

### **Analysis of Wyoming State Government Attrition:**

Focus on Information Technology Staff by: Craig Radden Henderson, One Stop Program Supervisor

figures and tables by: Norman Baron, Economist and Tony Glover, Research Analyst

"For information technology occupations, wage differences between Wyoming and other states are substantial. ...Wyoming ranks forty-eighth among the fifty states [in average annual wages for information technology workers]."

n February 2000, the Program Evaluation section of the Wyoming Legislative Services Office (LSO) contracted with Research & Planning (R&P) to produce summary data and an analysis relating to post State Government employment experiences for four occupations. Our analysis was used by the LSO to prepare a more formal report to the Wyoming State Legislature, Management Audit Committee.<sup>1</sup>

This article relates the findings and shares part of the analysis we provided to LSO. Due to the length of our earlier report, the tables we reproduce here focus exclusively on the exits of Information Technology (IT) staff from State Government. Tabular data for three other occupations case workers with the Department of Family Services (DFS), corrections officers with the Department of Corrections (DOC), and highway patrol officers with the Department of Transportation (DOT) — are included in the full report.<sup>2</sup> By quantifying some aspects of IT attrition, at least as it impacts State Government, and communicating our findings and research methods to a wider audience, we hope to expand the policy debate and help inform future policy choices.

### **Research Methods**

There is a continuous flow of population and labor into and out of Wyoming. As required by Wyoming statute, the vast majority of the stock of labor for employment and wages are reported to the Department of Employment (DOE) by employers on their quarterly Unemployment Insurance (UI) tax forms. Our analysis uses those quarterly reports and other administrative databases<sup>3</sup> to describe the earnings and work experiences of State IT employees and three other

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occupations. Data regarding dates of employment for these occupations were provided to R&P and merged with Wyoming Wage Records earnings and demographic databases to produce our analysis. The full report includes a technical appendix detailing research methods.

### Findings on All Four Occupations

• All four occupational classifications demonstrated above normal attrition rates with migration from the state as the most likely explanation.

• The highest attrition rate – for former IT employees – suggests a much higher rate of outmigration.

• For 38 former DFS employees, average wages two quarters after their exit represented a 20.1 percent decrease. The wages of the case workers may or may not have been the primary impetus for leaving their jobs.

• The analysis of highway patrol officers and IT staff show that, on average, those who exited their jobs and stayed in Wyoming to work in the private sector increased their wages.

• Corrections officers have an increased likelihood of holding a secondary job. Highway patrol officers demonstrated the highest level of multiple-job holding.

• For all four occupational groups, multiple-job holding rates fell within the normal range of labor attachment for State Government as a whole.

• Multiple-job holding by State Government employees is associated with the greater likelihood that these employees may exit State employment.

### Employee Strategies and Labor Market Flow

For any given stock of employed workers at any given point in time, it is normal for that stock of workers to diminish, or experience attrition, over time. Attrition occurs due to worker death, injury, retirement, withdrawal to meet the needs of young or sick family members, new job opportunities in another state, and for other reasons. During the period of study, 1995-1998, all four occupational classifications demonstrated above normal attrition rates with outmigration the most likely explanation.

In the first quarter after exit from their State jobs, only 50.0 percent of DFS staff were found working in Wyoming. This contrasts markedly with the

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Research & Planning Section, P.O. Box 2760Casper, WY 82602-2760Tom Gallagher, Managere-mail: tgalla@state.wy.us307-473-3801Krista R. Shinkle, Publications Editore-mail: kshink@state.wy.us307-473-3808Editorial Committee:David Bullard, Craig Radden Henderson, and Krista Shinkle.307-473-3808

Contributors to *Wyoming Labor Force Trends* this month: Julie Barnish, Norman Baron, David Bullard, Tony Glover, Craig Radden Henderson, Brad Payne, and Rich Peters.

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normal attrition rate. The rate at which all workers in the 25-34 year age group (the interval containing the mean age of former employees for DFS, DOC, DOT, and many IT occupations) exit the Wyoming Wage Records file is 9.9 percent with 90.1 percent still working after one quarter. Therefore, the norm indicates that on average, among all occupations, only about 10 percent of employees of this age group failed to appear on Wage Records in the following quarters (see Figure 1). One interpretation is that much of the difference between the 90.1 percent retention rate for all workers aged 25-34 and the 50.0 percent retention rate for

DFS employees represents outmigration. Other interpretations are identified in the discussion of limitations near the end of this report (see page 7). The highest attrition rate difference among our selection of occupations – between 90.1 percent on the WR file and 33.7 percent for former IT employees – suggests a much higher rate of out-migration.

For IT occupations, wage differences between Wyoming and other states are substantial. For example, the wage for public and private IT systems analysts [Occupational Employment Statistics (OES) code 25102] was \$19.53 per hour in Wyoming in 1998. For computer programmers (OES 25105), the 1998 wage was \$16.67. In Utah, the hourly wages for systems analysts and computer programmers were \$22.80 and \$21.90, respectively, and in Colorado they were even higher (systems analysts, \$28.71/hour; computer programmers, \$25.26/ hour). See Figure 2 on page 4 for a broad-based index of state wage differences for all IT occupations. Wyoming ranks forty-eighth among the fifty states.

### Labor Market Outcomes for Those Exiting State Employment and Remaining in Wyoming

(Text continued on page 5)

### Figure 1: Percent of Exits Still Working in Wyoming After Leaving State Government by Occupation and the Percent of All Persons in the Same Age Group Still Working After Their Exit Date (Line with Square Markers) as Found in Wage Records, 1995-1998



## Figure 2: Average Annual Wages for Information Technology (IT) Staff Ranked by State



Source: U.S. Bureau of Labor Statistics, **1996-1998 Occupational Employment Statistics Survey**. Figure reflects the average of three years of aggregate wage survey data published in 2000. This figure was not part of Research & Planning's original, March 2000 report to the Legislative Services Office, but rather reflects updated data.

