WYOMING DEPARTMENT OF EMPLOYMENT

Employment Outlook: 2010

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Employment Outlook: 2010

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Executive Summary

by: Tom Gallagher, Manager, Wyoming Department of Employment, Research & Planning; and Buck McVeigh, Administrator, Department of Administration & Information, Economic Analysis Division

Wyoming's economy may have escaped many of the direct negative effects of the national recession thus far. Unlike the nation, Wyoming relies heavily on two industries - mining and tourism. Absent major urban markets, Wyoming exports most of its commodities, primarily those produced from the Mining and Agriculture industries. The public and private services-producing industries of education and public administration, Retail Trade, and Services make up a large part of Wyoming's industrial composition. At the same time, the state has relatively few of the Manufacturing, high-technology, or air transportation industries which have been seriously impacted by the U.S. recession. All of the above help explain why the performance of Wyoming's economy is not as closely correlated with the U.S. economy as most states.

Wyoming's labor market history (since the trough of the last energy development bust in 1986) shows gradual growth primarily in the services-producing sector, which is consistent with the national trend. On the other hand, Wyoming experienced more volatile employment in the higher-wage goods-producing industries of Mining and Construction. *Employment Outlook 2010* employment and population projections indicate that these underlying historical trends will persist over the projections horizon. However, there are some important differences in comparison to the previous decade.

First, health services play an increasingly important role in the state's economy. As medical spending continues to escalate, so will its impact on federal and state budgets. Slower tax revenue growth may lead to reductions in government reimbursements for healthcare providers. Over the long term Wyoming faces an aging population as its baby boomers head into retirement. This aging population will likely increase the demand for health services and potentially increase health care employment opportunities in the state, as well as job openings, as its workforce retires.

The aging of Wyoming's population and the workforce is expected to intensify perceptions of labor shortages. The maturing baby boom generation falls into the age segment of property owners who tend to be less mobile than younger members of the labor force. This makes job-related migration to or from any particular place in Wyoming less likely than in the previous decade.

Second, a combination of relatively low wage rates in the growing services-producing sector and employment instability in the goods-producing sector does not produce enough sustained demand to attract a growing supply of new resident labor. The outlook between now and 2010, in contrast to the previous decade, is one in which the state's resident labor force represents most of the labor available for work. The rapid expansion of coal bed methane development at the end of the last decade, for example, could not have taken place without a substantial infusion of nonresident workers employed in temporary as well as more permanent jobs. The extent of job holding by nonresidents and the future

of nonresident job holding is uncertain. However, if the supply of labor is to be available for the projected job growth, it is apparent that Wyoming will need to compete successfully in a regional labor market.

Third, the regional expansion during the 1990s of the economies in neighboring states paying higher wages produced competition for almost all types of labor in Wyoming. While the timing and rate of future regional expansion remains uncertain, higher wage rates in these economies are in part a function of greater industrial diversity. As such, the economies of neighboring states are much more like that of the nation. Consequently, as the national economy begins to expand, Wyoming may experience increased labor supply competition with its neighbors.

Other factors distinguish the current decade from the past, which may have consequences for certain industrial sectors rather than statewide effects. These include the expansion of school construction; a shift toward a more moderate technology for coal bed methane production than that used in traditional, more costly, deep well oil and gas production; the development of more extensive energy transportation systems; and policy responses (e.g., lower interest rates) to continued weakness in the national economy. Taken together with an aging population and regional competition for labor, it appears that Wyoming's market may be a source of frustration for many of those who depend upon it.

The state's abundance of natural resources (especially natural gas and coal) complemented by a continued strong performance from the retail sector enabled Wyoming to weather the national recession that began in March of 2001. Energy exports and consumer spending continued to be the primary sources of state tax revenues. In addition, jobs in the oil and gas extraction field, with their generally higher than average wages and job growth, exceeded the national level during this time period. But limited industrial diversity will continue to be a concern, leaving the state vulnerable to energy shocks in the future.

Employment Outlook: 2010 presents baseline employment and population projections. As students of Wyoming's economy recognize, we can anticipate substantial variation around the baseline over time. During the last decade, jobs grew at an average rate of 1.9 percent per year, while population grew at a rate of 0.9 percent. For the period 2000 to 2010, we anticipate the job growth rate to be 1.5 percent per year, with a population growth rate of 0.4 percent per year. However, as we have indicated, several factors when taken separately or in unique combination lead to considerable variation in employment.

New to this publication are sub-state regional projections, and projections for Casper and Cheyenne, Wyoming's two Metropolitan Statistical Areas (MSAs). Employment is expected to grow at a rate of 1.8 percent per annum in the Cheyenne MSA while surrounding counties in its trade area, and less densely populated areas in general, grow at a far slower rate.

A product of most research is the identification of knowledge gaps and additional questions. Even a brief review of this document reveals that employment is subject to substantial seasonal swings. Additionally, extended periods of steady growth are interrupted by episodes of almost completely

contrary market behavior. Yet, throughout many of these periods unemployment remains relatively low. The measure of jobs used in this report is based on place-of-work payroll reports from establishments. Unemployment, however, is defined in terms of whether or not a person who is a resident of a state is without employment and is actively seeking work. If a growing share of jobs in Wyoming are worked by nonresidents, employment and unemployment measures could become increasingly independent of one another. As suggested by the analysis presented in Chapter 4 (see page 47), the number of individuals who both reside and work in a given community may be declining even as overall employment growth takes place.

The primary focus of *Employment Outlook: 2010* is the projection of employment demand. Throughout the publication, we seek to frame the question of labor supply in terms of broad-based demographic change and regional competition for labor. Projecting labor availability has been a long-standing problem, especially at the state level. The problem is made even more complex when questions are raised about the attributes of a population such as education, skills, earning expectations, or the probability of migration.

In contrast to the last projections publication, this report does not include occupational projections. Research & Planning will publish a subsequent publication based on the new Standard Occupational Classification (SOC) system using the industry employment projections in *Employment Outlook 2010*. Furthermore, this will be the last industry-based projections publication to use Standard Industrial Classification (SIC) codes. The State-Federal statistical system is changing to the North American Industry Classification System (NAICS). NAICS has been developed to provide a consistent framework for the collection, analysis, and dissemination of industrial employment statistics used by government policy analysts, academics, researchers, the business community, and the public.

Chapter 1. Economic Assumptions and the Use of Projections Data

by: Tom Gallagher, Manager, Wyoming Department of Employment, Research & Planning

Understanding 2000 to 2010 forecast issues in the following chapters depends upon our ability to place the state in an economic context, particularly the context of the competition for labor. To base economic assumptions about the future only on the current period of modest job growth in Wyoming, or within the confines of the current national decline in employment, would fail to account for historical considerations which help define Wyoming's place in the U.S. economy. From 1994 to 1996, while the regional and national economies flourished, the number of persons who worked for any duration in the state declined (on a Wage Records[1] basis). Since the mid-1990s the state lost a significant segment of its young adults. The external competition for Wyoming's labor diminished in 2000 as the nation's economy began to slow. However, there is every reason to believe that when the nation emerges from recession, the external demand for Wyoming workers may grow.

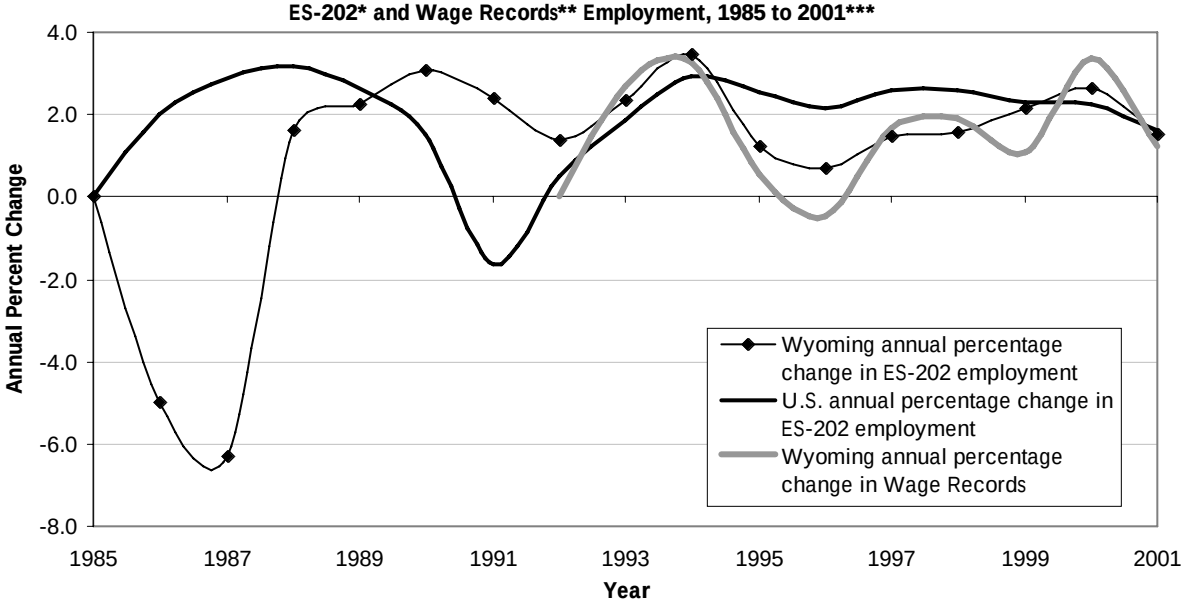
Following the energy bust of the early 1980s, employment opportunities in Wyoming began growing in 1988. Unemployment Insurance covered jobs[2] grew at a rate of 1.1 to 3.5 percent per year from 1988 to 1994 and then fell (see Figure 1.1, page 2). Growth in employment stood at under 0.7 percent during 1997 and grew by an average of only 1.0 percent in 1998. Steady growth above 1.7 percent, due in large part to coal bed methane development, did not resume until 1999. The rate, pattern, and timing of employment growth in Wyoming are important in understanding which population segments (e.g., age, gender, wages) remain intact as part of Wyoming's workforce or its potential workforce.

Employment growth began to accelerate in the nation in 1991, reached a peak of 2.9 percent in 1994, and remained at or above 2.1 percent in over-the-year growth through 2000 (see Figure 1.1). On a national basis, the competition for Wyoming's labor was most intense during the previous decade, a time when Wyoming's labor market was extremely vulnerable.

The baby boom generation was born between 1946 and 1964 (ages 36 to 54 in 2000). Employment growth from 1988 to 1995 appears to have allowed individuals who are part of the boom generation (age 33 to 49) to successfully establish themselves in Wyoming's labor market. However, the slowdown at mid-decade denied similar opportunities to those just outside the trailing edge of the boom generation (age 25 to 32). Persons born between 1964 and 1980 (age 15 to 29) entered Wyoming's labor market just as labor demand turned flat in 1995.

Job growth between 1990 and 2000 appears to have been significant enough to produce job opportunities for those first on the labor market scene, but to have left less opportunity for those reaching young adulthood (the age most associated with migration) at mid-decade. As shown in Figure 1.1, Wyoming's labor market demonstrated little growth in 1995 and 1996, just as many people born between 1966 and 1980 (then ages 15 to 29) were leaving high school, college, or attaining an age associated with the highest birth rates for females.[3] Out-migration of persons

Figure 1.1: U.S. and Wyoming Annual Percentage Change in ES-202* and Wage Records Employment, 1985 to 2001*****



*A count of jobs reported as part of the Unemployment Insurance (UI) Covered Employment and Wages (ES-202) program.
**Wage Records is an administrative database of individuals earning wages for jobs covered by unemployment insurance.
***The annual percentage change in Wage Records is only reported from 1992 to 2001.

attaining young adulthood during the mid-1990s, in response to a lack of economic opportunity, would explain the lower relative share of state residents ages 25 to 34 in 2000 in comparison to the nation as a whole. It would also help explain why there are 0.4 percentage points fewer children ages 5 to 9 and 0.5 percentage points fewer children under age 5 in Wyoming than in the nation as of 2000.

Those younger (the 25 to 34 age segment) than the boom generation are present nationally in 2000 as 14.2 percent of the total population, but they are a proportionately lower percentage (12.1%) in Wyoming (see Table 1.1, page 3). At the same time, Wyoming has proportionately more persons in the leading edge of the boom generation (the 45 to 54 age segment), 15.0 percent according to the decennial census of 2000, than the nation as a whole (13.4%). There appear to be several potential consequences associated with the differential age distribution between Wyoming and the United States identified in Table 1.1.

Sparsely populated states like Wyoming are likely to experience self-canceling population turnover, or interstate migration, with respect to any particular age segment if factors such as economic competition between states are equal. According to the 2000 Census, 8.4 percent of all U.S. residents ages 5 and over were reported to have been a resident of another state in 1995. On the other hand, 15.7 percent of Wyoming's residents in 2000 were residents of another state in 1995.[4] On a net basis, even though in-migration to Wyoming was higher than the national average, out-migration among those between 25 and 34 (in 2000) during the 1990s was far greater. In other words, Wyoming lost one out of seven adults age 25 to 34 to out-migration.

Table 1.1: Resident Population by Age, 2000

	Wyoming		U.S.	
Age	Resident Population	Percentage	Resident Population	Percentage
Total	**493,782**	**100.0**	**281,421,906**	**100.0**
< 5	30,940	6.3	19,175,798	6.8
5 - 9	34,127	6.9	20,549,505	7.3
10 - 14	38,376	7.8	20,528,072	7.3
15 - 19	41,903	8.5	20,219,890	7.2
20 - 24	33,455	6.8	18,964,001	6.7
25 - 34	59,854	12.1	39,891,724	14.2
35 - 44	78,765	16.0	45,148,527	16.0
45 - 54	74,079	15.0	37,677,952	13.4
55 - 64	44,590	9.0	24,274,684	8.6
65 - 74	31,343	6.3	18,390,986	6.5
75 - 84	19,615	4.0	12,361,180	4.4
85 +	6,735	1.4	4,239,587	1.5
Median Age	**36.2**		**35.3**	

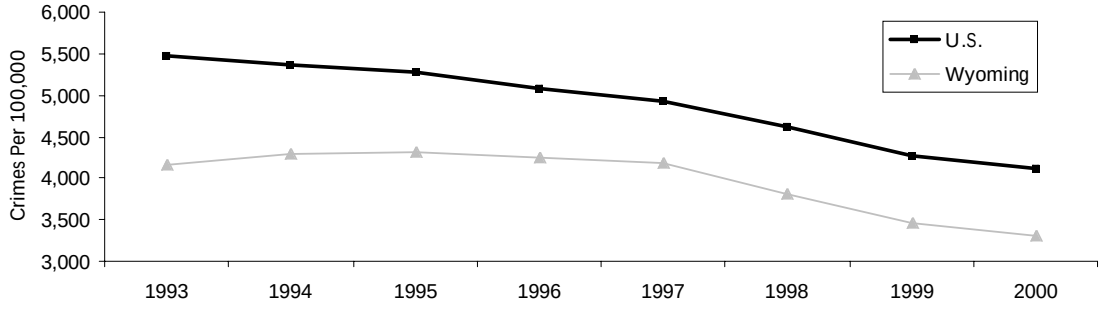
Source: U.S. Census Bureau, Census 2000, Table DP-1.

The differences in age distribution between Wyoming and the U.S. appear to offer partial explanations for population-related trends and suggest several potential consequences:

(1) The precipitou decline in the number of families on welfare in Wyoming compared to the U.S.[5] may partly be explained by the net out-migration of young families between 1995 and 2000.

(2) Since crime tends to be associated with youth, Wyoming could be expected to have a lower crime rate corresponding to the period of out-migration (1995 to 2000). As shown in Figure 1.2, the U.S. crime rate declined from 5,087 crimes per 100,000 population in 1996 to 4,124 in 2000 (-18.9%), while Wyoming's crime rate declined by 22.5 percent over the same period. Not only did the crime rate in Wyoming begin at a lower level (4,254 crimes per thousand) than in the U.S.

Figure 1.2: Index Crimes* in the U.S. and Wyoming Per 100,000 People, 1993 to 2000



*Index Crimes include murder, forcible rape, robbery, aggravated assault, burglary, larceny-theft, and motor vehicle theft.
Source: Federal Bureau of Investigation, Uniform Crime Reports Data, <http://www.fbi.gov/ucr/ucr.htm>.

(5,087 crimes per thousand) but its rate fell more quickly during the second half of the decade.

(3) The high level of nonresident participation in Wyoming's labor market (see Chapter 3, see page 41) may be attributed, in part, to the out-migration of young persons who might otherwise be found working in such highly seasonal industries as construction and tourism.

(4) The leading edge of the boom generation (15.0% of Wyoming's population) will most likely need more health services (associated with maturity) on a per capita basis than the nation. On a proportional basis, health care costs may rise more quickly in Wyoming than the nation due, in part, simply to differences in demographics.

(5) Areas of Wyoming's economy that expanded to serve the needs of the baby-boomers and their children (e.g., retail clothing, recreation, health care, child care, educational services) are now facing large decreases because of a smaller customer base, a direct result of the out-migration of 25- to 34-year-olds and their children in the 1990s. National franchises targeting the young may not be as profitable in Wyoming as in the rest of the nation.

(6) Over the forecast period, the proportion of the state's labor force attaining near-retirement status will increase while the share of resident, potential new labor for Wyoming decreases. Workforce problems anticipated at the national level, which are the consequences of an aging workforce, are arriving more quickly and with a greater amplitude in Wyoming than nationally. The problems of a tighter labor supply and the need to integrate new workers successfully into the market are more pronounced in Wyoming. Consequently, the need for a more effective workforce development system increases.

(7) Those distinctions that define the state as unique in its geography, climate, economy, and adaptive social institutions must now also be viewed in light of the state's unique demography. With a unique demographic profile and a unique setting, it seems clear that Wyoming's responses to national workforce development initiatives and policies (including labor market information programs) are best crafted by explicitly taking these factors into account.

Finally, steady growth during the middle of the last decade would have mitigated some of the current and anticipated economic and social stresses associated with the state's inability to retain the same relative share of its population age cohorts as each moves from youth to adulthood. The costs and consequences of the last decade's inability to retain those just beyond the trailing edge of the baby boom are confronting us today and over the forecast horizon.

Chapter 2. Wyoming's Labor Market Employment: Historical and Projected

by: Douglas W. Leonard, Research Analyst, Wyoming Department of Employment, Research & Planning

I. Introduction

This chapter contains the industry employment forecasts for Wyoming's labor market from 2000 to 2010. Offering contextual information from a variety of sources, we intend to give the reader a sense of where the state's economy is going and where it has been. We begin our analysis with actual forecasts and a discussion of results. Next, we discuss data sources and limitations. We finish with an evaluation of forecasting horizons and model selection.

II. Findings in Brief

Although statewide employment growth is projected to slow during the forecast period, it will remain above the projected average for the rest of the nation. Likewise, while all six major regions are expected to grow during the forecast period, growth appears to be concentrated in two areas, those that can take advantage of higher mineral prices and those with more diversified economies. Whether or not growth will match projections is uncertain; however, we believe that the most likely scenario is the one presented in this document.

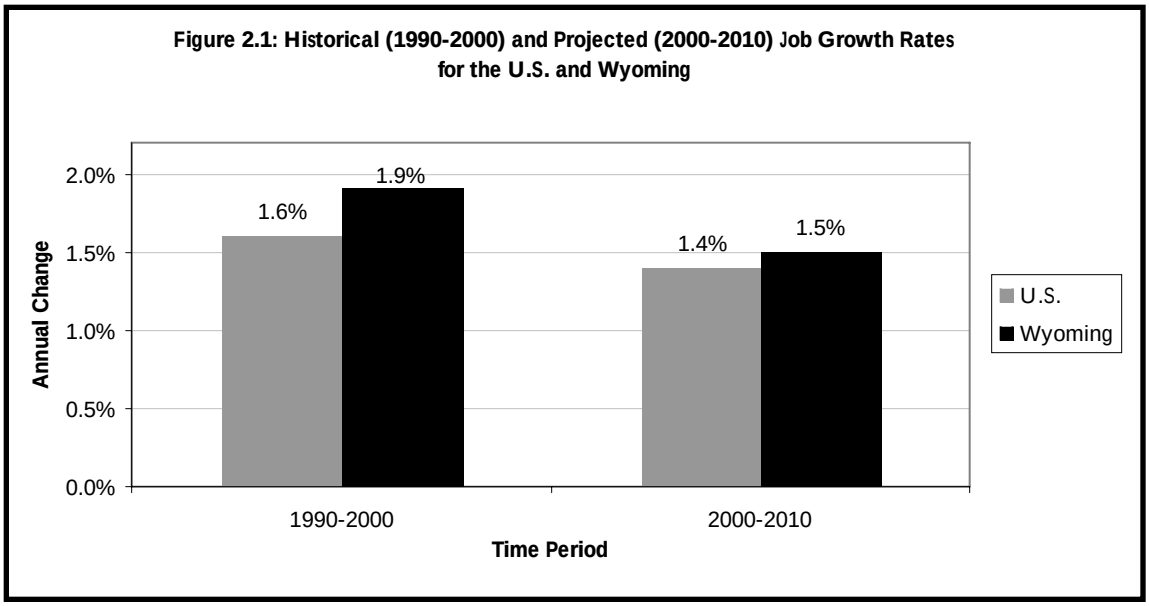
III. Statewide Industry Forecasts

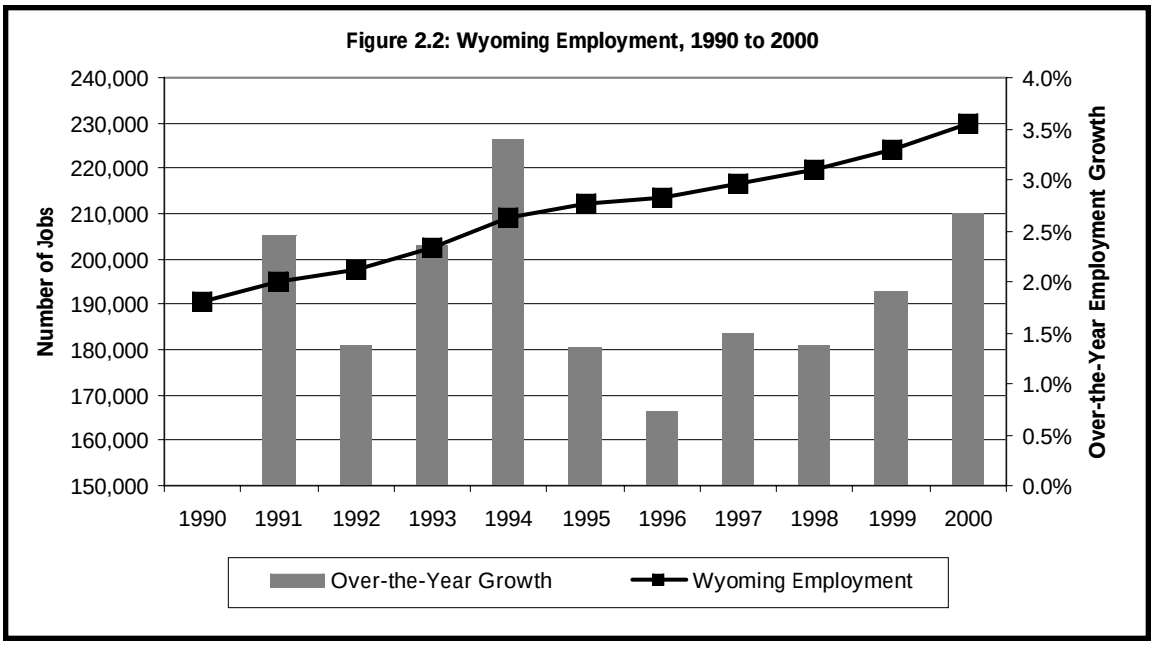
In this section we focus on the overall change in the level of covered employment[1] (hereafter referred to as employment) and to some extent on the changing distribution of employment among industries. An examination of some of the underlying dynamics is located in Chapter 4 (see page 47). Figure 2.1 (see page 6) shows Wyoming's historical (1990 to 2000) and projected (2000 to 2010) growth rates for Wyoming's employment.

Figure 2.2 (see page 6) details Wyoming's annual average employment. Employment growth rates ranged between 1.5 and 3.5 percent during the early 1990s. Growth was much more sluggish in the middle to late 1990s, ranging between 0.7 and 1.5 percent. Higher growth rates ranging between 1.9 and 2.0 percent returned during the last two years of the decade.

National data from the Bureau of Labor Statistics (BLS) show a deceleration in job creation. However, the growth rate for Wyoming is higher than the national average during both the historical and forecast period.[2] The trends in Wyoming employment may be quite different from those in the national economy in certain industries. This is due to several factors, but the most prevalent one is the dissimilarity between the Wyoming and U.S. economies in terms of industry structure (e.g., the percentage of Wyoming employment in Manufacturing compared to the U.S.). Recent research conducted by Research & Planning (R&P) indicates while Wyoming's industry structure is now more aligned with the national economy than in the past, considerable differences still exist.[3] Therefore, we can expect Wyoming's employment projections to differ somewhat from national figures.

Based on time series data and input from other sources (see Chapter 1, page 1), we estimate that Wyoming employment will grow at an annual rate of 1.5 percent per year to a total of





266,149 jobs by 2010 (an increase of 36,263 jobs), compared to the annual growth rate of 1.9 percent from 1990 to 2000 (an increase of 39,486 jobs). See Tables 2.1 and 2.2 (page 7).

A slowdown in population growth may create a drag on Wyoming's economy during the next decade as the total number of people living in the state will increase by 0.4 percent annually, compared to the 0.9 percent annual growth realized during the 1990s. These estimates of future population growth assume net migration to the state will be negligible during the forecast period. The largest projected percentage population increases are expected to be persons 45 years of age and older, while negative population growth is expected for groups

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Table 2.1: Wyoming Statewide Employment Forecasts, 1990-2010

Industry	1990	2000	2010	Historical Difference 1990-2000	Projected Difference 2000-2010	Annual Avg. Change 1990-2000	Projected Annual Avg. Change 2000-2010
Agriculture	2,253	3,599	5,014	1,346	1,415	4.8%	3.4%
Mining	18,005	17,298	19,001	-707	1,703	-0.4%	0.9%
Construction	10,779	17,671	19,941	6,892	2,270	5.1%	1.2%
Manufacturing	9,510	11,402	11,542	1,892	140	1.8%	0.1%
TCPU*	13,240	13,030	13,142	-210	112	-0.2%	0.1%
Wholesale Trade	6,804	7,796	8,944	992	1,148	1.4%	1.4%
Retail Trade	38,135	46,997	53,093	8,862	6,096	2.1%	1.2%
FIRE**	7,238	8,162	8,669	924	507	1.2%	0.6%
Services	65,061	83,279	103,996	18,218	20,717	2.5%	2.2%
Government	19,375	20,652	22,807	1,277	2,155	0.6%	1.0%
Total	**190,400**	**229,886**	**266,149**	**39,486**	**36,263**	**1.9%**	**1.5%**

*Transportation, Communications, & Public Utilities.

**Finance, Insurance, & Real Estate.

Table 2.2: Detailed Wyoming Statewide Employment Forecasts, 1990-2010

Industry*		1990	2000	2010	Historical Difference 1990-2000	Projected Difference 2000-2010	Annual Avg. Change 1990-2000	Projected Annual Avg. Change 2000-2010
Agriculture	Crops (SIC 01)	249	395	528	146	133	4.7%	2.9%
	Livestock (SIC 02)	1,153	1,507	1,921	354	414	2.7%	2.5%
	Agricultural Services (SIC 07)	761	1,560	2,363	799	803	7.4%	4.2%
	Forestry (SIC 08)	87	137	202	50	65	4.6%	4.0%
	Fishing (09)	3	0	0	-3	0	NA	NA
	Total	2,253	3,599	5,014	1,346	1,415	4.8%	3.4%
Mining	Metals (SIC 10)	760	469	314	-291	-155	-4.7%	-3.9%
	Coal (SIC 12)	4,694	4,637	5,581	-57	944	-0.1%	1.9%
	Oil & Gas Extraction (SIC 13)	8,955	9,477	10,748	522	1,271	0.6%	1.3%
	Nonmetallic Minerals (SIC 14)	3,595	2,715	2,358	-880	-357	-2.8%	-1.4%
	Total	18,005	17,298	19,001	-707	1,703	-0.4%	0.9%
Construction	General Contractors (SIC 15)	2,099	4,285	5,242	2,186	957	7.4%	2.0%
	Heavy Construction (SIC 16)	3,866	5,301	5,408	1,435	107	3.2%	0.2%
	Special Trade Contractors (SIC 17)	4,815	8,085	9,291	3,270	1,206	5.3%	1.4%
	Total	10,779	17,671	19,941	6,892	2,270	5.1%	1.2%
Manufacturing	Food (SIC 20)	1,021	1,069	742	48	-327	0.5%	-3.6%
	Textiles (SIC 22)	1	29	26	29	-3	50.1%	-1.1%
	Apparel (SIC 23)	137	225	332	88	107	5.1%	4.0%
	Lumber & Wood Products (SIC 24)	1,450	1,205	950	-245	-255	-1.8%	-2.3%
	Furniture & Fixtures (SIC 25)	42	120	180	78	60	11.2%	4.1%
	Paper (SIC 26)	1	1	1	0	0	1.8%	0.0%
	Printing & Publishing (SIC 27)	1,531	1,650	1,746	119	96	0.8%	0.6%
	Chemicals (SIC 28)	1,314	2,016	1,500	702	-516	4.4%	-2.9%
	Petroleum Refining (SIC 29)	1,018	931	917	-87	-14	-0.9%	-0.2%
	Rubber & Plastics (SIC 30)	93	264	421	171	157	11.0%	4.8%
	Leather (SIC 31)	73	70	80	-3	10	-0.4%	1.3%
	Stone, Clay, & Glass (SIC 32)	650	881	1,076	231	195	3.1%	2.0%
	Primary Metals (SIC 33)	164	199	150	35	-49	2.0%	-2.8%
	Fabricated Metal (SIC 34)	400	723	1,048	323	325	6.1%	3.8%
	Indus. Machinery & Computers (SIC 35)	1,057	1,049	1,064	-8	15	-0.1%	0.1%
	Electrical Components (SIC 36)	41	240	390	199	150	19.2%	5.0%
	Transportation Equipment (SIC 37)	263	395	476	132	81	4.1%	1.9%
	Measuring & Analyzing Instr. (SIC 38)	135	145	195	10	50	0.7%	3.0%
	Misc. Manufacturing (SIC 39)	121	190	248	69	58	4.6%	2.7%
	Total	9,510	11,402	11,542	1,892	140	1.8%	0.1%

*Based on 2-digit Standard Industrial Classification (SIC) code.

