wydoe.state.wy.us/LMI/0808/a1.htm

Knapp, L. (2011). Survey captures data on Wyoming new hires. *Wyoming Labor Force Trends, 48* (2). Retrieved April 13, 2011, from http://doe.state.wy.us/LMI/0211/a2.htm

Moore, M. (2011). Wyoming new hires: examining the wage gap. *Wyoming Labor Force Trends, 48* (3). Retrieved September 1, 2011, from http://doe.state.wy.us/LMI/0311/a1.htm

NOW ONLINE

## New Wyoming Long- and Short-Term Occupational Projections by Industry Now Available

**http://doe.state.wy.us/LMI/projections.htm**

The number of jobs in Wyoming is projected to grow by 47,491 (17.6%) from 2010 to 2020, according to the latest occupational projections from the Research & Planning section of the Wyoming Department of Workforce Services.

The latest occupational projections by industry include short-term projections from 2010 to 2012 and long-term projections from 2010-2020. In addition to projected growth, the projections also include annual openings due to permanent exits from Wyoming's labor force. Permanent exits are attributed to factors such as relocation, withdrawal from the market to care for a family member, retirement, or death.

These projections include detailed information about occupations in particular industries and at the sub-state area level. For example, the health care and social assistance industry is projected to add 1,303 new registered nurses from 2010 to 2020. Also, Wyoming's northeast region is projected to add 223 general & operations managers during this period.

# ARRA Dynamics in the Labor Market: Part 2

***excerpted by: Phil Ellsworth, Editor***

*Editor's Note: Although traditional labor market research examines past patterns and market behavior to forecast trends, disturbances of differing magnitudes can alter these forecasts at the local, statewide, and national levels. Both the recent economic downturn and subsequent passage of the American Recovery and Reinvestment Act of 2009 (ARRA) are examples of such disturbances. To assess the effects of ARRA, the Research & Planning section of the Wyoming Department of Workforce Services, in cooperation with the Rocky Mountain and Northern Plains Consortium, received funding to study the workforce and, as a subset, jobs that spend time on activities that increase energy efficiency, use or develop renewable energy resources, or preserve or restore the environment.*

*The following three articles comprise the second part of a two-part series of excerpts from* Occasional Paper No. 5 – ARRA Labor Market Dynamics: An Overview of the American Recovery and Reinvestment Act of 2009 *as it Pertains to the Wyoming Department of Employment Research & Planning section*[1] *and the Rocky Mountain and Northern Plains Consortium. Several other chapters of Occasional Paper No. 5 appeared as stand-alone articles in* Wyoming Labor Force Trends *(see related box).*

*A major component of this research was a survey of Wyoming employers who hired new workers from fourth quarter 2009 to third quarter 2010. This study showed segments of the labor market that were hiring despite the economic downturn, and*

[1] The Wyoming Department of Employment and Wyoming Department of Workforce Services merged, effective July 1, 2011, becoming the Wyoming Department of Workforce Services.

## Occasional Paper No. 5

**ARRA Labor Market Dynamics An Overview of the American Recovery and Reinvestment Act of 2009 as it Pertains to the Wyoming Department of Employment Research & Planning Section and the Rocky Mountain and Northern Plains Consortium**

The full document is available at http://doe.state.wy.us/LMI/occasional/occ5.pdf

- Chapter 1. Definition(s) of "Green" Jobs (Online at http://doe.state.wy.us/LMI/occasional/occ5.pdf#page=6)
- Chapter 2. A Review of Alternative Energy and Environmental Enhancement Technologies (Excerpted in May 2011 *Trends*)
- Chapter 3. State Level Legislation Regarding Energy-Efficient Technologies
- Chapter 4. Legislation and Regulatory Landscape Regarding EE Technologies (See article, page 15)
- Chapter 5. Results of the Baseline Survey (Article in February 2011 *Trends*)
- Chapter 6. A Summary of the New Hires Survey (Article in February 2011 *Trends*)
- Chapter 7. Text Mining Analysis of the New Hires Survey (See article, page 22)
- Chapter 8. Wyoming IMPLAN Analysis of ARRA Spending (Article in October 2010 *Trends*)

*to what extent these jobs involved energy-efficient activities: those "that produce goods or provide services that benefit the environment or conserve natural resources" or those "in which workers' duties involve making their establishments' production processes more environmentally friendly or use fewer natural resources."*

*The following first and second articles specifically address Wyoming's legislative and regulatory landscape in relation to energy-efficient technologies. The third article looks at employers' responses from the new hires survey using text mining to gain a clearer picture of which skills were deemed most important in those jobs.*

## State Level Legislation Regarding Energy-Efficient Technologies

***by: Sara Saulcy, Senior Economist, and Patrick Manning, Principal Economist, January 2011***

The previous article in this series (see ARRA Dynamics in the Labor Market, May 2011 Trends) reviewed some of the alternative energy and environmental enhancement technologies currently available or in the design or pilot program stage. For these technologies to be introduced or expanded in an efficient and socially responsible manner, the appropriate legislation must be in place to ensure they are implemented smoothly. For example, wind power generation in Wyoming has expanded greatly in recent years. If this is to continue, property rights must be established and maintained, siting requirements must be created and enforced, and habitat for protected species (e.g. sage grouse) must be maintained. The following sections discuss some of the legislation in Wyoming that will affect the implementation of these technologies.

In some areas, Wyoming may lag behind states such as California and Washington in the implementation of renewable energy and pollution-abatement initiatives. However, Wyoming has been proactive in addressing some of the issues regarding carbon capture and sequestration and wind energy production in the state. For example, state law in 2008 established that surface owners own underground storage rights, and specified that the Wyoming Department of Environmental Quality would oversee permitting for geologic sequestration (Wyoming Annotated Statutes, 2008a and 2008b). In 2010, legislation was approved mandating the Wyoming Department of Environmental Quality (DEQ) adopt rules and regulations requiring bonding and financial assurances for geologic sequestration site permit holders. (Wyoming Annotated Statutes, 2010). Regarding wind power generation, the construction of wind farms has sometimes led to conflicts regarding property rights issues. Chapter 47 from the 2010 Session expands the Industrial Siting Council's (ISC) authority to regulate wind farms with 30 or more towers (and other energy facilities that produce 160,000 volts or more). Thus a permitting process is required to assess potential environmental impacts and impacts on local employment (http://legisweb.state.wy.us/2010/Session%20Laws.pdf p.221-231). Chapter 97 - (County Regulation of Wind Energy Development) requires that a wind facility of 0.5 megawatts or greater be required to apply for a permit in a given county. Permit applications are to include information on waste management plans, emergency management plans, sufficient proof of legal access to the site, and project

plans. The act also requires the ISC to adopt rules regarding the decommissioning and reclamation of wind energy facilities (http://legisweb.state.wy.us/2010/Session%20Laws.pdf p.498- 508).

## References

Wyoming Annotated Statutes, (2008b) § 30-5-501. Oil and gas activities at geologic sequestration sites.

Wyoming Annotated Statutes, (2008b) § 35-11-101 et seq.

Wyoming Annotated Statutes, (2010a) § 35-11-318. Geologic sequestration special revenue account.

Wyoming Annotated Statutes, (2010b) § 35-11-313. Carbon sequestration; permit requirements.

## Legislation and Regulatory Landscape Regarding Energy Efficient Technologies: Impacts on the Regulatory Environment

***by: Sylvia Jones, Senior Research Analyst, November 2010***

The development of any of the previously discussed technologies and industries (Chapter 2), along with the legislation required to administer it (Chapter 3) will have a direct impact on the regulatory landscape. In Wyoming, the agency most affected by these changes is the Department of Environmental Quality (DEQ). In fact, several legislative measures that have been approved in Wyoming specifically include funding for reclassification and/or addition of positions to accomplish the regulatory tasks necessary. For example, from the 2010 legislative session, the act titled, "Carbon Sequestration-Financial Assurances and Regulation" authorizes the DEQ to reclassify a vacant computer technology support position to a principal accountant position "to assist the department in fulfilling its rulemaking duties relating to financial assurances pursuant to this act" (Ch. 52, p. 245).

The Research & Planning (R&P) section of the Wyoming Department of Workforce Services conducted interviews with employees of the DEQ starting in September 2010 to gather information regarding changes they know will or perceive may happen due to the introduction (or expansion) of these new industries and technologies. Other states in the consortium also conducted interviews with their respective regulatory agencies. By doing so, R&P hopes to be able to better project employment based on regulatory change rather than relying solely on what happened during the past. We recognize that what we currently know about any particular industry may become obsolete very quickly because of rapid change in regulation, change in monitoring technology, and the introduction of new "green" technologies.

### *Background Information on DEQ*

The Wyoming Department of Environmental Quality's mission statement is: "To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations" (http://deq.state.wy.us/mission.htm). In general, the agency employs 268 individuals who collectively work to

minimize environmental pollution while enabling responsible economic development within the state. There are six departments within DEQ, irrespective of administration, each charged with a separate specialty of oversight. They include: Air Quality, Water Quality, Land Quality, Industrial Siting, Solid Waste Management, and Abandoned Mine Reclamation. As a whole, DEQ serves approximately 5,000 businesses annually, approximately 20% of all business in Wyoming (Brennan, 2010) and over 30,000 individual facilities throughout the state. The department operated with a budget last biennium (2008-2010) of $140 million, of which $39 million came from the General Fund.

## *Air Quality*

The purpose of the Air Quality program is to protect the public health and welfare from the harmful effects of air pollution. It works to ensure compliance with state and national ambient air quality standards and compliance with other requirements of the federal Clean Air Act in an effort to conserve and enhance the air resources of the state for public, agricultural, industrial, recreational, and other beneficial uses. Major program activities include:

- Conducts permit reviews for all new emission sources or modifications of existing emission sources, to ensure that the source is built with Best Available Control Technology (BACT) to limit emissions to the lowest technically and economically achievable level to minimize impact to Wyoming's air resource.