### Table 1: Industry of Employment and Wages for Individuals Employed asInformation Technology (IT) Staff, January 1995 - December 1998

	Number Found One Qtr Prior to Employment	Average Wage One Qtr Prior to Employment		
	92	\$7,117		
	Number Found One Qtr After Employment	Average Wage One Qtr After Employment	Number Found Two Qtrs After Employment	Average Wage Two Qtrs After Employment
Private Sector	17	\$7,301	14	\$7,887
Goods-Producing Agriculture Mining	ND* ND	\$3,420 \$5,756	ND ND	\$6,370 \$7,584
Manufacturing		\$1,084	ND	\$5,156
Service-Producing TCPU** Wholesale Retail FIRE*** Services	15 ND ND 11	\$7,818 \$8,234 \$8,832 \$9,580 \$7,367	12 ND ND 7	\$8,140 \$8,059 \$11,713 \$8,235 \$7,601
<b>Government</b> State Local	<b>14</b> 10 4	<b>\$6,559</b> \$6,780 \$6,006	<b>14</b> 10 4	<b>\$6,850</b> \$7,327 \$5,658
Total Found in Wage Records Percent Change in Wages Relative to Average Wage One	31	\$6,966 -2.1%	28	\$7,369 <b>3.5</b> %
<b>Quarter Prior</b> Not Found in Wage Records Grand Total	61 92		64 92	

\* ND = Nondisclosure indicates withheld data not meeting the agency's confidentiality criteria.

\*\* Transportation, Communications, & Public Utilities

\*\*\* Finance, Insurance, & Real Estate

Table 1 shows time lines of employment and wages for IT employees who exited State employment. On average, those who exited their jobs and stayed in Wyoming to work in the private sector increased their wages each of the two quarters following their exit. Among IT staff, 17 of 92 moved to private sector employment in Wyoming, on average earning quarterly wages of \$7,887, \$770 above the \$7,117 they earned the quarter prior to their exit. Those 14 who moved to other positions within Wyoming government earned slightly less than their former quarterly wages (\$6,850). The 28 who were found in WR two quarters following their exit earned on average 3.5 percent more than they did when employed as IT staff in State Government.

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### Employment Strategies of Those Who Exited During 1995-98: Multiple-Job Holding and Secondary Employers

In past editions of Wyoming Labor Force *Trends*, R&P has published and applied a classification system to labor market research characterizing varying degrees of labor force attachment exhibited in Wage Records.<sup>4</sup> Multiplejob holders, one category within this classification system, are defined as those employees found in Wage Records who worked for three or more employers in the same quarter or who worked for the same two employers for each of two consecutive quarters or more. Other categories use incidences of secondary employment on an itinerant or occasional basis which are often associated with employees' flow in and out of the labor market - or market churning. Table 2 shows the incidences of IT employees who met the definition of multiple-job holder during the year of exit. Our premise for studying this data is to determine whether or not there is a relationship between multiple-job holding and State Government attrition for a given occupation.

# Table 2: Individuals Employed as<br/>Information Technology (IT)<br/>Staff Who Were Multiple-Job<br/>Holders\* in Year of Exit<br/>(1995-1998)

	Count Percent
Multiple Job Holders	13 14.1% **
No Secondary Employer	60 65.2% ***
More than One Job, but Did	
Not Meet R&P Definition	
of Multiple Job Holder	19 20.7%
Total	92 100.0%

\* See Appendix C of *Wyoming Wage Records 1992-1998: A Baseline Study* for a technical definition of six categories of labor attachment developed by Research & Planning, including Multiple Job Holder.

\*\* The Multiple Job Holding rate for Government in 1998 was 14.9 percent (see page 64 of *Wyoming Wage Records 1992-1998: A Baseline Study*).

\*\*\* Of those working in Government, 22.6 percent worked more than one job during 1998 (see page 70 of *Wyoming Wage Records* **1992-1998:** *A Baseline Study*, where 100%-77.4%=22.6%).

The multiple-job holding rate for all State and Local Government workers in 1998 was 14.9 percent.<sup>5</sup> For IT staff who exited employment, the data show a normal multiple-job holding pattern of 14.1 percent.

Based on our published data, holding a secondary job (e.g., working in the private sector in the first quarter and then working the third and fourth quarters as a State employee) is normal for 22.6 percent of all State and Local Government workers.<sup>6</sup> However, whether for reasons associated with exit (a form of market churning) or other reasons, three of the occupational exit groups in our initial study displayed a higher than normal rate of holding secondary jobs during their exit year (though not strictly meeting our definition of multiple-job holders). DFS case workers held secondary jobs at a rate of 35.5 percent.<sup>7</sup> DOC corrections officers held secondary jobs at a rate of 35.3 percent.<sup>8</sup> DOT highway patrol officers held secondary jobs at a rate only slightly higher than the norm, 24.3 percent.<sup>9</sup>

Table 3 (see page 8) is useful in showing patterns of multiple-job holding and holding of secondary jobs by all of those who were actively employed as IT workers during 1998. Multiple-job holders comprised 10.4 percent of all IT employees in State Government in 1998. Another 9.1 percent worked a secondary job (but are counted separately because they did not meet R&P's definition of a multiple-job holder). Though multiplejob holding and the holding of secondary jobs by all IT workers (and the active State employees in the other three occupations in our initial study) were within the normal range of labor attachment for Government employees as a whole, those IT workers who eventually exited State employment demonstrated slightly increased rates of multiple-job holding (14.1%) and secondary job holding (20.7%), compared to their occupational group in 1998.

The comparison of data in Table 3 with Table 2 indicates that multiple-job holding and the holding of secondary jobs on an itinerant basis by State employees are indicators associated with the greater likelihood that these employees may exit State employment, whether for financial reasons or driven by other circumstances.