Table 2.2: Detailed Wyoming Statewide Employment Forecasts, 1990-2010 (Continued)

Industry*		1990	2000	2010	Historical Difference 1990-2000	Projected Difference 2000-2010	Annual Avg. Change 1990-2000	Projected Annual Avg. Change 2000-2010
Transportation, Communications, & Public Utilities (TCPU)	Railroads (SIC 40)	19	60	71	41	11	12.4%	1.7%
	Local Transit (SIC 41)	480	619	762	139	143	2.6%	2.1%
	Motor Freight & Warehousing (SIC 42)	4,114	3,712	4,077	-402	365	-1.0%	0.9%
	Post Office (SIC 43)	1,260	1,441	1,350	181	-91	1.3%	-0.7%
	Water Transportation (SIC 44)	2	41	72	39	31	33.2%	5.8%
	Air Transportation (SIC 45)	906	1,274	1,529	368	255	3.5%	1.8%
	Pipelines (SIC 46)	223	202	168	-21	-34	-1.0%	-1.8%
	Transportation Services (SIC 47)	298	452	510	154	58	4.2%	1.2%
	Communications (SIC 48)	2,208	2,220	2,100	12	-120	0.1%	-0.6%
	Electric, Gas, & Sanitary (SIC 49)	3,729	3,009	2,503	-720	-506	-2.1%	-1.8%
	Total	13,240	13,030	13,142	-210	112	-0.2%	0.1%
Wholesale Trade	Durable Goods (SIC 50)	3,623	4,446	5,464	823	1,018	2.1%	2.1%
	Nondurable Goods (SIC 51)	3,181	3,350	3,480	169	130	0.5%	0.4%
	Total	6,804	7,796	8,944	992	1,148	1.4%	1.4%
Retail Trade	Bldg. Mat. & Garden Supplies (SIC 52)	1,251	2,017	2,848	766	831	4.9%	3.5%
	General Merchandise (SIC 53)	4,197	5,433	6,790	1,236	1,357	2.6%	2.3%
	Food Stores (SIC 54)	5,357	5,593	5,468	236	-125	0.4%	-0.2%
	Auto Dealers & Service Stations (SIC 55)	6,599	8,236	9,339	1,637	1,103	2.2%	1.3%
	Apparel & Accessory Stores (SIC 56)	1,488	1,257	1,102	-231	-155	-1.7%	-1.3%
	Home Furniture & Equipment (SIC 57)	1,008	1,608	2,168	600	560	4.8%	3.0%
	Eating & Drinking Places (SIC 58)	13,991	17,302	18,659	3,311	1,357	2.1%	0.8%
	Misc. Retail (SIC 59)	4,244	5,551	6,719	1,307	1,168	2.7%	1.9%
	Total	38,135	46,997	53,093	8,862	6,096	2.1%	1.2%
Finance, Insurance, & Real Estate (FIRE)	Depository Institutions (SIC 60)	3,442	3,336	3,509	-106	173	-0.3%	0.5%
	Nondepository Credit Institutions (SIC 61)	271	428	440	157	12	4.7%	0.3%
	Security Brokers & Exchanges (SIC 62)	221	427	570	206	143	6.8%	2.9%
	Insurance Carriers (SIC 63)	662	744	695	82	-49	1.2%	-0.7%
	Insurance Agents & Brokers (SIC 64)	890	1,084	1,031	194	-53	2.0%	-0.5%
	Real Estate (SIC 65)	1,410	1,873	2,057	463	184	2.9%	0.9%
	Holding & Investment Offices (SIC 67)	342	270	367	-72	97	-2.3%	3.1%
	Total	7,238	8,162	8,669	924	507	1.2%	0.6%
Services	Hotels & Lodging Places (SIC 70)	7,907	9,318	10,659	1,411	1,341	1.7%	1.4%
	Personal Services (SIC 72)	1,650	1,955	2,413	306	458	1.7%	2.1%
	Business Services (SIC 73)	3,891	8,078	11,500	4,187	3,422	7.6%	3.6%
	Auto Repair & Parking (SIC 75)	1,358	2,102	2,803	744	701	4.5%	2.9%
	Misc. Repair (SIC 76)	1,143	856	1,229	-287	373	-2.9%	3.7%
	Motion Pictures (SIC 78)	654	661	755	7	94	0.1%	1.3%
	Amusement & Recreation (SIC 79)	2,194	3,050	3,711	856	661	3.3%	2.0%
	Health Services (SIC 80)	13,631	17,892	22,483	4,261	4,591	2.8%	2.3%
	Legal Services (SIC 81)	1,042	1,260	1,363	218	103	1.9%	0.8%
	Educational Services (SIC 82)	21,744	24,480	26,902	2,736	2,422	1.2%	0.9%
	Social Services (SIC 83)	5,055	6,805	10,193	1,750	3,388	3.0%	4.1%
	Museums, Botanical Gardens (SIC 84)	235	332	447	97	115	3.5%	3.0%
	Membership Organizations (SIC 86)	1,748	1,721	1,826	-27	105	-0.2%	0.6%
	Engineering & Management (SIC 87)	2,375	4,009	6,773	1,634	2,764	5.4%	5.4%
	Private Households (SIC 88)	355	563	597	208	34	4.7%	0.6%
	Misc. Services (SIC 89)	78	197	342	119	145	9.7%	5.7%
	Total	65,061	83,279	103,996	18,218	20,717	2.5%	2.2%
Government	Federal Government	4,883	3,899	4,023	-984	124	-2.2%	0.3%
	State Government	5,888	7,026	7,741	1,138	715	1.8%	1.0%
	Local Government	8,604	9,727	11,043	1,123	1,316	1.2%	1.3%
	Total	19,375	20,652	22,807	1,277	2,155	0.6%	1.0%
Total		**190,400**	**229,886**	**266,149**	**39,486**	**36,263**	**1.9%**	**1.5%**

*Based on 2-digit Standard Industrial Classification (SIC) code.

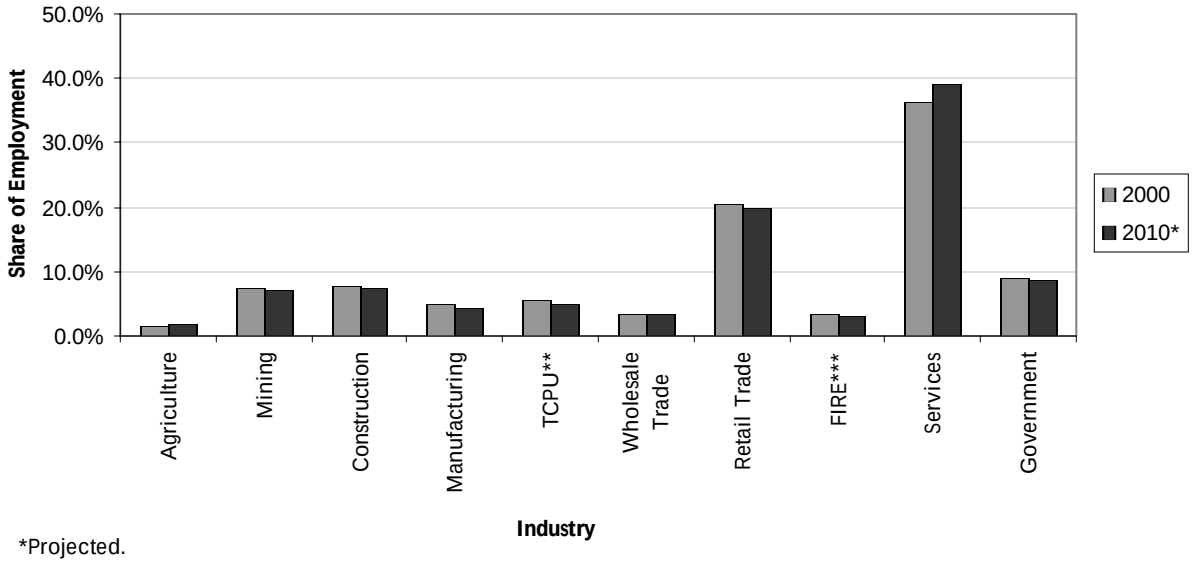
between 5 and 44 years of age.[4] Wyoming's population appears to be aging much more rapidly than the remainder of the country. In 1990 Wyoming's median age was 32.0. At that time 38 states plus the District of Columbia had a higher median age than Wyoming.[5] By 1999, however, Wyoming's median age rose to 36.1, and only 17 states plus the District of Columbia had a higher median age than Wyoming.

Wyoming's industry composition is not expected to change dramatically at the major industry level during the forecast period. Figure 2.3 displays the current and projected industry mix based on major Standard Industrial Classification (SIC) divisions.[6] Figure 2.3 shows that major industry shares of total employment will remain relatively stable during the next decade, with most of the job growth occurring in Services. Wyoming job growth in Services (39.1%) reflects what is expected to occur in the national economy, where the industry will account for 31.1 percent of the nation's jobs by 2010.

a. Projected Employment - Agriculture

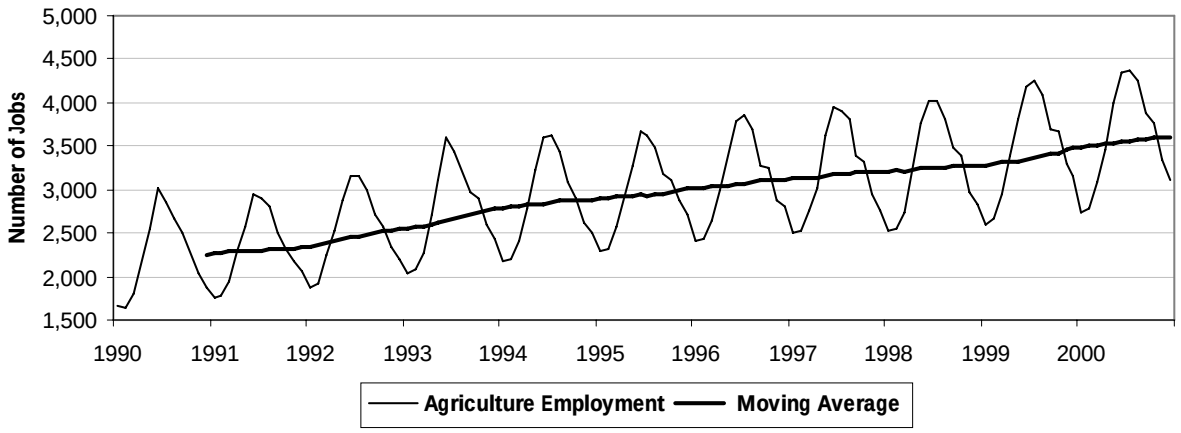
The Unemployment Insurance (UI) covered Agriculture industry includes establishments involved in crop and livestock production, in addition to sod farms, veterinary, forestry, and landscaping operations. Figure 2.4 (see page 10) shows the average monthly employment for covered Agriculture employment from 1990 to 2000. We can see in Figure 2.4 that Agriculture employment is highly seasonal, and that it has steadily increased during the last decade. Based on our time series analysis, industry employment is expected to grow at an average annual rate of 3.4 percent from 3,599 jobs in 2000 to 5,014 jobs in 2010. However, this growth rate is lower than the 4.8

Figure 2.3: Wyoming Distribution of Industry Employment as a Share of Total Employment, 2000 and 2010*



*Projected.
**Transportation, Communications, & Public Utilities.
***Finance, Insurance, & Real Estate.

Figure 2.4: Wyoming Agriculture* Employment, 1990 to 2000



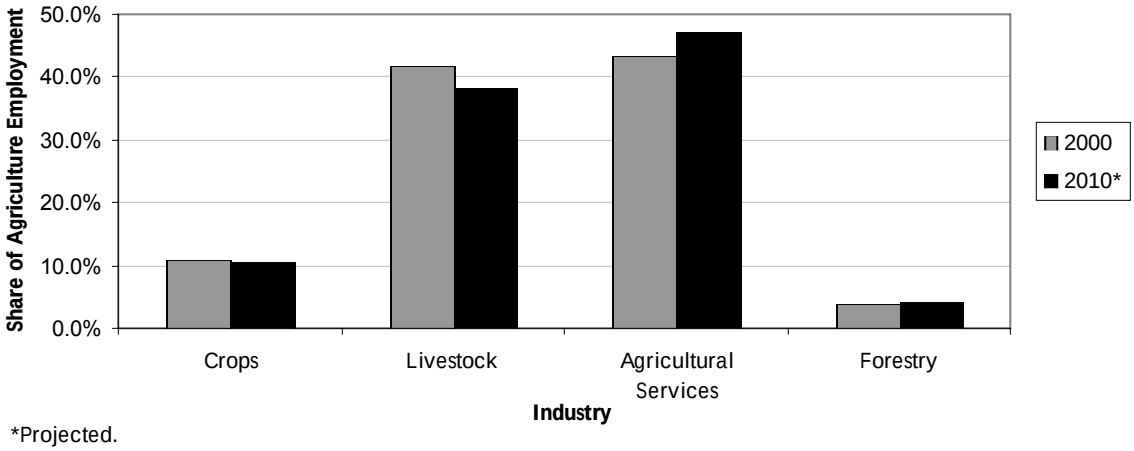
*Unemployment Insurance (UI) covered Agriculture.

percent annual rate realized from 1990 to 2000, when 2,253 jobs were created. Figure 2.5 details the change in industry mix from the base year (2000) to the projected year (2010). The most apparent difference in these two industry mix charts is the increasing influence of agricultural services on Agriculture as a whole. One possible explanation for the increase is that agricultural services includes operations such as landscaping services, an industry that has experienced significant growth from 1990 to 2000. Our projections support the assertion that this growth will continue to 2010.

b. Projected Employment - Mining

The Mining industry has long played an integral part in Wyoming's economy. This major industry includes the

Figure 2.5: Wyoming Distribution of Agriculture Employment as a Share of Total Agriculture Employment, 2000 and 2010*

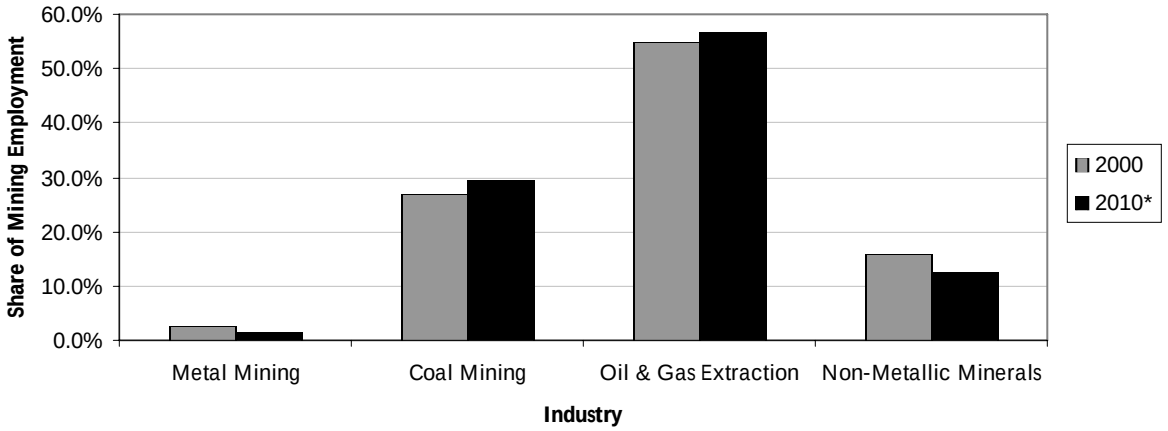


*Projected.

production of "hard" minerals such as coal, uranium, and trona, in addition to crude oil and natural gas. Mining employment in the state is expected to increase from 17,298 in 2000 to 19,001 in 2010, an annual rate of 0.9 percent for the forecast period (see Tables 2.1 and 2.2, page 7). Total Mining employment during the next decade is expected to shift toward oil and gas extraction and coal mining with less concentration in other Mining industries (see Figure 2.6).

The history of the Mining industry in Wyoming has been a tumultuous one, primarily due to fluctuations in market price and changes in technology, which affect production output, revenues, and employment. The overall employment picture for Mining in the 1990s was one of steady contraction until 1999, as evidenced in Figure 2.7. However, recent developments in oil and gas extraction have been the primary drivers of the upward trend in employment seen at the end of the 1990-2000 time period.

Figure 2.6: Wyoming Distribution of Mining Employment as a Share of Total Mining Employment, 2000 and 2010*



*Projected.

Figure 2.7: Wyoming Mining Employment, 1999 to 2000

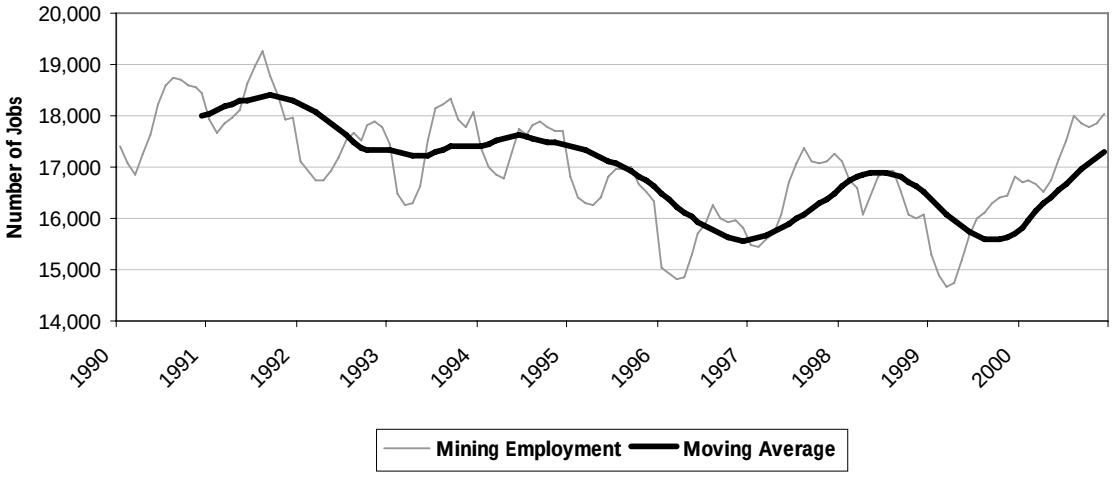
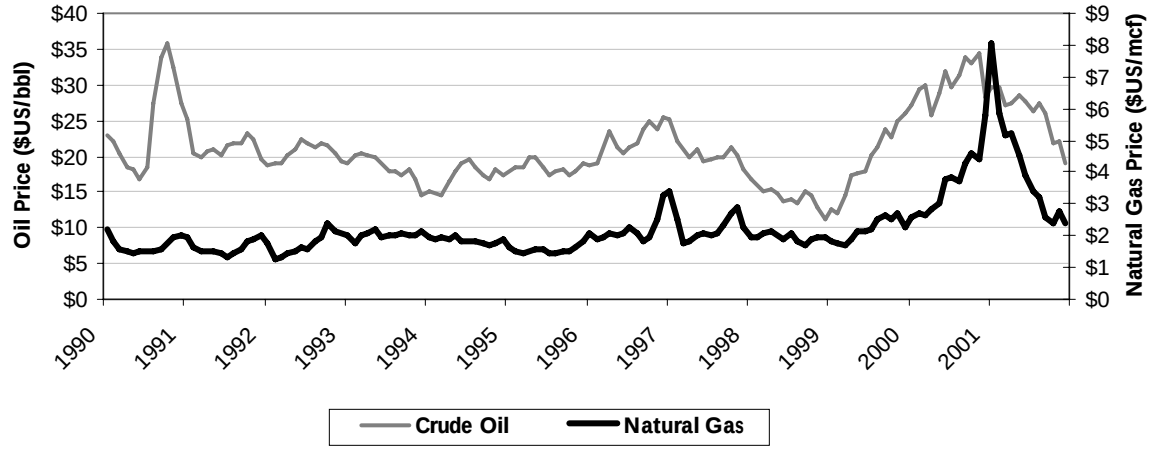


Figure 2.8 details the historical prices for crude oil and the average wellhead price for natural gas in the contiguous 48 states.[7] Although the rise in Mining employment occurred before the spike in natural gas prices during 2000 and 2001, employment growth accelerated toward the end of the time series. A primary contributor to this trend is commodity prices for oil and gas, which will continue to drive industry employment. Recent research conducted by R&P indicates that not only market price but also seasonality and changes in the rotary rig count significantly (and positively) contribute to changes in oil and gas extraction employment.[8] Employment in oil and gas extraction is expected to grow through 2010, but the realized rates are expected to be much lower than those seen in 1999 and 2001. The slowdown may be a result of lower and more stable projected natural gas prices over the long term.[9] Even with the expectation that prices will be slightly higher between 2000 and 2010 (in 2000 dollars), production from unconventional sources such as coal bed methane is expected to increase rapidly during the forecast period.[10]

Analysis by the Bureau of Land Management (BLM) supports this expectation. The BLM estimates that if coal bed methane resources in the Powder River Basin were fully developed, the result would be the creation of over 2,000 jobs ($1.6 billion in personal income) and more than $5 billion in direct revenue to the state and the affected counties.[11] The effects of coal-bed methane drilling are already being realized through increased oil and gas employment in those areas with high concentrations of shallow coal-bed methane reservoirs.[12] However, employment growth in oil & gas extraction leveled off in 2001, partially due to a relative depression in the market price for Wyoming gas as compared to the rest of the United States. Low prices for Wyoming gas are attributed to a lack of pipeline capacity to high demand markets in the Midwest and California. This situation is expected to improve if additional pipeline capacity is brought on line during the next decade.[13]

Oil prices are expected to remain steady or go slightly higher, but there is

Figure 2.8: Annual Average Crude Oil and Natural Gas Prices, 1990 to 2001



Source: Alaska Department of Revenue and U.S. Department of Energy.

less certainty in the predictions due to the proportion of total domestic consumption that must be imported from other sources. The United States imported 9.02 million barrels of crude oil per day in 2000. This figure is expected to rise to approximately 11.18 million barrels per day by 2010.[14] Wyoming's oil production is forecasted to continue its long-term decline.

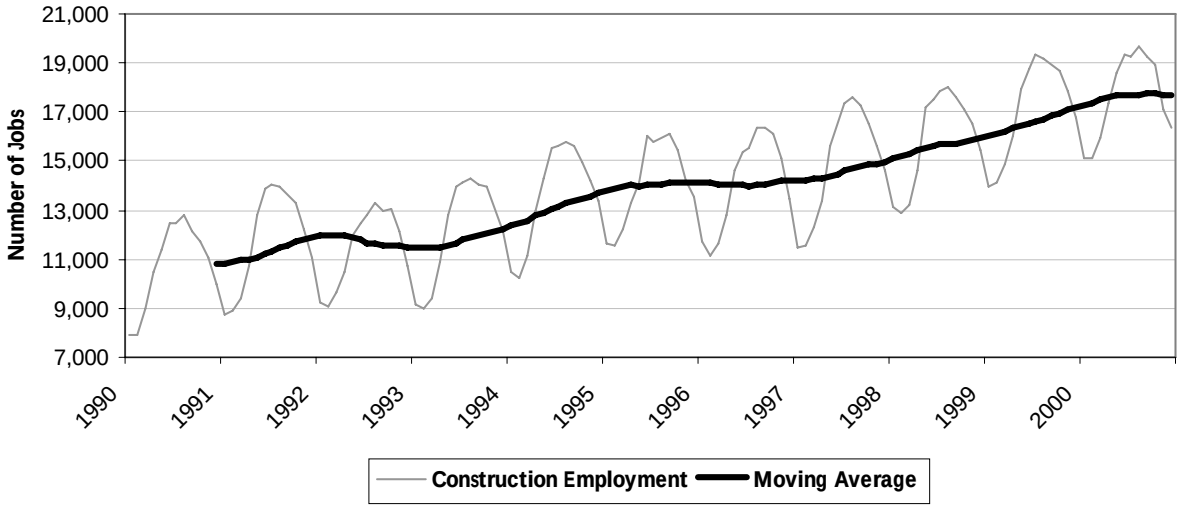
Wyoming's coal industry is expected to grow during the next decade. Several factors including thick coal seams, low overburden ratios (low amounts of soil and rock lying on top of coal seams), higher electricity demand, and the sulfur emissions cap[15] all contribute to the increased marketability and usage of coal sources in the western United States.[16] Furthermore, "Mines in the Powder River Basin will require expansion of their train-loading capacities to meet the increase in demand from the advent of Phase 2 of CAAA90 (Clean Air Act Amendments of 1990), which became effective on January 1, 2000."[17] While coal production in the eastern United States is expected to remain constant, low sulfur coal production in western states is expected to increase at a 2.5 percent annual rate for the next 20 years.[18]

c. Projected Employment - Construction

Construction is composed of three sub-industries: 1) general contractors, 2) heavy construction, and 3) special trade contractors. Construction is highly sensitive to population growth as well as state and federal spending for highway and school construction (see Figure 2.9).

Wyoming's population grew from 453,538 in 1990 to 493,782 in 2000, an annual growth rate of 0.9 percent over the decade.[19] In contrast, Wyoming's population growth during the next decade is expected to slow to 0.4 percent.[20] Consequently, the time series techniques R&P used to develop its projections forecasted much higher employment in the Construction industry than the econometric methods used by the Economic Analysis Division (EAD) because we assumed the change in population growth was constant. For this major industry, time series techniques

Figure 2.9: Wyoming Construction Employment, 1990 to 2000



initially predicted total employment of 24,090 jobs compared to 19,930 predicted by EAD. Because the relationship between population growth and construction employment (particularly residential) is assumed to be significant and positive in EAD models, a much different result was generated.[21] Hence, R&P's forecasts for Construction were adopted to match that of EAD (assuming 0.4% annual population growth) and this result is illustrated in Figure 2.9 (see page 13) and reported in Table 2.2 (see page 7).

Another variable affecting Construction employment is housing demand, a concept we attempt to

Figure 2.10: Wyoming Residential Housing Permits, 1990 to 2001

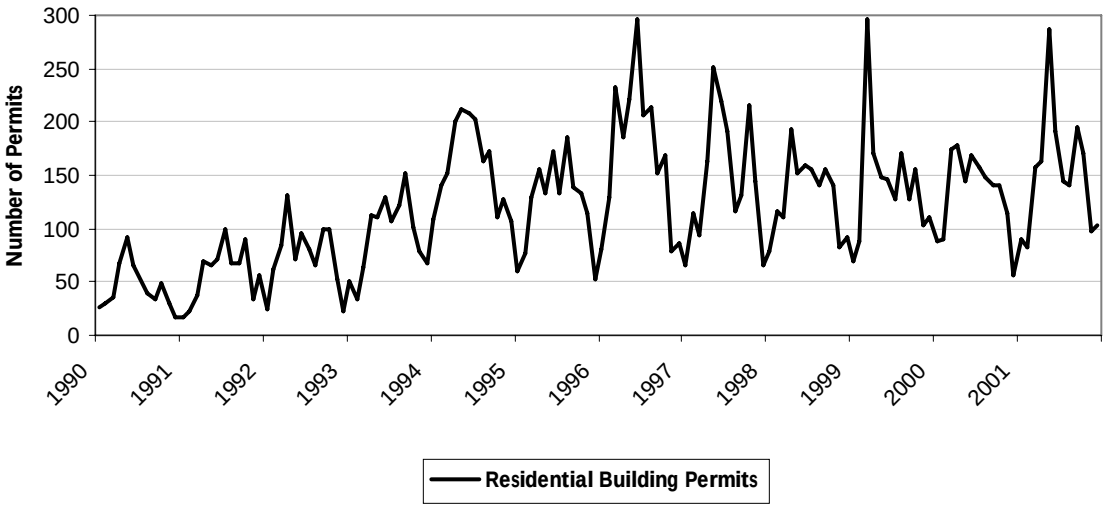
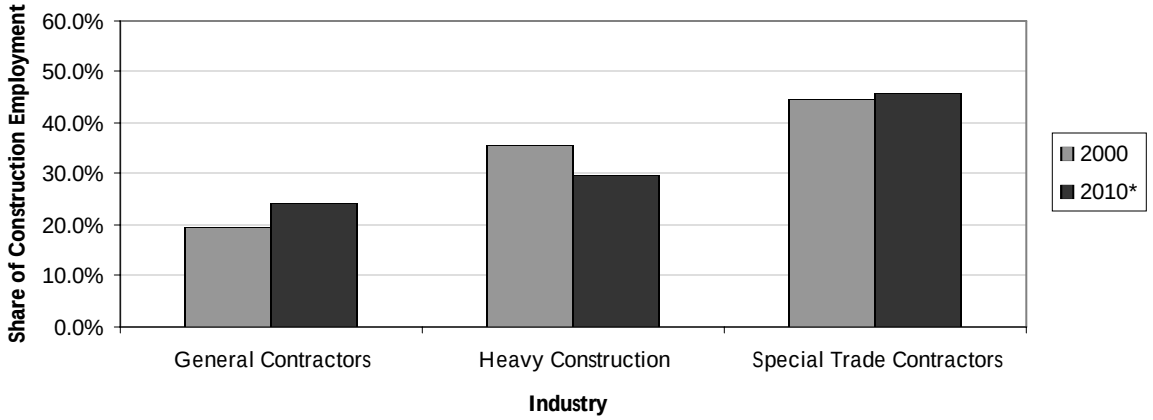


Figure 2.11: Wyoming Distribution of Construction Employment as a Share of Total Construction Employment, 2000 and 2010*



*Projected.

quantify using building permits as a proxy. Although the seasonal fluctuation of single-family building permits is more pronounced in recent years, the overall level of permit issuance has not drastically increased during the previous five to six years, creating a drag on employment growth (see Figure 2.10, page 14).[22]

The employment mix in this industry will also change during the next decade. The numbers of general contractors and specialty trade contractors are expected to grow more quickly than Construction as a whole. This growth is contrasted with the expectations of much slower growth in heavy construction (see Figure 2.11, page 14).

d. Projected Employment - Manufacturing

Manufacturing consists of firms involved in ". . . the mechanical or chemical transformation of materials or substances into new products."[23] As shown in Figure 2.12, employment levels increased at an average 1.8 percent annual rate from 1990 to 2000. However, from January 1997 to 2001, there was virtually no change in employment. Hence, the forecast for the 2000-2010 period is essentially flat, showing an increase of 0.1 percent annually (see Table 2.1, page 7). While Wyoming's growth rate for the period 1990 to 2000 (1.8%) was greater than national estimates (-0.3%) for the same period, forecasted growth rates for Wyoming and the U.S. are similar at 0.1 percent and 0.3 percent, respectively.[24] Comparing actual and projected results in Figure 2.13 (see page 16), the overall industry employment composition of Manufacturing is not expected to change radically by 2010. However, compared to other sub-industries, we forecast a more significant decrease in the proportion of workers engaged in chemical manufacturing. The decrease may be offset with increases in areas such as fabricated metal, and stone, clay, & glass manufacturing.