- Implements Wyoming's operating permit program, mandated by the Clean Air Act Amendments of 1990, to permit continued operation of major emission sources through development of state and federally enforceable permits that incorporate all state and federal regulatory requirements. These permits are issued for a term of five years and must be renewed and updated to incorporate current regulatory requirements.

- Ensures that permittees construct and operate their facilities in accordance with the requirements of their permits and all other applicable regulations through file reviews and on-site inspections. This activity is also involved in the resolution of issues related to citizen concerns about proper operation of those facilities.

- Maintains an inventory of actual and allowable air emissions from all air pollution sources in the state (used in air modeling for major permits), installing and operating ambient air quality monitoring systems to evaluate the quality of Wyoming's ambient air (that to which the general public is exposed), and working with federal land managers, industry and others to develop strategies to mitigate air pollution impacts from new and expanded energy projects.

The workload of the Air Quality Division has increased during recent years despite the recent economic downturn and is expected to continue to increase throughout the foreseeable future. Permit issuance is likely to increase due to natural gas facility development, and because most permits are issued for only five years at a time. At the end of the five-year period, permittees are required to reapply for permits and are required to address any new compliance monitoring requirements currently in place.

The Air Quality Division's compliance workload is expected to increase similarly. At the end of Fiscal Year 2009 there were more than 22,000 sources of air pollution in the state, many of which were subject to periodic testing and reporting of emission totals and other requirements. This process includes more than 300 physical inspections per year.

The division's planning workload is also expected to increase as large energy projects continue to be proposed. For example, Las Vegas-based American Renewable Energy Associates has proposed a power plant to be built in Wheatland that would run on a combination of garbage from area communities as well as agricultural wastes (Lacock, 2010). The plant is slated to begin construction sometime during 2011 and is expected to start accepting trash and agricultural waste by August. While the company claims the process is "a totally enclosed, clean process," the Air Quality Division will be involved throughout the project. It will provide oversight in the form of air emissions testing to ensure that the burning process does not pollute the ambient air.

In addition to the division's standard practice, it is also required to address unique air quality issues as they arise. For example, the Upper Green River Basin has elevated wintertime ambient ozone levels. The Air Quality Division is working to develop strategies to solve the problem and meet Clean Air Act requirements.

Furthermore, the Division is involved, in coordination with the Department of Transportation, with metropolitan planning organizations in an effort to establish transportation improvement plans (DEQ, 2010). The plans are aimed at increasing the efficiency of transportation routes so as to decrease the resulting air pollution.

## *Water Quality*

The purpose of the Water Quality program is to protect and restore the quality of Wyoming's surface water and groundwater resources so that they are available for existing and potential designated uses. It works to prevent water pollution in compliance with the Clean Water Act. It also helps fund the Groundwater Pollution Control Program and the Underground Injection Control program under the Safe Drinking Water Act.

The Division of Water Quality is able to attain these goals by engaging in the following activities:

- Permitting discharges and enforcement activities are the primary mechanisms for protecting surface and groundwater from pollution.
- Permitting the construction of public water distribution systems and treatment plants, and wastewater collection systems and treatment plants protect the public health and safety and the environment.
- Operator certification assures the technical competence of operators of public water supply systems and municipal wastewater systems.
- The Community Support Branch provides assistance to owners and operators of public water supply systems with an evaluation of their ability to meet the technical, managerial, and financial requirements of these systems. This

section also manages the State Revolving Fund programs for the construction and upgrading of sewer and water systems.

- Subdivision application reviews result in recommendations to County Commissioners as to the safety and adequacy of proposed sewer and water systems for subdivisions.

- The Non-Point Source Program provides matching grants to individuals, organizations, and local and state government agencies for education, technical assistance, and voluntary implementation of management practices to prevent and reduce water impacts from non-point sources of pollution.

- The Water Quality Laboratory provides analytical support to the surface and groundwater permitting and enforcement programs and to the watershed ambient water quality monitoring program.

In 2010, the State of Wyoming started requiring drillers to list the ingredients of hydraulic fracturing fluids with their drill permit applications (Farquhar, 2010). Hydraulic fracturing, also known as fracking, is a technique used by the oil and gas industry, to either enhance or initiate the flow of oil and gas from rock formations. Using a combination of water, silica sand and chemicals, fracking fluid is pumped under high pressure into rock formations, causing the rock to fracture. The fractures are kept open with the particles of silica and sand, allowing oil and gas to emerge from tight, rock-like sandstone and shale. Some companies want to keep the specific ingredients a proprietary secret; however, because of the potential for the fracking fluids leaching into groundwater, the ingredients are required to be given to the Division of Water Quality.

The division is also involved in the new water reclamation facility in Wyoming's Red Desert. The facility aims to make water produced from oil and gas drilling reusable (Casper Star-Tribune, 2010). The plant plans to accept and treat about 20,000 barrels of produced water daily, from oil and gas operators within a 100-mile radius of the facility. Company officials said the reclamation plant will render the water clean enough for agricultural use. The process involves the use of chemical-free, low-cost technology to clean large quantities of produced water to meet Environmental Protection Agency and Wyoming Department of Environmental Quality regulatory standards. Officials said the company plans to add additional facilities in Wyoming over the next 18 months. This places an additional burden on the Division of Water Quality to monitor the plans for the new facilities as well as monitor the output of the facilities for compliance.

The Water Quality Division also is inherently involved in carbon sequestration legislation. Wyoming leadership has recognized the potential of carbon sequestration to continue the state's dominance of carbon based resources (Carbon Sequestration Working Group, 2009). The workgroup appointed to investigate the feasibility of carbon sequestration in the state identified four phases: site characterization and permitting; operations including injection, monitoring and closure tasks; post-closure including monitoring until plume stabilization is confirmed; and long-term stewardship after bond release and permit

termination, where the sequestration site still requires periodic monitoring to confirm it remains stable over an indefinite period of time. Because one of the key risks associated with the technology is contamination of underground sources of water, the Water Quality Division is required in the oversight process. Together with the Oil and Gas Conservation Commission, the division regulates all carbon sequestration projects in the state.

## *Land Quality*

The purpose of the Division of Land Quality is to ensure that mining and exploration for solid minerals is conducted in a manner that protects the public and the environment from harmful impacts. The program also ensures the land after mining is reclaimed to a condition that is equal to or better than it was prior to mining. The major program activities are as follows:

- Issue permits for mining and exploration including reclamation, monitoring, and bonding to ensure reclamation of the mine in the event of operator failure.

- Inspect all mining activities in the state to ensure compliance with the regulations and permit standards and to assist operators in achieving compliance.

## *Solid and Hazardous Waste*

This division regulates the storage, treatment, and disposal of municipal solid and hazardous waste to ensure that the activities cause no harm to people or the environment. In addition, the division operates both voluntary and non-voluntary remediation programs to oversee the cleanup of contaminated sites to ensure that future uses do not expose people to toxic conditions and to ensure that any harm to the environment is mitigated. The division also administers a program to regulate petroleum product or hazardous substance storage tanks. It also works to remediate these sites at the state's expense should the facilities experience a release of a regulated substance.

## *Abandoned Mine Reclamation*

The purpose of the Abandoned Mine Land program is to eliminate health and safety hazards associated with abandoned mines and to mitigate impacts from coal and mineral mining through construction contracts for the reclamation of abandoned mine sites. To date, the program has reclaimed or contracted for reclamation over 900 abandoned mine sites, to include a total of more than 35,000 acres. More than 1,400 property owners, including several federal land management agencies, have benefited from the reclamation activities. In addition, the program has provided financial assistance to many mining-impacted Wyoming communities to mitigate health and safety concerns and to 35 different research projects aimed at improving the efficacy and efficiency of mine lands reclamation efforts.

# Results from the Interview Process

## *Identify and Quantify Skill and Competency Requirements*

In addition to gaining knowledge of the DEQ's role in the regulatory environment, another objective of this research was to elicit responses from DEQ managers regarding the educational requirements, skills, and training necessary for workers

in the regulatory environment. In general, the managers felt that finding applicants with the necessary educational requirements was not difficult; finding educated applicants with experience was far more challenging. In terms of necessary occupations, engineering was by far the most commonly mentioned. Some divisions felt strongly that the professional engineer certification was important for success while others felt it was of little importance. Geologists and groundwater scientists (e.g. groundwater hydrologist, groundwater modeler, and hydro chemist) were also mentioned frequently. Other disciplines mentioned include:

- Natural sciences: biology, botany, chemistry, soil science, wildlife management, etc.
- Social Sciences: specifically statistics and archaeology
- Technical occupations: service technicians, wastewater plant operators, landfill operators.

In terms of the skills necessary for successful employment, all those interviewed mentioned oral and written communication as necessary skills. Grant writing and contract writing were two specific forms of writing mentioned. Other than speaking and writing, other basic skills cited by DEQ managers included "reading comprehension," "critical thinking," "mathematics," "monitoring," and "science." "Reading comprehension," "critical thinking," "mathematics," and "science" were mentioned specifically by name while "monitoring" was inferred from activities such as "comparing what you see to a checklist of what you should see." Time management and project management were two resource management skills mentioned specifically. Social skills such as coordination, instructing, negotiation, persuasion, service orientation, and social perceptiveness were mentioned by interviewees as important either directly or indirectly.