Without data by occupation for all of State Government over time, we cannot determine the extent to which multiple-job holding represents occupationspecific behavior. Without longitudinal data, we

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cannot determine how extensively multiple-job holding may be considered a function of change in general economic conditions. For example, in 1990 Wyoming's average weekly wage ranked thirty-seventh among the 50 states, based on UI covered employment and total payroll.<sup>10</sup> By 1996, our ranking fell to 45, and we still ranked forty-fifth in the nation in 1998. Only by placing occupational wages within the broader economic context can we begin to understand the labor market strategies of employees.

As an example of how the national market for technology staff affects employment attrition rates of IT staff, Figure 2 (see page 4) shows the distribution of average annual wages of IT staff, including both the public and private sectors for all states and the U.S. Figure 2 has been updated since the initial report was provided to LSO. The data were based on an average of Occupational Employment Statistics (OES) wage survey data aggregated for three years, 1996-1998.<sup>11</sup> The mean annual wage for the U.S. was \$49,331. The average annual wage for those employed in IT occupations in Wyoming was \$33,793. Figure 2 shows only South Dakota, Puerto Rico, and North Dakota had lower IT wages than Wyoming. In contrast, Colorado ranked ninth in the nation (\$50,152).

### Demographic Comparisons by Occupation of Those Who Exited State Government During 1995-1998 with the Active Occupational Workforce in 1998

Table 4 (see page 8) illustrates the distribution by age and gender of IT staff exiting State employment. Characterizing those actively holding similar IT positions among various State agencies, demographic data in Table 5 (see page 8) permit us to identify the differences between those who work at a given occupation in State Government and those who exit their job.

Analysis of Table 5 shows that IT staff in 1998 had an employment ratio of 61.0 percent male to 29.9 percent female (no demographic data were available for 9.1%). Between 1995-98, female staff exited IT at a rate of 40.2 percent compared to the male exit rate of 48.9 percent. Thus, as a percentage of the IT workforce, younger men are

# Table 3: Individuals Employed as<br/>Information Technology (IT)<br/>Staff During 1998 Who Were<br/>Multiple-Job Holders\* by<br/>Industrial Sector: Counts are by<br/>Secondary Job

		Count	Percent of Total
Total Multiple Job Holders		25	10.4% **
Private Sector	12		
Government Sector	13		
No Secondary Employer		194	80.5% ***
More than One Job, but Did			
Not Meet R&P Definition			
of Multiple Job Holder		22	9.1%
Total		241	100.0%

\* See Appendix C of *Wyoming Wage Records 1992-1998: A Baseline Study* for a technical definition of six categories of labor attachment developed by Research & Planning, including Multiple Job Holder.
\*\* The Multiple Job Holding rate for Government in 1998 was 14.9 percent (See page 64 of *Wyoming Wage Records 1992-1998: A Baseline Study*).
\*\*\* Of those working in Government, 22.6 percent worked more than one job during 1998 (see page 70 of *Wyoming Wage Records 1992-1998: A Baseline Study*, where 100%-77.4%=22.6%).

probably more likely to leave State employment. The difference in mean age (8.5 years) between those exiting IT during 1995-98 (34.8 years) and those actively employed in 1998 (43.4 years) probably reflects the national market for IT staff and the likelihood that younger people are more likely to respond to it than older workers who, generally, have more family and community attachments.

### Limitations of Occupational Exit Analysis

While it is possible to place an occupational exit analysis in the context of such broader issues as the "brain drain"<sup>12</sup> and historic trends in the level of turnover by industrial sector,<sup>13</sup> the time constraints imposed upon the study did not permit more comprehensive analysis.

In addition, since the State lacks comprehensive analysis of exit behavior in general, it is difficult to determine how extensive or how unique the behavior of the four occupations is within State Government or

# Table 4: Demographics of InformationTechnology (IT) Staff ExitingEmployment, 1995 to 1998

Age Groups	Unknown	Under 35	35-44	45-Up	Total	Mean Age
Number Percentage	9 9.8%	31 33.7%	32 34.8%	20 21.7%	92	34.8 Years
Gender	Unknown	Males	Females	Total		

## Table 5: Demographics of InformationTechnology (IT) Staff Employed in 1998

Age Groups	Unknown	Under 35	35-44	45-54	55-Up	Total	Mean Age
Number Percentage	22 9.1%	44 18.3%	75 31.1%	75 31.1%	25 10.4%	241	43.4 Years
Gender	Unknown	Males	Females	Total			

to what extent pay or other policies enhance employee retention and cost control. An ongoing program of *market-based* occupational analysis would lead to a more complete understanding than the narrow, retrospective focus required by the time constraints in preparing our initial report to LSO.

All of the occupations in this study require some post-high school training. We cannot account for the migration decisions of families when the spouse may be unable to use his or her post-high school education or training in finding suitable work.

Contextual variables for the

family (e.g., the availability and cost of day care) are not available to us, nor are non-monetary costs and benefits of the particular type of work part of this study's components. Given that case workers' average annual wages during the study period are 173 percent above the poverty level for a family of three (\$24,448 compared to \$14,150), for example, it may be logical for a DFS case worker to care for children at home rather than work and pay for day care.<sup>14</sup>

Additional limitations of the administrative data approach to analysis are discussed at length in the publication cited in Endnote 3.

### Conclusions

The State is a large purchaser of some of these occupations, such as IT services. The choice then is to pick up the cost at the point of purchase with a highly visible market signal (e.g., higher wages) or in the less visible system of recruitment and training. The price is the same. For example, "the qualitative costs associated with technology-staff turnover are potentially high, as infrastructure critical to State Government operations could be impacted."<sup>15</sup> The question is how much the service is valued and how and who bears the costs.

Despite the limitations of the administrative records approach to the analysis of market outcomes for State employees who exit employment, it is clear that the approach has promise. Even more promising is the fact that confidentiality agreements between states will eventually permit market-based tracking of former workers beyond state borders for statistical purposes.