Figure 2.12: Wyoming Manufacturing Employment, 1990 to 2000

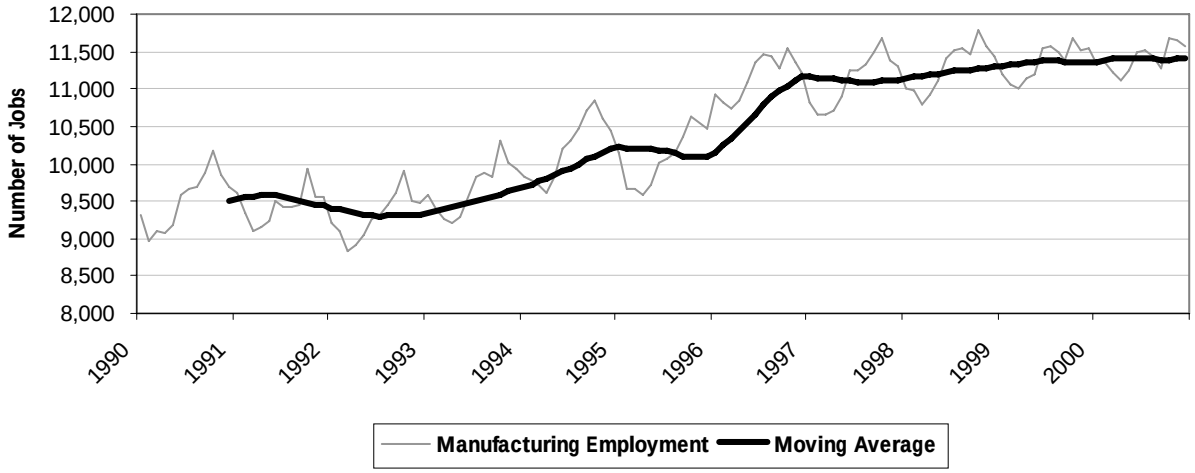
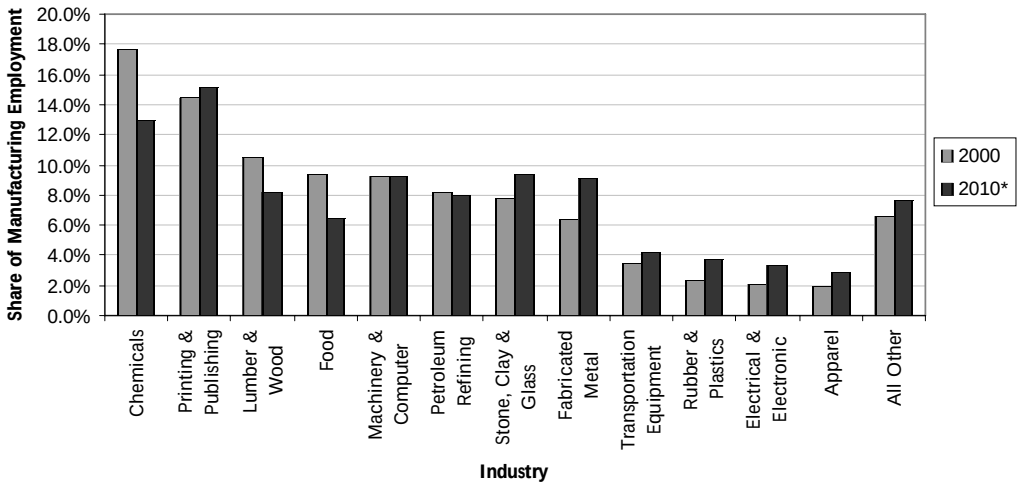
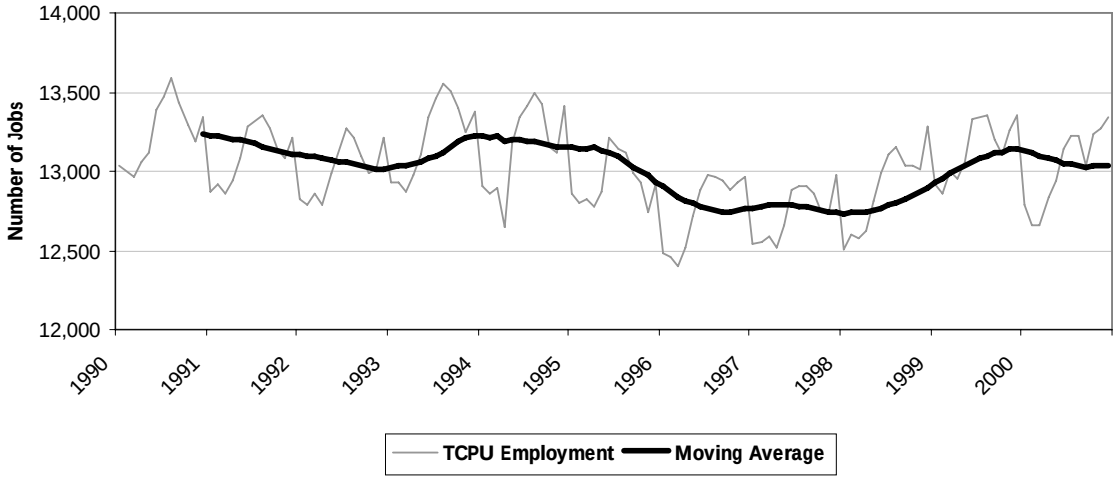


Figure 2.13: Wyoming Distribution of Manufacturing Employment as a Share of Total Manufacturing Employment, 2000 and 2010*



*Projected.

Figure 2.14: Wyoming Transportation, Communications, and Public Utilities (TCPU) Employment, 1990 to 2000



e. Projected Employment - Transportation, Communications, & Public Utilities (TCPU)

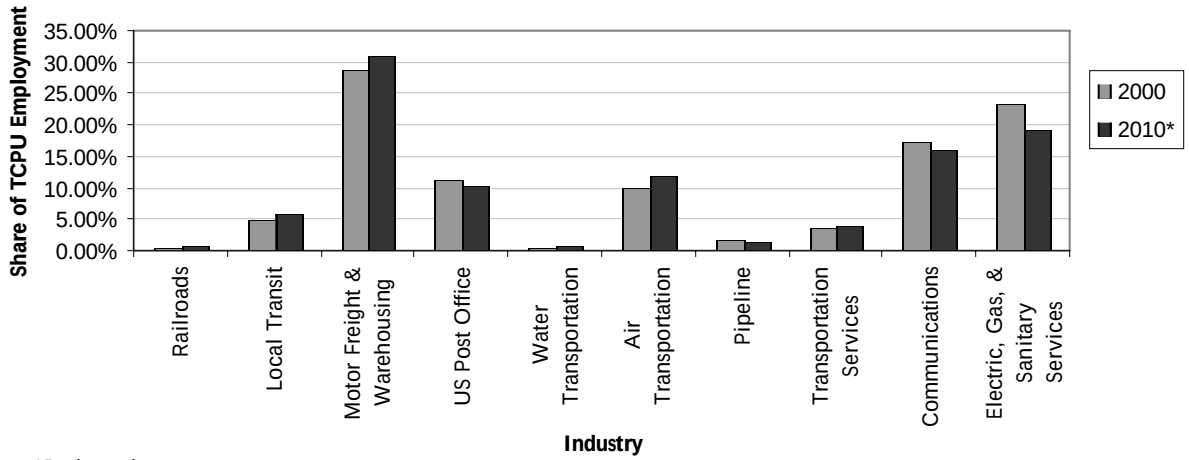
Annual growth shown in Table 2.1 (see page 7) during the forecast period is estimated to be 0.1 percent (increasing from 13,030 jobs in 2000 to 13,142 jobs in 2010). This estimate is considerably slower than the 1.7 percent national figure developed by BLS.[25] The historical data series (Figure 2.14) shows that TCPU employment in 2000 is slightly lower than its peak level in the early 1990s, but has recovered somewhat from the lows that occurred from 1996 to 1998.

While the overall growth of TCPU is projected to remain essentially flat, some of the sub-industries operating may realize growth in excess of the statewide

average. Air transportation, local transit services, and transportation services are all expected to grow faster than 1.0 percent annually between 2000 and 2010, although the forecasted growth rates are somewhat lower than national projections (see Table 2.2, page 8). For example, trucking and warehousing is expected to grow at a 0.9 percent annual rate, compared to 2.0 percent at the national level. This is a positive change for the trucking industry which had a growth rate of -0.1 percent in the 1990s.

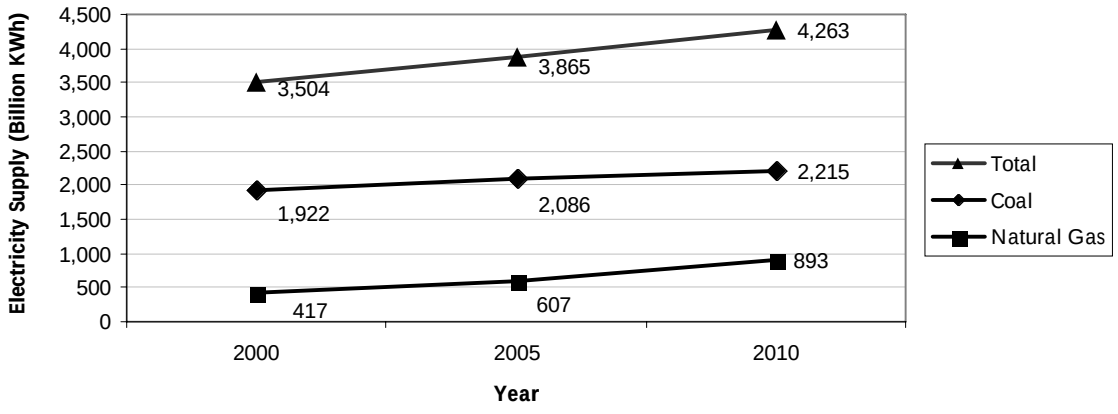
Utilities (electric, gas, & sanitary services) appear to be the least vigorous areas where future employment growth is concerned (see Table 2.2, page 8). As shown in Figure 2.15, the proportion of TCPU employment accounted for by these industries is expected to decline. A decrease in projected annual growth for

Figure 2.15: Wyoming Distribution of Transportation, Communications, & Public Utilities (TCPU) Employment as a Share of Total TCPU Employment, 2000 and 2010*



*Projected.

Figure 2.16: National Electricity Supply by Fuel Type, 2000 to 2010*



*Projected.
Source: U.S. Department of Energy, Energy Information Agency.

pipeline transportation (-1.8%) agrees with the national estimate of -1.7 percent, while the annual growth rate for utilities (-1.8%) differs considerably from the expected national rate of 0.5 percent (see Table 2.2, page 8).[26] However, employment prospects for the utilities industry in Wyoming could improve in response to the required increases in supply between 2000 and 2010 as shown in Figure 2.16 (see page 17).[27] This figure shows the current and projected distribution of electricity supply by fuel source. The proportion of electricity generated from natural gas-fired power plants is expected to more than double from 2000 to 2010. Should this gas be sourced from Wyoming, employment growth may increase faster than expected in the pipeline transportation industry. However, a limiting factor to the marketability of Wyoming gas is pipeline capacity. Currently, pipeline capacity lags production capacity. This situation could change rapidly with the addition of several pipeline expansions in Southwest Wyoming, the Powder River Basin, and additional projects in the planning stages.[28]

f. Projected Employment - Wholesale Trade

As illustrated in Figure 2.17 (below) and reported in Table 2.1 (see page 7), Wholesale Trade employment steadily increased during the 1990s at an annual average rate of 1.4 percent (from 6,804 jobs in 1990 to 7,796 jobs in 2000). Steady employment increases are forecasted through 2010 at the same average annual rate (1.4%) from 7,796 jobs in 2000 to 8,994 jobs in 2010. The data agree with the national rates of 1.3 percent (historical) and 1.1 percent (forecasted).[29]

Wyoming employment in Wholesale Trade for durable and non-durable goods is expected to grow at the same average annual rates realized during the 1990s (2.1 percent and 0.4 percent, respectively).

g. Projected Employment - Retail Trade

Retail Trade employment increased at an annual average rate of 2.1 percent during the 1990s (see Table 2.1 on

Figure 2.17: Wyoming Wholesale Trade Employment, 1990 to 2000

Figure 2.18: Wyoming Retail Trade Employment, 1990 to 2000

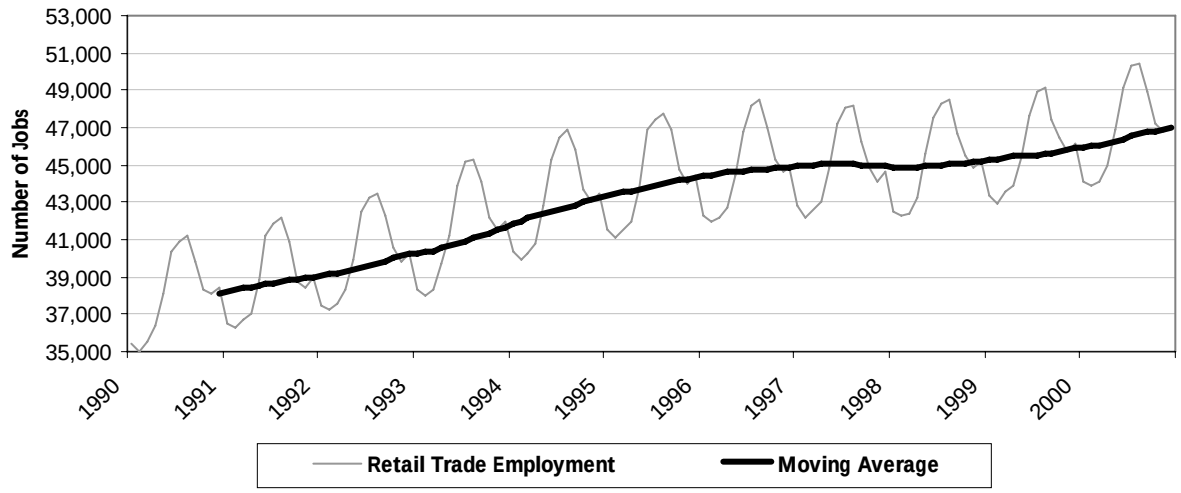
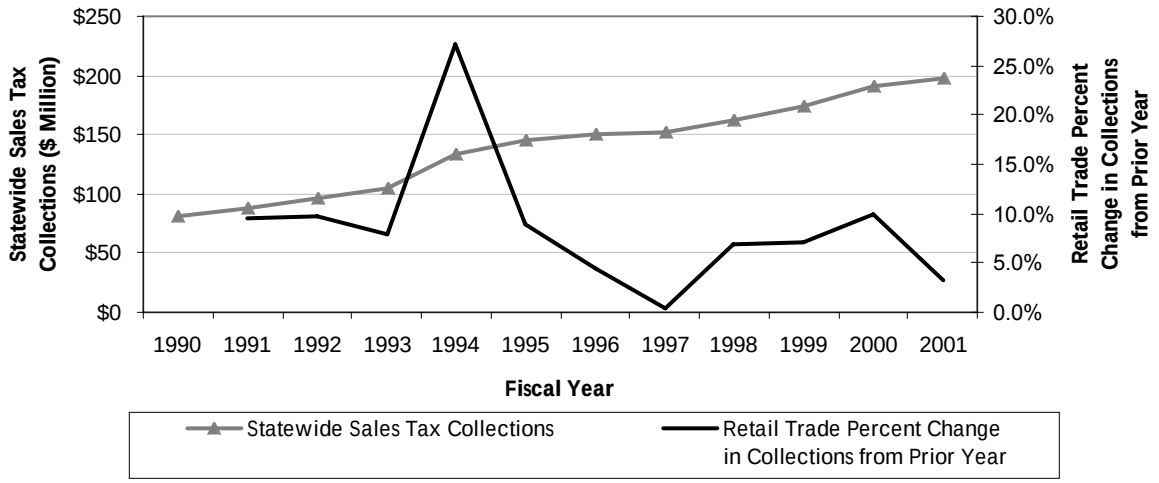


Figure 2.19: Statewide Sales Tax Collections (1990-2001) and Retail Collections Change from Prior Fiscal Year (1991-2001)



Source: Wyoming Department of Administration and Information, Economic Analysis Division.

page 7 and Figure 2.18, compared to 1.7 percent for the nation. Forecasted rates of growth for the state and the country are expected to be lower between 2000 and 2010, with rates of 1.2 percent and 1.3 percent, respectively. Growth in statewide sales tax collections in this division also decelerated during the 1990s.[30] As shown in Figure 2.19, a significant increase in revenue followed the tax increase for the 1994 fiscal year (July 1 to June 30), but the percentage changes in collections since then have generally declined in Retail Trade. However, after collections growth came to a virtual standstill in fiscal year 1997, reasonable growth resumed in later years. These changes closely resemble

Figure 2.20: The Relationship Between Wyoming Annual Employment and Total Statewide Retail Sales Tax, 1990 to 2000

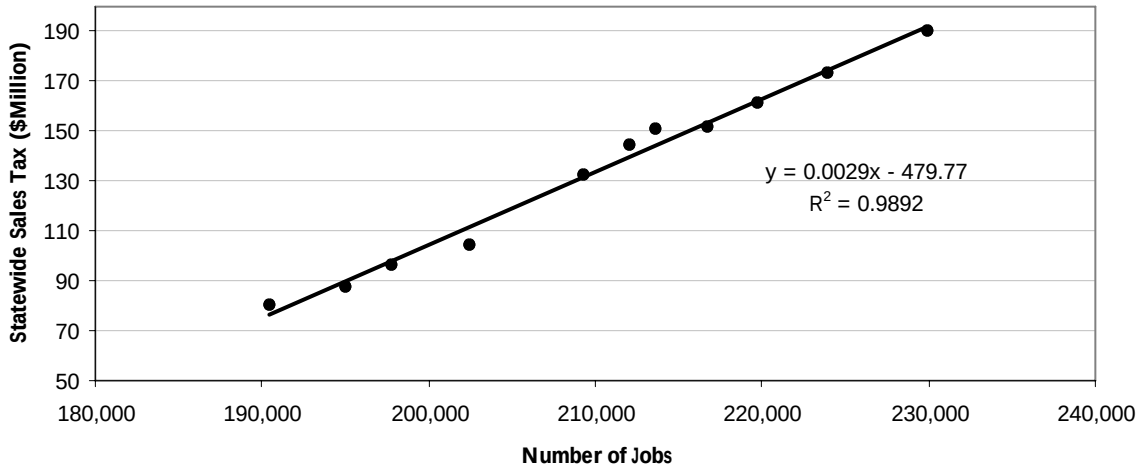
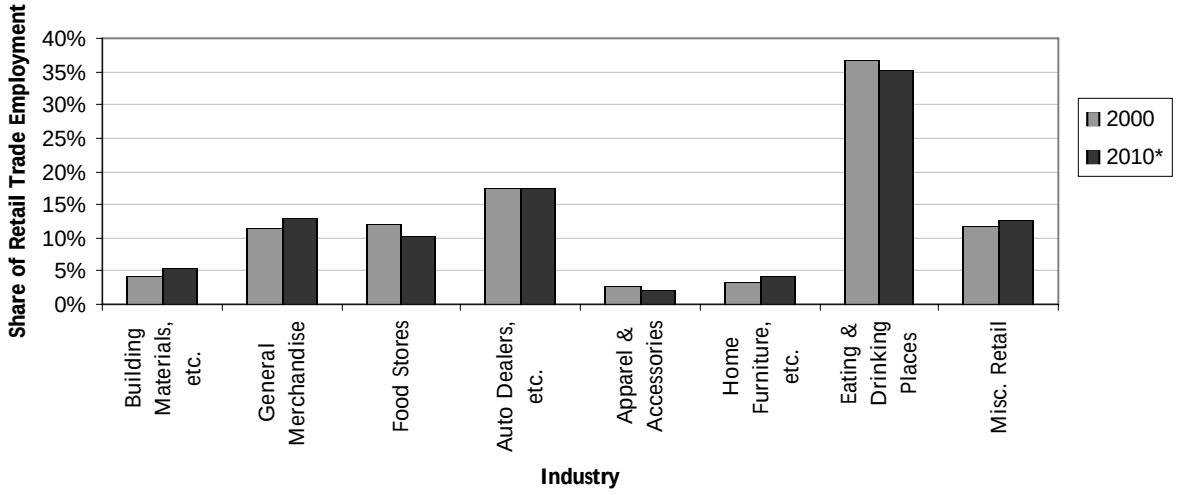


Figure 2.21: Wyoming Distribution of Retail Trade Employment as a Share of Total Retail Trade Employment, 2000 and 2010*



*Projected.

those shown in Table 2.2 (see page 8), as evidenced by Figure 2.20, where we see that there is a nearly perfect linear relationship between sales tax collections and employment levels. The figure also shows that employment levels explain nearly 99 percent of the variance in sales tax collections. Figure 2.20 also indicates that for every 345 jobs added to the economy an additional $1 million in additional sales tax revenue is generated. The number of jobs required to generate additional sales tax revenue is calculated by taking the inverse of the slope of the line in the chart (1/0.0029 = 345).

Employment in Retail Trade steadily increased during the 1990s. Some of the fastest growing sub-industries during the 1990s included building materials &

garden supplies, with a 4.9 percent annual growth rate; and home furniture, furnishings, and equipment, with a 4.8 percent annual growth rate. Growth for these two industries is expected to remain strong through 2010, with realized annual growth rates of 3.5 percent and 3.0 percent, respectively. Growth in eating & drinking places is expected to decelerate to 0.8 percent, down from 2.1 percent during the 1990s. Small job losses are projected for food stores in addition to apparel & accessory stores by 2010. Figure 2.21 (see page 20) reflects these changes. Total employment in Retail Trade is projected to be 53,093 jobs, compared to 46,997 in 2000 (see Table 2.1, page 7).

h. Projected Employment - Finance, Insurance, & Real Estate (FIRE)

As shown in Figure 2.3 (see page 9), Finance, Insurance, & Real Estate (FIRE) occupies a relatively small portion of the

Figure 2.22: Wyoming Finance, Insurance, & Real Estate (FIRE) Employment, 1990 to 2000

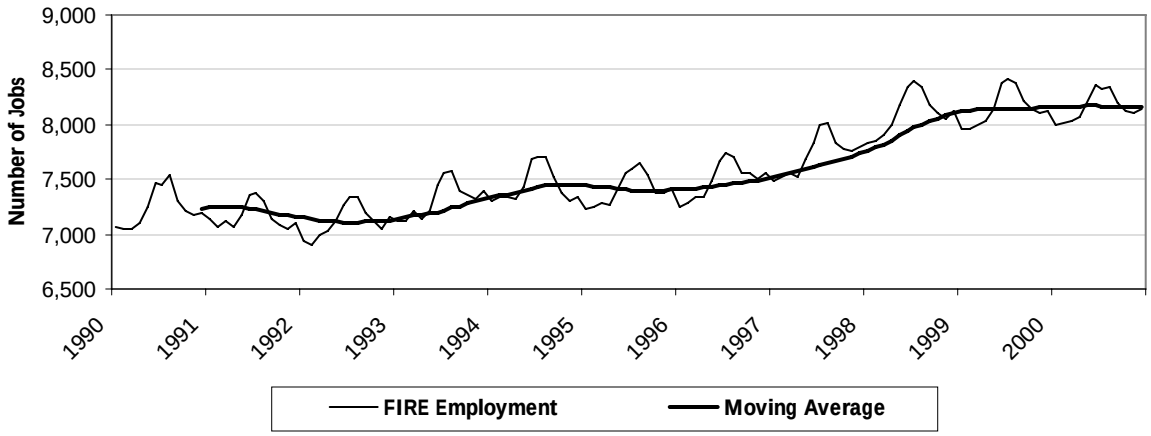
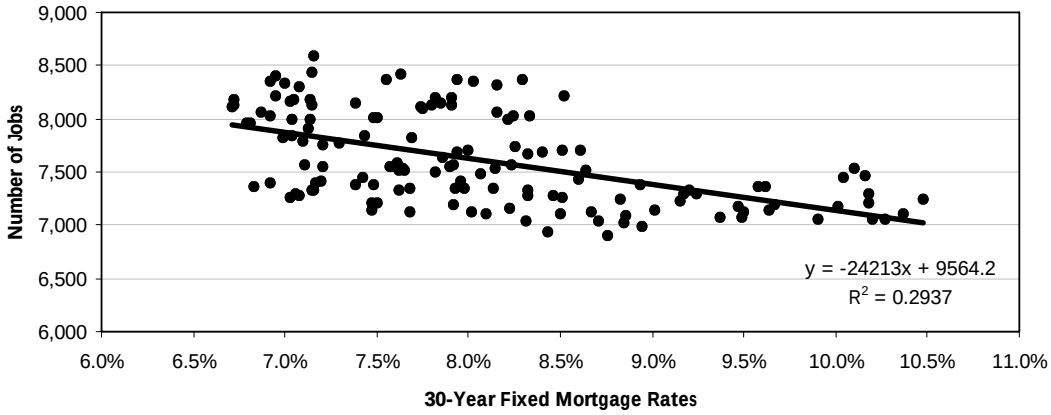


Figure 2.23: The Relationship Between Wyoming FIRE* Monthly Employment and 30-Year Fixed Mortgage Rates, 1990 to 2000



*Finance, Insurance, & Real Estate.
Source: Federal Home Loan Mortgage Corporation.

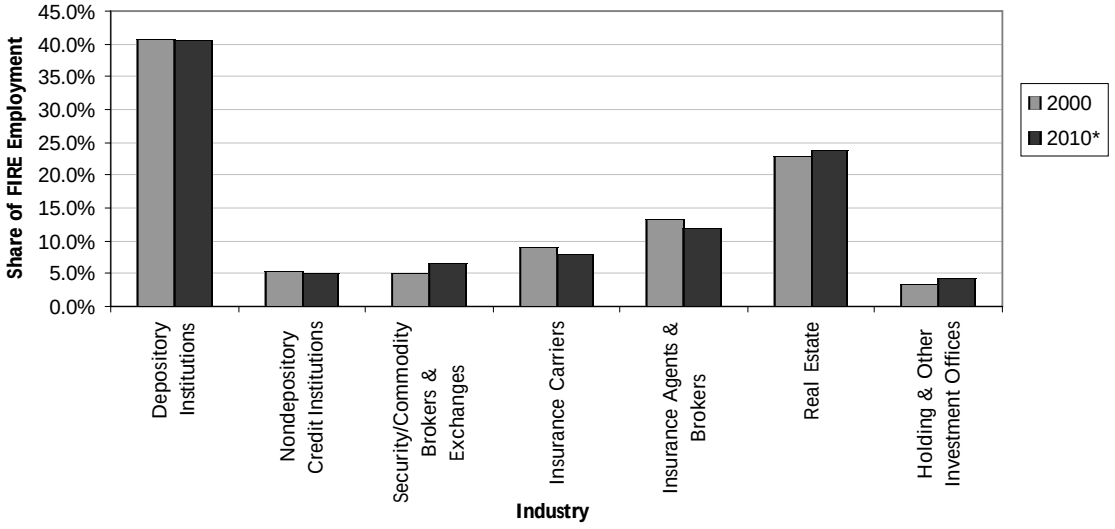
state economy in terms of jobs worked. Figure 2.22 (see page 21) shows the historic employment for this industry. Together Figures 2.22 and 2.23 (see page 21) illustrate that mortgage interest rates significantly influence FIRE employment, especially the real estate subsector. For each unit increase in 30-year fixed mortgage interest rates, approximately 242 jobs are lost.[31] Originally, R&P predicted that annual employment growth during the 2000-2010 period would be 1.9 percent. However, after accounting for the static employment growth during 1999 and 2000 (see Figure 2.22), and the slower projected population growth, this growth rate seemed excessive. Subsequently, R&P reformulated its forecast and developed projected values that now closely match those provided by the Economic Analysis Division's model. Therefore, the average annual increase in FIRE employment is projected to be 0.6 percent (507 jobs total), compared to 1.2 percent (924 jobs total) in the 1990s. The projected growth rate corresponds with national projections developed by the Bureau of Labor Statistics.[32] Employment in 2010 for this industry is projected to be 8,669 jobs (see Table 2.1, page 8), precluding any unforeseen shocks to the market such as rapid interest rate increases.

Although FIRE is projected to grow at a 0.6 percent annual rate, some industries within FIRE, such as insurance carriers and insurance brokers, have projected employment declines (49 and 53 jobs, respectively) from 2000 to 2010 (see Table 2.2 on page 7 and Figure 2.24 below). Of the remaining sub-industries, security & commodity brokers and holding & investment offices are projected to have the greatest annual average increases (2.9% and 3.1%, respectively). These changes will result in the addition of 240 jobs by 2010.

i. Projected Employment - Services

Figure 2.25 (see page 23) illustrates the steady growth of the Services industry from 1990 through 2000.

Figure 2.24: Wyoming Distribution of Finance, Insurance, & Real Estate (FIRE) Employment as a Share of Total FIRE Employment, 2000 and 2010*



*Projected.

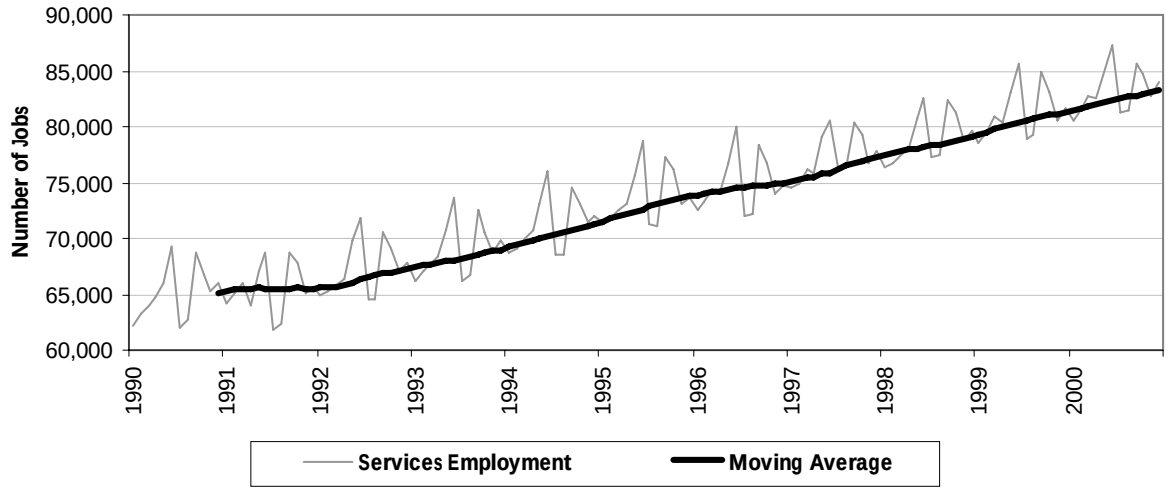
Employment in Services occupies the single largest segment of jobs in Wyoming's economy and contributes the second largest block of sales tax collections.[33] As shown in Figure 2.3 (see page 9), nearly two in five jobs are in Services because of its diversity. Services includes a wide variety of sub-industries such as auto repair shops, doctor's offices, law firms, and beauty shops. Employment growth in Services is projected to be considerably higher than other industries, with 2.2 percent annual growth (from 83,279 in 2000 to 103,996 by 2010) as compared to 1.5 percent for the state as a whole. In fact, nearly 60 percent (20,717) of the new jobs created in Wyoming's economy by 2010 will be in this industry. This result compares well with estimates developed by BLS and EAD.[34] Other than Government, this is the only industry where every sub-industry[35] has positive projected growth during the forecast period.