## *Establish a Listing of Renewable Energy Businesses and Related Employment*

Based on DEQ rules and interviews, a list of regulated industries has been compiled. The list classified by North American Industrial Classification System (NAICS) code is available at http://doe.state.wy.us/LMI/occasional/occ5.pdf#page=34.

## *Anticipate Industry Growth*

Industry projections for labor market use are typically produced using a base period of time (typically 10 years) to establish a trend line. They are useful for estimating employment change in a static environment but are less useful during times of dramatic economic change. They are unable, for instance, to predict significant economic downturns, or conversely, major regulatory changes that would increase employment requirements. Long-term industry and occupational projections are produced every two years by the Wyoming Department of Workforce Services, Research & Planning (R&P) section (see http://doe.state.wy.us/LMI/projections.htm).

Information that affects industry employment projections includes an increased or decreased demand for the industry's product or service, a change in governmental involvement (regulation), and turnover. Traditional projections attempt to estimate changing demand.

## Employee Turnover

An important issue that was discussed with those interviewed was worker turnover. Each manager stated that when the economy is in a downturn, he or she has very few job openings because there are fewer opportunities available elsewhere. Furthermore, when openings do occur, they are easily filled (e.g. underemployed engineers and geologists). Conversely, a growing economy creates difficulty in hiring and retaining qualified individuals in DEQ. This is due largely to the higher salary levels in private industry compared to what a state agency can pay for the same occupation/skill level.

An impending issue that confronts the agency is that 28.3% of DEQ's workforce is eligible to retire within 10 years (or are age 55 or older). Thus, succession planning appears to be an important concern. However, the managers interviewed stated that with a substantial workload currently, succession planning has not been addressed.

### *Recognize Technological Applications Affecting Labor Requirements Unique to the Regulatory Environment*

In general, those interviewed expected little change in labor requirements because of technological changes. Most stated there are few areas in their jobs that could be automated or altered by technology. For instance, one manager stated, "It is tough to automate much. You can't send robots out to do inspections." However, some mentioned changing technology in the areas they regulate and most mentioned changing legislation that would eventually affect staffing requirements. For instance, many of the oilfields in Wyoming were issued permits many years ago under a different, more lax set of regulations. In order to renew their permits, the oilfields are expected to comply with the new set of regulations. In addition to significant work on the part of the firm seeking the permit – for example, attainability analysis or biological studies – the change places additional workload on the DEQ staff who now have to review the vast amount of permitting information.

New technologies have the potential to increase or decrease the regulatory load. For example, in some industries the push to automate as many monitoring systems as possible may decrease the workload for DEQ staff. In contrast, the implementation of carbon sequestration and storage would require oversight by the Water Quality Division because of the risk of groundwater contamination. In some cases the technology may shift the burden from one regulatory division to another. For example, wind turbines, while considered clean energy, do have gear boxes that generate used oil every month. Its disposal must be monitored by the Solid and Hazardous Waste Division, thereby increasing the need for monitoring staff. However, if wind generation displaced some coal-generated power generation, this may ease the workload of the Air Quality Division.

In conclusion, the regulatory environment will certainly be a changing landscape in the next decade and beyond. Only time will tell what technologies will prove feasible and economically viable, thus becoming important factors in the economic activities of society, and

which will fall by the wayside. Changes in legislation either of a regulatory nature or through the subsidization of certain technologies at the expense of others will also shape the future of energy production, pollution control, and environmental remediation. This in turn will affect the nature of occupations and skills necessary in a changing industry mix.

More detailed information can be found in the paper, "A Change in Course: Jobs in the Regulatory Environment" (http://doe.state.wy.us/LMI/energy/regulatory_jobs_2011.pdf).

## References

Casper Star-Tribune Staff. (2010, October 6). Red Desert water plant opens today. *Casper Star-Tribune*. Retrieved from http://trib.com/news/state-and-regional/article_d5609bcb-07d9-5e6e-9192-cd357f41d076.html

Lacock, T. (2010, November). New waste-to-energy plant slated for Wheatland. *Wyoming Business Report*, http://www.wyomingbusinessreport.com/article.asp?id=54595

The Carbon Sequestration Working Group. (2009). Report and Recommendations of the Carbon Sequestration Working Group to The Joint Minerals, Business, and Economic Development Committee and The Joint Judicial Committee of the Wyoming State Legislature. Retrieved December 1, 2010 from http://deq.state.wy.us/out/downloads/1%20FinalReport081909.pdf

Wyoming Department of Environmental Quality. Mission Statement. Retrieved February 1, 2010 from: http://deq.state.wy.us/mission.htm

## Text Mining Analysis of the New Hires Survey

***by: Sara Saulcy, Senior Economist, and Tony Glover, Workforce Information Supervisor, March 2011***

Using the data from the new hires survey from the previous chapter (2009Q4 and 2010Q1), a project was conducted to identify the job skills required for newly hired employees. Additionally, the difference in skill sets between those workers with an EE ("energy efficiency" or "environmentally enhancing") component to their jobs was compared to those workers that did not (see http://doe.state.wy.us/LMI/0611/a3.htm for the definition of EE employment). The results of this research will be used to inform employees, educators, policy makers, and training providers about the skills necessary to gain employment in Wyoming's labor market.

## Methodology

The new hires questionnaire was comprised of two types of questions: closed-ended questions and open-ended questions. Closed-ended questions limit the number of possible responses. These types of

questions force respondents to choose from a limited number of responses. An example of a closed-ended question is "What time is it where you live?" In open-ended questions, response options are not limited. "What is your opinion of Wyoming's economy?" is an example of an open-ended question. To assess employer skills needs, R&P first asked employers closed-ended questions about five types of skills:

- service orientation (actively looking for ways to help people);
- critical thinking (using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems);
- reading comprehension (understanding written sentences and paragraphs in work-related documents);
- technology design (generating or adapting equipment and technology to serve user needs);
- and operation and control (controlling operations of equipment or systems).

The open-ended question was, "In your opinion, what one skill is most important to accomplishing the activities and duties of this job? It could be one of the above or it could be another skill."

In order to evaluate respondents' answers to the open-ended question, a technique called text mining was employed. Text mining is a useful tool for evaluating and quantifying responses to open-ended questions. The process helps to identify themes that cannot otherwise be determined from closed-ended questions. The purpose of identifying themes is to capture information based on what respondents consider important, not what researchers consider important. For large surveys (over 5,000 responses in this case), text mining by hand is impractical.

Table 1: **Co-Occurrent Responses by Employers Participating in the Wyoming New Hires Survey, Fourth Quarter 2009 and First Quarter 2010**

**Question: "In your opinion, what one skill is most important to accomplishing the activities and duties of this job? It could be one of the above or it could be another skill."**

| Category 1 | Responses | Category 2 | Responses | Co-Occurrent Responses |
|---|---|---|---|---|
| Critical Thinking | 1,021 | Operation & Control | 821 | 146 |
| Service Orientation | 1,496 | Critical Thinking | 1,021 | 119 |
| Reading Comprehension | 202 | Critical Thinking | 1,021 | 81 |
| Operation & Control | 821 | Service Orientation | 1,496 | 70 |
| Critical Thinking | 1,021 | Technology Design | 116 | 69 |
| Reading Comprehension | 202 | Service Orientation | 1,496 | 67 |
| Reading Comprehension | 202 | Operation & Control | 821 | 66 |
| Technology Design | 116 | Operation & Control | 821 | 66 |
| Reading Comprehension | 202 | Technology Design | 116 | 65 |
| Technology Design | 116 | Service Orientation | 1,496 | 65 |

Therefore, R&P used text mining software to expedite the process of capturing common themes reported by employers about skills needed to be successful in jobs for which employees were newly hired.

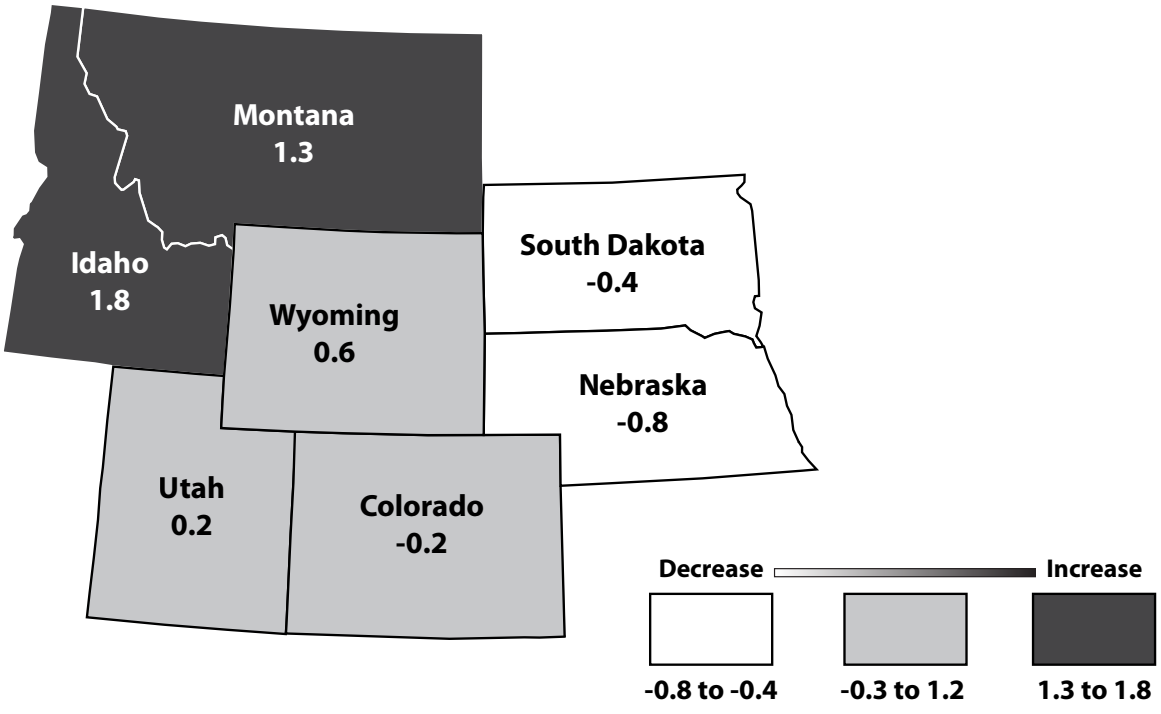
## Results

Of the 5,331 newly hired positions examined, service orientation was the skill most frequently reported as being important (28.1%). Understandably, more than one skill was considered as important for many of these newly hired jobs. The 10 most frequent co-occurrences are shown in Table 1 (see page 23).