<sup>1</sup>Wyoming Legislative Services Office, Program Evaluation Section, *Turnover and Retention in Four Occupations*, May 2000, <u>http://</u> legisweb.state.wy.us/progeval/reports/ 2000/turnover/TOC.htm (August 31, 2000).

<sup>2</sup>Wyoming Department of Employment, Research & Planning, "Analysis of Wyoming State

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Government Attrition for Selected Occupations," [submitted to Legislative Services Office, Program Evaluation Section pursuant to MOU with Department of Employment, Research & Planning Section], March 10, 2000. The full report appears as Appendix H in *Outlook 2000: Detailed Occupational Projections and Labor Supply* (see Endnote 7 for full citation).

<sup>3</sup>Wyoming Department of Employment, Research & Planning, *Wyoming Wage Records 1992-1998: A Baseline Study*, November 1999, pp. 2-8. This publication contains a comprehensive bibliography of all publications and articles published by the agency that relied on Wage Records research, principally articles published in *Wyoming Labor Force Trends*.

<sup>4</sup>Wyoming Department of Employment, Research & Planning, *Wyoming Wage Records 1992-1998: A Baseline Study*, November 1999.

<sup>5</sup>Wyoming Department of Employment, Research & Planning, *Wyoming Wage Records 1992-1998*, p. 64.

<sup>6</sup>Wyoming Department of Employment, Research & Planning, *Wyoming Wage Records 1992-1998*, p. 70. Of those working in Government, 22.6 percent worked more than one job during 1998. This percent was calculated by subtracting the percent of Government workers with no secondary job (77.4%) from 100 percent.

<sup>7</sup>Wyoming Department of Employment, Research & Planning, **Outlook 2000: Detailed Occupational Projections and Labor Supply**, Table 5a, p. H-22.

<sup>8</sup>Wyoming Department of Employment, Research & Planning, *Outlook 2000: Detailed Occupational Projections and Labor Supply*, Table 5b, p. H-22.

<sup>9</sup>Wyoming Department of Employment, Research & Planning, *Outlook 2000: Detailed Occupational Projections and Labor Supply*, Table 5c, p. H-23. <sup>10</sup>Carol Kjar, "Competitive Wage Ranking: Retaining Wyoming's Workforce," *Wyoming Labor Force Trends*, March 2000, pp. 16-17.

<sup>11</sup>The average was based on the following OES occupational codes: 25102, 25103, 25104, 25105, 25108, 25111, 25199.

<sup>12</sup>Steven Butler, *Tracking University* of Wyoming Graduates into the Wyoming Work-force: A report prepared for the Research and Planning Section of the Employment Resources Division, State of Wyoming, September 17, 1995. See also Wyoming Department of Employment, Research & Planning, Under the Lamppost: A Report to the Wyoming Workforce Development Council, November 1998.

<sup>13</sup>Mike Evans, "Job Turnover and Hire Rates in Wyoming: Which is Greater: Job Creation or Job Destruction?," *Wyoming Labor Force Trends*, June 1999.

<sup>14</sup>Tony Glover, "The Flow of Labor in Wyoming: Department of Family Services, Division of Vocational Rehabilitation and Job Training Partnership Act Clients," **Wyoming Labor Force Trends**, March 2000, p. 7.

<sup>15</sup>Wyoming Legislative Services Office, Program Evaluation Section, *Turnover and Retention in Four Occupations*, p. 26.

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### State Unemployment Rates September 2000 (Not Seasonally Adjusted)

**...** 

Unemp.

State	<u>Kate</u>
Puerto Rico	9.8
District of Columbia	5.6
New Mexico	5.2
Alaska	5.0
Louisiana	4.9
Mississippi	4.8
West Virginia	4.7
California	4.6
Oregon	4.6
Alabama	4.5
Hawaii	4.5
New York	4.4
Texas	4.3
Washington	4.2
Illinois	4.1
Montana	4.1
Ohio	4.1
Arizona	4.0
Georgia	4.0
Nevada	4.0
Pennsylvania	4.0
Florida	3.9
Rhode Island	3.9
Delaware	3.8
United States	3.8
Idaho	3.7
New Jersey	3.7
South Carolina	3.7
Кептиску	3.0
Tennessee	3.0 <b>2.6</b>
Arkansas	3.0 2.5
Maryland	5.5 8.4
Michigan	33
North Carolina	33
Kansas	3.2
Wisconsin	3.1
Missouri	2.9
Oklahoma	2.9
Utah	2.9
Minnesota	2.8
Maine	2.7
Colorado	2.6
Virginia	2.6
Massachusetts	2.5
Vermont	2.5
Nebraska	2.3
Indiana	2.1
lowa	2.1
New Hampshire	2.1
North Dakota	2.1
Connecticut	1.9
South Dakota	1.7

### **State Unemployment Rates** September 2000 (Seasonally Adjusted)

Unemp.

State	Rate
Puerto Rico	11.0
Alaska	5.8
District of Columbia	5.4
New Mexico	5.4
Oregon	5.3
West Virginia	5.2
California	5.1
Montana	5.1
Washington	5.1
Mississippi	4.9
Louisiana	4.7
Alabama	4.5
Idaho	4.5
New York	4.5
Rhode Island	4.5
Hawaii	4.3
Texas	4.3
Wyoming	4.3
Illinois	4.2
Ohio	4.2
South Carolina	4.2
Arkansas	4.1
Arizona	4.0
New Jersey	4.0
Pennsylvania	4.0
Delaware	3.9
United States	3.9
Kentucky	3.8
Michigan	3.8
Florida	3.7
Georgia	3.7
Nevada	3.7
Tennessee	3.6
Maryland	3.5
North Ćarolina	3.5
Wisconsin	3.5
Indiana	3.4
Kansas	3.4
Maine	3.2
Oklahoma	3.2
Utah	3.1
New Hampshire	2.9
North Dakota	2.9
Colorado	2.8
Minnesota	2.8
Nebraska	2.7
Vermont	2.7
Massachusetts	2.6
Missouri	2.6
Connecticut	2.5
Virginia	2.5
Iowa	2.2
South Dakota	2.2

### Wyoming Unemployment Rate Increases in September

by: David Bullard, Senior Economist

"Statewide labor force increased by 2,473 individuals or 0.9 percent from September 1999 to September 2000."

yoming's seasonally adjusted unemployment rate increased from 4.3 percent in August to 4.4 percent in September (not a statistically significant change). At the same time, the U.S. unemployment rate fell from 4.1 percent to 3.9 percent. Compared with September 1999, Wyoming gained 3,200 jobs, giving the state an employment growth rate of 1.3 percent. U.S. employment growth held steady at 1.9 percent.