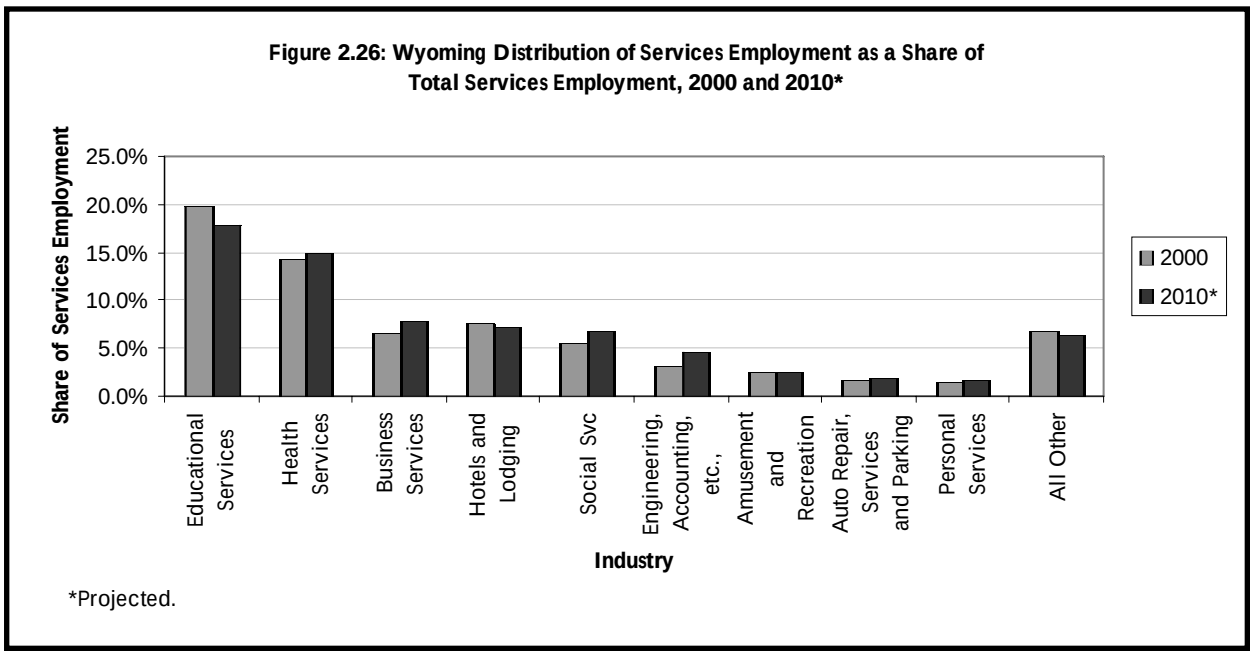
The Services industries with the highest projected annual growth are the following (see Table 2.2, page 8):

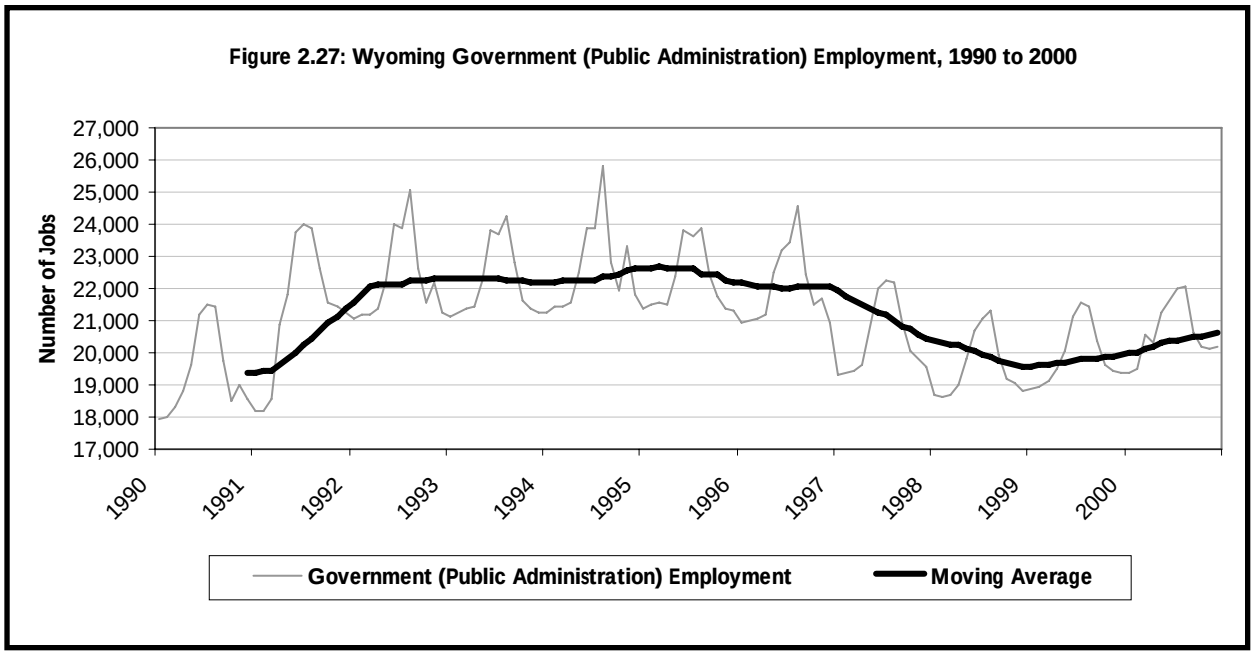
- Miscellaneous services, 5.7 percent.
- Engineering & management services, 5.4 percent.
- Social services, 4.1 percent.
- Miscellaneous repair, 3.7 percent.
- Business services, 3.6 percent.

Growth rates for all of these sub-industries are considerably higher than the 2.2 percent projected annual increase for Services as a whole (see Table 2.1, page 7). Figure 2.26 (see page 24) further illustrates where the bulk of industry growth is projected to occur. Although public and private educational services and hotels & lodging accounted for 37,798 jobs in 2000 and are projected to account for 37,561 jobs in 2010 (see Table 2.2, page 8), their growth rates are much slower than that of the industry and the state as a whole. One reason for relatively slow growth in public and private educational services (including local school districts) is that school enrollments declined during the 1990s due possibly to out-migration, a trend that is expected to continue through 2010.[36]

Figure 2.25: Wyoming Services Employment, 1990 to 2000







j. Projected Employment - Government (Public Administration)

The proportion of employment in Government division is expected to decline slightly during the forecast period, as shown in Figure 2.3 (see page 9). Federal Government employment declined slightly during the 1990s while job growth was positive for public administration at the State and Local Government levels. As shown in Figure 2.27, job growth in this industry has followed the business cycle during the 1990s, with growth occurring early in the decade, followed by a period of

decline from 1994 to 1998, and then rising again during 1999 and 2000. Overall growth in Government is projected to be slightly less than 1,300 jobs or 1.0 percent annually during the forecast period. Local Government is projected to have the most rapid growth (1.3%), with State Government slightly lower at 1.0 percent, and Federal Government at 0.3 percent.

IV. Wyoming Regional Employment Projections

The employment projections are divided among four multi-county regions and two Metropolitan Statistical Areas (MSAs), Casper and Cheyenne (see Figure 2.28).

a. Statewide

Figure 2.29 (see page 26) details annual average growth for the state and each of the identified regions. The Northeast, Southwest, Casper MSA and Cheyenne MSA are all projected to have growth rates higher than that for the entire state. The Central-Southeast and Northwest Regions will experience lower than average regional growth. Table 2.3 (see page 26) shows how the distribution of jobs among the regions is projected to change between 2000 and 2010.

Figure 2.28: Occupational Employment Statistics (OES) Regional Map of Wyoming

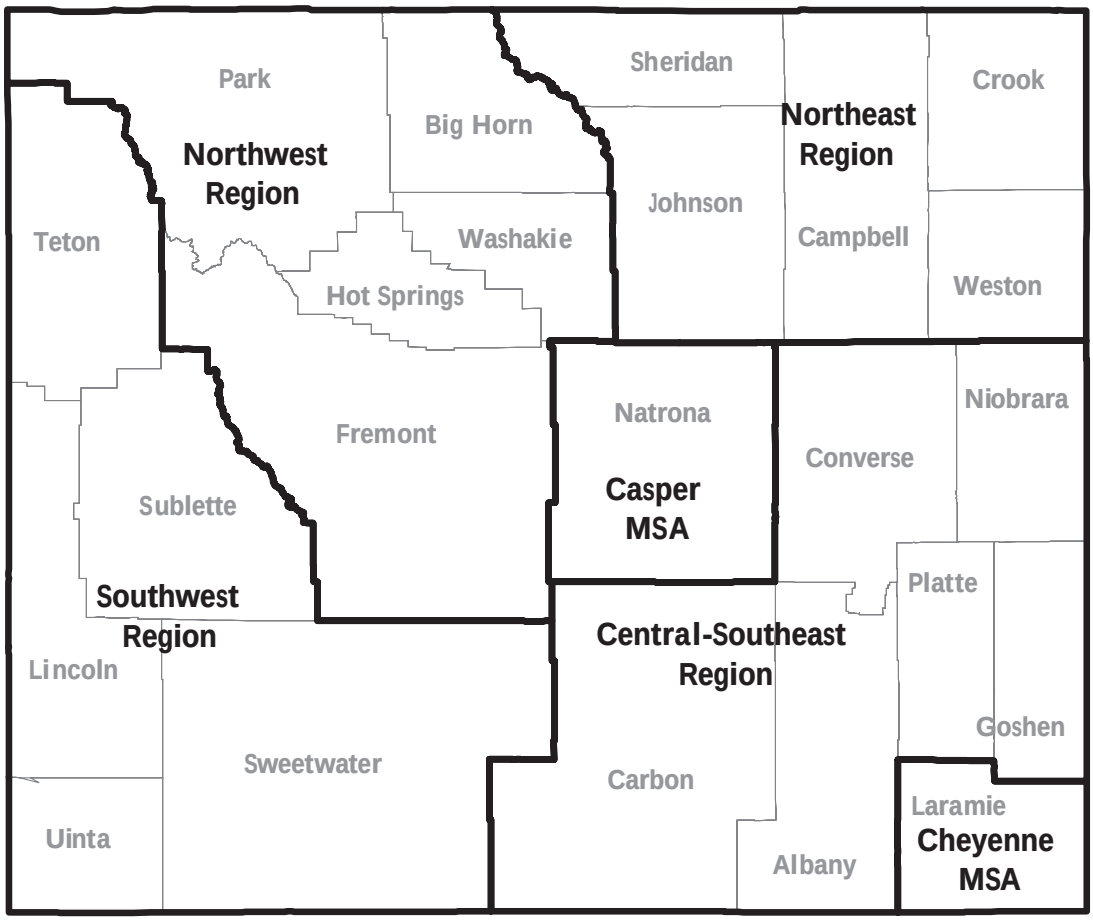
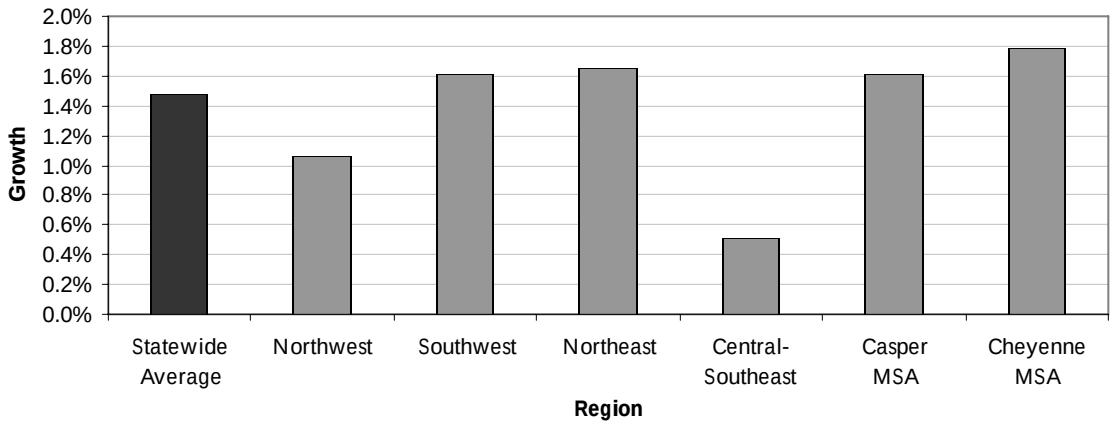


Figure 2.29: Wyoming Projected Average Annual Employment Growth, 2000 to 2010



Note: For definitions of sub-state areas, see Figure 2.28. Firms whose location is not specified are not shown.

Table 2.3: Regional Employment Forecast, 1990 to 2010

Region	1990 Level	2000 Level	2010 Level	Difference 1990-2000	Difference 2000-2010	Annual Change 1990-2000	Annual Change 2000-2010
Statewide	190,400	229,886	266,149	39,486	36,263	1.9%	1.5%
Central-Southeast	29,517	32,939	34,651	3,422	1,712	1.1%	0.5%
Northeast	29,418	36,378	42,877	6,960	6,499	2.1%	1.7%
Northwest	29,546	34,680	38,525	5,134	3,845	1.6%	1.1%
Southwest	41,871	50,059	58,744	8,188	8,685	1.8%	1.6%
Casper MSA*	27,730	31,317	36,753	3,587	5,436	1.2%	1.6%
Cheyenne MSA*	29,860	36,097	43,074	6,237	6,977	1.9%	1.8%

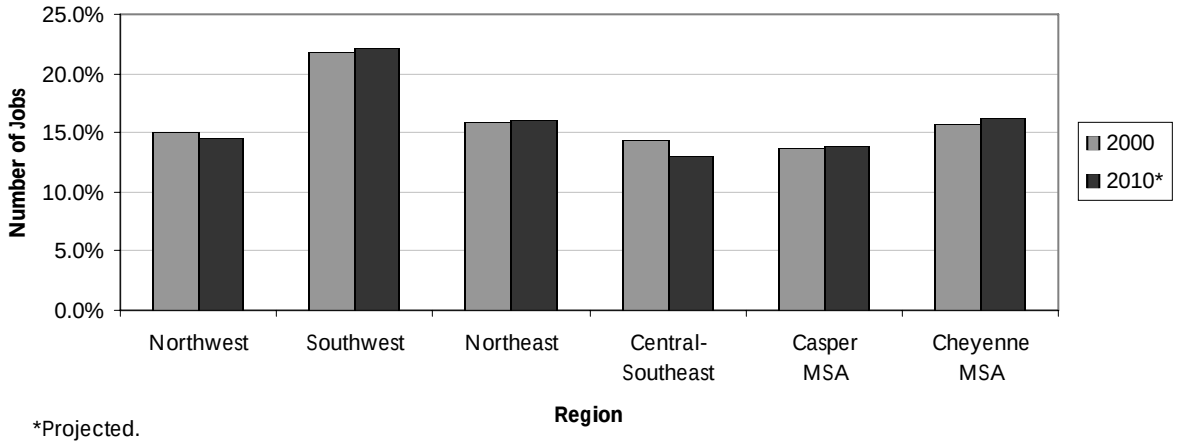
*Metropolitan Statistical Area.

b. Northwest Region

As shown in Table 2.3, we project job growth in the Northwest to be 1.1 percent annually from 34,680 in 2000 to 38,525 in 2010, 0.4 percentage points lower than the statewide average. Employment growth slowed dramatically in this region during the late 1990s (see Figures 2.30 and 2.31, page 27). While growth will continue, we expect it to reflect the trend shown during the last three years of the time series. Overall the Northwest Region is projected to add 3,845 jobs between 2000 and 2010.

As shown in Table 2.4 (see page 28), the regional average annual growth rates for the Northwest Region are lower than those for the state in Mining, Manufacturing, Wholesale Trade, and Agriculture. This indicates that the Northwest Region is expected to have a lower rate of job creation than the state as a whole. However, job growth is expected to be higher than the statewide

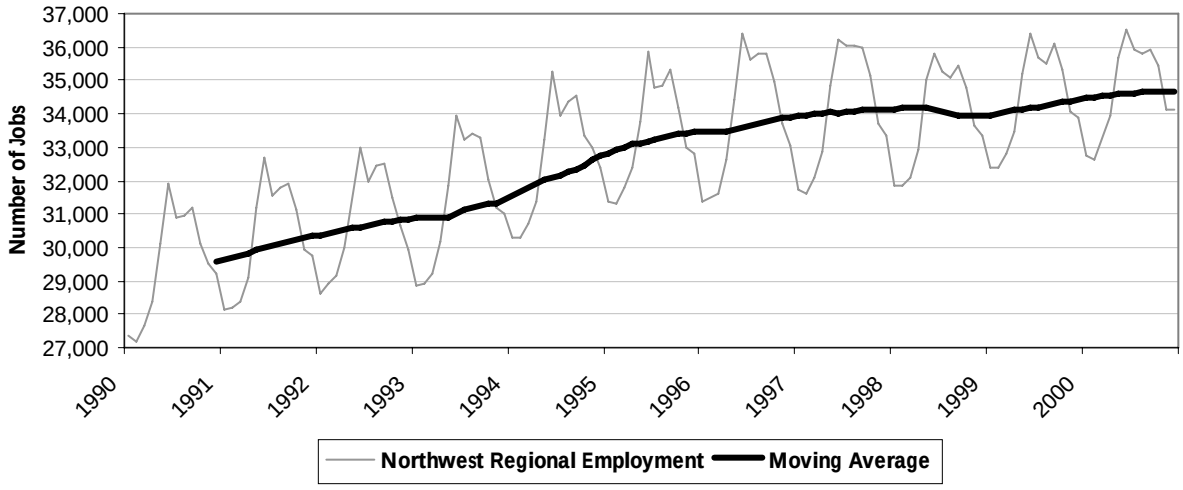
Figure 2.30: Wyoming Regional Distribution of Employment as a Share of Total Employment, 2000 and 2010*



*Projected.

Note: The above shares do not sum to 100 percent because the undefined geographic category is excluded.

Figure 2.31: Northwest Regional Employment, 1990 to 2000



average in Construction and Retail Trade, while matching the statewide pace of job growth in TCPU and FIRE. Figure 2.32 (see page 28) illustrates the current and projected growth rates in the Northwest Region. Retail Trade and Services show the largest growth over the period.

c. Southwest Region

Job growth in the Southwest Region is projected to average 1.6 percent annually between 2000 and 2010 (see Table 2.3, page 26). This translates into an increase of 8,685 jobs from 50,059 in 2000 to 58,744 in 2010. Most job growth will

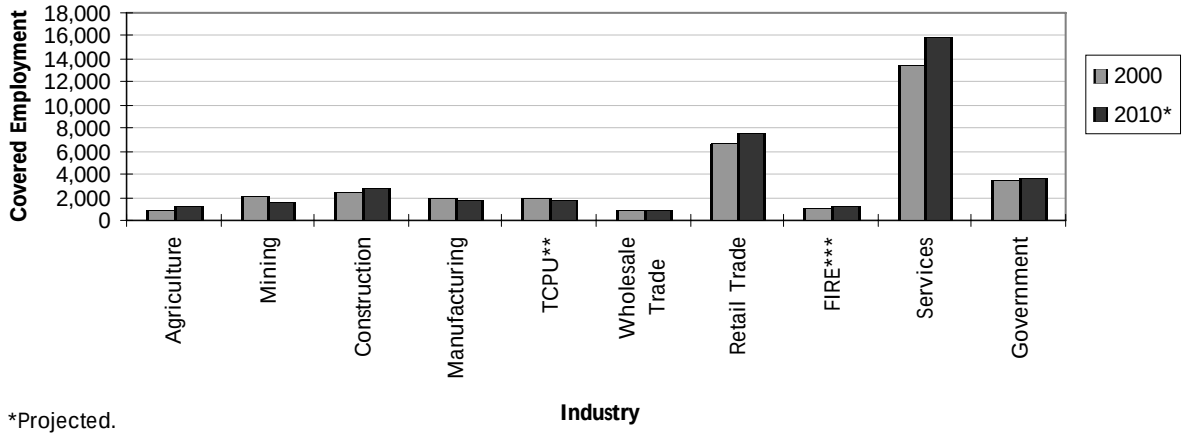
Table 2.4: Wyoming Statewide and Northwest Regional Employment Growth by Percentage, 2000 to 2010*

	Annual Avg. Statewide Growth 2000-2010*	Annual Avg. Northwest Regional Growth 2000-2010*
Agriculture	3.4%	2.4%
Mining	0.9	-2.0
Construction	1.2	1.5
Manufacturing	0.1	-0.8
TCPU**	0.1	-0.1
Wholesale Trade	1.4	0.1
Retail Trade	1.2	1.3
FIRE***	0.6	0.8
Services	2.2	1.7
Government	1.0	0.5

*Projected.
**Transportation, Communications, & Public Utilities.
***Finance, Insurance, & Real Estate.

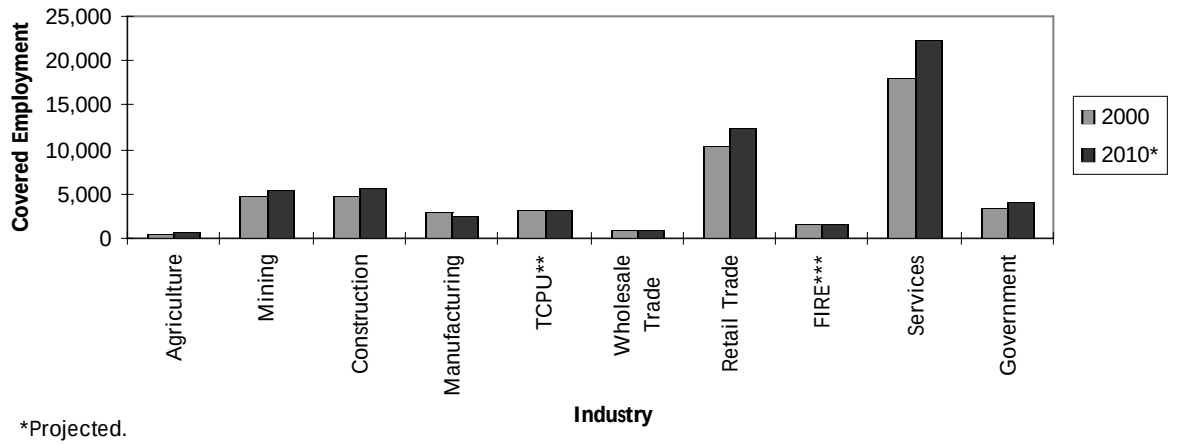
occur in the Services and Retail Trade industries. Historical employment for the Southwest Region (Figure 2.34, page 29) show that growth leveled off in 1995-1996, but then resumed its upward march by mid-1997 through 2001. The Region's annual growth is third among the six sub-state areas. As shown in Table 2.5 (see page 30), growth rates for the Southwest Region are expected to surpass statewide averages in six of the ten major industries. Growth rates are expected to be substantially higher than the state average in Agriculture and Government. Agriculture is projected to increase at an annual rate of 4.1 percent from 491 jobs in 2000 to 735 in 2010. Government shows an annual increase of 2.1 percent from 3,277 jobs in 2000 to 4,052 in 2010. Similar to the Northwest, Southwest Manufacturing employment is expected to contract by 296 during the forecast period. Further consolidation in soda ash and other non-metallic mining is expected to be the primary driver of the contraction.[37] Mining employment, on the other hand, will increase faster than the state average (a 1.6% annual regional growth rate compared to a 0.9% annual state growth rate) as the supply and demand for natural gas for use in power generation expands (see Figure 2.16, page 17).[38]

Figure 2.32: Northwest Regional Employment by Industry, 2000 and 2010*



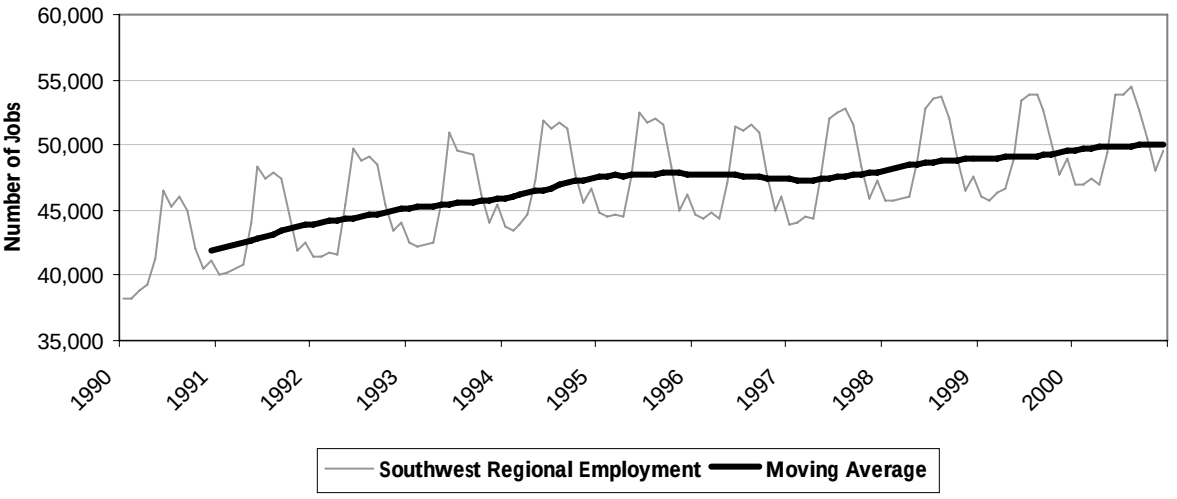
*Projected.
**Transportation, Communications, & Public Utilities.
***Finance, Insurance, & Real Estate.

Figure 2.33: Southwest Regional Employment by Industry, 2000 and 2010*



*Projected.
**Transportation, Communications, & Public Utilities.
***Finance, Insurance, & Real Estate.

Figure 2.34: Southwest Regional Employment, 1990 to 2000



d. Northeast Region

The Northeast Region is projected to be the second fastest growing sub-state area, with an annual average employment growth of 1.7 percent (see Table 2.3, page 26). Employment in this region is projected to be 42,877 jobs in 2010 compared to 36,378 in 2000; an increase of 6,499 jobs. As with the other regions in the state, most of the employment increase occurs in Retail Trade and Services, however, Mining is also a significant contributor in the Northeast (see Figure 2.35, see page 30). Historically, employment increased quickly between 1993 and mid-1995 (see Figure 2.36, page 31). In 1996 growth slowed before a moderate increase in mid-1999. Mining, primarily in oil & gas

Table 2.5: Wyoming Statewide and Southwest Regional Employment Growth by Percentage, 2000 to 2010*

	Annual Avg. Statewide Growth 2000-2010*	Annual Avg. Southwest Regional Growth 2000-2010*
Agriculture	3.4%	4.1%
Mining	0.9	1.6
Construction	1.2	1.5
Manufacturing	0.1	-1.1
TCPU**	0.1	0.4
Wholesale Trade	1.4	0.3
Retail Trade	1.2	1.7
FIRE***	0.6	0.6
Services	2.2	2.1
Government	1.0	2.1

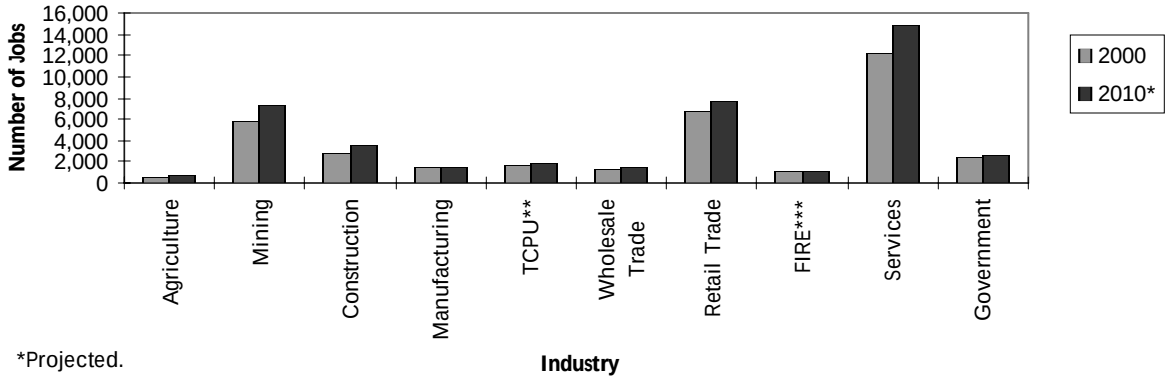
*Projected.
**Transportation, Communications, & Public Utilities.
***Finance, Insurance, & Real Estate.

extraction, is projected to contribute 22.4 percent (or 1,456 jobs) of the total regional employment increase. The rapid increase in Mining employment coincided with a rapid increase in wellhead natural gas prices shown in Figure 2.8 (see page 12). Therefore, we project faster than statewide average growth in Mining (2.2% annual rate). Additionally, employment in industries such as Construction, TCPU, and Wholesale Trade are expected to have growth rates greater than the statewide average annual rates (2.1%, 1.1%, and 1.8%, respectively). The association of these industries with Mining and new power plants and pipeline projects scheduled for construction or completion by 2010 may contribute to the increase.[39]

e. Central-Southeast Region

As reported in Table 2.3 (see page 26) and shown in Figure 2.38 (see page 32), the annual average employment growth rate in this region (0.5% annual growth) is forecasted to be one-third that of the statewide average (1.5% annual growth). This translates into an increase from 32,939 jobs in 2000 to 34,651 jobs in 2010 or an increase of 1,712 jobs. Growth in this area was sluggish (0.8% annual rate) throughout the late 1990s as shown in Figure 2.38. The performance trends shown in the late 1990s are forecasted to continue

Figure 2.35: Northeast Regional Employment by Industry, 2000 and 2010*



*Projected.
**Transportation, Communications, & Public Utilities.
***Finance, Insurance, & Real Estate.