Of all new hires, 926 (17.4%) held jobs that involve activities and duties related to increasing energy efficiency, utilizing or developing renewable energy resources, or preserving and/or restoring the environment some or all of the time.

Of the five skills, critical thinking had the highest frequency of importance for environmental jobs: (247 of 926, or 26.7%) followed by service orientation (185, or 20.0%). Although critical thinking was more often reported as important for environmental jobs (26.7%) than for non-environmental jobs (16.8%), it was important for all jobs. For the full text mining report see http://doe.state.wy.us/LMI/energy/text_mining_draft.pdf.

## Percentage Point Change in Unemployment Rate[a] for Wyoming and Surrounding States, June 2009 to June 2011




[a]Seasonally Adjusted
Source: U.S. Bureau of Labor Statistics, Local Area Unemployment Statistics (http://bls.gov/lau)

## Occupation Spotlight

There are an estimated 1,530 workers classified as truck drivers, light or delivery services in Wyoming. According to O*Net Online (http://www.onetonline.org), these are truck drivers who "drive a truck or van with a capacity of under 26,000 GVW, primarily to deliver or pick up merchandise or to deliver packages within a specified area."

**Truck Drivers, Light or Delivery Services**

According to the Occupational Employment Statistics (OES) survey, these workers are paid a mean wage of $15.45 per hour. Those in the 90th percentile earn as much as $26.06 per hour.

Wage data for specific occupations is available online at http://doe.state.wy.us/LMI/oes.htm. Click on the "County and Regional Wages (estimates for Wyoming wages for March 2011)" link.

# Wyoming Unemployment Rate Falls to 5.9% in June 2011

***by: David Bullard, Senior Economist***

According to the Research & Planning section of the Wyoming Department of Workforce Services, the state's seasonally adjusted[1] unemployment rate fell from 6.0% in May to 5.9% in June. Wyoming's unemployment rate has been steadily decreasing since December 2009, when it was 7.7%. It is significantly lower than its year-ago level of 7.0% and the current U.S. rate of 9.2%. Seasonally adjusted employment fell slightly from May to June (down an estimated 413 individuals, or 0.1%).

Lincoln County posted the highest unemployment rate in June (7.3%). It was followed by Fremont and Big Horn counties (both 6.7%) and Laramie County (6.6%). Sublette County reported the lowest unemployment rate (3.3%), a position it has held for 13 consecutive months. Three other counties had unemployment rates lower than 5.0% (Campbell, 4.4%; Niobrara, 4.8%; and Converse, 4.9%).

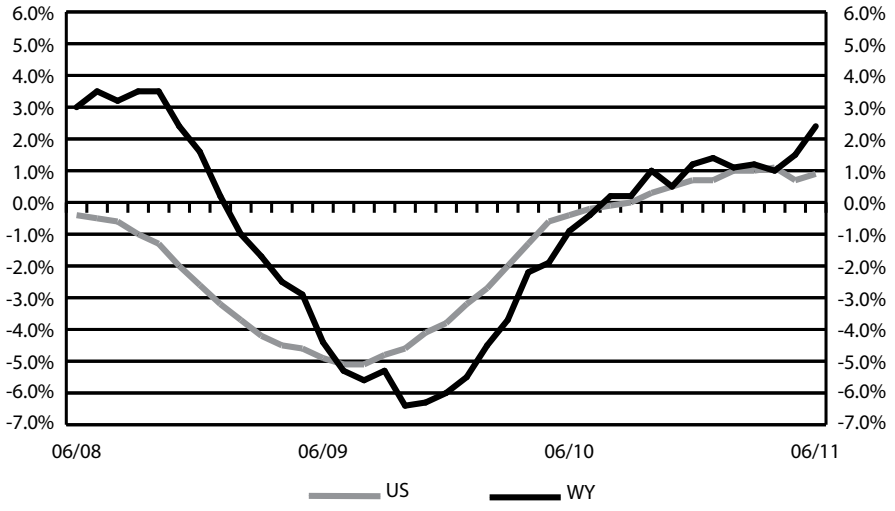
From May to June, most unemployment rates followed their normal seasonal pattern and decreased. Teton County's unemployment rate dropped from 9.2% in May to 5.2% in June as the summer tourist season got into full swing. Lincoln County's rate fell from 8.6% to 7.3%, Park County's rate fell from 6.1% to 5.1%, and Carbon County's rate fell from 6.6% to 5.8%.

From June 2010 to June 2011 unemployment rates decreased in every county. The largest decreases occurred in energy-dependent counties. Uinta County's jobless rate fell from 7.0% to 5.3%, Campbell County's rate fell from 5.9% to 4.4%, and Sweetwater County's rate fell from 6.5% to 5.1%.

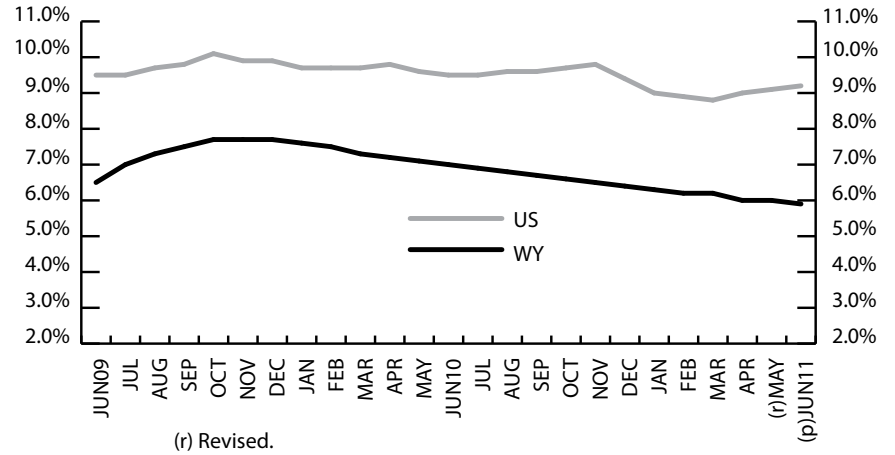
Total nonfarm employment increased to 298,700 in June, a gain of 6,900 jobs (2.4%) from its year-ago level. Despite this increase, employment was still down 9,400 jobs (or 3.1%) from June 2008.

[1] Seasonal adjustment is a statistical procedure to remove the impact of normal regularly recurring events (such as weather, major holidays, and the opening and closing of schools) from economic time series to better understand changes in economic conditions from month to month.

**Nonagricultural Employment Growth**
**(Percentage Change Over Previous Year)**

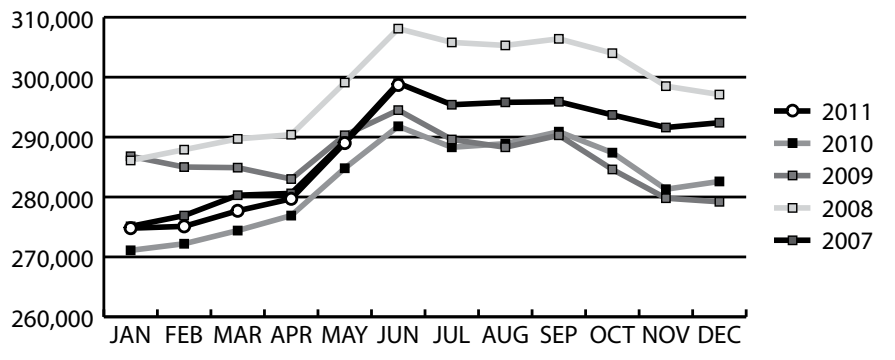



**Seasonally Adjusted Unemployment Rate (Percentage)**




(r) Revised.
(p) Preliminary.