Job gains were seen in many industries in September. The largest gains occurred in Retail Trade (800 jobs or 1.7%) and Services (800 jobs or 1.4%). The Construction industry added 700 jobs or 3.6 percent and Government employment increased by 600 jobs or 1.0 percent. Employment increased in oil & gas extraction (300 jobs or 3.6%) but fell in coal mining (200 jobs or 4.3%). Manufacturing employment decreased slightly, falling by 200 jobs or 1.8 percent.

Wyoming's two metropolitan areas, Casper and Cheyenne, both experienced faster employment growth than the state. Laramie County added 800 jobs or 2.2 percent in September, with half of the new jobs in Retail Trade. Job gains in the Services industry helped push up employment in Natrona County by 500 jobs or 1.6 percent.

Statewide labor force increased by 2,473 individuals or 0.9 percent from September 1999 to September 2000. The number of unemployed declined by 691 or 6.8 percent during the same period.

Uinta County's unemployment rate in September (5.8%) was the highest in the state, and was unchanged from September 1999. Teton County's unemployment rate of 1.1 percent was the lowest in the state. The unemployment rate in Weston County increased from 3.5 STOP percent in August to 4.7 percent in September as the result of the closure of a sawmill in Newcastle (Gillette News Record, July 2, 2000).

Trends is also available online at http://lmi.state.wy.us/

### Wyoming Nonagricultural Wage and Salary Employment<sup>1</sup>

by: David Bullard, Senior Economist

"Job gains were seen in many industries in September. The largest gains occurred in Retail Trade (800 jobs or 1.7%) and Services (800 jobs or 1.4%)."

WYOMING STATEWIDE*	Employm	Employment in Thousands			Percent Change Total Employment AUG 00 SEP 99		
	SEP00(p)	AUG00(r)	<u>SEP 99</u>	<u>SEP 00</u>	<u>SEP 00</u>		
TOTAL NONAG. WAGE & SALARY EMPLOYMENT	243.3	241.7	240.1	0.7	1.3		
TOTAL GOODS PRODUCING	47.6	47.5	46.8	0.2	1.7		
Mining	16.6	16.5	16.3	0.6	1.8		
Coal Mining Oil & Cas Extraction	4.5 8.7	4.7	4.7 8.4	-4.3	-4.3		
Crude Petrol-Natural Gas	2.6	2.7	2.6	-3.7	0.0		
Oil & Gas Field Services	6.1	5.7	5.8	7.0	5.2		
Nonmetallic Minerals	2.8	2.9	2.7	-3.4	3.7		
General Building Contractors	4.5	4.5	4.6	0.0	-2.2		
Heavy Construction	6.8	6.7	6.2	1.5	9.7		
Special Trade Construction	8.6	8.8	8.4	-2.3	2.4		
Durable Goods	5.0	5.1	5.2	-2.0	-3.8		
Nondurable Goods	6.1	5.9	6.1	3.4	0.0		
Printing & Publishing	1.7	1.7	1.7	0.0	0.0		
r eu oleutit & Coai r tou ucus	1.1	1.1	1.1	0.0	0.0		
TOTAL SERVICE PRODUCING	195.7	194.2	193.3	0.8	1.2		
Transportation & Public Utilities	14.4	14.5	14.4	-0.7	0.0		
Railroad Transportation	3.0	3.4	3.0	0.0	0.0		
Trucking & Warehousing	3.9	3.9	3.7	0.0	5.4		
Communications	2.3	2.2	2.2	4.5	4.5		
Electric, Gas & Sanitary Services	2.9	2.9	3.0	0.0	-3.3		
Electric Services	1.9	1.9	1.9	0.0	0.0		
Trade Who looolo Trado	55.7	57.0	54.8	-2.3	1.6		
Durable Goods	7.0 4.4	4.4	4.3	0.0	2.3		
Nondurable Goods	3.4	3.3	3.4	3.0	0.0		
Retail Trade	47.9	49.3	47.1	-2.8	1.7		
General Merchandise Stores	2.1	2.2 5.9	2.2 5.0	-4.5 -5.1	-4.5 12.0		
Department Stores	4.5	4.4	3.9	2.3	15.4		
Food Stores	5.5	5.9	5.7	-6.8	-3.5		
Gas Stations	6.5 4.5	0.0 4.5	0.4 4.5	-1.2	0.0		
Apparel & Accessory Stores	1.3	1.3	1.4	0.0	-7.1		
Furniture & Home Furnishing Stores	1.6	1.5	1.6	6.7	0.0		
Eaung & Dhinking Places Miscellaneous Retail	5.7	5.6	5.2	-3.0 1.8	9.6		
Finance, Insurance & Real Estate	8.2	8.4	8.1	-2.4	1.2		
Depos-Nondepos & Security Brokers	4.2	4.3	4.1	-2.3	2.4		
Depository institutions	3.4 1.8	3.4 1.9	3.2 1.8	-5.3	6.2 0.0		
Services	58.1	61.5	57.3	-5.5	1.4		
Hotels & Other Lodging Places	11.3	13.3	11.4	-15.0	-0.9		
Personal Services Business Services	2.1 8.5	2.1 8.4	8.2	0.0 1.2	3.7		
Automotive & Misc. Repair Services	3.0	3.0	2.9	0.0	3.4		
Amusements (Rec Services & Mot. Pics.)	3.9	4.2	3.8	-7.1	2.6		
Offices of Doctors of Medicine	2.4	2.4	2.4	-0.9	0.0		
Legal Services	1.3	1.3	1.2	0.0	8.3		
Social Services	5.9	5.8	6.0	1.7	-1.7		
Findineering & Management	3.9 3.8	4.3 3.9	3.7 3.7	-9.3 -2.6	5.4 2.7		
Government	59.3	52.8	58.7	12.3	1.0		
Total Federal Government	7.7	8.0	7.6	-3.8	1.3		
Department of Defense Total State Government	0.9 13.2	U.9 13.0	0.8 13.1	0.0 1.5	12.5		
State Education	4.9	4.6	4.9	6.5	0.0		
Total Local Government	38.4	31.8	38.0	20.8	1.1		
Local Hospitals	5.2 21.2	5.2 13.4	4.9 21.0	0.0 58.2	ъ.I 10		
				50.2			