Figure 2.36: Northeast Regional Employment, 1990 to 2000

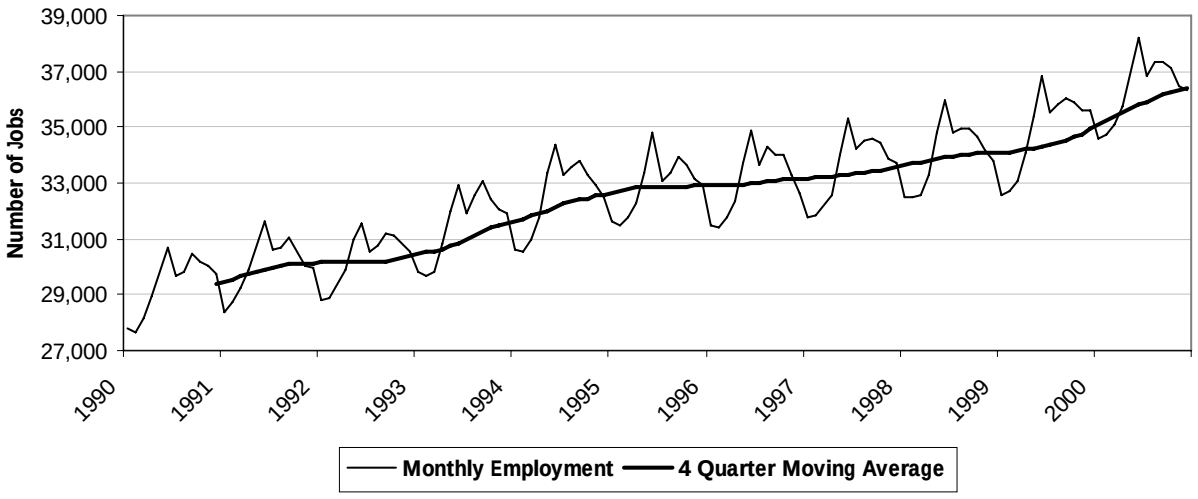


Table 2.6: Wyoming Statewide and Northeast Regional Employment Growth by Percentage, 2000 to 2010*

	Annual Avg. Statewide Growth 2000-2010*	Annual Avg. Northeast Regional Growth 2000-2010*
Agriculture	3.4%	3.0%
Mining	0.9	2.2
Construction	1.2	2.1
Manufacturing	0.1	0.7
TCPU**	0.1	1.1
Wholesale Trade	1.4	1.8
Retail Trade	1.2	1.2
FIRE***	0.6	0.2
Services	2.2	2.0
Government	1.0	0.6

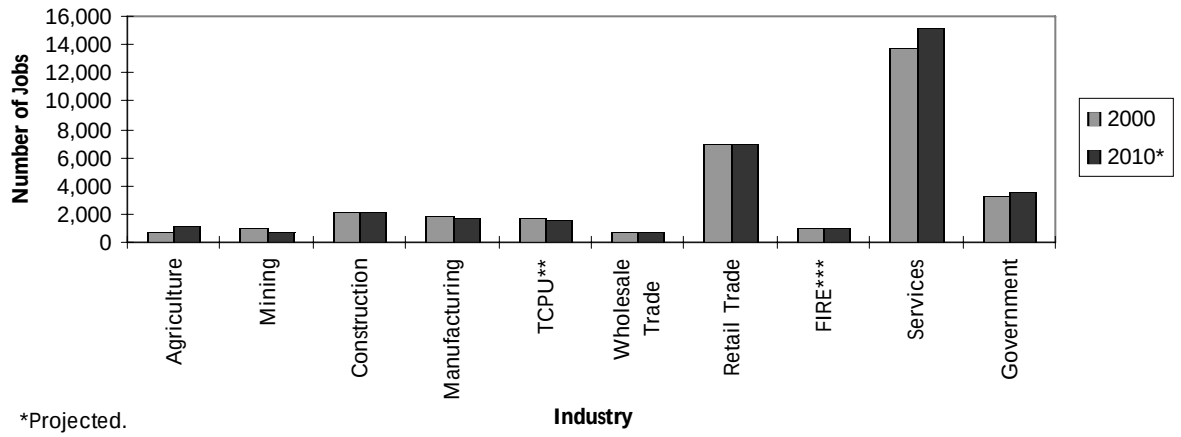
*Projected.
**Transportation, Communications, & Public Utilities.
***Finance, Insurance, & Real Estate.

through 2010. Mining is projected to decline considerably during the forecast period. Although the demand for low-sulfur western coal will increase, it is unclear whether this region will benefit, or if its effects will be localized to mines of the Northeast Region Powder River Basin. While the potential exists for coal bed methane development in this region, current proposals for the further development of the Hanna Draw and other areas are significantly smaller in scope than in other regions of the state.[40] Agriculture in the Central-Southeast Region shows the largest percentage growth (3.4%) during the forecast period (see Table 2.7, page 33). The remaining industries are projected to grow at a combined annual rate of less than 1.0 percent or a total loss of 55 jobs between 2000 and 2010.

f. Casper MSA

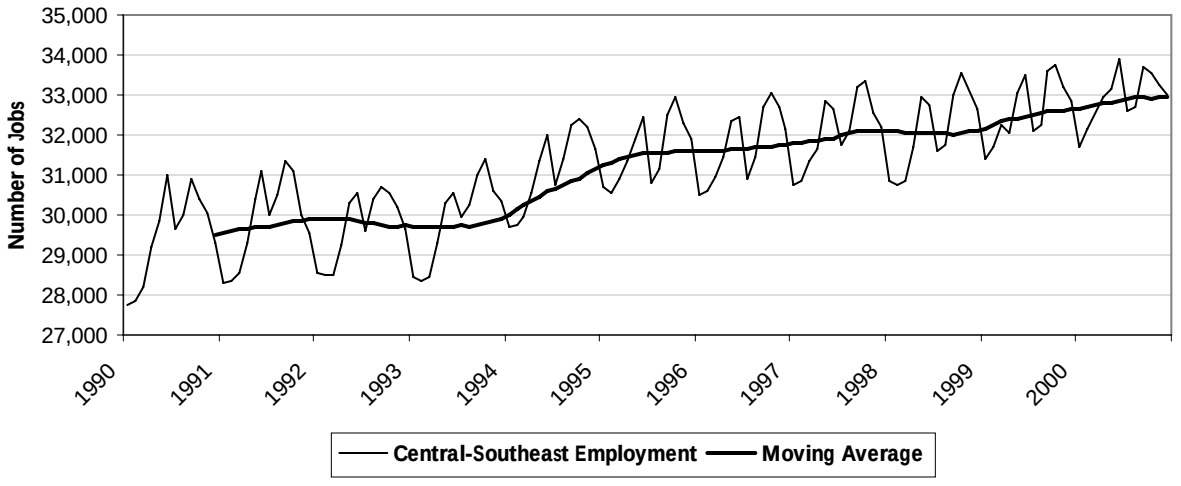
Figure 2.39 (see page 33) shows the Casper MSA growth was slow during most of the 1990s (0.8% annual growth), but then accelerated during the latter part of the decade (2.1% annual growth 1997-2000). Growth in the Casper MSA appears to closely mimic that seen statewide, as

Figure 2.37: Central-Southeast Regional Employment by Industry, 2000 and 2010*



*Projected.
**Transportation, Communications, & Public Utilities.
***Finance, Insurance, & Real Estate.

Figure 2.38: Central-Southeast Regional Employment, 1990 to 2000



illustrated in Table 2.3 (see page 26). However, growth prospects for this MSA are better than the statewide average in two of the fastest growing divisions, Retail Trade and Services (see Table 2.8, page 34). It is one of three regions projected to exceed the statewide annual average in Manufacturing employment growth. Employment in the Casper MSA is expected to increase to 36,753 jobs in 2010, an increase of 5,436 jobs (see Table 2.3, page 26). Of those new jobs, 3,587 or 65.9 percent are expected to be in the Services industry. Employment

Table 2.7: Wyoming Statewide and Central-Southeast Regional Employment Growth by Percentage,

	Annual Avg. Statewide Growth 2000-2010*	Annual Avg. Central-Southeast Regional Growth
Agriculture	3.4%	3.4%
Mining	0.9	-3.1
Construction	1.2	0.2
Manufacturing	0.1	-0.3
TCPU**	0.1	-1.1
Wholesale Trade	1.4	0.5
Retail Trade	1.2	0.1
FIRE***	0.6	0.3
Services	2.2	1.0
Government	1.0	0.8

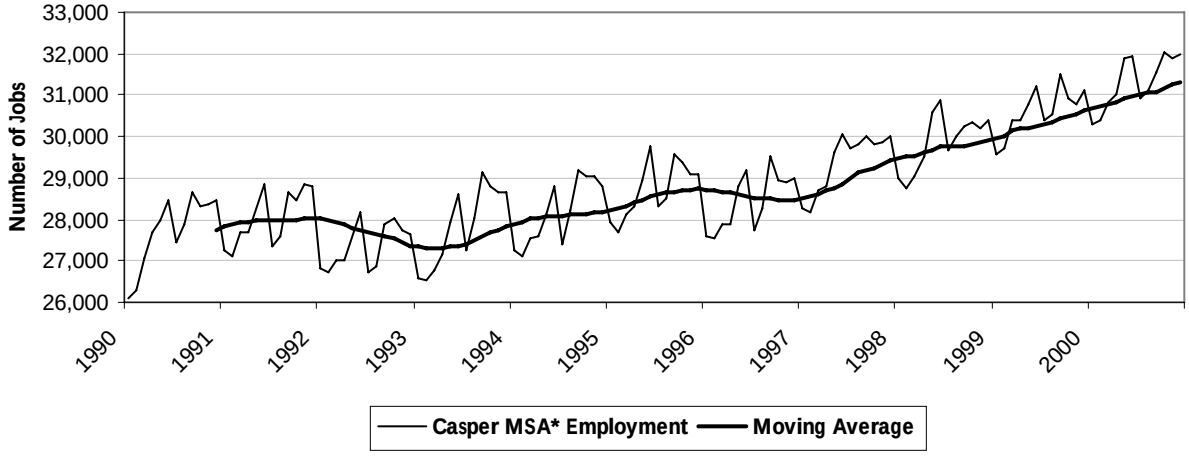
*Projected.
**Transportation, Communications, & Public Utilities.
***Finance, Insurance, & Real Estate.

additions in Retail Trade, Wholesale Trade, and Services increased the pace of job growth in the region as evidenced by the 1990 to 2000 growth rates. Average annual growth in Services from 2000 to 2010 is expected to be 2.8 percent. Table 2.8 (see page 34) also shows that Retail Trade is projected to add 979 jobs by 2010 at an average annual growth rate of 1.4 percent.

g. Cheyenne MSA

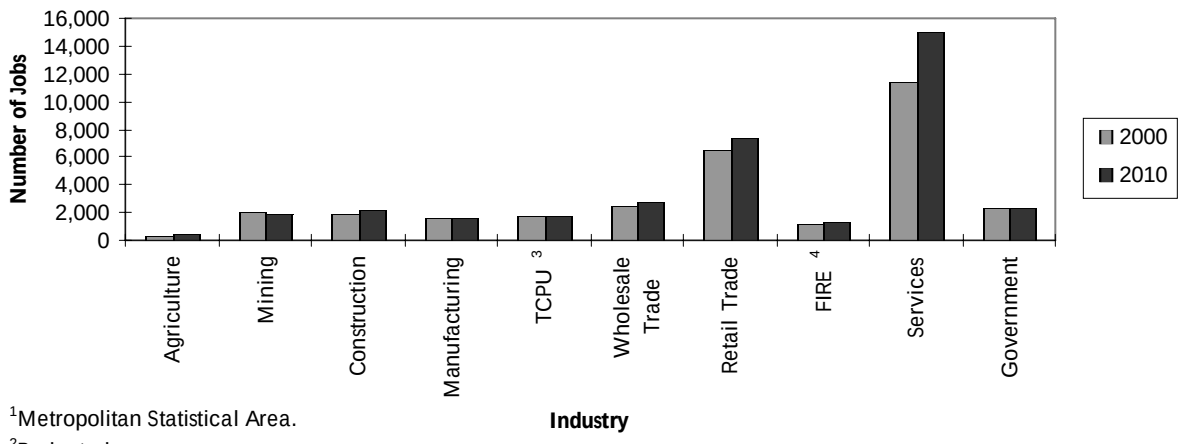
As shown in Figure 2.41 (see page 35), the Cheyenne MSA experienced rapid employment growth in the early 1990s (2.2% annual growth from 1990-1995), followed by a brief slowdown from approximately 1996 to 1997 (0.5% annual growth), and then resumed growth in 1998 (2.2% annual growth through 2000). Because of the Cheyenne MSA's population base and proximity to the larger metropolitan areas of Colorado, the Cheyenne MSA is projected to have the highest growth rate of any region during the forecast period, a 1.8 percent annual rate. Table 2.3 (see page 26) shows that the level of covered employment in the Cheyenne MSA will increase from 36,097 jobs in 2000 to 43,074 jobs in 2010. This translates into the addition of 6,977 jobs during the forecast period, with 3,634 jobs added in Services (52.1% of the increase) and 1,526 in Retail Trade (21.8% of the increase). Figure 2.42 (see page 35)

Figure 2.39: Casper MSA* Employment, 1990 to 2000



*Metropolitan Statistical Area.

Figure 2.40: Casper MSA[1] Employment by Industry, 2000 and 2010[2]



[1]Metropolitan Statistical Area.
[2]Projected.
[3]Transportation, Communications, & Public Utilities.
[4]Finance, Insurance, & Real Estate.

Table 2.8: Wyoming Statewide and Casper MSA[1] Employment Growth by Percentage, 2000 to 2010[2]

	Annual Avg. Statewide Growth 2000-2010[2]	Annual Avg. Casper MSA[1] Growth 2000-2010[2]
Agriculture	3.4%	2.9%
Mining	0.9	-0.3
Construction	1.2	0.9
Manufacturing	0.1	0.4
TCPU[3]	0.1	0.1
Wholesale Trade	1.4	1.4
Retail Trade	1.2	1.4
FIRE[4]	0.6	0.5
Services	2.2	2.8
Government	1.0	0.5

[1]Metropolitan Statistical Area.
[2]Projected.
[3]Transportation, Communications, & Public Utilities.
[4]Finance, Insurance, & Real Estate.

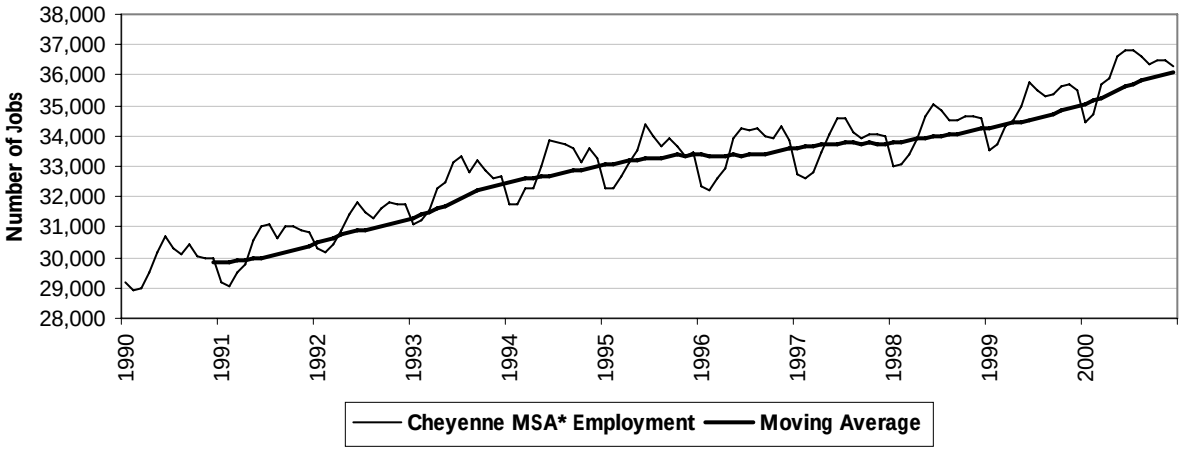
shows the Cheyenne MSA growth rates. Although the Casper MSA and Cheyenne MSA growth rates are comparable in most industries, the major difference between these two regions is their respective growth rates in Manufacturing and TCPU (see Table 2.9, see page 36). Comparing the statewide and Cheyenne MSA growth rates over the forecast period, Manufacturing (1.6% annually) and TCPU (1.1% annually) will greatly exceed the statewide averages (0.1% annual rate each) between 2000 and 2010 (see Table 2.9, page 36).

V. Forecasting Notes and Technical Background

What is a forecast? Simply put, a forecast is a prediction of future events based upon history and current knowledge of what may happen under a given set of economic assumptions and evaluative techniques. One should use caution when interpreting forecasts, projections, or predicted values, as they may be subject to substantial volatility due to unforeseen events.

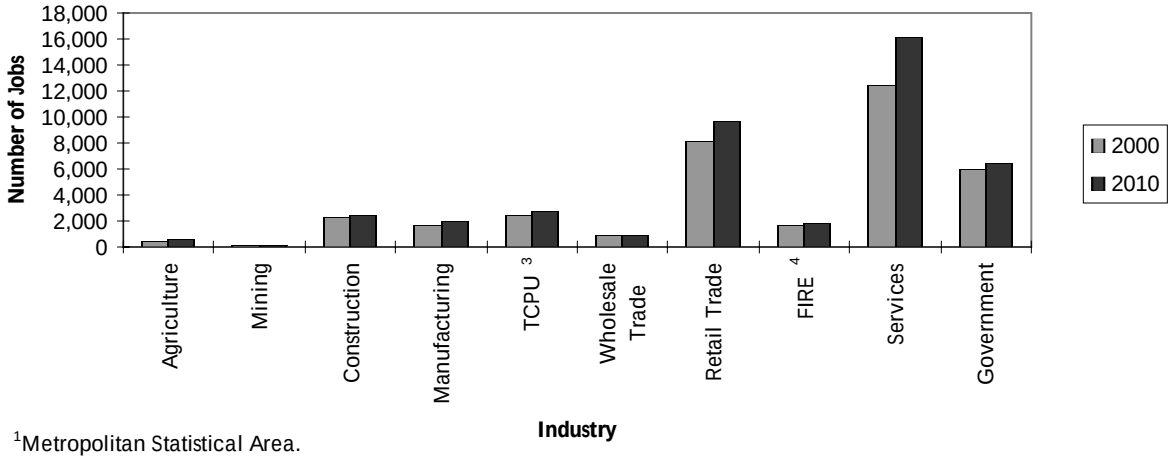
As the historical data series shows, the recent rapid increase in employment in the oil and gas industry followed an unpredicted rise

Figure 2.41: Cheyenne MSA* Employment, 1990 to 2000



*Metropolitan Statistical Area.

Figure 2.42: Cheyenne MSA[1] Employment by Industry, 2000 and 2010[2]



[1]Metropolitan Statistical Area.
[2]Projected.
[3]Transportation, Communications, & Public Utilities.
[4]Finance, Insurance, & Real Estate.

in natural gas prices during 2000 and 2001. Unpredictability should not dissuade individuals from developing or using forecast data for decision-making. These forecasts may be useful as "rules of thumb." However, no forecast should be taken at face value without careful evaluation of the underlying assumptions.

a. Data Sources and Limitations

The source for our base time series is Covered Employment and Wages (ES-

Table 2.9: Wyoming Statewide and Cheyenne MSA[1] Employment Growth by Percentage, 2000 to 2010[2]

	Annual Avg. Statewide Growth 2000-2010[2]	Annual Avg. Cheyenne MSA[1] Growth 2000-2010[2]
Agriculture	3.4%	4.4%
Mining	0.9	0.5
Construction	1.2	1.1
Manufacturing	0.1	1.6
TCPU[3]	0.1	1.1
Wholesale Trade	1.4	1.0
Retail Trade	1.2	1.7
FIRE[4]	0.6	0.9
Services	2.2	2.6
Government	1.0	0.8

[1]Metropolitan Statistical Area.
[2]Projected.
[3]Transportation, Communications, & Public Utilities.
[4]Finance, Insurance, & Real Estate.

202) program data. "The ES-202 program produces a comprehensive tabulation of employment and wage information for workers covered by state unemployment insurance (UI) laws and Federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program."[41] Data are collected for ES-202 based on place of work. ES-202 data are comprehensive but not all-inclusive, as the above definition implies. For example, most railroad employees and self-employed individuals are not represented by ES-202 data, our most reliable source of industry employment. The ES-202 program counts the number of jobs, not the number of people in those jobs. For a more detailed view of Wyoming's ES-202 data, visit <http://doe.state.wy.us/LMI/toc_202.htm>. Aggregate and detailed information for the United States may be found at <http://www.bls.gov/cew/>. Research & Planning produces ES-202 statistics and reports under contract with the Bureau of Labor Statistics.

In order to make reliable projections, we must obtain a sufficient amount of time series data. At a minimum, we would like to have at least ten years of historical data (since this is our forecast horizon), and ten data observations for each variable used in our forecast.[42] Our current data set meets both criteria: we have monthly ES-202 data from January 1990 to June 2001 (10.5 years), for a total observation count of 126 months. While we build our forecasts using monthly data, all base and final forecast numbers are presented as annual averages. In this way, we retain the data detail when making forecasts and then show the results in an aggregate format so they are more easily understood. Producing a ten-year forecast based on 10.5 years of historical data is not without its limitations. For example, some significant economic events could have occurred before the horizon of the historical time series and affected the results. Including too much historical data from the wrong time periods can lead to inaccurate estimates and past events may not be closely related to current or future results. We believe that the size of the historical data set used in developing our forecasts strikes a balance between these two challenges and provides an effective base for our forecasted values.

Before making employment projections, time series data must be relatively free of anomalies or discontinuous events. One item that causes such anomalies is industry code changes. All industry employment forecasts shown in this document were developed using the 1987 Standard Industrial

Classification (SIC) system at the two-digit or major industry level because publishing more detailed data may allow readers to identify the employment changes of individual firms. SIC codes are assigned to businesses based on a firm's primary line of business as reported by the firm. In recent years we began the process of dual code assignments following the development and implementation of a new coding system, the North American Industry Classification System (NAICS).[43] In future editions of this publication, forecasts will be produced using NAICS instead of SIC.

Many firms retain the same classification throughout their operational lives. However, firms can be assigned new codes if there are changes in lines of business, refiling of classification paperwork (firm petition for code change), non-economic code changes, and directives from the United States Department of Labor. The results of a code change can have a dramatic impact on the time series and on any forecasts based on that time series. To remedy this situation, the most recent code assignment was used to "back cast" (adjust past values), so the data could be properly aligned. For example, Native American tribes were reclassified as governmental organizations instead of membership organizations under direction from the U.S. Department of Labor in 2001 as a result of a challenge to the original classification in 1991.[44] Similar procedures were used in other areas to properly align the values. In some instances, adjustments were not made because the change was due to real economic conditions, such as firms opening and closing. In these cases, the amount of historical data used to build the forecasts was adjusted, or an additional (intervening) variable accounting for a particular change was introduced.

b. Forecast Horizon and Uncertainty

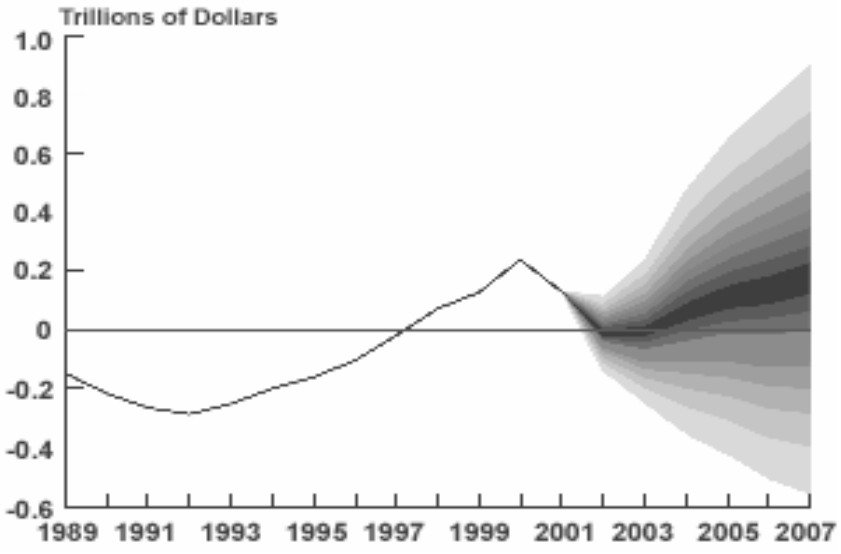
Choice of forecast horizon also affects forecast accuracy. As an example of this, we show the forecasted federal budget surpluses and deficits developed by the United States Congressional Budget Office (CBO).[45] Notice that as we proceed into the future from the end of the known historical data, the distance between the top edge of the band and the bottom edge of the band is progressively wider (see Figure 2.43, page 38.) This indicates that as we project values further into the future, more variability is involved and hence, greater potential error. A final forecast is generally a combination of several initial forecasts using different models, predictor variables, or historical data. As stated by the CBO, its baseline projections represent the midrange of possible outcomes based on past and current trends, and assumes that current policies will remain the same. But considerable uncertainty surrounds those projections for two reasons ". . . first, future legislation . . . [and] second, the U.S. economy and the federal budget are highly complex . . .."[46]

Although Wyoming's economy is a small subset of the overall national economy, the same type of uncertainties exist when making long-term forecasts at the state level. Our forecasts are subject to the same types of errors as national forecasts developed with highly complex econometric modeling programs.

c. Model and Forecast Selection

Before we discuss how models are chosen, we must first define what a model is. A model is a quantitative description of a process or outcome, in this case future employment. Models help us understand the aggregate and

Figure 2.43: Forecasted Federal Budget Surplus, 1989 to 2007



Source: U.S. Congressional Budget Office.

underlying dynamics of the world around us. What constitutes a "good" model? A good model should not only fit past data well, it should also pass statistical tests such as the minimization of correlated errors. In addition, analytical judgments should be applied with an understanding of recent industry trends, macroeconomic factors, and population changes. Other methods such as comparing forecasts developed by other states and agencies within Wyoming can be used to assess reasonableness. All of the above methods were used when developing the forecasts shown in this publication. Once R&P forecast values were set, they were compared with output from an econometric modeling program used by the Economic Analysis Division (EAD), which takes many more variables into account such as commodity market prices (oil and gas), related industries, projected population growth, and other elements. Follow-up discussions between R&P and EAD staff then took place to resolve any differences and make any required adjustments. The projected employment statistics shown in this document are a direct result of the complete process.

d. Other Issues in Forecasting Wyoming Employment

Forecasts were developed for the state as a whole and for several sub-state areas including the Casper MSA (Natrona County), the Cheyenne MSA (Laramie County), and the five other sub-state areas (Northwest, Northeast, Southwest, Central-Southeast, and undefined business locations). Employment occurs in non-disclosed business locations because some firms do not report their employment by county (and are not currently required to do so). Therefore, statistics for this category should be viewed as a non-economic artifact of a geographic classification system as opposed to real economic events. A result

of the presence of this category is that when the sub-state area employment values (either base or forecasted) are added together, they do not sum to the statewide total. This also means that some local area employment, such as oil and gas operations in the Northeast Region and retail operations in the Cheyenne and Casper MSAs will be allocated to non-disclosed business locations instead of their actual geographic locations. This information is provided to the reader as a cautionary note when viewing base and forecasted employment values.

Chapter 3. Wyoming's Resident Population: Historical and Projected Data

by: Wenlin Liu, Ph.D., Senior Economist, Economic Analysis Division, Department of Administration and Information

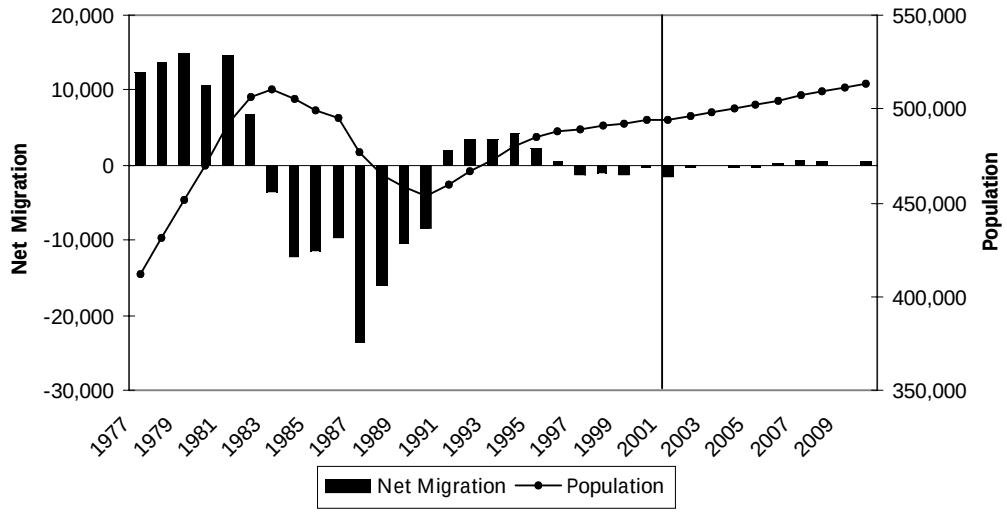
Population change is a function of three processes: births, deaths, and migration either into or out of a population. It is of vital importance to understand the sources of population change because the determinants of the processes of natural increase (combined effects of births and deaths) and migration are quite different. Births and deaths are both physiological and biological processes. Migration is a behavior involving people moving from one area to another often as a result of employment, income, and other socioeconomic changes.

Although deaths and births impact a population by decreasing or increasing its size, their effects on other nondemographic and socioeconomic factors are usually long-term. Migration, on the other hand, has a more immediate impact on an area because it is more likely to involve young adults, often in a period of family formation. The migration of young adults reduces demands for products and services in areas with net out-migration and creates instant demands for goods and services necessary to establish a residence in areas with patterns of net in-migration.