**Wyoming Nonagricultural Wage and Salary Employment**




**State Unemployment Rates**
**June 2011**
**(Seasonally Adjusted)**

| State | Unemp. Rate |
|---|---|
| Puerto Rico | 14.9 |
| Nevada | 12.4 |
| California | 11.8 |
| Rhode Island | 10.8 |
| Florida | 10.6 |
| Michigan | 10.5 |
| South Carolina | 10.5 |
| District of Columbia | 10.4 |
| Mississippi | 10.3 |
| Alabama | 9.9 |
| Georgia | 9.9 |
| North Carolina | 9.9 |
| Tennessee | 9.8 |
| Kentucky | 9.6 |
| New Jersey | 9.5 |
| Idaho | 9.4 |
| Oregon | 9.4 |
| Arizona | 9.3 |
| Illinois | 9.2 |
| **United States** | **9.2** |
| Washington | 9.2 |
| Connecticut | 9.1 |
| Missouri | 8.8 |
| Ohio | 8.8 |
| Colorado | 8.5 |
| West Virginia | 8.5 |
| Indiana | 8.3 |
| Texas | 8.2 |
| Arkansas | 8.1 |
| Delaware | 8.0 |
| New York | 8.0 |
| Louisiana | 7.8 |
| Maine | 7.8 |
| Massachusetts | 7.6 |
| Pennsylvania | 7.6 |
| Wisconsin | 7.6 |
| Alaska | 7.5 |
| Montana | 7.5 |
| Utah | 7.4 |
| Maryland | 7.0 |
| New Mexico | 6.8 |
| Minnesota | 6.7 |
| Kansas | 6.6 |
| Hawaii | 6.0 |
| Iowa | 6.0 |
| Virginia | 6.0 |
| **Wyoming** | **5.9** |
| Vermont | 5.5 |
| Oklahoma | 5.3 |
| New Hampshire | 4.9 |
| South Dakota | 4.8 |
| Nebraska | 4.1 |
| North Dakota | 3.2 |

# Wyoming Nonagricultural Wage and Salary Employment

*by: David Bullard, Senior Economist*

| | Employment in Thousands | | | % Change Total Employment | |
|---|---|---|---|---|---|
| | Jun 11 | May 11 | Jun 10 | May 11 Jun 11 | Jun 10 Jun 11 |
| **CAMPBELL COUNTY** | | | | | |
| **TOTAL NONAG. WAGE & SALARY EMPLOYMENT** | **28.6** | **28.2** | **28.8** | **1.4** | **-0.7** |
| **TOTAL PRIVATE** | **23.6** | **23.3** | **23.9** | **1.3** | **-1.3** |
| **GOODS PRODUCING** | **11.5** | **11.2** | **11.9** | **2.7** | **-3.4** |
| Natural Resources & Mining | 8.3 | 8.1 | 7.9 | 2.5 | 5.1 |
| Construction | 2.7 | 2.6 | 3.5 | 3.8 | -22.9 |
| Manufacturing | 0.5 | 0.5 | 0.5 | 0.0 | 0.0 |
| **SERVICE PROVIDING** | **17.1** | **17.0** | **16.9** | **0.6** | **1.2** |
| Trade, Transport., & Utilities | 5.4 | 5.4 | 5.4 | 0.0 | 0.0 |
| Information | 0.2 | 0.2 | 0.2 | 0.0 | 0.0 |
| Financial Activities | 0.7 | 0.7 | 0.7 | 0.0 | 0.0 |
| Professional & Bus. Services | 1.8 | 1.8 | 1.7 | 0.0 | 5.9 |
| Educational & Health Serv. | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 |
| Leisure & Hospitality | 2.0 | 2.0 | 2.0 | 0.0 | 0.0 |
| Other Services | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 |
| **GOVERNMENT** | **5.0** | **4.9** | **4.9** | **2.0** | **2.0** |

| | Employment in Thousands | | | % Change Total Employment | |
|---|---|---|---|---|---|
| | Jun 11 | May 11 | Jun 10 | May 11 Jun 11 | Jun 10 Jun 11 |
| **SWEETWATER COUNTY** | | | | | |
| **TOTAL NONAG. WAGE & SALARY EMPLOYMENT** | **25.4** | **25.3** | **24.5** | **0.4** | **3.7** |
| **TOTAL PRIVATE** | **20.4** | **20.2** | **19.6** | **1.0** | **4.1** |
| **GOODS PRODUCING** | **8.9** | **8.9** | **8.4** | **0.0** | **6.0** |
| Natural Resources & Mining | 5.8 | 5.8 | 5.4 | 0.0 | 7.4 |
| Construction | 1.7 | 1.8 | 1.7 | -5.6 | 0.0 |
| Manufacturing | 1.4 | 1.3 | 1.3 | 7.7 | 7.7 |
| **SERVICE PROVIDING** | **16.5** | **16.4** | **16.1** | **0.6** | **2.5** |
| Trade, Transport., & Utilities | 5.1 | 5.0 | 4.9 | 2.0 | 4.1 |
| Information | 0.2 | 0.2 | 0.2 | 0.0 | 0.0 |
| Financial Activities | 0.9 | 0.9 | 0.9 | 0.0 | 0.0 |
| Professional & Bus. Services | 1.2 | 1.2 | 1.1 | 0.0 | 9.1 |
| Educational & Health Serv. | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 |
| Leisure & Hospitality | 2.4 | 2.3 | 2.4 | 4.3 | 0.0 |
| Other Services | 0.7 | 0.7 | 0.7 | 0.0 | 0.0 |
| **GOVERNMENT** | **5.0** | **5.1** | **4.9** | **-2.0** | **2.0** |

| | Employment in Thousands | | | % Change Total Employment | |
|---|---|---|---|---|---|
| | Jun 11 | May 11 | Jun 10 | May 11 Jun 11 | Jun 10 Jun 11 |
| **TETON COUNTY** | | | | | |
| **TOTAL NONAG. WAGE & SALARY EMPLOYMENT** | **19.4** | **15.9** | **19.3** | **22.0** | **0.5** |
| **TOTAL PRIVATE** | **16.8** | **13.4** | **16.7** | **25.4** | **0.6** |
| **GOODS PRODUCING** | **1.9** | **1.7** | **1.8** | **11.8** | **5.6** |
| Nat. Res., Mining & Const. | 1.7 | 1.6 | 1.7 | 6.2 | 0.0 |
| Manufacturing | 0.2 | 0.1 | 0.1 | 100.0 | 100.0 |
| **SERVICE PROVIDING** | **17.5** | **14.2** | **17.5** | **23.2** | **0.0** |
| Trade, Transport., & Utilities | 2.4 | 2.1 | 2.4 | 14.3 | 0.0 |
| Information | 0.2 | 0.2 | 0.2 | 0.0 | 0.0 |
| Financial Activities | 0.8 | 0.7 | 0.8 | 14.3 | 0.0 |
| Professional & Bus. Services | 1.8 | 1.6 | 1.7 | 12.5 | 5.9 |
| Educational & Health Serv. | 1.0 | 0.9 | 1.0 | 11.1 | 0.0 |
| Leisure & Hospitality | 8.2 | 5.8 | 8.3 | 41.4 | -1.2 |
| Other Services | 0.5 | 0.4 | 0.5 | 25.0 | 0.0 |
| **GOVERNMENT** | **2.6** | **2.5** | **2.6** | **4.0** | **0.0** |

## State Unemployment Rates June 2011 (Not Seasonally Adjusted)

| State | Unemp. Rate |
|---|---|
| Puerto Rico | 15.2 |
| Nevada | 13.5 |
| California | 12.1 |
| District of Columbia | 11.9 |
| South Carolina | 11.2 |
| Florida | 11.1 |
| Michigan | 11.0 |
| Mississippi | 11.0 |
| Alabama | 10.5 |
| Georgia | 10.5 |
| North Carolina | 10.4 |
| Rhode Island | 10.3 |
| Tennessee | 10.2 |
| Arizona | 9.9 |
| Illinois | 9.7 |
| Kentucky | 9.7 |
| New Jersey | 9.7 |
| Oregon | 9.7 |
| Idaho | 9.3 |
| **United States** | **9.3** |
| Washington | 9.3 |
| Ohio | 9.2 |
| Connecticut | 9.1 |
| Missouri | 9.0 |
| Texas | 8.8 |
| Colorado | 8.7 |
| Arkansas | 8.6 |
| West Virginia | 8.6 |
| Indiana | 8.5 |
| Delaware | 8.4 |
| Louisiana | 8.1 |
| Wisconsin | 8.1 |
| New York | 8.0 |
| Pennsylvania | 8.0 |
| Alaska | 7.9 |
| Massachusetts | 7.8 |
| Montana | 7.8 |
| New Mexico | 7.8 |
| Utah | 7.7 |
| Maine | 7.4 |
| Maryland | 7.4 |
| Minnesota | 6.9 |
| Hawaii | 6.8 |
| Kansas | 6.7 |
| Virginia | 6.3 |
| Iowa | 6.0 |
| Oklahoma | 6.0 |
| Vermont | 5.6 |
| **Wyoming** | **5.6** |
| New Hampshire | 5.2 |
| South Dakota | 4.6 |
| Nebraska | 4.4 |
| North Dakota | 3.8 |

# Economic Indicators

*by: Margaret Hiatt, Administrative/Survey Support Specialist*

*The number of discouraged workers in the U.S. fell by 18.6% from June 2010 to June 2011, suggesting improvement in the labor market.*