1 Current Employment Statistics (CES) estimates include all full- and part-time wage and salary workers in nonagricultural establishments who worked or received pay during the week which includes the 12th of the month. Self-employed, domestic services, and personnel of the armed forces are excluded. Data are not seasonally adjusted.

\* Published in cooperation with the Bureau of Labor Statistics.

(p) Subject to revision. (r) Revised.

LARAMIE COUNTY	Employ	nent in Thou:	Percent Total Emp AUG 00	Change bloyment SEP 99	
	SEP00(p)	AUG00(r)	SEP 99	SEP 00	<u>SEP 00</u>
TOTAL NONAG. WAGE & SALARY					
EMPLOYMENT	36.8	36.9	36.0	-0.3	2.2
TOTAL GOODS PRODUCING	4.5	4.6	4.4	-2.2	2.3
Mining & Construction	2.8	2.9	2.8	-3.4	0.0
Manufacturing	1.7	1.7	1.6	0.0	6.2
TOTAL SERVICE PRODUCING	32.3	32.3	31.6	0.0	2.2
Transportation & Public Utilities	2.8	2.8	2.8	0.0	0.0
Trade	8.9	8.9	8.4	0.0	6.0
Wholesale Trade	0.9	0.8	0.8	12.5	12.5
Retail Trade	8.0	8.1	7.6	-1.2	5.3
Finance, Insurance & Real Estate	1.7	1.8	1.7	-5.6	0.0
Services	8.2	8.2	7.9	0.0	3.8
Total Government	10.7	10.6	10.8	0.9	-0.9
Federal Government	2.4	2.4	2.4	0.0	0.0
State Government	3.3	3.3	3.3	0.0	0.0
Local Government	5.0	4.9	5.1	2.0	-2.0
NATRONA COUNTY*					
TOTAL NONAG. WAGE & SALARY					
EMPLOYMENT	32.0	31.7	31.5	0.9	1.6
TOTAL GOODS PRODUCING	5.4	5.5	5.5	-1.8	-1.8
Mining	1.8	1.9	1.9	-5.3	-5.3
Construction	2.1	2.1	2.1	0.0	0.0
Manufacturing	1.5	1.5	1.5	0.0	0.0
TOTAL SERVICE PRODUCING	26.6	26.2	26.0	1.5	2.3
Transportation & Public Utilities	1.8	1.8	1.7	0.0	5.9
Transportation	1.2	1.2	1.1	0.0	9.1
Communications & Public Utilities	0.6	0.6	0.6	0.0	0.0
Irade	8.8	8.9	8.7	-1.1	1.1
wholesale I rade	2.3	2.3	2.3	0.0	0.0
Retail Irade	6.5	0.0	6.4	-1.5	1.6
Finance, insurance & Real Estate	1.2	1.2	1.2	0.0	0.0
Services	9.3	9.5	9.0	-2.1	3.3
Personal & Business Services	2.3	2.3	2.1	0.0	9.5
Covorament	3.0	3.0	2.0	146	1.1
Government	0.7	4.0	0.7	14.0	1.9
state Covernment	0.7	0.7	0.7	0.0	0.0
	U./ /1-1	0.7	0.7	0.0	0.0
	4.1 2.7	3.4 2.0	4.0	20.0	2.5
	2.1	2.0	۷.1	55.0	0.0