Projected Population Change

From 1990 to 2000 Wyoming's total population increased 8.9 percent compared to a national increase of 13.2 percent. Slow and steady population growth is expected in Wyoming throughout the ten-year forecast period, increasing by approximately 2,000 persons per year at an annual growth rate of 0.4 percent (see Figure 3.1). The number of residents in the state is

Figure 3.1: Wyoming Resident Population and Net Migration, 1977 to 2010



Source: Wyoming Department of Administration & Information, Economic Analysis Division.

expected to surpass half a million in 2004, reaching nearly 514,000 by 2010.

Births and Deaths

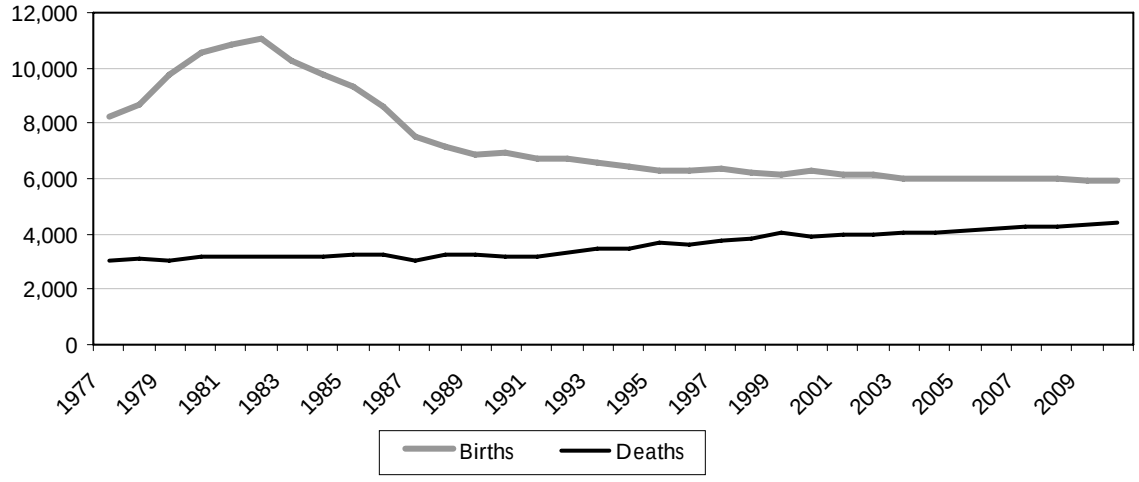
The number of births in Wyoming steadily declined throughout the 1990s, from 6,974 in 1990 to 6,254 in 2000 (see Figure 3.2). However, death numbers climbed during the ten-year period. The lowest number of deaths (3,152) was recorded in 1991. The highest number of deaths totaled 4,038 in 1999, the first time deaths in Wyoming exceeded 4,000. As a result, the net population gain from natural change declined in recent years to around 2,000, down from 3,780 in 1990. During the forecasting period, births are expected to stay relatively steady around 5,900, while deaths will slowly increase to 4,500 by 2010.

Historical and Projected Migration

Both in-migration and out-migration numbers were between 20,000 to 25,000 annually for the state in recent years. In the early 1990s the national economy was performing poorly. As a result, the population in Wyoming grew more than one percent each year from 1991 to 1995 (see Figure 3.1, page 41), as the annual net in-migration exceeded 4,000 persons during these years, primarily due to migration from California (see Figure 3.3, page 43). However, as the overall economy for the nation, and the economy particularly in California became stronger, out-migration from California diminished. Net in-migration (in-migration minus out-migration) to Wyoming from California amounted to only 111 persons from 1996 to 1997. It has not exceeded 300 since then, compared to the 1993-94 level of 1,820.

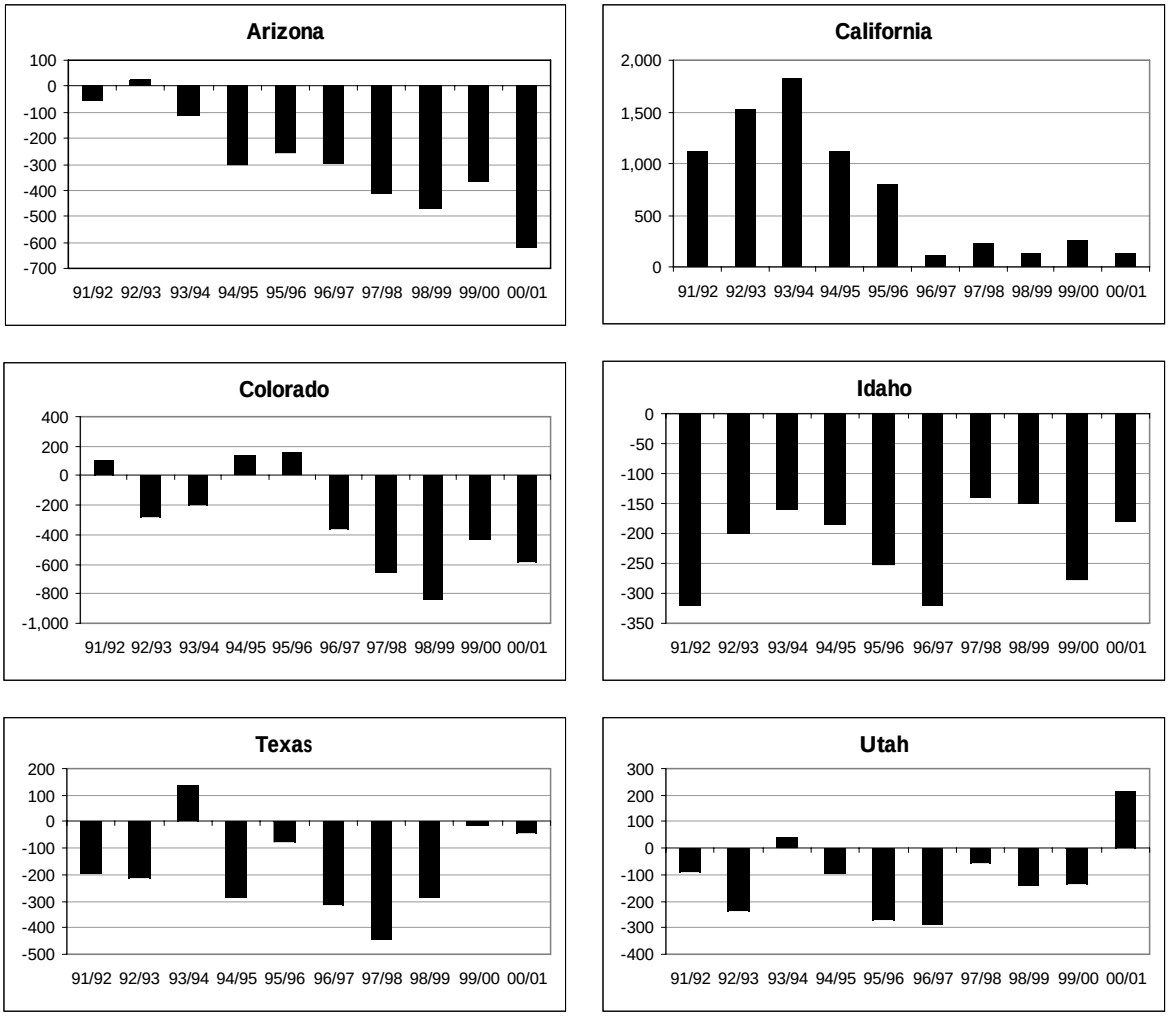
Wyoming has been experiencing net out-migration since 1995, increasing to over 2,000 in the late 1990s. These out-migrants mainly moved to other western states. Colorado attracted the most, followed by Arizona, Idaho, Texas and Utah. Consequently, the total population growth in the state from 1995 to 2000 averaged less than 0.25 percent annually, due mainly to natural increases. The net migration for the period 2002 to 2010 is forecasted to be around zero, meaning that the number of people moving into the state

Figure 3.2: Wyoming Births and Deaths, 1977 to 2010



Source: Wyoming Department of Health.

Figure 3.3: Net Migration Between Wyoming and Selected States, 1991 to 2001



approximates the number of people moving out of the state. As shown in Table 3.1 (see page 44), migration levels range from a net out-migration of 400 persons in 2004 to a net in-migration of 720 in 2007.

Historical and Projected Age Data

The age composition of a population affects many things, from fertility rates to the nature of the goods and services individuals are likely to demand. Between 1990 and 2000, the median age in Wyoming increased rapidly (see Figure 3.4, page 44). In 2000 Wyoming's median age (36.2 years) was nearly one year older than the U.S. median age (35.3 years). In 1990 the state's median age (32.1 years) was below the national average (32.9 years).

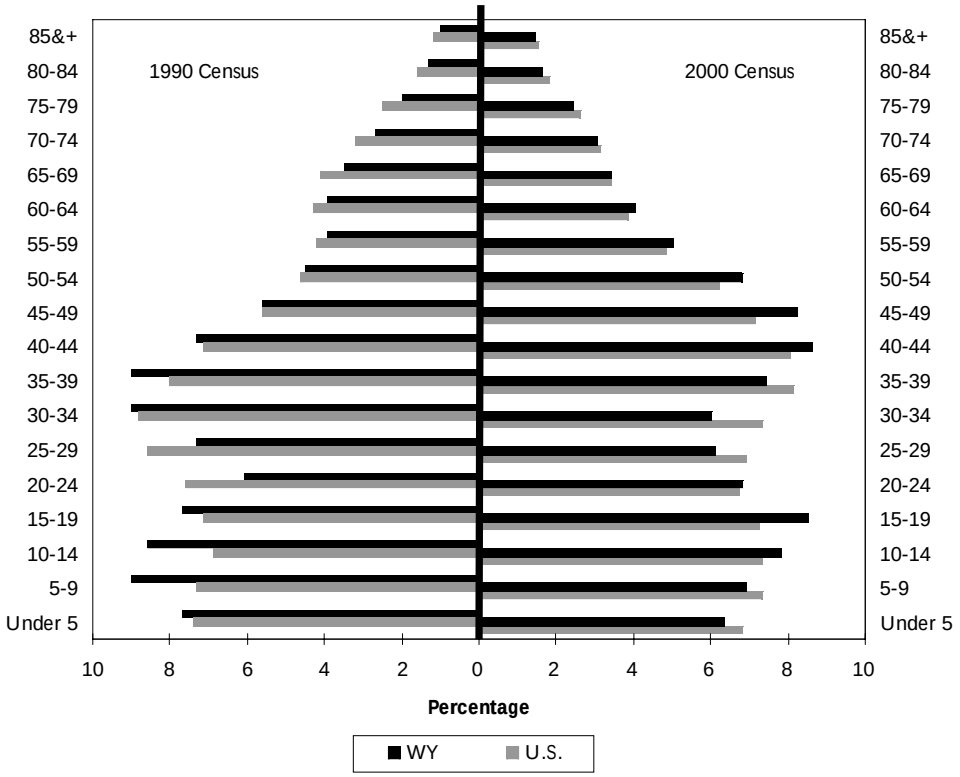
Wyoming has experienced a substantial decrease in the juvenile population (under 15 years old). Between 1990 and 2000 this segment of the population dropped nearly 10 percent, compared to the nation which increased 12.5 percent (see Figure 3.5. page 45). However, in Wyoming the population

Text continued on page 45

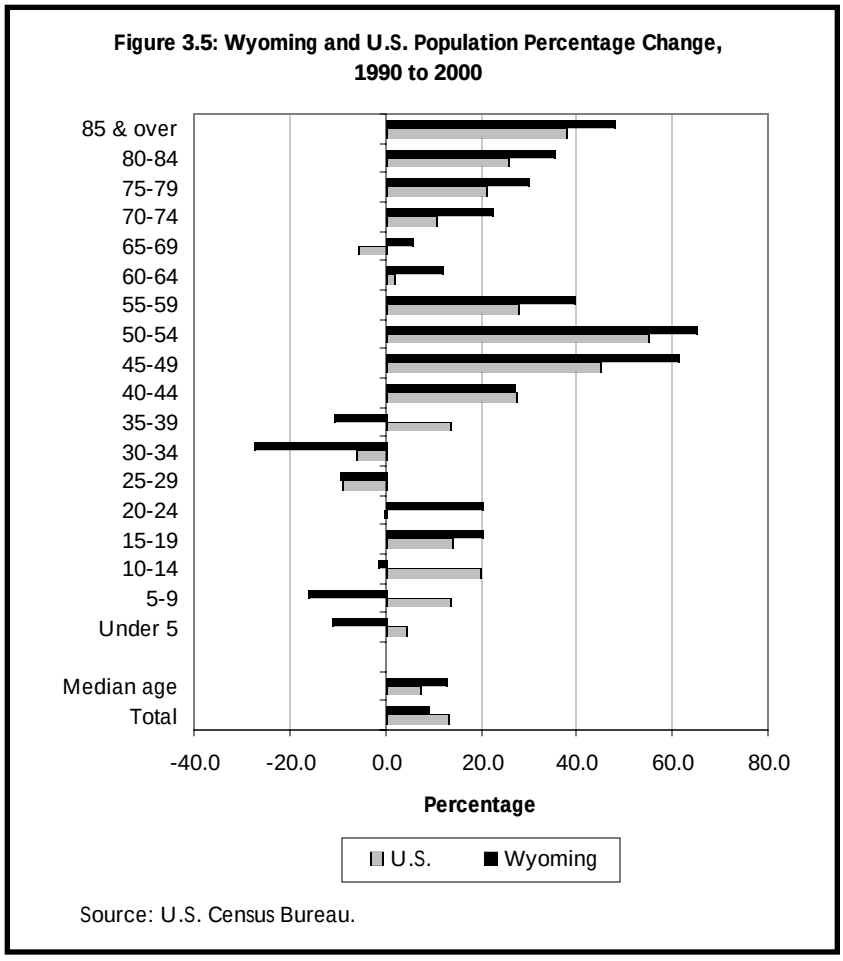
Table 3.1: Wyoming Population and Demographics Forecast, 2002 to 2010

	Population	2002	2003	2004	2005	2006	2007	2008	2009	2010
Age	**Under 5**	31,428	31,707	31,929	32,125	32,317	32,516	32,667	32,767	32,846
	% change	0.9	0.9	0.7	0.6	0.6	0.6	0.5	0.3	0.2
	5-19	112,051	111,277	110,788	110,328	110,169	110,285	110,443	110,416	110,239
	% change	-0.9	-0.7	-0.4	-0.4	-0.1	0.1	0.1	0.0	-0.2
	20-24	33,780	33,853	33,602	33,206	32,838	32,321	31,801	31,588	31,500
	% change	0.4	0.2	-0.7	-1.2	-1.1	-1.6	-1.6	-0.7	-0.3
	25-44	135,565	134,568	133,610	132,965	132,482	132,282	132,240	132,006	132,227
	% change	-0.9	-0.7	-0.7	-0.5	-0.4	-0.2	0.0	-0.2	0.2
	45-64	124,390	127,087	129,396	131,485	133,567	135,394	136,214	136,911	137,479
	% change	2.5	2.2	1.8	1.6	1.6	1.4	0.6	0.5	0.4
	65 & over	59,223	60,207	61,169	62,181	63,271	64,593	66,481	68,084	69,636
	% change	1.5	1.7	1.6	1.7	1.8	2.1	2.9	2.4	2.3
	Total	**496,438**	**498,698**	**500,494**	**502,292**	**504,643**	**507,391**	**509,845**	**511,772**	**513,928**
	% change	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.4	0.4
	Net Migration	-217	49	-400	-191	236	715	449	61	359
	% change	-89.0	-122.6	-916.3	-52.3	-223.6	203.0	-37.2	-86.4	488.5
	Households	194,624	195,724	197,222	198,527	199,838	201,549	203,299	204,912	206,560
	% change	0.3	0.6	0.8	0.7	0.7	0.9	0.9	0.8	0.8

Figure 3.4: Wyoming and U.S. Population Distribution by Age Group, 1990 and 2000



Source: U.S. Census Bureau.



between 15 and 24 years of age jumped over 20 percent, while it rose only 6.6 percent for the United States. Wyoming's median age cohort (age 30-39) shrank 19 percent between 1990 and 2000. As Figure 3.5 shows, the proportion of 30- to 39-year-olds was lower in Wyoming than in the nation in 2000. This phenomenon mostly can be explained by the state's low proportion of population age 20 to 29 in 1990 (see Figure 3.4, page 44). All age groups 45 to 69 grew faster in Wyoming (an overall increase rate of 37.6%) than the nation (24.9%) between 1990 and 2000.

Throughout the forecast period, the preschool population (age 0 to 4) is expected to grow an average 0.6 percent annually, though the rate of increase will be slow from 0.9 percent in 2002 to 0.2 percent in 2010 (see Table 3.1, page 44). The number of 5- to 19-year-olds has declined from 98,777 in 1996 to 87,897 in 2001, resulting in a continuous drop in Wyoming public school enrollment. The decline in the school age population is projected to continue through 2006, stabilizing at 110,239 in 2010. Both young adults (age 20 to 24) and the group with the largest labor force participation (age 25 to 44) are expected to decline over the next ten years by approximately 2,100 and 4,600 persons, respectively. The groups, ages 45 to 64 and 65 and over, are projected to continue to increase rapidly at an annual rate of 1.3 and 1.9 percent, respectively. By 2010, the proportion of persons ages 65 and over will reach 13.6 percent, up

from 11.7 percent in 2000. The examination of the forecast data suggests that growth rates in the labor force will slow substantially in the coming years with rates of growth among 45- to 64-year-old workers exceeding those for 25- to 44-year-old workers. This assumes that net in-migration to the state does not occur.

Conclusion

The aging of the population will be more challenging for the state because the proportion of the baby boomer population (age 36 to 54) was larger in Wyoming (23.6%) than the nation (21.4%). Wyoming's higher percentage of baby boomers is primarily due to the large in-migration of young people during the energy boom of the 1970s. For near-term market and service analyses, it is important to recognize that between now and 2010 the population of Wyoming might best be characterized as middle-aged. After 2010, the beginning edge of the baby boom generation (born between 1946 and 1964) will reach traditional retirement age. As this generation enters retirement, the population will age rapidly. The aging of Wyoming's workforce over the next decade and the effect of an increasingly elderly population may have substantial impacts on goods and services. The middle-aged workers are likely to be in their higher earning years. Additionally, an older population will presumably require increased health related products and social services, and may generally demand different forms and types of services than their middle-aged counterparts. Those in the public and private sectors will need to anticipate such shifts in order to serve these customers effectively. Other factors such as longer life spans, fertility rates, international immigration, and household characteristics will certainly impact Wyoming's population and economy.

The Economic Analysis Division houses both the Wyoming Econometric Forecasting model, and a state multi-sector policy input model, from which it produces various economic analyses and forecast reports each year. The division also serves as the lead agency for the U.S. Bureau of the Census, State Data Center Program, and produces official state population estimates and forecasts. Additionally, the Economic Analysis Division produces the Wyoming Cost of Living Index, which is widely used among the business community and government for determining regional economic differences, wage and price estimation, and education finance issues.

Chapter 4. An Examination of the Fluid Nature of Wyoming's Labor Supply

by: Mark A. Harris, Ph.D., Sociologist, Wyoming Department of Employment, Research & Planning

In a given year, many individuals who appear in Wyoming's Wage Records[1] database enter Wyoming's labor market from or exit to one of the states with which Wyoming has a Memorandum of Understanding (MOU). Thus, enumeration of Wyoming's potential labor supply should extend beyond the resident population. Given that the available pool of labor extends beyond the governmentally defined borders of the state, projected population shortages relative to employment growth may not be as great a concern in Wyoming. A larger concern may be competition for labor in the regional or national market, particularly if the U.S. economy rebounds strongly in the near future.

The following analysis is based upon the Wyoming Wage Records database. Wage Records provides a dynamic, rather than static, examination of labor supply. Current Population Survey (CPS) and Census based estimates of labor supply produce a "snapshot" of available labor from household or residency measures.[2] Wage Records data come from firms or place-of-work measures. In both cases the state is the focus of analysis, meaning that estimates of labor supply are generally derived for the state as a whole.

Census estimates, because of the foundation in place-of-residency, are inherently limited in capturing the dynamic aspects of labor supply. To illustrate, if the Census indicates a resident population growth of 1,000 persons between the year 2000 and 2010 and separate employment projections indicate a growth of 2,000 jobs, we might assume there will be a shortage of 1,000 persons to fill the anticipated employment increase, thus restricting future employment growth. However, what if during the same time period we have an additional 1,000 nonresidents who either commute or temporarily relocate to Wyoming? If so, there is no labor supply shortage. Because of the static nature of the Census estimates and the fact that they are based upon place of residence, these estimates are unable to capture the additional 1,000 workers and include them as part of Wyoming's labor pool. Although the Bureau of the Census respects state boundaries, individuals seeking employment opportunities do not. Alternatively, Wage Records data are not limited to the resident population because they measure employment at the place-of-work and capture employment in Wyoming regardless of an employee's residency.

The following analysis of Wage Records does not produce or provide labor supply projections, although it may be possible for Research & Planning (R&P) to produce these in the future. R&P is in the process of developing the methodology to examine labor supply dynamics as part of the analysis of Wage Records. The current analysis is an examination of the entire set of 1999-2000 Wage Records data. It illustrates nicely what is hidden when analyzing labor supply by place of residence.

As shown in Table 4.1 (see page 48), 305,868 total persons appeared in Wage Records as working in Wyoming at any time during 1999. (See Appendix A, page 57, for a detailed breakdown of the Wage

Table 4.1: Wyoming Employment Based on Wage Records Data, 1999 and 2000

			Change	
	1999	2000	Number	Percent
Total Workers	305,868	307,452	1,584	0.5%

Records analysis tables.) In 2000 there were 307,452 persons. This represents a net increase of 1,584 persons between the two time periods. However, this does not mean that there were only 1,584 new workers appearing in Wage Records.

Table 4.2 presents a change analysis over the same time period using 1999 totals as the comparison base. As shown in Table 4.2, 69,425 individuals appeared in Wage Records in 1999 but did not appear in 2000, a 22.7 percent loss.[3] Conversely, there were 71,009 new individuals who appeared in 2000 who had not appeared in 1999, a 23.2 percent gain. The outcome of the churning within Wyoming's labor market is that nearly one-quarter of Wyoming's workforce exited and was replaced within the span of one year.

Some industries are comprised more of seasonal and short-term workers than are other industries. Tables A.3 and A.4 in Appendix A (see pages 61 and 63) represent the entry and exit rates from 1999 and 2000 for both resident and nonresident workers. Of all industries, Construction and Services are the industries most dependent upon seasonal and short-term workers. For example, of all persons working in heavy construction in 2000, 38.4 percent did not work in Wyoming in 1999 (Table A.4). Within Services, 42.3 percent of all who worked in 2000 in hotels & lodging places did not work in Wyoming the previous year. Eating & drinking places within the Retail Trade industry (with a 35.4 percent rate of replacement) are also highly dependent on workers with limited attachment to Wyoming's labor market. Industries with the smallest concentration of workers with minimal attachment to Wyoming's labor market are Government and Finance, Insurance, & Real Estate.

Of the individuals who appeared in Wage Records in 2000 but did not appear in 1999, some are residents entering employment for the first time or residents re-entering Wyoming's workforce after being absent for at least one year. Others are nonresidents taking a job in Wyoming (e.g., college students moving into Wyoming, persons who begin commuting from MOU states, and

Table 4.2: Dynamic Analysis of Wage Records Data, 1999 and 2000

	Employed in Wyoming					
	In 1999 but not 2000 (Losses)	Percent of Losses	Percent of 1999 Total	In 2000 but not 1999 (Additions)	Percent of Additions	Percent of 1999 Total
Number of Workers	69,425	100.0%	22.7%	71,009	100.0%	23.2%
Number Found in Other States*	17,533	25.3%	5.7%	15,600	22.0%	5.1%

*Found in Colorado, Idaho, Nebraska, New Mexico, South Dakota, Texas, and Utah.

persons temporarily or permanently relocating to the state). It appears that in 2000 there was a net gain of a mere 1,584 new workers. However, because of churning, Wyoming actually had 71,009 new workers (according to Wage Records), or roughly one-quarter of the 1999 total workforce. Given the magnitude of this number, it is not likely that all of the additions in 2000 are residents of the state.

To explore this possibility, R&P tracked both the losses and additions to Wage Records into states with which we have data sharing agreements (MOU states), specifically, Colorado, Idaho, Nebraska, New Mexico, South Dakota, Texas, and Utah. Table 4.2 (see page 48) indicates that of the 65,425 workers who left Wyoming's workforce between 1999 and 2000, 17,533 (25.3%) re-emerged as workers in one of these seven states. Of those new to the 2000 Wyoming workforce, we know that 15,600 (22.0%) previously appeared in the Wage Records of the MOU states. Given these findings it appears that a significant portion of labor supply is shared jointly between Wyoming and the MOU states. Until we secure data sharing agreements with additional states, we cannot identify the origins of a large segment of Wyoming's workforce.

Another way of examining the dynamic nature of labor supply is to estimate the number of individuals working in Wyoming who are not likely to be residents of the state. One way to do this is by examining the number of individuals appearing in Wyoming's Wage Records database but for whom we do not have demographic information (i.e., age and gender). Missing demographic information can be explained in the following ways. First, when individuals do not appear in Wyoming Wage Records long enough (i.e., four quarters) to have sufficient historical information we are not able to impute (a statistical method for assigning demographic characteristics) their demographic characteristics. Second, workers who do not obtain a Wyoming driver's license do not appear in the Driver's License database obtained from the Department of Transportation (i.e., age and gender are recorded when the license is obtained). Either of these factors would seem to indicate that these individuals are nonresidents.[4] However, even though they may not reside in Wyoming or only temporarily reside in the state, they do form part of Wyoming's labor pool and theoretically they should be included in estimates of the available labor pool even if their "availability" is more tenuous than that of residents. The initial question, however, is what proportion of the labor pool is made up of nonresidents and what states do they primarily come from.

Table 4.3 (see page 50) presents data on individuals whose primary employer (i.e., the employer that paid the largest proportion of an individual's wages) was in Wyoming but who have missing demographic information for the fourth quarter of 1999 (1999Q4). This quarter was chosen for illustrative purposes and the general findings apply across other quarters. For 1999Q4 a search of Wage Records indicates that 9,144 individuals (4.0%) out of 228,413 have no demographic information. A search of additional Wyoming Wage Records data indicates that only a fraction of these individuals appear in the data six quarters prior and subsequent to the reference quarter (1.2% and 2.8%, respectively). A number of these individuals can be located in the Wage Records data of states with which we have data sharing agreements (again, indicating that Wyoming's labor pool extends well beyond state boundaries in

Table 4.3: Individuals Working in Wyoming (Primary Employment)* in Fourth Quarter 1999 (99Q4) With Missing Demographics by State of Work Six Quarters Before and Six Quarters After the Reference Quarter

			Quarter												
	State		98Q2	98Q3	98Q4	99Q1	99Q2	99Q3	99Q4	00Q1	00Q2	00Q3	00Q4	01Q1	01Q2
Agreement States**	Colorado	Number	283	309	299	297	335	236		274	382	394	373	374	394
		Row %	3.1	3.4	3.3	3.2	3.7	2.6		3.0	4.2	4.3	4.1	4.1	4.3
	Idaho	Number	118	123	124	115	112	81		80	131	134	139	128	139
		Row %	1.3	1.3	1.4	1.3	1.2	0.9		0.9	1.4	1.5	1.5	1.4	1.5
	Nebraska	Number	84	81	81	70	90	78		69	90	93	98	104	104
		Row %	0.9	0.9	0.9	0.8	1.0	0.9		0.8	1.0	1.0	1.1	1.1	1.1
	New Mexico	Number	73	60	73	54	60	38		72	66	67	81	69	62
		Row %	0.8	0.7	0.8	0.6	0.7	0.4		0.8	0.7	0.7	0.9	0.8	0.7
	South Dakota	Number	80	81	76	71	76	55		50	73	88	81	74	72
		Row %	0.9	0.9	0.8	0.8	0.8	0.6		0.5	0.8	1.0	0.9	0.8	0.8
	Texas	Number	296	267	265	243	218	166		190	264	309	295	318	306
		Row %	3.2	2.9	2.9	2.7	2.4	1.8		2.1	2.9	3.4	3.2	3.5	3.3
	Utah	Number	205	202	185	189	208	150		136	211	214	211	194	197
		Row %	2.2	2.2	2.0	2.1	2.3	1.6		1.5	2.3	2.3	2.3	2.1	2.2
	Agreement States Total	**Number**	**1,139**	**1,123**	**1,103**	**1,039**	**1,099**	**804**		**871**	**1,217**	**1,299**	**1,278**	**1,261**	**1,274**
		Row %	**12.5**	**12.3**	**12.1**	**11.4**	**12.0**	**8.8**		**9.5**	**13.3**	**14.2**	**14.0**	**13.8**	**13.9**
	Unknown	**Number**	**7,896**	**7,853**	**7,858**	**7,982**	**7,026**	**5,463**		**6,651**	**7,219**	**7,551**	**7,624**	**7,784**	**7,614**
		Row %	**86.4**	**85.9**	**85.9**	**87.3**	**76.8**	**59.7**		**72.7**	**78.9**	**82.6**	**83.4**	**85.1**	**83.3**
	Wyoming	**Number**	**109**	**168**	**183**	**123**	**1,019**	**2,877**	**9,144**	**1,622**	**708**	**294**	**242**	**99**	**256**
		Row %	**1.2**	**1.8**	**2.0**	**1.3**	**11.1**	**31.5**	**100.0**	**17.7**	**7.7**	**3.2**	**2.6**	**1.1**	**2.8**
	Total Missing	Number	9,144	9,144	9,144	9,144	9,144	9,144	9,144	9,144	9,144	9,144	9,144	9,144	9,144
		Row %	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
	Total Individuals		228,413	228,413	228,413	228,413	228,413	228,413	228,413	228,413	228,413	228,413	228,413	228,413	228,413

*Includes primary employer only (the employer contributing the largest portion of an individual's wages) - individuals could have worked in Wyoming during fourth quarter 1999 but are not included in total because primary employment was not in Wyoming.
**Data from states having data sharing agreements with Wyoming.

all directions). Specifically, looking backward and forward six quarters from the reference period, we can locate 1,139 (12.5%) and 1,274 (13.9%), respectively of the initial 9,144 individuals.

We currently seek data sharing agreements with Montana and Oklahoma and with these will be able to locate even more of the additions and losses to Wyoming's labor supply. Montana is an important source of Wyoming labor, particularly for the coal bed methane and coal mining industries in northeastern Wyoming and the tourism industry in the northwestern corner of Wyoming. Oklahoma is also an important oil and gas producing state. Obtaining these data sharing agreements will improve our ability to track individuals in a multi-state labor market and understand the labor supply framework.