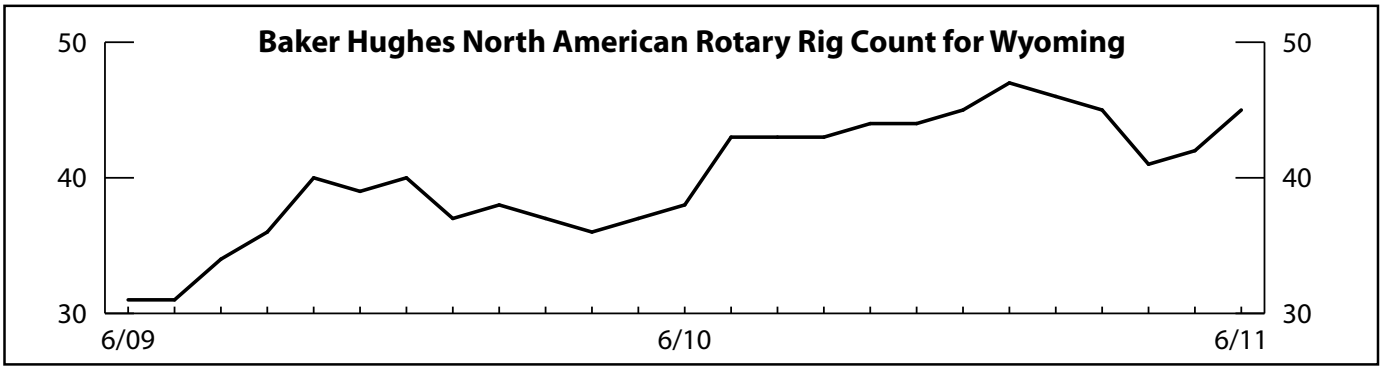
| | Jun 2011 (p) | May 2011 (r) | Jun 2010 (b) | Percent Change Month | Year |
|---|---|---|---|---|---|
| **Wyoming Total Nonfarm Employment** | **298,700** | **289,000** | **291,800** | **3.4** | **2.4** |
| Wyoming State Government | 16,700 | 17,500 | 16,400 | -4.6 | 1.8 |
| Laramie County Nonfarm Employment | 44,100 | 43,600 | 44,100 | 1.1 | 0.0 |
| Natrona County Nonfarm Employment | 39,900 | 39,200 | 39,000 | 1.8 | 2.3 |
| **Selected U.S. Employment Data** | | | | | |
| U.S. Multiple Jobholders | 6,861,000 | 7,084,000 | 6,899,000 | -3.1 | -0.6 |
| As a percent of all workers | 4.9% | 5.1% | 4.9% | N/A | N/A |
| U.S. Discouraged Workers | 982,000 | 822,000 | 1,207,000 | 19.5 | -18.6 |
| U.S. Part Time for Economic Reasons | 8,738,000 | 8,270,000 | 8,867,000 | 5.7 | -1.5 |
| **Wyoming Unemployment Insurance** | | | | | |
| Weeks Compensated | 24,187 | 23,800 | 32,271 | 1.6 | -25.1 |
| Benefits Paid | $7,826,502 | $7,643,865 | $10,682,087 | 2.4 | -26.7 |
| Average Weekly Benefit Payment | $323.58 | $321.17 | $331.01 | 0.8 | -2.2 |
| State Insured Covered Jobs[1] | 269,076 | 261,032 | 267,649 | 3.1 | 0.5 |
| Insured Unemployment Rate | 2.1% | 2.5% | 2.5% | N/A | N/A |
| **Consumer Price Index (U) for All U.S. Urban Consumers** | | | | | |
| (1982 to 1984 = 100) | | | | | |
| All Items | 225.7 | 226.0 | 218.0 | -0.1 | 3.6 |
| Food & Beverages | 227.5 | 227.1 | 219.6 | 0.2 | 3.6 |
| Housing | 219.6 | 218.5 | 216.8 | 0.5 | 1.3 |
| Apparel | 120.6 | 122.3 | 118.3 | -1.4 | 1.9 |
| Transportation | 216.9 | 220.3 | 192.7 | -1.5 | 12.6 |
| Medical Care | 399.6 | 399.4 | 388.2 | 0.0 | 2.9 |
| Recreation (Dec. 1997=100) | 113.7 | 113.7 | 113.8 | 0.0 | -0.1 |
| Education & Communication (Dec. 1997=100) | 130.6 | 130.6 | 129.3 | 0.0 | 1.0 |
| Other Goods & Services | 386.2 | 385.5 | 380.9 | 0.2 | 1.4 |
| Producer Prices (1982 to 1984 = 100) | | | | | |
| All Commodities | 204.0 | 204.2 | 183.5 | -0.1 | 11.2 |
| **Wyo. Bldg. Permits (New Privately Owned Housing Units Authorized)** | | | | | |
| Total Units | 288 | 150 | 209 | 92.0 | 37.8 |
| Valuation | $47,570,000 | $40,641,000 | $57,765,000 | 17.0 | -17.6 |
| Single Family Homes | 164 | 137 | 148 | 19.7 | 10.8 |
| Valuation | $38,162,000 | $39,820,000 | $53,189,000 | -4.2 | -28.3 |
| Casper MSA[2] Building Permits | 97 | 11 | 20 | 781.8 | 385.0 |
| Valuation | $8,546,000 | $1,355,000 | $3,119,000 | 530.7 | 174.0 |
| Cheyenne MSA Building Permits | 39 | 31 | 45 | 25.8 | -13.3 |
| Valuation | $6,863,000 | $4,690,000 | $5,195,000 | 46.3 | 32.1 |
| **Baker Hughes North American Rotary Rig Count for Wyoming** | 45 | 42 | 38 | 7.1 | 18.4 |

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

[1]Local Area Unemployment Statistics Program estimates.

[2]Metropolitan Statistical Area.

Note: Production worker hours and earnings data have been dropped from the Economic Indicators page because of problems with accuracy due to a small sample size and high item nonresponse. The Bureau of Labor Statistics will continue to publish these data online at http://www.bls.gov/eag/eag.wy.htm



# Wyoming County Unemployment Rates

***by: Carola Cowan, BLS Programs Supervisor***

***Sublette County reported the lowest unemployment rate in June (3.3%), a position it has held for 13 consecutive months.***

| | Labor Force | | | Employed | | | Unemployed | | | Unemployment Rates | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| REGION | Jun 2011 | May 2011 | Jun 2010 | Jun 2011 | May 2011 | Jun 2010 | Jun 2011 | May 2011 | Jun 2010 | Jun 2011 | May 2011 | Jun 2010 |
| County | (p) | (r) | (b) | (p) | (r) | (b) | (p) | (r) | (b) | (p) | (r) | (b) |
| **NORTHWEST** | **47,143** | **44,422** | **47,442** | **44,322** | **41,570** | **44,185** | **2,821** | **2,852** | **3,257** | **6.0** | **6.4** | **6.9** |
| Big Horn | 5,096 | 4,865 | 5,159 | 4,757 | 4,527 | 4,783 | 339 | 338 | 376 | 6.7 | 6.9 | 7.3 |
| Fremont | 19,002 | 18,920 | 19,114 | 17,720 | 17,632 | 17,590 | 1,282 | 1,288 | 1,524 | 6.7 | 6.8 | 8.0 |
| Hot Springs | 2,582 | 2,488 | 2,584 | 2,451 | 2,358 | 2,449 | 131 | 130 | 135 | 5.1 | 5.2 | 5.2 |
| Park | 16,185 | 13,976 | 16,143 | 15,360 | 13,119 | 15,198 | 825 | 857 | 945 | 5.1 | 6.1 | 5.9 |
| Washakie | 4,278 | 4,173 | 4,442 | 4,034 | 3,934 | 4,165 | 244 | 239 | 277 | 5.7 | 5.7 | 6.2 |
| **NORTHEAST** | **54,672** | **53,764** | **55,239** | **51,833** | **50,891** | **51,697** | **2,839** | **2,873** | **3,542** | **5.2** | **5.3** | **6.4** |
| Campbell | 27,240 | 27,394 | 27,646 | 26,031 | 26,188 | 26,027 | 1,209 | 1,206 | 1,619 | 4.4 | 4.4 | 5.9 |
| Crook | 3,671 | 3,443 | 3,710 | 3,489 | 3,261 | 3,495 | 182 | 182 | 215 | 5.0 | 5.3 | 5.8 |
| Johnson | 4,222 | 3,874 | 4,137 | 3,960 | 3,608 | 3,823 | 262 | 266 | 314 | 6.2 | 6.9 | 7.6 |
| Sheridan | 16,349 | 15,858 | 16,482 | 15,334 | 14,810 | 15,288 | 1,015 | 1,048 | 1,194 | 6.2 | 6.6 | 7.2 |
| Weston | 3,190 | 3,195 | 3,264 | 3,019 | 3,024 | 3,064 | 171 | 171 | 200 | 5.4 | 5.4 | 6.1 |
| **SOUTHWEST** | **65,531** | **63,645** | **65,358** | **62,108** | **59,720** | **61,096** | **3,423** | **3,925** | **4,262** | **5.2** | **6.2** | **6.5** |
| Lincoln | 8,430 | 7,996 | 8,523 | 7,818 | 7,309 | 7,809 | 612 | 687 | 714 | 7.3 | 8.6 | 8.4 |
| Sublette | 7,431 | 7,087 | 7,448 | 7,188 | 6,840 | 7,124 | 243 | 247 | 324 | 3.3 | 3.5 | 4.4 |
| Sweetwater | 23,902 | 24,400 | 23,660 | 22,689 | 23,219 | 22,116 | 1,213 | 1,181 | 1,544 | 5.1 | 4.8 | 6.5 |
| Teton | 14,459 | 13,037 | 14,731 | 13,709 | 11,839 | 13,824 | 750 | 1,198 | 907 | 5.2 | 9.2 | 6.2 |
| Uinta | 11,309 | 11,125 | 10,996 | 10,704 | 10,513 | 10,223 | 605 | 612 | 773 | 5.3 | 5.5 | 7.0 |
| **SOUTHEAST** | **72,655** | **74,464** | **73,534** | **68,280** | **70,179** | **68,564** | **4,375** | **4,285** | **4,970** | **6.0** | **5.8** | **6.8** |
| Albany | 18,267 | 19,859 | 18,757 | 17,359 | 18,958 | 17,720 | 908 | 901 | 1,037 | 5.0 | 4.5 | 5.5 |
| Goshen | 6,278 | 6,255 | 6,287 | 5,905 | 5,908 | 5,876 | 373 | 347 | 411 | 5.9 | 5.5 | 6.5 |
| Laramie | 42,543 | 42,938 | 42,990 | 39,751 | 40,196 | 39,818 | 2,792 | 2,742 | 3,172 | 6.6 | 6.4 | 7.4 |
| Niobrara | 1,295 | 1,220 | 1,275 | 1,233 | 1,168 | 1,205 | 62 | 52 | 70 | 4.8 | 4.3 | 5.5 |
| Platte | 4,272 | 4,192 | 4,225 | 4,032 | 3,949 | 3,945 | 240 | 243 | 280 | 5.6 | 5.8 | 6.6 |
| **CENTRAL** | **56,130** | **55,975** | **56,438** | **52,905** | **52,742** | **52,596** | **3,225** | **3,233** | **3,842** | **5.7** | **5.8** | **6.8** |
| Carbon | 8,002 | 7,495 | 7,963 | 7,535 | 7,000 | 7,404 | 467 | 495 | 559 | 5.8 | 6.6 | 7.0 |
| Converse | 7,490 | 7,391 | 7,646 | 7,124 | 7,039 | 7,203 | 366 | 352 | 443 | 4.9 | 4.8 | 5.8 |
| Natrona | 40,638 | 41,089 | 40,829 | 38,246 | 38,703 | 37,989 | 2,392 | 2,386 | 2,840 | 5.9 | 5.8 | 7.0 |
| **STATEWIDE** | **296,130** | **292,271** | **298,009** | **279,449** | **275,104** | **278,136** | **16,681** | **17,167** | **19,873** | **5.6** | **5.9** | **6.7** |
| Statewide Seasonally Adjusted | | | | | | | | | | 5.9 | 6.0 | 7.0 |
| U.S. | | | | | | | | | | 9.3 | 8.7 | 9.6 |
| U.S. Seasonally Adjusted | | | | | | | | | | 9.2 | 9.1 | 9.5 |