### Nonagricultural Employment Growth (Percent Change over Previous Year)



### **Wyoming Economic Indicators**

by: Julie Barnish, Statistical Technician

#### "Benefits paid by Wyoming Unemployment Insurance fell by 23.3 percent from August 2000 to September 2000."

	September	August	September	Percent	t Change
	2000	2000	1999	Month	Year
	(b)_	(I)_	(D)_		
Wyoming Total Civilian Labor Force(1)	264,834	266,919	262,361	-0.8	0.9
Unemployed	9,473	9,243	10,164	2.5	-6.8
Employed	255,361	257,676	252,197	-0.9	1.3
Wyoming Unemployment Rate/Seas. Adj.	3.6%/4.4%	3.5%/4.3%	3.9%/4.8%	N/A	N/A
U.S. Unemployment Rate/Seas. Adj.	3.8%/3.9%	4.1%/4.1%	4.1%/4.2%	N/A	N/A
U.S. Multiple Jobholders	7,471,000	7,084,000	7,584,000	5.5	-1.5
As a percent of all workers	5.5%	5.2%	5.7%	N/A	N/A
U.S. Discouraged Workers	250,000	205,000	289,000	22.0	-13.5
U.S. Part Time for Economic Reasons	2,854,000	3,120,000	2,948,000	-8.5	-3.2
Hours & Earnings for Production Workers					
W yoming Mining					
Average Weekly Earnings	\$879.73	\$849.86	\$882.11	3.5	-0.3
Average Weekly Hours	45.3	44.8	44.8	1.1	1.1
U.S. Mining Hours & Earnings					
Average Weekly Earnings	\$780.43	\$762.30	\$758.86	2.4	2.8
Average Weekly Hours	45.4	45.0	44.3	0.9	2.5
Wyoming Manufacturing Hours & Earnings					
Average Weekly Earnings	\$625.46	\$607.22	\$607.54	3.0	2.9
Average Weekly Hours	38.8	38.8	37.9	0.0	2.4
U.S. Manufacturing Hours & Earnings					
Average Weekly Earnings	\$605.07	\$595.33	\$588.39	1.6	2.8
Average Weekly Hours	41.7	41.4	41.7	0.7	0.0
W yom ing Unemployment Insurance					
Weeks Compensated (2)	5,821	7,627	5,666	-23.7	2.7
Benefits Paid	\$1,168,376	\$1,523,075	\$1,043,915	-23.3	11.9
Average Weekly Benefits Payment	\$200.71	\$199.70	\$184.24	0.5	8.9
State Insured Covered Jobs (1)	224,146	222,047	218,699	0.9	2.5
Insured Unemployment Rate	0.8%	0.9%	0.8%	N/A	N/A
Consumer Price Index (U) for All U.S. Urban Consumers (1982	to $1984 = 100$ )				
All Items	173.7	172.8	167.9	0.5	3.5
Food & Beverages	169.4	169.2	165.1	0.1	2.6
Housing	171.4	170.9	165.2	0.3	3.8
Apparel	130.4	125.3	131.8	4.1	-1.1
Transportation	154.7	153.2	146.5	1.0	5.6
Medical Care	263.1	262.6	252.3	0.2	4.3
Recreation (Dec. $1997 = 100$ )	103.8	103.9	101.7	-0.1	2.1
Education & Communication (Dec. 1997=100)	102.9	102.8	101.9	0.1	1.0
Other Goods & Services	274.7	271.6	262.6	1.1	4.6
Producer Prices (1982 to 1984 = 100)					
All Commodities	134.5	132.9	128.0	1.2	5.1
Wyoming Building Permits					
New Privately Owned Housing Units Authorized	140	148	137	-5.4	2.2
Valuation	\$26,374,000	\$30,452,000	\$22,693,000	-13.4	16.2

(p) Preliminary. (r) Revised. (b) Benchmarked. (1) Local Area Unemployment Statistics Program estimates. (2) Not Normalized.





### Wyoming County Unemployment Rates

by: Brad Payne, Senior Statistician

"The unemployment rate in Weston County increased from 3.5 percent in August to 4.7 percent in September as the result of the closure of a sawmill in Newcastle (*Gillette News Record*, July 2, 2000)."

	Labor Force			F	Employed			Unemployed			<b>Unemployment Rates</b>		
REGION	Sep	Aug	Sep	Sep	Aug	Sep	Sep	Aug	Sep	Sep	Aug	Sep	
County	2000	2000	1999	2000	2000	1999	2000	2000	1999	2000	2000	1999	
	(p)	(r)	(b)	(p)	(r)	(b)	(p)	(r)	(b)	(p)	(r)	(b)	
NORTHWEST	47,316	47,649	47,664	45,176	45,480	45,366	2,140	2,169	2,298	4.5	4.6	4.8	
Big Horn	6,075	5,845	5,786	5,774	5,548	5,504	301	297	282	5.0	5.1	4.9	
Fremont	17,997	17,608	18,230	16,963	16,532	17,141	1,034	1,076	1,089	5.7	6.1	6.0	
Hot Springs	2,391	2,442	2,471	2,336	2,378	2,357	55	64	114	2.3	2.6	4.6	
Park	15,918	17,063	16,251	15,397	16,551	15,709	521	512	542	3.3	3.0	3.3	
Washakie	4,935	4,691	4,926	4,706	4,471	4,655	229	220	271	4.6	4.7	5.5	
NORTHEAST	44,967	45,224	44,201	43,527	43,849	42,513	1,440	1,375	1,688	3.2	3.0	3.8	
Campbell	20,298	20,828	19,736	19,639	20,192	18,906	659	636	830	3.2	3.1	4.2	
Crook	3,143	3,043	3,125	3,052	2,949	3,025	91	94	100	2.9	3.1	3.2	
Johnson	4,109	4,154	4,046	4,029	4,070	3,946	80	84	100	1.9	2.0	2.5	
Sheridan	13,961	13,899	13,840	13,514	13,454	13,327	447	445	513	3.2	3.2	3.7	
Weston	3,456	3,300	3,454	3,293	3,184	3,309	163	116	145	4.7	3.5	4.2	
SOUTHWEST	55,375	56,449	54,429	53,285	54,380	52,223	2,090	2,069	2,206	3.8	3.7	4.1	
Lincoln	7,038	7,014	6,828	6,726	6,747	6,497	312	267	331	4.4	3.8	4.8	
Sublette	3,346	3,375	3,280	3,272	3,298	3,209	74	77	71	2.2	2.3	2.2	
Sweetwater	20,382	20,211	20,469	19,461	19,199	19,457	921	1,012	1,012	4.5	5.0	4.9	
Teton	13,675	15,095	12,729	13,521	14,961	12,584	154	134	145	1.1	0.9	1.1	
Uinta	10,934	10,754	11,123	10,305	10,175	10,476	629	579	647	5.8	5.4	5.8	
SOUTHEAST	68,919	68,975	67,747	67,154	67,293	65,908	1,765	1,682	1,839	2.6	2.4	2.7	
Albany	17,221	16,940	17,342	16,959	16,710	17,103	262	230	239	1.5	1.4	1.4	
Goshen	6,419	6,262	6,344	6,256	6,064	6,164	163	198	180	2.5	3.2	2.8	
Laramie	39,099	39,857	38,072	37,952	38,781	36,843	1,147	1,076	1,229	2.9	2.7	3.2	
Niobrara	1,385	1,328	1,349	1,357	1,301	1,323	28	27	26	2.0	2.0	1.9	
Platte	4,795	4,588	4,640	4,630	4,437	4,475	165	151	165	3.4	3.3	3.6	
CENTRAL	48,263	48,624	48,319	46,222	46,675	46,186	2,041	1,949	2,133	4.2	4.0	4.4	
Carbon	8.458	8.463	8.520	8.146	8.181	8.204	312	282	316	3.7	3.3	3.7	
Converse	6.738	6,775	6.662	6.473	6.513	6.385	265	262	277	3.9	3.9	4.2	
Natrona	33,067	33,386	33,137	31,603	31,981	31,597	1,464	1,405	1,540	4.4	4.2	4.6	
STATEWIDE	264,834	266,919	262,361	255,361	257,676	252,197	9,473	9,243	10,164	3.6	3.5	3.9	
Statewide Seasor	nally Adjuste	ed								4.4	4.3	4.8	
U.S	, , ,									3.8	4.1	4.1	
U.S. Seasonally A	Adjusted									3.9	4.1	4.2	