In sum it would appear that a large portion of persons in Wage Records enter or exit in a given year and that many of them come from MOU states. This illustrates the fluid nature of Wyoming's labor supply and shows that the consideration of labor supply has to extend beyond static snapshots of resident population in the state. Thus, projected population shortages relative to employment growth may not be a great concern in Wyoming. A larger concern may be competition for labor in the regional or national market particularly if the U.S. economy rebounds strongly in the near future. As such, analyses of labor supply should extend beyond the borders of Wyoming.

Notes

Chapter 1.

[1]Wage Records is an administrative database. Each employer in the state that has employees covered under Unemployment Insurance, by law, must submit quarterly tax reports to the state showing each employee's Social Security Number and wages earned. Research & Planning use the data for statistical analysis.

[2]The Covered Employment and Wages (ES-202) program derives its data from quarterly tax reports submitted by employers subject to State unemployment insurance (UI) laws and from Federal agencies subject to the Unemployment Compensation for Federal Employees (UCFE) program. These reports provide information on the number of people employed and the wages paid to the employees each quarter.

[3]Wyoming Department of Health, Preventive Health and Safety Division, ***Wyoming Vital Statistics 2000***, n.d., <http://wdh.state.wy.us/vital_records/00DATA /2000rept.pdf> (October 18, 2002).

[4]U.S. Census Bureau, Census 2000 Summary File 3, DP-2: Profile of Selected Social Characteristics.

[5]U.S. Department of Health & Human Services, Administration for Children & Families, Office of Family Assistance, ***2002 TANF Annual Report to Congress***, April 7, 2003, <http://www.acf.hhs.gov/programs/ofa/annualreport5/index.htm> (April 9, 2003).

Chapter 2.

[1]The Covered Employment and Wages (ES-202) program derives its data from quarterly tax reports submitted by employers subject to State unemployment insurance (UI) laws and from Federal agencies subject to the Unemployment Compensation for Federal Employees (UCFE) program. These reports provide information on the number of people employed and the wages paid to the employees each quarter.

[2]Jay M. Berman, "Industry Output and Employment Projections to 2010," ***Monthly Labor Review***, United States Department of Labor, Bureau of Labor Statistics, November 2001, p. 40.

[3]Mark Harris, "Is Wyoming's Economy Diversifying and Is Economic Diversity in Wyoming Desirable," ***Wyoming Labor Force Trends***, September 2002, pp. 1-9. Industrial structure is defined in this article as the share or proportion of total wage and salary employment concentrated in any one major industry.

[4]See Chapter 3, page 41.

[5]United States Department of Commerce, United States Bureau of the Census, ***ST-99-21***, "Estimates of the Median Age of the Population for the U.S., Regions, Divisions, and States: July 1, 1999," <http://erie.census.gov/popest/archives /state/st-99-21.txt> (August 29, 2002).

[6]Executive Office of the President, Office of Management and Budget, ***Standard Industrial Classification Manual 1987***, p. 67.

[7]U.S. Department of Energy, Energy Information Agency, ***U.S. Natural Gas Prices***, "Wellhead Prices," December 20, 2002 <http://www.eia.doe.gov/oil_gas /natural_gas/info_glance/prices.html> (January 6, 2003). Alaska Department of Revenue, Tax Division, ***Oil Prices***, "West Texas Intermediate Monthly Oil Prices," n.d., <http://www.tax.state.ak.us/PRICES/mon_otheroil.htm> (January 6, 2003).

[8]David Bullard, "Forecasting Oil & Gas Employment for the State of Wyoming," ***Wyoming Labor Force Trends***, July 2002, pp. 1-7.

[9]United States Department of Energy, Energy Information Agency, ***Early Release of the Annual Energy Outlook 2003***, "Table 14. Natural Gas Prices, Margins, and Revenues," November 20, 2002, <http://www.eia.doe.gov/oiaf/aeo/aeotab_14.htm> (January 6, 2003).

[10]United States Department of Energy, Energy Information Agency, ***Annual Energy Outlook: With Projections to 2020***, December 2001, p. 82.

[11]U.S. Department of Interior, Bureau of Land Management, Buffalo Field Office, ***Draft Environmental Impact Statement and Planning Draft Amendment for the Powder River Basin Oil and Gas Project: Volume 1***, January 2002, pp. 2-77 and 2-78.

[12]Tony Glover, "Regional Employment and Wages in Wyoming's Oil & Gas Industry," ***Wyoming Labor Force Trends***, July 2002, pp. 7-9.

[13]Dustin Bleizeffer, "State, Producers Aim to Bolster Gas Prices," ***Casper Star Tribune***, August 25, 2002, pp. A1 and A12.

[14]United States Department of Energy, Energy Information Agency, "Table C11. Petroleum Supply and Disposition Balance," ***Annual Energy Outlook: With Projections to 2020***, December 2001, p.197.

[15]By law, power plants are allowed to emit only specified amounts of certain chemicals, including sulfur. With the advent of the Clean Air Act Amendments of 1990, sulfur emissions were "capped" and have mandated reductions in the future. These reductions are expected to benefit states such as Wyoming because additional power plants are expected to buy its relatively low sulfur (compared to eastern states') coal.

[16]United States Department of Energy, Energy Information Agency, ***Annual Energy Outlook: With Projections to 2020***, December 2001, p. 92.

[17]United States Department of Energy, Energy Information Agency, ***Annual Energy Outlook: With Projections to 2020***, December 2001, p. 94.

[18]United States Department of Energy, Energy Information Agency, ***Annual Energy Outlook: With Projections to 2020***, December 2001, p. 92.

[19]U.S. Department of Commerce, U.S. Bureau of the Census, ***DP-1. Profile of General Demographic Characteristics: 2000***, n.d., <http://factfinder.census.gov /bf/_lang=en_vt_name=DEC_2000_SF1_U_DP1_geo_id=04000US56.html> (January 6, 2003).

[20]See Chapter 3, page 41.

[21]Wenlin Liu, Ph.D., Senior Economist, Wyoming Economic Analysis Division, personal conversation, August 21, 2002.

[22]Wyoming Department of Administration and Information, Economic Analysis Division, ***Monthly Residential Building Permits for Wyoming***, January 8, 2003, <http://eadiv.state.wy.us/housing/mnthbldg.htm> (February 5, 2003).

[23]Executive Office of the President, Office of Management and Budget, ***Standard Industrial Classification Manual 1987***, p. 67.

[24]Jay M. Berman, "Industry Output and Employment Projections to 2010," ***Monthly Labor Review***, November 2001, p. 42.

[25]Berman, p. 44.

[26]Berman, p. 45.

[27]United States Department of Energy, Energy Information Agency, ***Annual Energy Outlook: With Projections to 2020***, December 2001, p. 137.

[28]Dustin Bleizeffer, "Wyoming Pipelines Expanding," ***Casper Star Tribune***, September 29, 2001, p. B1.

[29]Berman, p. 45.

[30]Wyoming Department of Administration and Information, Economic Analysis Division, "Sales Tax Collections for Wyoming and Counties by Major Industrial Sector," ***Wyoming Sales, Use, and Lodging Tax Revenue Report: FY2002***, <http://eadiv.state.wy.us/s&utax/Sales_Tax.xls> (February 5, 2003).

[31]The adjusted R-square for this model was .289. Both model and regression coefficient were significant at the p< .01 level. For more information see the Federal Home Loan Mortgage Corporation at <http://www.economagic.com/em-cgi /data.exe/fedbog/cm>.

[32]Berman, p. 45.

[33]Wyoming Department of Administration and Information, Economic Analysis Division, "Sales Tax Collections for Wyoming and Counties by Major Industrial Sector," ***Wyoming Sales, Use, and Lodging Tax Revenue Report: FY2002***, n.d., <http://eadiv.state.wy.us/s&utax/Sales_Tax.xls> (February 5, 2003).

[34]Berman, p. 50 and Wyoming Department of Administration and Information, Economic Analysis Division, ***Outlook 2001: Economic Forecast to 2009***, April 2001, p. 12.

[35]Refers to two-digit sub-industries based on 1987 Standard Industrial Classification coding system.

[36]Wyoming Department of Administration and Information, Economic Analysis Division, ***Outlook 2001: Economic Forecast to 2009***, April 2001, p. 14.

[37]Wyoming Department of Administration and Information, Economic Analysis Division, ***Outlook 2001: Economic Forecast to 2009***, April 2001, p. 8.

[38]United States Department of Energy, Energy Information Agency, ***Annual Energy Outlook: With Projections to 2020***, December 2001, p. 137.

[39]Dustin Bleizeffer, "Power Project Timeline Sought," ***Casper Star Tribune***, May 30, 2002, p. B1; John Barron, "Buffalo Power Seeks Fast Track," ***Casper Star Tribune***, January 5, 2002, p. B1; and "USA OKs $1.4B Rail Line for Coal," ***Coal International***, Jan/Feb 2002, p. 31.

[40]U.S. Department of Interior, Bureau of Land Management, Rawlins Field Office, ***Environmental Assessment for the Hanna Draw Coalbed Methane Exploration Project, Carbon County, Wyoming***, January 2002.

[41]Bureau of Labor Statistics, U.S. Department of Labor, ***State and County Employment and Wages from Covered Employment and Wages: Overview***, October 18, 2001, <http://stats.bls.gov/cew/cewover.htm> (February 5, 2003).

[42]John Harnisher, Consultant, SPSS, Inc, New York, NY, personal conversation, March 2002.

[43]The North American Industry Classification System (NAICS) was developed in 1987 to replace the Standard Industrial Classification (SIC) system. A primary focus of NAICS is how goods and services are produced versus what is produced. Hence, future employment projections using NAICS instead of SIC will yield different results.

[44]U.S. Department of Labor, Bureau of Labor Statistics, ***ES-202 Technical Memo S-01-04***, 2001 Quarter 1, ***ES-202 Technical Memo S-98-01***, 1998 Quarter 1, and ***ES-202 Technical Memo S-97-01***, 1996 Quarter 1. Norman C. DeWeaver, Washington Representative, Indian and Native American Employment and Training Coalition, ***The Friday Report***, January 19, 2001.

[45]Congress of the United States, Congressional Budget Office, "Summary Figure 1:

Uncertainty in CBO's Projections of the Total Budget Surplus Under Current Policies," ***The Budget and Economic Outlook Fiscal Years 2003 - 2012***, 2002, p. xviii.

[46]Congress of the United States, Congressional Budget Office, **The Budget and Economic Outlook Fiscal Years 2003 - 2012**, 2002, p. xviii.

Chapter 4.

[1]Wage Records is an administrative database. Each employer in the state that has employees covered under Unemployment Insurance, by law, must submit quarterly tax reports to the state showing each employee's Social Security Number and wages earned. Research & Planning uses the data for statistical analysis.

[2]The U.S. Bureau of the Census conducts the Current Population Survey (CPS) each month as a sample of 50,000 households. The Census is conducted once every ten years.

[3]This 22.7 percent loss on an annual basis is another way of examining the issue of turnover. In most circumstances turnover is measured in terms of worker exits from an employer with multiple exits possible (see Tony Glover, "Turnover Analyses; Definitions, Process, and Quantification," <http://doe.state.wy.us/LMI/staff /Turnover.pdf>, especially Table 1). The current chapter defines exits in terms of persons leaving the market entirely.

[4]Sylvia Jones, "Defining Residency for the Wyoming Workforce," ***Wyoming Labor Force Trends***, November 2002, pp. 1-9.

Appendix A

Table A.1: All People Working in Wyoming by Industry and Age, 1999

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Agriculture	**Count**	**1,295**	**1,107**	**1,084**	**758**	**556**	**958**	**5,758**
	Row %	**22.5%**	**19.2%**	**18.8%**	**13.2%**	**9.7%**	**16.6%**	**100.0%**
Mining								
Coal Mining	Count	376	716	1,850	1,748	587	200	5,477
	Row %	6.9%	13.1%	33.8%	31.9%	10.7%	3.7%	100.0%
Oil & Gas Extraction	Count	1,356	2,092	3,661	2,264	878	1,060	11,311
	Row %	12.0%	18.5%	32.4%	20.0%	7.8%	9.4%	100.0%
All Other Mining	Count	279	599	1,067	962	444	140	3,491
	Row %	8.0%	17.2%	30.6%	27.6%	12.7%	4.0%	100.0%
Total	**Count**	**2,011**	**3,407**	**6,578**	**4,974**	**1,909**	**1,400**	**20,279**
	Row %	**9.9%**	**16.8%**	**32.4%**	**24.5%**	**9.4%**	**6.9%**	**100.0%**
Construction								
General Building Contractors	Count	1,227	1,546	1,700	1,067	356	1,103	6,999
	Row %	17.5%	22.1%	24.3%	15.2%	5.1%	15.8%	100.0%
Heavy Construction	Count	1,328	1,952	2,525	1,525	892	3,237	11,459
	Row %	11.6%	17.0%	22.0%	13.3%	7.8%	28.2%	100.0%
Special Trade Construction	Count	2,463	3,052	3,092	1,562	848	2,810	13,827
	Row %	17.8%	22.1%	22.4%	11.3%	6.1%	20.3%	100.0%
Total	**Count**	**5,018**	**6,550**	**7,317**	**4,154**	**2,096**	**7,150**	**32,285**
	Row %	**15.5%**	**20.3%**	**22.7%**	**12.9%**	**6.5%**	**22.1%**	**100.0%**
Manufacturing								
Total	**Count**	**2,492**	**3,135**	**3,978**	**3,242**	**1,686**	**1,061**	**15,594**
	Row %	**16.0%**	**20.1%**	**25.5%**	**20.8%**	**10.8%**	**6.8%**	**100.0%**
Transportation, Communications, & Public Utilities (TCPU)								
Total	**Count**	**1,072**	**2,515**	**4,115**	**3,555**	**1,837**	**1,129**	**14,223**
	Row %	**7.5%**	**17.7%**	**28.9%**	**25.0%**	**12.9%**	**7.9%**	**100.0%**
Wholesale Trade								
Total	**Count**	**1,166**	**1,967**	**2,581**	**1,869**	**981**	**712**	**9,276**
	Row %	**12.6%**	**21.2%**	**27.8%**	**20.1%**	**10.6%**	**7.7%**	**100.0%**
Retail Trade								
Food Stores	Count	2,546	1,223	1,633	876	521	601	7,400
	Row %	34.4%	16.5%	22.1%	11.8%	7.0%	8.1%	100.0%
Auto Dealers & Service Stations	Count	3,140	2,388	2,531	1,515	1,064	1,218	11,856
	Row %	26.5%	20.1%	21.3%	12.8%	9.0%	10.3%	100.0%
Eating & Drinking Places	Count	12,396	4,242	3,062	1,457	926	4,171	26,254
	Row %	47.2%	16.2%	11.7%	5.5%	3.5%	15.9%	100.0%
All Other Retail Trade	Count	6,043	3,920	3,912	2,986	1,980	2,890	21,731
	Row %	27.8%	18.0%	18.0%	13.7%	9.1%	13.3%	100.0%
Total	**Count**	**24,125**	**11,773**	**11,138**	**6,834**	**4,491**	**8,880**	**67,241**
	Row %	**35.9%**	**17.5%**	**16.6%**	**10.2%**	**6.7%**	**13.2%**	**100.0%**
Finance, Insurance, & Real Estate (FIRE)								
Total	**Count**	**1,175**	**2,036**	**2,605**	**2,143**	**1,311**	**763**	**10,033**
	Row %	**11.7%**	**20.3%**	**26.0%**	**21.4%**	**13.1%**	**7.6%**	**100.0%**
Services								
Hotels & Other Lodging Places	Count	3,997	3,110	2,821	1,291	1,020	4,907	17,146
	Row %	23.3%	18.1%	16.5%	7.5%	5.9%	28.6%	100.0%
Business Services	Count	3,216	2,724	2,399	1,522	960	1,770	12,591
	Row %	25.5%	21.6%	19.1%	12.1%	7.6%	14.1%	100.0%
Amusement & Recreation Services	Count	1,076	1,181	688	466	322	987	4,720
	Row %	22.8%	25.0%	14.6%	9.9%	6.8%	20.9%	100.0%
Health Services	Count	1,401	2,587	3,594	2,913	1,265	1,216	12,976
	Row %	10.8%	19.9%	27.7%	22.4%	9.7%	9.4%	100.0%
Social Services	Count	1,389	1,745	1,670	1,387	879	689	7,759
	Row %	17.9%	22.5%	21.5%	17.9%	11.3%	8.9%	100.0%
Engineering & Management Services	Count	582	1,109	1,252	1,048	503	638	5,132
	Row %	11.3%	21.6%	24.4%	20.4%	9.8%	12.4%	100.0%
All Other Services	Count	2,809	3,013	3,055	2,346	1,574	2,057	14,854
	Row %	18.9%	20.3%	20.6%	15.8%	10.6%	13.8%	100.0%
Total	**Count**	**14,470**	**15,469**	**15,479**	**10,973**	**6,523**	**12,264**	**75,178**
	Row %	**19.2%**	**20.6%**	**20.6%**	**14.6%**	**8.7%**	**16.3%**	**100.0%**

N/A-Not available.

Table A.1: All People Working in Wyoming by Industry and Age, 1999 (Continued)

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Government								
State Govt. Public Administration	Count	371	1,196	1,788	2,253	1,095	49	6,752
	Row %	5.5%	17.7%	26.5%	33.4%	16.2%	0.7%	100.0%
State Govt. Other	Count	751	1,165	1,616	1,753	890	143	6,318
	Row %	11.9%	18.4%	25.6%	27.7%	14.1%	2.3%	100.0%
Education	Count	570	786	858	1,098	582	137	4,031
	Row %	14.1%	19.5%	21.3%	27.2%	14.4%	3.4%	100.0%
Local Govt. Public Administration	Count	1,710	1,739	2,809	2,308	1,311	602	10,479
	Row %	16.3%	16.6%	26.8%	22.0%	12.5%	5.7%	100.0%
Local Govt. Other	Count	2,065	4,584	8,873	10,021	4,748	1,234	31,525
	Row %	6.6%	14.5%	28.1%	31.8%	15.1%	3.9%	100.0%
Education	Count	1,386	3,269	6,552	8,234	3,861	797	24,099
	Row %	5.8%	13.6%	27.2%	34.2%	16.0%	3.3%	100.0%
Total	**Count**	**4,897**	**8,684**	**15,086**	**16,335**	**8,044**	**2,028**	**55,074**
	Row %	**8.9%**	**15.8%**	**27.4%**	**29.7%**	**14.6%**	**3.7%**	**100.0%**
Not Available	**Count**	**155**	**188**	**107**	**103**	**50**	**324**	**927**
	Row %	**16.7%**	**20.3%**	**11.5%**	**11.1%**	**5.4%**	**35.0%**	**100.0%**
Grand Total	**Count**	**57,876**	**56,831**	**70,068**	**54,940**	**29,484**	**36,669**	**305,868**
	Row %	**18.9%**	**18.6%**	**22.9%**	**18.0%**	**9.6%**	**12.0%**	**100.0%**

N/A-Not available.

Table A.2: All People Working in Wyoming by Industry and Age, 2000

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Agriculture, Forestry, Fishing	**Count**	**1,186**	**1,086**	**1,006**	**822**	**568**	**995**	**5,663**
	Row %	**20.9%**	**19.2%**	**17.8%**	**14.5%**	**10.0%**	**17.6%**	**100.0%**
Mining								
Coal Mining	Count	383	729	1,679	1,841	530	196	5,358
	Row %	7.1%	13.6%	31.3%	34.4%	9.9%	3.7%	100.0%
Oil & Gas Extraction	Count	1,815	2,670	3,815	2,600	932	1,528	13,360
	Row %	13.6%	20.0%	28.6%	19.5%	7.0%	11.4%	100.0%
All Other Mining	Count	306	564	954	969	427	258	3,478
	Row %	8.8%	16.2%	27.4%	27.9%	12.3%	7.4%	100.0%
Total	**Count**	**2,504**	**3,963**	**6,448**	**5,410**	**1,889**	**1,982**	**22,196**
	Row %	**11.3%**	**17.9%**	**29.1%**	**24.4%**	**8.5%**	**8.9%**	**100.0%**
Construction								
General Building Contractors	Count	1,113	1,598	1,646	1,115	365	1,161	6,998
	Row %	15.9%	22.8%	23.5%	15.9%	5.2%	16.6%	100.0%
Heavy Construction	Count	1,241	1,865	2,376	1,464	834	3,394	11,174
	Row %	11.1%	16.7%	21.3%	13.1%	7.5%	30.4%	100.0%
Special Trade Construction	Count	2,309	2,950	2,976	1,751	891	2,345	13,222
	Row %	17.5%	22.3%	22.5%	13.2%	6.7%	17.7%	100.0%
Total	**Count**	**4,663**	**6,413**	**6,998**	**4,330**	**2,090**	**6,900**	**31,394**
	Row %	**14.9%**	**20.4%**	**22.3%**	**13.8%**	**6.7%**	**22.0%**	**100.0%**
Manufacturing								
Total	**Count**	**2,340**	**3,004**	**3,965**	**3,434**	**1,776**	**1,257**	**15,776**
	Row %	**14.8%**	**19.0%**	**25.1%**	**21.8%**	**11.3%**	**8.0%**	**100.0%**
Transportation, Communications, & Public Utilities (TCPU)								
Total	**Count**	**1,004**	**2,462**	**3,881**	**3,666**	**1,887**	**1,087**	**13,987**
	Row %	**7.2%**	**17.6%**	**27.7%**	**26.2%**	**13.5%**	**7.8%**	**100.0%**
Wholesale Trade								
Total	**Count**	**1,160**	**1,989**	**2,458**	**1,970**	**999**	**632**	**9,208**
	Row %	**12.6%**	**21.6%**	**26.7%**	**21.4%**	**10.8%**	**6.9%**	**100.0%**
Retail Trade								
Food Stores	Count	2,496	1,143	1,584	931	538	838	7,530
	Row %	33.1%	15.2%	21.0%	12.4%	7.1%	11.1%	100.0%
Auto Dealers & Service Stations	Count	3,029	2,297	2,436	1,557	1,112	1,532	11,963
	Row %	25.3%	19.2%	20.4%	13.0%	9.3%	12.8%	100.0%
Eating & Drinking Places	Count	11,414	4,167	3,072	1,505	935	5,160	26,253
	Row %	43.5%	15.9%	11.7%	5.7%	3.6%	19.7%	100.0%
All Other Retail Trade	Count	6,042	3,930	3,845	3,199	2,059	2,718	21,793
	Row %	27.7%	18.0%	17.6%	14.7%	9.4%	12.5%	100.0%
Total	**Count**	**22,981**	**11,537**	**10,937**	**7,192**	**4,644**	**10,248**	**67,539**
	Row %	**34.0%**	**17.1%**	**16.2%**	**10.6%**	**6.9%**	**15.2%**	**100.0%**
Finance, Insurance, & Real Estate (FIRE)								
Total	**Count**	**1,140**	**1,971**	**2,520**	**2,232**	**1,367**	**669**	**9,899**
	Row %	**11.5%**	**19.9%**	**25.5%**	**22.5%**	**13.8%**	**6.8%**	**100.0%**
Services								
Hotels & Other Lodging Places	Count	3,342	2,903	2,812	1,276	1,008	5,721	17,062
	Row %	19.6%	17.0%	16.5%	7.5%	5.9%	33.5%	100.0%
Business Services	Count	2,920	2,602	2,318	1,615	1,028	2,347	12,830
	Row %	22.8%	20.3%	18.1%	12.6%	8.0%	18.3%	100.0%
Amusement & Recreation Services	Count	943	1,195	650	439	325	1,150	4,702
	Row %	20.1%	25.4%	13.8%	9.3%	6.9%	24.5%	100.0%
Health Services	Count	1,440	2,660	3,610	3,131	1,329	1,027	13,197
	Row %	10.9%	20.2%	27.4%	23.7%	10.1%	7.8%	100.0%
Social Services	Count	1,404	1,744	1,568	1,494	896	614	7,720
	Row %	18.2%	22.6%	20.3%	19.4%	11.6%	8.0%	100.0%
Engineering & Management Services	Count	699	1,133	1,249	1,143	524	785	5,533
	Row %	12.6%	20.5%	22.6%	20.7%	9.5%	14.2%	100.0%
All Other Services	Count	2,645	2,983	3,010	2,418	1,607	1,900	14,563
	Row %	18.2%	20.5%	20.7%	16.6%	11.0%	13.0%	100.0%
Total	**Count**	**13,393**	**15,220**	**15,217**	**11,516**	**6,717**	**13,544**	**75,607**
	Row %	**17.7%**	**20.1%**	**20.1%**	**15.2%**	**8.9%**	**17.9%**	**100.0%**

N/A-Not available.

Table A.2: All People Working in Wyoming by Industry and Age, 2000 (Continued)

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Government								
State Govt. Public Administration	Count	357	1,199	1,720	2,382	1,185	90	6,933
	Row %	5.1%	17.3%	24.8%	34.4%	17.1%	1.3%	100.0%
State Govt. Other	Count	714	1,104	1,501	1,816	945	232	6,312
	Row %	11.3%	17.5%	23.8%	28.8%	15.0%	3.7%	100.0%
Education	Count	547	752	798	1,146	616	222	4,081
	Row %	13.4%	18.4%	19.6%	28.1%	15.1%	5.4%	100.0%
Local Govt. Public Administration	Count	1,573	1,698	2,665	2,448	1,374	714	10,472
	Row %	15.0%	16.2%	25.4%	23.4%	13.1%	6.8%	100.0%
Local Govt. Other	Count	1,976	4,529	8,392	10,307	4,997	1,492	31,693
	Row %	6.2%	14.3%	26.5%	32.5%	15.8%	4.7%	100.0%
Education	Count	1,314	3,221	6,255	8,386	4,075	997	24,248
	Row %	5.4%	13.3%	25.8%	34.6%	16.8%	4.1%	100.0%
Total	**Count**	**4,620**	**8,530**	**14,278**	**16,953**	**8,501**	**2,528**	**55,410**
	Row %	**8.3%**	**15.4%**	**25.8%**	**30.6%**	**15.3%**	**4.6%**	**100.0%**
Not Available	**Count**	**83**	**149**	**105**	**93**	**60**	**283**	**773**
	Row %	**10.7%**	**19.3%**	**13.6%**	**12.0%**	**7.8%**	**36.6%**	**100.0%**
Grand Total	**Count**	**55,074**	**56,324**	**67,813**	**57,618**	**30,498**	**40,125**	**307,452**
	Row %	**17.9%**	**18.3%**	**22.1%**	**18.7%**	**9.9%**	**13.1%**	**100.0%**

N/A-Not available.

Table A.3: Wyoming Workforce Exits Between 1999 and 2000 by Industry and Age

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Agriculture	**Count**	**269**	**223**	**191**	**103**	**123**	**866**	**1,775**
	Loss %	**20.8%**	**20.1%**	**17.6%**	**13.6%**	**22.1%**	**90.4%**	**30.8%**
Mining								
Coal Mining	Count	49	34	78	83	103	190	537
	Loss %	13.0%	4.7%	4.2%	4.7%	17.5%	95.0%	9.8%
Oil & Gas Extraction	Count	157	244	388	195	127	931	2,042
	Loss %	11.6%	11.7%	10.6%	8.6%	14.5%	87.8%	18.1%
All Other Mining	Count	43	50	65	55	77	122	412
	Loss %	15.4%	8.3%	6.1%	5.7%	17.3%	87.1%	11.8%
Total	**Count**	**249**	**328**	**531**	**333**	**307**	**1,243**	**2,991**
	Loss %	**12.4%**	**9.6%**	**8.1%**	**6.7%**	**16.1%**	**88.8%**	**14.7%**
Construction								
General Building Contractors	Count	227	296	306	166	75	999	2,069
	Loss %	18.5%	19.1%	18.0%	15.6%	21.1%	90.6%	29.6%
Heavy Construction	Count	231	400	485	303	160	2,796	4,375
	Loss %	17.4%	20.5%	19.2%	19.9%	17.9%	86.4%	38.2%
Special Trade Construction	Count	436	541	476	250	160	2,549	4,412
	Loss %	17.7%	17.7%	15.4%	16.0%	18.9%	90.7%	31.9%
Total	**Count**	**894**	**1,237**	**1,267**	**719**	**395**	**6,344**	**10,856**
	Loss %	**17.8%**	**18.9%**	**17.3%**	**17.3%**	**18.8%**	**88.7%**	**33.6%**
Manufacturing								
Total	**Count**	**440**	**390**	**344**	**229**	**219**	**934**	**2,556**
	Loss %	**17.7%**	**12.4%**	**8.6%**	**7.1%**	**13.0%**	**88.0%**	**16.4%**
Transportation, Communications, & Public Utilities (TCPU)								
Total	**Count**	**184**	**376**	**406**	**285**	**278**	**1,048**	**2,577**
	Loss %	**17.2%**	**15.0%**	**9.9%**	**8.0%**	**15.1%**	**92.8%**	**18.1%**
Wholesale Trade								
Total	**Count**	**176**	**219**	**240**	**146**	**162**	**647**	**1,590**
	Loss %	**15.1%**	**11.1%**	**9.3%**	**7.8%**	**16.5%**	**90.9%**	**17.1%**
Retail Trade								
Food Stores	Count	369	163	136	78	72	506	1,324
	Loss %	14.5%	13.3%	8.3%	8.9%	13.8%	84.2%	17.9%
Auto Dealers & Service Stations	Count	515	380	275	179	159	1,115	2,623
	Loss %	16.4%	15.9%	10.9%	11.8%	14.9%	91.5%	22.1%
Eating & Drinking Places	Count	2,088	807	458	223	205	3,666	7,447
	Loss %	16.8%	19.0%	15.0%	15.3%	22.1%	87.9%	28.4%
All Other Retail Trade	Count	1,019	746	471	334	342	2,631	5,543
	Loss %	16.9%	19.0%	12.0%	11.2%	17.3%	91.0%	25.5%
Total	**Count**	**3,991**	**2,096**	**1,340**	**814**	**778**	**7,918**	**16,937**
	Loss %	**16.5%**	**17.8%**	**12.0%**	**11.9%**	**17.3%**	**89.2%**	**25.2%**
Finance, Insurance, & Real Estate (FIRE)								
Total	**Count**	**177**	**279**	**228**	**177**	**178**	**689**	**1,728**
	Loss %	**15.1%**	**13.7%**	**8.8%**	**8.3%**	**13.6%**	**90.3%**	**17.2%**
Services								
Hotels & Other Lodging Places	Count	971	779	505	231	232	4,543	7,261
	Loss %	24.3%	25.0%	17.9%	17.9%	22.7%	92.6%	42.3%
Business Services	Count	649	620	444	287	214	1,589	3,803
	Loss %	20.2%	22.8%	18.5%	18.9%	22.3%	89.8%	30.2%
Amusement & Recreation Services	Count	210	202	118	67	55	818	1,470
	Loss %	19.5%	17.1%	17.2%	14.4%	17.1%	82.9%	31.1%
Health Services	Count	220	332	304	257	156	1,131	2,400
	Loss %	15.7%	12.8%	8.5%	8.8%	12.3%	93.0%	18.5%
Social Services	Count	273	302	196	142	199	635	1,747
	Loss %	19.7%	17.3%	11.7%	10.2%	22.6%	92.2%	22.5%
Engineering & Management Services	Count	119	161	135	111	83	569	1,178
	Loss %	20.4%	14.5%	10.8%	10.6%	16.5%	89.2%	23.0%
All Other Services	Count	495	505	422	265	272	1,818	3,777
	Loss %	17.6%	16.8%	13.8%	11.3%	17.3%	88.4%	25.4%
Total	**Count**	**2,937**	**2,901**	**2,124**	**1,360**	**1,211**	**11,103**	**21,636**
	Loss %	**20.3%**	**18.8%**	**13.7%**	**12.4%**	**18.6%**	**90.5%**	**28.8%**

N/A-Not available.