Prepared in cooperation with the Bureau of Labor Statistics. Benchmarked 02/2011. Run Date 07/2011.

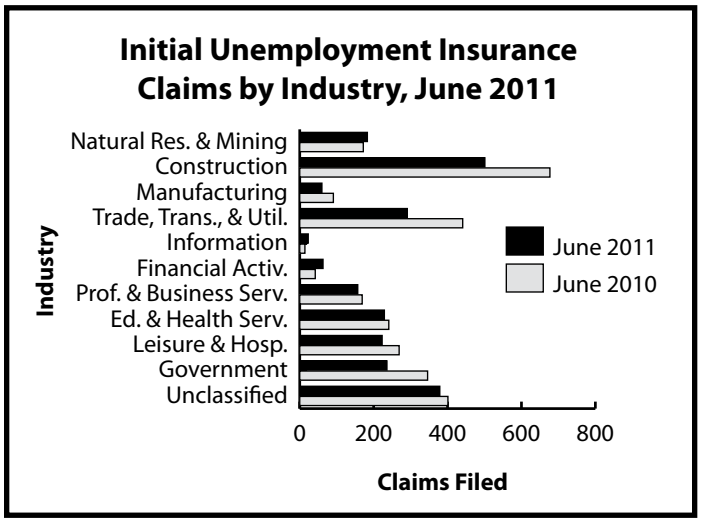
Data are not seasonally adjusted except where otherwise specified.

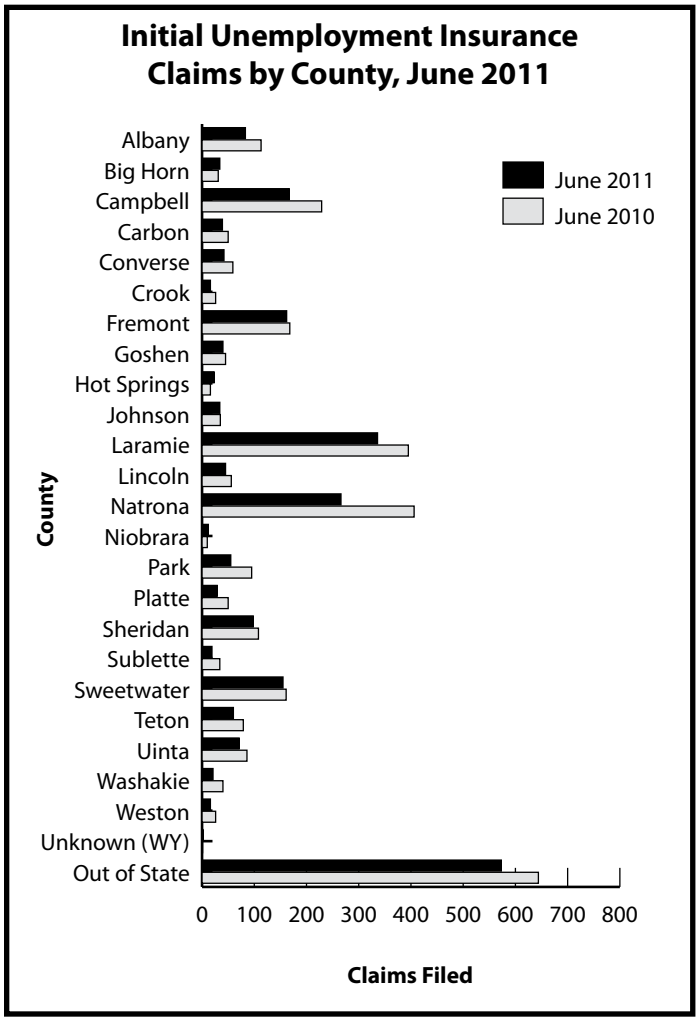
(p) Preliminary. (r) Revised. (b) Benchmarked.

# Wyoming Normalized[a] Unemployment Insurance Statistics: Initial Claims

*by: Douglas W. Leonard, Senior Economist*

*Initial claims continued to fall compared to 2010, with an over-the-year decline of 19.2%. The largest over-the-year declines were observed in construction (-176), wholesale trade (-83), and federal government (-94).*




## Initial Claims

| | Claims Filed | | | Percent Change Claims Filed | |
|---|---|---|---|---|---|
| | Jun 11 | May 11 | Jun 10 | Jun 11 May 11 | Jun 11 Jun 10 |
| **Wyoming Statewide** | | | | | |
| **TOTAL CLAIMS FILED** | **2,395** | **2,923** | **2,964** | **-18.1** | **-19.2** |
| TOTAL GOODS-PRODUCING | 744 | 1,079 | 940 | -31.0 | -20.9 |
| Natural Res. & Mining | 183 | 201 | 172 | -9.0 | 6.4 |
| Mining | 171 | 187 | 162 | -8.6 | 5.6 |
| Oil & Gas Extraction | 8 | 9 | 10 | -11.1 | -20.0 |
| Construction | 501 | 798 | 677 | -37.2 | -26.0 |
| Manufacturing | 60 | 80 | 91 | -25.0 | -34.1 |
| TOTAL SERVICE-PROVIDING | 1,036 | 1,198 | 1,277 | -13.5 | -18.9 |
| Trade, Transp., & Utilities | 291 | 371 | 441 | -21.6 | -34.0 |
| Wholesale Trade | 43 | 51 | 126 | -15.7 | -65.9 |
| Retail Trade | 172 | 209 | 223 | -17.7 | -22.9 |
| Transp., Warehousing & Utilities | 76 | 111 | 92 | -31.5 | -17.4 |
| Information | 23 | 12 | 14 | 91.7 | 64.3 |
| Financial Activities | 63 | 43 | 42 | 46.5 | 50.0 |
| Prof. and Business Svcs. | 157 | 178 | 169 | -11.8 | -7.1 |
| Educational & Health Svcs. | 229 | 209 | 241 | 9.6 | -5.0 |
| Leisure & Hospitality | 223 | 331 | 269 | -32.6 | -17.1 |
| Other Svcs., exc. Public Admin. | 50 | 54 | 101 | -7.4 | -50.5 |
| TOTAL GOVERNMENT | 236 | 222 | 346 | 6.3 | -31.8 |
| Federal Government | 42 | 49 | 136 | -14.3 | -69.1 |
| State Government | 23 | 23 | 31 | 0.0 | -25.8 |
| Local Government | 171 | 150 | 179 | 14.0 | -4.5 |
| Local Education | 97 | 53 | 101 | 83.0 | -4.0 |
| UNCLASSIFIED | 379 | 424 | 401 | -10.6 | -5.5 |
| **Laramie County** | | | | | |
| **TOTAL CLAIMS FILED** | **336** | **356** | **396** | **-5.6** | **-15.2** |
| TOTAL GOODS-PRODUCING | 87 | 115 | 112 | -24.3 | -22.3 |
| Construction | 70 | 107 | 97 | -34.6 | -27.8 |
| TOTAL SERVICE-PROVIDING | 202 | 191 | 214 | 5.8 | -5.6 |
| Trade, Transp., & Utilities | 50 | 65 | 84 | -23.1 | -40.5 |
| Financial Activities | 16 | 8 | 7 | 100.0 | 128.6 |
| Prof. & Business Svcs. | 36 | 28 | 20 | 28.6 | 80.0 |
| Educational & Health Svcs. | 56 | 45 | 46 | 24.4 | 21.7 |
| Leisure & Hospitality | 27 | 34 | 44 | -20.6 | -38.6 |
| TOTAL GOVERNMENT | 33 | 35 | 54 | -5.7 | -38.9 |
| UNCLASSIFIED | 14 | 15 | 16 | -6.7 | -12.5 |
| **Natrona County** | | | | | |
| **TOTAL CLAIMS FILED** | **267** | **327** | **408** | **-18.3** | **-34.6** |
| TOTAL GOODS-PRODUCING | 90 | 105 | 128 | -14.3 | -29.7 |
| Construction | 42 | 67 | 80 | -37.3 | -47.5 |
| TOTAL SERVICE-PROVIDING | 151 | 197 | 232 | -23.4 | -34.9 |
| Trade, Transp., & Utilities | 51 | 77 | 85 | -33.8 | -40.0 |
| Financial Activities | 6 | 7 | 12 | -14.3 | -50.0 |
| Prof. & Business Svcs. | 25 | 26 | 27 | -3.8 | -7.4 |
| Educational & Health Svcs. | 30 | 32 | 41 | -6.3 | -26.8 |
| Leisure & Hospitality | 26 | 42 | 52 | -38.1 | -50.0 |
| TOTAL GOVERNMENT | 18 | 11 | 36 | 63.6 | -50.0 |
| UNCLASSIFIED | 8 | 14 | 12 | -42.9 | -33.3 |

[a]An average month is considered 4.33 weeks. If a month has four weeks, the normalization factor is 1.0825. If the month has five weeks, the normalization factor is 0.866. The number of raw claims is multiplied by the normalization factor to achieve the normalized claims counts.