Prepared in cooperation with the Bureau of Labor Statistics. Benchmarked 02/00. Run Date 10/00. Data are not seasonally adjusted except where otherwise specified.

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

NOTE: The Current Population Survey (CPS) estimated the 1999 annual average Wyoming unemployment rate at 4.9 percent.

The 90 percent confidence interval for this estimate suggests that in 9 out of 10 cases, the interval 4.3 to 5.5 percent would contain the actual rate.

### Wyoming Normalized Unemployment Insurance Statistics: Initial Claims

### by: Rich Peters, Labor Market Analyst

"Over-the-year initial claims are up 8.8 percent from September 1999 to September 2000."





			Percent Change <u>Claims Filed</u>		
	CI	aims Filed		AUG 00	SEP 99
	<u>SEP 00</u>	<u>AUG 00</u>	<u>SEP 99</u>	<u>SEP 00</u>	<u>SEP 00</u>
WYOMING STATEWIDE					
TOTAL CLAIMS FILED	929	844	854	10.1	8.8
TOTAL GOODS PRODUCING	343	318	299	7.9	14.7
Mining	66	87	51	-24.1	29.4
Oil & Gas Extraction	37	45	39	-17.8	-5.1
Construction Manufacturing	230	183	210	-14.6	12.4
TOTAL SERVICE PRODUCING	496	437	455	13.5	9.0
Transportation. Communications & Public Utilities	37	35	36	5.7	2.8
Transportation	27	25	33	8.0	-18.2
Communications & Public Utilities	10	10	3	0.0	233.3
Trade	158	142	135	11.3	17.0
Wituesale Trade	20	111	113	-10.1 18.0	16.2
Finance, Insurance & Real Estate	18	12	23	50.0	-21.7
Services	200	179	195	11.7	2.6
Personal & Business Services	51	48	50	6.3	2.0
Health Services	23	20	26	15.0	-11.5
Government	83	69	66	20.3	25.8
Local Education	12	30 19	30 15	3.3 -36.8	-20.0
UNCLASSIFIED	90	89	100	1.1	-10.0
LARAMIE COUNTY					
TOTAL CLAIMS FILED	119	96	88	24.0	35.2
TOTAL GOODS PRODUCING	37	21	28	76.2	32.1
Mining	1	0	1	0.0	0.0
Oil & Gas Extraction	0	0	1	0.0	0.0
Construction	34	18	24	88.9	41.7
	68	63 63	3	-33.3 7 Q	-33.3
Transportation, Communications & Public Utilities	8	7	4	14.3	100.0
Transportation	6	4	3	50.0	100.0
Communications & Public Utilities	2	3	1	-33.3	100.0
I rade Who locale Trade	12	1/	13	-29.4	-7.7
Retail Trade	11	17	13	-35.3	-15.4
Finance, Insurance & Real Estate	8	3	4	166.7	100.0
Services	31	23	18	34.8	72.2
Personal & Business Services	11	5	3	120.0	266.7
Government	2	13	ა 5	-00.7	-33.3
Local Government	3	3	2	0.0	50.0
Local Education	2	3	2	-33.3	0.0
UNCLASSIFIED	14	12	16	16.7	-12.5
NATRONA COUNTY					
TOTAL CLAIMS FILED	113	139	123	-18.7	-8.1
TOTAL GOODS PRODUCING	44	53	35	-17.0	25.7
Mining	11	15	6	-26.7	83.3
UII & Gas Extraction	11	10	25	-14.3	1/5.0
Manufacturing	3	3	4	0.0	-25.0
TOTAL SERVICE PRODUCING	64	79	83	-19.0	-22.9
Transportation, Communications & Public Utilities	5	6	11	-16.7	-54.5
Transportation	3	3	9	0.0	-66.7
Communications & Public Utilities	2	3	2	-33.3	0.0
Wholesale Trade	12	10	29	20.0	50.0
Retail Trade	17	18	21	-5.6	-19.0
Finance, Insurance & Real Estate	2	3	7	-33.3	-71.4
Services	19	36	32	-47.2	-40.6
Health Services	9 4	6	15	-18.2 -33.3	-40.0 -20.0
Government	9	6	4	50.0	125.0
Local Government	3	2	3	50.0	0.0
Local Education	0	1	0	0.0	0.0
UNULASSIFIED	5	1	5	-28.0	0.0

### Wyoming Normalized Unemployment Insurance Statistics: Continued Claims

### by: Rich Peters, Labor Market Analyst

"Over-the-year continued claims are down 12.8 percent, while unique claimants are up 5.5 percent from September 1999 to September 2000."



November 2000

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