Table A.3: Wyoming Workforce Exits Between 1999 and 2000 by Industry and Age (Continued)

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Government								
State Govt. Public Administration	Count	51	107	116	94	118	43	529
	Loss %	13.7%	8.9%	6.5%	4.2%	10.8%	87.8%	7.8%
State Govt. Other	Count	200	213	117	92	92	111	825
	Loss %	26.6%	18.3%	7.2%	5.2%	10.3%	77.6%	13.1%
Education	Count	165	197	95	72	64	106	699
	Loss %	28.9%	25.1%	11.1%	6.6%	11.0%	77.4%	17.3%
Local Govt. Public Administration	Count	262	168	192	148	166	541	1,477
	Loss %	15.3%	9.7%	6.8%	6.4%	12.7%	89.9%	14.1%
Local Govt. Other	Count	344	497	652	558	553	1,118	3,722
	Loss %	16.7%	10.8%	7.3%	5.6%	11.6%	90.6%	11.8%
Education	Count	245	341	417	432	442	708	2,585
	Loss %	17.7%	10.4%	6.4%	5.2%	11.4%	88.8%	10.7%
Total	**Count**	**857**	**985**	**1,077**	**892**	**929**	**1,813**	**6,553**
	Loss %	**17.5%**	**11.3%**	**7.1%**	**5.5%**	**11.5%**	**89.4%**	**11.9%**
Not Available	**Count**	**18**	**27**	**18**	**20**	**10**	**133**	**226**
	Loss %	**11.6%**	**14.4%**	**16.8%**	**19.4%**	**20.0%**	**41.0%**	**24.4%**
Grand Total	**Count**	**10,192**	**9,061**	**7,766**	**5,078**	**4,590**	**32,738**	**69,425**
	Loss %	**17.6%**	**15.9%**	**11.1%**	**9.2%**	**15.6%**	**89.3%**	**22.7%**

N/A-Not available.

Table A.4: Wyoming Workforce Entries Between 1999 and 2000 by Industry and Age

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Agriculture	**Count**	**290**	**218**	**162**	**137**	**74**	**916**	**1,797**
	Gain %	**22.4%**	**19.7%**	**14.9%**	**18.1%**	**13.3%**	**95.6%**	**31.2%**
Mining								
Coal Mining	**Count**	38	43	28	22	12	185	328
	Gain %	10.1%	6.0%	1.5%	1.3%	2.0%	92.5%	6.0%
Oil & Gas Extraction	Count	317	456	412	197	67	1,390	2,839
	Gain %	23.4%	21.8%	11.3%	8.7%	7.6%	131.1%	25.1%
All Other Mining	Count	48	46	40	16	11	130	291
	Gain %	17.2%	7.7%	3.7%	1.7%	2.5%	92.9%	8.3%
Total	**Count**	**403**	**545**	**480**	**235**	**90**	**1,705**	**3,458**
	Gain %	**20.0%**	**16.0%**	**7.3%**	**4.7%**	**4.7%**	**121.8%**	**17.1%**
Construction								
General Building Contractors	Count	214	279	235	126	46	1,070	1,970
	Gain %	17.4%	18.0%	13.8%	11.8%	12.9%	97.0%	28.1%
Heavy Construction	Count	225	351	423	217	110	3,079	4,405
	Gain %	16.9%	18.0%	16.8%	14.2%	12.3%	95.1%	38.4%
Special Trade Construction	Count	415	461	410	221	101	2,099	3,707
	Gain %	16.8%	15.1%	13.3%	14.1%	11.9%	74.7%	26.8%
Total	**Count**	**854**	**1,091**	**1,068**	**564**	**257**	**6,248**	**10,082**
	Gain %	**17.0%**	**16.7%**	**14.6%**	**13.6%**	**12.3%**	**87.4%**	**31.2%**
Manufacturing								
Total	**Count**	**407**	**346**	**300**	**188**	**111**	**1,138**	**2,490**
	Gain %	**16.3%**	**11.0%**	**7.5%**	**5.8%**	**6.6%**	**107.3%**	**16.0%**
Transportation, Communications, & Public Utilities (TCPU)								
Total	**Count**	**172**	**355**	**350**	**258**	**164**	**1,003**	**2,302**
	Gain %	**16.0%**	**14.1%**	**8.5%**	**7.3%**	**8.9%**	**88.8%**	**16.2%**
Wholesale Trade								
Total	**Count**	**167**	**196**	**197**	**132**	**75**	**572**	**1,339**
	Gain %	**14.3%**	**10.0%**	**7.6%**	**7.1%**	**7.6%**	**80.3%**	**14.4%**
Retail Trade								
Food Stores	Count	572	135	136	82	48	756	1,729
	Gain %	22.5%	11.0%	8.3%	9.4%	9.2%	125.8%	23.4%
Auto Dealers & Service Stations	Count	569	327	256	151	131	1,431	2,865
	Gain %	18.1%	13.7%	10.1%	10.0%	12.3%	117.5%	24.2%
Eating & Drinking Places	Count	3,051	708	463	216	141	4,724	9,303
	Gain %	24.6%	16.7%	15.1%	14.8%	15.2%	113.3%	35.4%
All Other Retail Trade	Count	1,212	599	514	386	219	2,471	5,401
	Gain %	20.1%	15.3%	13.1%	12.9%	11.1%	85.5%	24.9%
Total	**Count**	**5,404**	**1,769**	**1,369**	**835**	**539**	**9,382**	**19,298**
	Gain %	**22.4%**	**15.0%**	**12.3%**	**12.2%**	**12.0%**	**105.7%**	**28.7%**
Finance, Insurance, & Real Estate (FIRE)								
Total	**Count**	**186**	**215**	**202**	**145**	**101**	**606**	**1,455**
	Gain %	**15.8%**	**10.6%**	**7.8%**	**6.8%**	**7.7%**	**79.4%**	**14.5%**
Services								
Hotels & Other Lodging Places	Count	881	698	596	204	159	5,376	7,914
	Gain %	22.0%	22.4%	21.1%	15.8%	15.6%	109.6%	46.2%
Business Services	Count	608	544	421	309	196	2,190	4,268
	Gain %	18.9%	20.0%	17.5%	20.3%	20.4%	123.7%	33.9%
Amusement & Recreation Services	Count	198	203	92	62	51	996	1,602
	Gain %	18.4%	17.2%	13.4%	13.3%	15.8%	100.9%	33.9%
Health Services	Count	223	329	300	265	85	946	2,148
	Gain %	15.9%	12.7%	8.3%	9.1%	6.7%	77.8%	16.6%
Social Services	Count	246	244	156	170	126	559	1,501
	Gain %	17.7%	14.0%	9.3%	12.3%	14.3%	81.1%	19.3%
Engineering & Management Services	Count	153	154	143	118	50	721	1,339
	Gain %	26.3%	13.9%	11.4%	11.3%	9.9%	113.0%	26.1%
All Other Services	Count	570	442	379	234	174	1,664	3,463
	Gain %	20.3%	14.7%	12.4%	10.0%	11.1%	80.9%	23.3%
Total	**Count**	**2,879**	**2,614**	**2,087**	**1,362**	**841**	**12,452**	**22,235**
	Gain %	**19.9%**	**16.9%**	**13.5%**	**12.4%**	**12.9%**	**101.5%**	**29.6%**

N/A-Not available.

Table A.4: Wyoming Workforce Entries Between 1999 and 2000 by Industry and Age (Continued)

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Government								
State Govt. Public Administration	Count	57	112	72	88	73	83	485
	Gain %	15.4%	9.4%	4.0%	3.9%	6.7%	169.4%	7.2%
State Govt. Other	Count	191	159	65	88	30	202	735
	Gain %	25.4%	13.6%	4.0%	5.0%	3.4%	141.3%	11.6%
Education	Count	171	143	54	84	24	193	669
	Gain %	30.0%	18.2%	6.3%	7.7%	4.1%	140.9%	16.6%
Local Govt. Public Administration	Count	305	147	152	123	107	665	1,499
	Gain %	17.8%	8.5%	5.4%	5.3%	8.2%	110.5%	14.3%
Local Govt. Other	Count	415	516	644	476	224	1,383	3,658
	Gain %	20.1%	11.3%	7.3%	4.8%	4.7%	112.1%	11.6%
Education	Count	316	359	462	344	161	918	2,560
	Gain %	22.8%	11.0%	7.1%	4.2%	4.2%	115.2%	10.6%
Total	**Count**	**968**	**934**	**933**	**775**	**434**	**2,333**	**6,377**
	Gain %	**19.8%**	**10.8%**	**6.2%**	**4.7%**	**5.4%**	**115.0%**	**11.6%**
Not Available	**Count**	**14**	**26**	**22**	**12**	**10**	**92**	**176**
	Gain %	**9.0%**	**13.8%**	**20.6%**	**11.7%**	**20.0%**	**28.4%**	**19.0%**
Grand Total	**Count**	**11,744**	**8,309**	**7,170**	**4,643**	**2,696**	**36,447**	**71,009**
	Gain %	**20.3%**	**14.6%**	**10.2%**	**8.5%**	**9.1%**	**99.4%**	**23.2%**

N/A-Not available.

Table A.5: Wyoming Workforce Exits Between 1999 and 2000 Appearing in MOU States* by Industry and Age

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Agriculture	**Count**	**85**	**67**	**49**	**19**	**9**	**166**	**395**
	Loss %	**31.6%**	**30.0%**	**25.7%**	**18.4%**	**7.3%**	**19.2%**	**22.3%**
Mining								
Coal Mining	Count	15	11	21	13	10	56	126
	Loss %	30.6%	32.4%	26.9%	15.7%	9.7%	29.5%	23.5%
Oil & Gas Extraction	Count	60	91	137	50	11	233	582
	Loss %	38.2%	37.3%	35.3%	25.6%	8.7%	25.0%	28.5%
All Other Mining	Count	16	23	21	11	4	35	110
	Loss %	37.2%	46.0%	32.3%	20.0%	5.2%	28.7%	26.7%
Total	**Count**	**91**	**125**	**179**	**74**	**25**	**324**	**818**
	Loss %	**36.5%**	**38.1%**	**33.7%**	**22.2%**	**8.1%**	**26.1%**	**27.3%**
Construction								
General Building Contractors	Count	72	94	101	48	12	294	621
	Loss %	31.7%	31.8%	33.0%	28.9%	16.0%	29.4%	30.0%
Heavy Construction	Count	103	193	212	121	41	1,380	2,050
	Loss %	44.6%	48.3%	43.7%	39.9%	25.6%	49.4%	46.9%
Special Trade Construction	Count	169	213	175	87	26	890	1,560
	Loss %	38.8%	39.4%	36.8%	34.8%	16.3%	34.9%	35.4%
Total	**Count**	**344**	**500**	**488**	**256**	**79**	**2,564**	**4,231**
	Loss %	**38.5%**	**40.4%**	**38.5%**	**35.6%**	**20.0%**	**40.4%**	**39.0%**
Manufacturing								
Total	**Count**	**163**	**139**	**95**	**39**	**9**	**215**	**660**
	Loss %	**37.0%**	**35.6%**	**27.6%**	**17.0%**	**4.1%**	**23.0%**	**25.8%**
Transportation, Communications, & Public Utilities (TCPU)								
Total	**Count**	**70**	**138**	**135**	**80**	**32**	**215**	**670**
	Loss %	**38.0%**	**36.7%**	**33.3%**	**28.1%**	**11.5%**	**20.5%**	**26.0%**
Wholesale Trade								
Total	**Count**	**58**	**78**	**61**	**33**	**17**	**125**	**372**
	Loss %	**33.0%**	**35.6%**	**25.4%**	**22.6%**	**10.5%**	**19.3%**	**23.4%**
Retail Trade								
Food Stores	Count	117	47	47	13	5	175	404
	Loss %	31.7%	28.8%	34.6%	16.7%	6.9%	34.6%	30.5%
Auto Dealers & Service Stations	Count	169	135	78	49	19	227	677
	Loss %	32.8%	35.5%	28.4%	27.4%	11.9%	20.4%	25.8%
Eating & Drinking Places	Count	621	213	103	33	10	681	1,661
	Loss %	29.7%	26.4%	22.5%	14.8%	4.9%	18.6%	22.3%
All Other Retail Trade	Count	307	222	119	56	21	417	1,142
	Loss %	30.1%	29.8%	25.3%	16.8%	6.1%	15.8%	20.6%
Total	**Count**	**1,214**	**617**	**347**	**151**	**55**	**1,500**	**3,884**
	Loss %	**30.4%**	**29.4%**	**25.9%**	**18.6%**	**7.1%**	**18.9%**	**22.9%**
Finance, Insurance, & Real Estate (FIRE)								
Total	**Count**	**63**	**79**	**59**	**35**	**15**	**109**	**360**
	Loss %	**35.6%**	**28.3%**	**25.9%**	**19.8%**	**8.4%**	**15.8%**	**20.8%**
Services								
Hotels & Other Lodging Places	Count	261	172	99	42	23	889	1,486
	Loss %	26.9%	22.1%	19.6%	18.2%	9.9%	19.6%	20.5%
Business Services	Count	224	200	124	73	20	383	1,024
	Loss %	34.5%	32.3%	27.9%	25.4%	9.3%	24.1%	26.9%
Amusement & Recreation Services	Count	57	52	21	17	2	192	341
	Loss %	27.1%	25.7%	17.8%	25.4%	3.6%	23.5%	23.2%
Health Services	Count	80	92	89	53	8	167	489
	Loss %	36.4%	27.7%	29.3%	20.6%	5.1%	14.8%	20.4%
Social Services	Count	89	73	36	22	7	96	323
	Loss %	32.6%	24.2%	18.4%	15.5%	3.5%	15.1%	18.5%
Engineering & Management Services	Count	45	57	44	29	9	129	313
	Loss %	37.8%	35.4%	32.6%	26.1%	10.8%	22.7%	26.6%
All Other Services	Count	136	125	88	53	15	312	729
	Loss %	27.5%	24.8%	20.9%	20.0%	5.5%	17.2%	19.3%
Total	**Count**	**892**	**771**	**501**	**289**	**84**	**2,168**	**4,705**
	Loss %	**30.4%**	**26.6%**	**23.6%**	**21.3%**	**6.9%**	**19.5%**	**21.7%**

*MOU States are states with which Wyoming has data sharing agreements. They include Colorado, Idaho, Nebraska, New Mexico, South Dakota, Texas, and Utah.
N/A-Not available.

Table A.5: Wyoming Workforce Exits Between 1999 and 2000 Appearing in MOU States* by Industry and Age (Continued)

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Government								
State Govt. Public Administration	Count	18	37	33	25	4	17	134
	Loss %	35.3%	34.6%	28.4%	26.6%	3.4%	39.5%	25.3%
State Govt. Other	Count	67	65	38	27	8	29	234
	Loss %	33.5%	30.5%	32.5%	29.3%	8.7%	26.1%	28.4%
Education	Count	53	59	29	25	6	28	200
	Loss %	32.1%	29.9%	30.5%	34.7%	9.4%	26.4%	28.6%
Local Govt. Public Administration	Count	83	43	40	18	7	81	272
	Loss %	31.7%	25.6%	20.8%	12.2%	4.2%	15.0%	18.4%
Local Govt. Other	Count	124	138	160	105	38	210	775
	Loss %	36.0%	27.8%	24.5%	18.8%	6.9%	18.8%	20.8%
Education	Count	92	91	96	76	31	123	509
	Loss %	37.6%	26.7%	23.0%	17.6%	7.0%	17.4%	19.7%
Total	**Count**	**292**	**283**	**271**	**175**	**57**	**337**	**1,415**
	Loss %	**34.1%**	**28.7%**	**25.2%**	**19.6%**	**6.1%**	**18.6%**	**21.6%**
Not Available	**Count**	**6**	**7**	**1**	**1**	**1**	**27**	**43**
	Loss %	**33.3%**	**25.9%**	**5.6%**	**5.0%**	**10.0%**	**20.3%**	**19.0%**
Grand Total	**Count**	**3,278**	**2,804**	**2,186**	**1,152**	**383**	**7,750**	**17,553**
	Loss %	**32.2%**	**30.9%**	**28.1%**	**22.7%**	**8.3%**	**23.7%**	**25.3%**

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N/A-Not available.

Table A.6: Wyoming Workforce Entries Between 1999 and 2000 Appearing in MOU States* by Industry and Age

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Agriculture	**Count**	**59**	**62**	**32**	**25**	**9**	**190**	**377**
	Gain %	**20.3%**	**28.4%**	**19.8%**	**18.2%**	**12.2%**	**20.7%**	**21.0%**
Mining								
Coal Mining	**Count**	13	13	8	7	5	50	96
	Gain %	34.2%	30.2%	28.6%	31.8%	41.7%	27.0%	29.3%
Oil & Gas Extraction	Count	68	148	123	58	3	384	784
	Gain %	21.5%	32.5%	29.9%	29.4%	4.5%	27.6%	27.6%
All Other Mining	Count	13	16	20	2	0	27	78
	Gain %	27.1%	34.8%	50.0%	12.5%	0.0%	20.8%	26.8%
Total	**Count**	**94**	**177**	**151**	**67**	**8**	**461**	**958**
	Gain %	**23.3%**	**32.5%**	**31.5%**	**28.5%**	**8.9%**	**27.0%**	**27.7%**
Construction								
General Building Contractors	Count	38	100	75	33	4	304	554
	Gain %	17.8%	35.8%	31.9%	26.2%	8.7%	28.4%	28.1%
Heavy Construction	Count	81	160	201	102	34	1,286	1,864
	Gain %	36.0%	45.6%	47.5%	47.0%	30.9%	41.8%	42.3%
Special Trade Construction	Count	81	169	135	65	18	730	1,198
	Gain %	19.5%	36.7%	32.9%	29.4%	17.8%	34.8%	32.3%
Total	**Count**	**200**	**429**	**411**	**200**	**56**	**2,320**	**3,616**
	Gain %	**23.4%**	**39.3%**	**38.5%**	**35.5%**	**21.8%**	**37.1%**	**35.9%**
Manufacturing								
Total	**Count**	**76**	**100**	**81**	**48**	**19**	**242**	**566**
	Gain %	**18.7%**	**28.9%**	**27.0%**	**25.5%**	**17.1%**	**21.3%**	**22.7%**
Transportation, Communications, & Public Utilities (TCPU)								
Total	**Count**	**35**	**115**	**102**	**72**	**22**	**239**	**585**
	Gain %	**20.3%**	**32.4%**	**29.1%**	**27.9%**	**13.4%**	**23.8%**	**25.4%**
Wholesale Trade								
Total	**Count**	**29**	**65**	**50**	**26**	**13**	**107**	**290**
	Gain %	**17.4%**	**33.2%**	**25.4%**	**19.7%**	**17.3%**	**18.7%**	**21.7%**
Retail Trade								
Food Stores	Count	58	36	34	15	5	239	387
	Gain %	10.1%	26.7%	25.0%	18.3%	10.4%	31.6%	22.4%
Auto Dealers & Service Stations	Count	94	91	76	30	6	236	533
	Gain %	16.5%	27.8%	29.7%	19.9%	4.6%	16.5%	18.6%
Eating & Drinking Places	Count	332	181	86	25	11	737	1,372
	Gain %	10.9%	25.6%	18.6%	11.6%	7.8%	15.6%	14.7%
All Other Retail Trade	Count	197	153	110	73	24	491	1,048
	Gain %	16.3%	25.5%	21.4%	18.9%	11.0%	19.9%	19.4%
Total	**Count**	**681**	**461**	**306**	**143**	**46**	**1,703**	**3,340**
	Gain %	**12.6%**	**26.1%**	**22.4%**	**17.1%**	**8.5%**	**18.2%**	**17.3%**
Finance, Insurance, & Real Estate (FIRE)								
Total	**Count**	**37**	**76**	**47**	**32**	**9**	**105**	**306**
	Gain %	**19.9%**	**35.3%**	**23.3%**	**22.1%**	**8.9%**	**17.3%**	**21.0%**
Services								
Hotels & Other Lodging Places	Count	128	142	124	54	17	909	1,374
	Gain %	14.5%	20.3%	20.8%	26.5%	10.7%	16.9%	17.4%
Business Services	Count	115	169	101	69	24	583	1,061
	Gain %	18.9%	31.1%	24.0%	22.3%	12.2%	26.6%	24.9%
Amusement & Recreation Services	Count	20	36	17	3	5	226	307
	Gain %	10.1%	17.7%	18.5%	4.8%	9.8%	22.7%	19.2%
Health Services	Count	51	77	69	59	13	184	453
	Gain %	22.9%	23.4%	23.0%	22.3%	15.3%	19.5%	21.1%
Social Services	Count	49	57	21	24	5	92	248
	Gain %	19.9%	23.4%	13.5%	14.1%	4.0%	16.5%	16.5%
Engineering & Management Services	Count	36	64	37	26	9	166	338
	Gain %	23.5%	41.6%	25.9%	22.0%	18.0%	23.0%	25.2%
All Other Services	Count	69	111	70	38	18	296	602
	Gain %	12.1%	25.1%	18.5%	16.2%	10.3%	17.8%	17.4%
Total	**Count**	**468**	**656**	**439**	**273**	**91**	**2,456**	**4,383**
	Gain %	**16.3%**	**25.1%**	**21.0%**	**20.0%**	**10.8%**	**19.7%**	**19.7%**

*MOU States are states with which Wyoming has data sharing agreements. They include Colorado, Idaho, Nebraska, New Mexico, South Dakota, Texas, and Utah.
N/A-Not available.

Table A.6: Wyoming Workforce Entries Between 1999 and 2000 Appearing in MOU States* by Industry and Age (Continued)

		Age Group						
		<=24	25-34	35-44	45-54	55+	N/A	Total
Government								
State Govt. Public Administration	Count	11	35	11	20	4	21	102
	Gain %	19.3%	31.3%	15.3%	22.7%	5.5%	25.3%	21.0%
State Govt. Other	Count	20	32	14	14	8	44	132
	Gain %	10.5%	20.1%	21.5%	15.9%	26.7%	21.8%	18.0%
Education	Count							
	Gain %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Local Govt. Public Administration	Count	36	42	32	25	7	91	233
	Gain %	11.8%	28.6%	21.1%	20.3%	6.5%	13.7%	15.5%
Local Govt. Other	Count	67	122	115	123	30	239	696
	Gain %	16.1%	23.6%	17.9%	25.8%	13.4%	17.3%	19.0%
Education	Count							
	Gain %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total	**Count**	**134**	**231**	**172**	**182**	**49**	**395**	**1,163**
	Gain %	**13.8%**	**24.7%**	**18.4%**	**23.5%**	**11.3%**	**16.9%**	**18.2%**
Not Available	**Count**	**2**	**4**	**2**			**8**	**16**
	Gain %	**14.3%**	**15.4%**	**9.1%**	**0.0%**	**0.0%**	**8.7%**	**9.1%**
Grand Total	**Count**	**1,815**	**2,376**	**1,793**	**1,068**	**322**	**8,226**	**15,600**
	Gain %	**15.5%**	**28.6%**	**25.0%**	**23.0%**	**11.9%**	**22.6%**	**22.0%**

*MOU States are states with which Wyoming has data sharing agreements. They include Colorado, Idaho, Nebraska, New Mexico, South Dakota, Texas, and Utah.

N/A-Not available.

Appendix B

Table B.1: Wyoming Short-Term Projected Net Growth by Industry, 2000 to 2004

Industry*		Employment 2000	Employment Projected 2004	Change Net	Change Percent
Agriculture	Agricultural Services (SIC 07)	1,560	1,881	321	20.6%
Mining	Metals (SIC 10)	469	407	-62	-13.2%
	Coal (SIC 12)	4,637	5,015	378	8.2%
	Oil & Gas Extraction (SIC 13)	9,477	9,985	508	5.4%
	Nonmetallic Minerals (SIC 14)	2,715	2,572	-143	-5.3%
Construction	General Contractors (SIC 15)	4,285	4,668	383	8.9%
	Heavy Construction (SIC 16)	5,301	5,344	43	0.8%
	Special Trade Contractors (SIC 17)	8,085	8,567	482	6.0%
Manufacturing	Food (SIC 20)	1,069	938	-131	-12.3%
	Textiles (SIC 22)	29	28	-1	-3.4%
	Apparel (SIC 23)	225	268	43	19.1%
	Lumber & Wood Products (SIC 24)	1,205	1,103	-102	-8.5%
	Furniture & Fixtures (SIC 25)	120	144	24	20.0%
	Paper (SIC 26)	0	0	0	0.0%
	Printing & Publishing (SIC 27)	1,650	1,688	38	2.3%
	Chemicals (SIC 28)	2,016	1,810	-206	-10.2%
	Petroleum Refining (SIC 29)	931	925	-6	-0.6%
	Rubber & Plastics (SIC 30)	264	327	63	23.9%
	Leather (SIC 31)	70	74	4	5.7%
	Stone, Clay, & Glass (SIC 32)	881	959	78	8.9%
	Primary Metals (SIC 33)	199	179	-20	-10.1%
	Fabricated Metals (SIC 34)	723	853	130	18.0%
	Indus. Machinery & Computers (SIC 35)	1,049	1,055	6	0.6%
	Electrical Components (SIC 36)	240	300	60	25.0%
	Transportation Equipment (SIC 37)	395	427	32	8.1%
	Measuring & Analyzing Instr. (SIC 38)	145	165	20	13.8%
	Misc. Manufacturing (SIC 39)	190	213	23	12.1%
Transportation, Communications, & Public Utilities (TCPU)	Railroads (SIC 40)	60	64	4	6.7%
	Local Transit (SIC 41)	619	676	57	9.2%
	Motor Freight & Warehousing (SIC 42)	3,712	3,858	146	3.9%
	Water Transportation (SIC 44)	41	53	12	29.3%
	Air Transportation (SIC 45)	1,274	1,376	102	8.0%
	Pipelines (SIC 46)	202	188	-14	-6.9%
	Transportation Services (SIC 47)	452	475	23	5.1%
	Communications (SIC 48)	2,220	2,172	-48	-2.2%
	Electric, Gas, & Sanitary (SIC 49)	3,009	2,807	-202	-6.7%
Wholesale Trade	Durable Goods (SIC 50)	4,446	4,853	407	9.2%
	Nondurable Goods (SIC 51)	3,350	3,402	52	1.6%
Retail Trade	Bldg. Materials & Garden Supplies (SIC 52)	2,017	2,349	332	16.5%
	General Merchandise (SIC 53)	5,433	5,976	543	10.0%
	Food Stores (SIC 54)	5,593	5,543	-50	-0.9%
	Auto Dealers & Service Stations (SIC 55)	8,236	8,677	441	5.4%
	Apparel & Accessory Stores (SIC 56)	1,257	1,195	-62	-4.9%
	Home Furniture & Equipment (SIC 57)	1,608	1,832	224	13.9%
	Eating & Drinking Places (SIC 58)	17,302	17,845	543	3.1%
	Miscellaneous Retail (SIC 59)	5,551	6,018	467	8.4%
Finance, Insurance, & Real Estate (FIRE)	Depository Institutions (SIC 60)	3,336	3,405	69	2.1%
	Nondepository Credit Institutions (SIC 61)	428	433	5	1.2%
	Security Brokers & Exchanges (SIC 62)	427	484	57	13.3%
	Insurance Carriers (SIC 63)	744	724	-20	-2.7%
	Insurance Agents & Brokers (SIC 64)	1,084	1,063	-21	-1.9%
	Real Estate (SIC 65)	1,873	1,947	74	4.0%
	Holding & Investment Offices (SIC 67)	270	309	39	14.4%

*Based on 2-digit Standard Industrial Classification (SIC) code.

Table B.1: Wyoming Short-Term Projected Net Growth by Industry, 2000 to 2004 (Continued)

Industry*		Employment 2000	Employment Projected 2004	Change Net	Change Percent
Services	Hotels & Lodging Places (SIC 70)	9,318	9,854	536	5.8%
	Personal Services (SIC 72)	1,955	2,138	183	9.4%
	Business Services (SIC 73)	8,078	9,447	1,369	16.9%
	Auto Repair & Parking (SIC 75)	2,102	2,382	280	13.3%
	Misc. Repair (SIC 76)	856	1,005	149	17.4%
	Motion Pictures (SIC 78)	661	699	38	5.7%
	Amusement & Recreation (SIC 79)	3,050	3,314	264	8.7%
	Health Services (SIC 80)	17,892	19,728	1,836	10.3%
	Legal Services (SIC 81)	1,260	1,301	41	3.3%
	Educational Services (SIC 82)	24,480	25,449	969	4.0%
	Social Services (SIC 83)	6,805	8,160	1,355	19.9%
	Museums, Botanical Gardens (SIC 84)	332	378	46	13.9%
	Membership Organizations (SIC 86)	1,721	1,763	42	2.4%
	Engineering & Management (SIC 87)	4,009	5,115	1,106	27.6%
	Misc. Services (SIC 89)	197	255	58	29.4%
Government	Exec., Legislative, & General Govt., except Finance	3,899	3,949	50	1.3%
	Justice, Public Order, & Safety	7,026	7,312	286	4.1%
	Public Finance, Taxation, & Monetary Policy	9,727	10,253	526	5.4%
Total		**227,842**	**240,121**	**12,279**	**5.4%**

*Based on 2-digit Standard Industrial Classification (SIC) code.