# Wyoming Normalized[a] Unemployment Insurance Statistics: Continued Claims

*by: Douglas W. Leonard, Senior Economist*

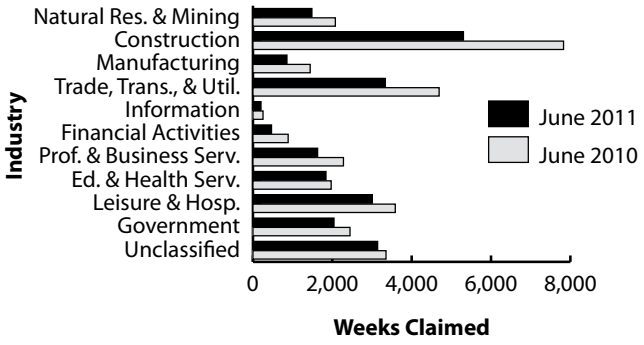
*Continued claims were 24.7% less than in June 2010. All reported sectors at the statewide level showed over-the-year declines in claims activity.*

**Continued Claims**

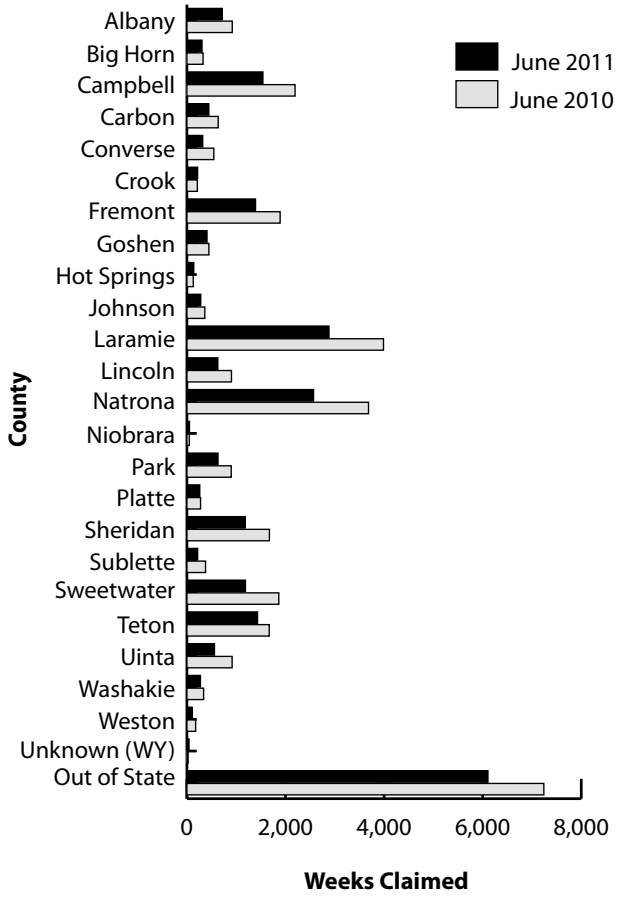
| | Claims Filed | | | Percent Change Claims Filed | |
|---|---|---|---|---|---|
| | Jun 11 | May 11 | Jun 10 | Jun 11 May 11 | Jun 11 Jun 10 |
| **Wyoming Statewide** | | | | | |
| TOTAL WEEKS CLAIMED | 23,902 | 28,720 | 31,751 | -16.8 | -24.7 |
| EXTENDED WEEKS CLAIMED | 14,800 | 16,678 | 20,922 | -11.3 | -29.3 |
| TOTAL UNIQUE CLAIMANTS[b] | 6,078 | 8,507 | 7,828 | -28.6 | -22.4 |
| *Benefit Exhaustions* | 622 | 877 | 1,002 | -29.1 | -37.9 |
| *Benefit Exhaustion Rates* | 10.2% | 10.3% | 12.8% | -0.1% | -2.6% |
| TOTAL GOODS-PRODUCING | 7,648 | 9,274 | 11,347 | -17.5 | -32.6 |
| Natural Res. & Mining | 1,486 | 1,710 | 2,077 | -13.1 | -28.5 |
| Mining | 1,324 | 1,524 | 1,866 | -13.1 | -29.0 |
| Oil & Gas Extraction | 92 | 115 | 135 | -20.0 | -31.9 |
| Construction | 5,305 | 6,506 | 7,828 | -18.5 | -32.2 |
| Manufacturing | 857 | 1,058 | 1,442 | -19.0 | -40.6 |
| TOTAL SERVICE-PROVIDING | 11,068 | 13,995 | 14,604 | -20.9 | -24.2 |
| Trade, Transp., & Utilities | 3,331 | 3,885 | 4,692 | -14.3 | -29.0 |
| Wholesale Trade | 486 | 503 | 874 | -3.4 | -44.4 |
| Retail Trade | 2,085 | 2,446 | 2,807 | -14.8 | -25.7 |
| Transp., Warehousing & Utilities | 760 | 936 | 1,011 | -18.8 | -24.8 |
| Information | 203 | 200 | 254 | 1.5 | -20.1 |
| Financial Activities | 468 | 492 | 887 | -4.9 | -47.2 |
| Prof. & Business Services | 1,630 | 1,911 | 2,281 | -14.7 | -28.5 |
| Educational & Health Svcs. | 1,841 | 1,598 | 1,971 | 15.2 | -6.6 |
| Leisure and Hospitality | 3,009 | 5,287 | 3,587 | -43.1 | -16.1 |
| Other Svcs., exc. Public Admin. | 586 | 622 | 932 | -5.8 | -37.1 |
| TOTAL GOVERNMENT | 2,043 | 2,201 | 2,446 | -7.2 | -16.5 |
| Federal Government | 465 | 791 | 701 | -41.2 | -33.7 |
| State Government | 251 | 254 | 276 | -1.2 | -9.1 |
| Local Government | 1,327 | 1,156 | 1,469 | 14.8 | -9.7 |
| Local Education | 362 | 211 | 380 | 71.6 | -4.7 |
| UNCLASSIFIED | 3,143 | 3,250 | 3,354 | -3.3 | -6.3 |
| **Laramie County** | | | | | |
| TOTAL WEEKS CLAIMED | 2,880 | 2,962 | 3,987 | -2.8 | -27.8 |
| TOTAL UNIQUE CLAIMANTS | 708 | 861 | 987 | -17.8 | -28.3 |
| Total Goods-Producing | 734 | 860 | 1,118 | -14.7 | -34.3 |
| Construction | 585 | 739 | 908 | -20.8 | -35.6 |
| Total Service-Providing | 1,673 | 1,631 | 2,269 | 2.6 | -26.3 |
| Trade, Transp., and Utilities | 470 | 515 | 830 | -8.7 | -43.4 |
| Financial Activities | 102 | 95 | 187 | 7.4 | -45.5 |
| Prof. & Business Svcs. | 257 | 262 | 362 | -1.9 | -29.0 |
| Educational and Health Svcs. | 454 | 403 | 344 | 12.7 | 32.0 |
| Leisure & Hospitality | 245 | 224 | 327 | 9.4 | -25.1 |
| TOTAL GOVERNMENT | 368 | 352 | 494 | 4.5 | -25.5 |
| UNCLASSIFIED | 105 | 119 | 106 | -11.8 | -0.9 |
| **Natrona County** | | | | | |
| TOTAL WEEKS CLAIMED | 2,569 | 2,845 | 3,686 | -9.7 | -30.3 |
| TOTAL UNIQUE CLAIMANTS | 637 | 841 | 899 | -24.3 | -29.1 |
| Total Goods-Producing | 694 | 825 | 1,221 | -15.9 | -43.2 |
| Construction | 386 | 523 | 737 | -26.2 | -47.6 |
| TOTAL SERVICE-PROVIDING | 1,733 | 1,826 | 2,226 | -5.1 | -22.1 |
| Trade, Transp., and Utilities | 594 | 641 | 780 | -7.3 | -23.8 |
| Financial Activities | 67 | 63 | 169 | 6.3 | -60.4 |
| Professional & Business Svcs. | 312 | 340 | 288 | -8.2 | 8.3 |
| Educational & Health Svcs. | 333 | 288 | 401 | 15.6 | -17.0 |
| Leisure & Hospitality | 253 | 296 | 382 | -14.5 | -33.8 |
| TOTAL GOVERNMENT | 90 | 121 | 180 | -25.6 | -50.0 |
| UNCLASSIFIED | 52 | 73 | 59 | -28.8 | -11.9 |

[a]An average month is considered 4.33 weeks. If a month has four weeks, the normalization factor is 1.0825. If the month has five weeks, the normalization factor is 0.866. The number of raw claims is multiplied by the normalization factor to achieve the normalized claims counts.
[b]Does not include claimants receiving extended benefits.

**Continued Unemployment Insurance Claims by Industry, June 2011**




**Continued Unemployment Insurance Claims by County, June 2011**



Wyoming Department
of Workforce Services
Research & Planning
P.O. Box 2760
Casper, WY 82602

---

Official Business
Penalty for Private
Use $300
Return Service
Requested