

The background of the cover is a photograph of an industrial oil facility at dusk or night. A tall, dark metal derrick stands on the left, with a bright orange flame or light at its top. In the background, a complex of pipes, tanks, and structures is illuminated by numerous small lights, creating a glowing effect against the dark blue sky. A large, dark, stylized arrow shape points from the left towards the right, partially overlapping the title text.

ALASKA ECONOMIC
TRENDS

September 2003

The Oil Industry

Alaska Department of Labor
and Workforce Development

Frank H. Murkowski
Governor of Alaska

ALASKA ECONOMIC TRENDS

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**Frank H. Murkowski, Governor of Alaska
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and Workforce Development**

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The Oil Industry

by Neal Fried and
Brigitta Windisch-Cole
Labor Economists

Alaska's oil and gas industry is a large pillar in the economy, a small one in the workforce

Oil has played central roles in Alaska's economy and psyche since 1957, when the Kenai fields were discovered. The economic implications of this find were important in the statehood movement and Alaska's admission to the Union. In 1968, the discovery of the massive Prudhoe Bay field ushered in a new era of prosperity for Alaska. The jobs directly created by the oil industry have never been great in number, but they remain some of the most sought after in the state's labor market. A highly skilled workforce commands the highest wages in Alaska. A certain mystique is associated with oil patch employment, evoking visions of hard physical work performed in a harsh arctic environment. These jobs are the Alaska equivalent of Seattle's software workforce, Detroit's auto industry or New York's financial sector.

Industry is a major force in the economy

Seventeen percent of the state's gross product flows from oil. Revenues from the industry consistently bankroll 80 percent of unrestricted dollars in the state general fund. Alaska's Permanent Fund is based on oil. The industry is a major source of local property taxes in communities where it is present. The oil industry is, in short, a mainstay of the economy of the state of Alaska.

In this article, a direct oil and gas industry employer is defined as a company primarily engaged in oil and gas extraction, drilling or support activities for

oil and gas operations, (ConocoPhillips, Alaska Petroleum Contractors, Halliburton Energy Services, Forest Oil Corporation, Houston/NANA.) (See Exhibit 1.) Using this narrow definition, oil and gas producing employment will be referred to as "oil industry employment." In 2002, oil

Alaska's Largest Employers In the oil industry – 2002

Annual Avg. Employment

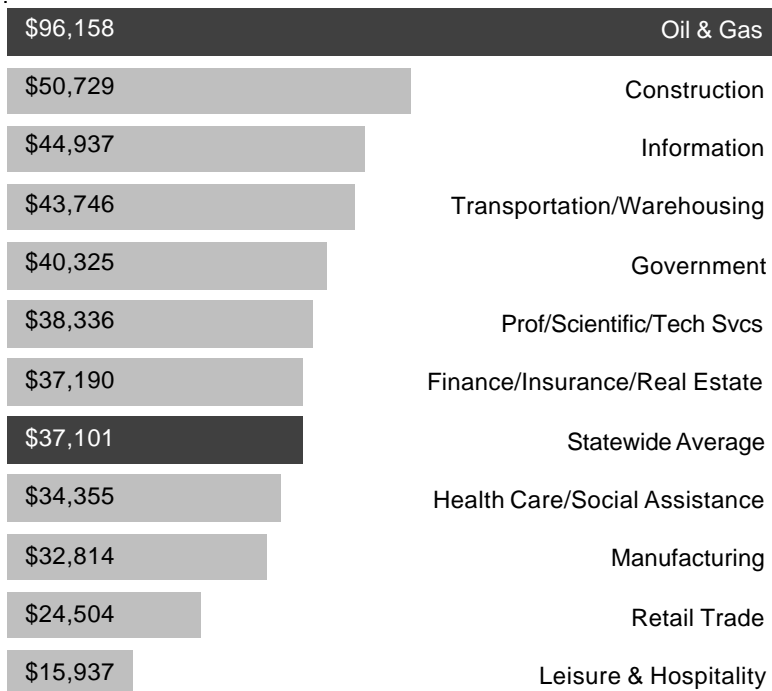
1	BP Exploration	1,549
2	Alaska Petroleum Contractors	1,210
3	VECO	1,127
4	ConocoPhillips	946
5	Peak Oilfield Service Company	671
6	Nabors Alaska Drilling Company	558
7	Schlumberger Technologies	419
8	Houston/NANA Joint Venture	412
9	Union Oil of California (Unocal)	357
10	Halliburton Energy Services	352
11	Doyon Drilling	202
12	Norcon	155
13	Baker Hughes Oilfield Operations	133
14	Kakivik Asset Management	114
15	M-I LLC	103
16	Fairweather E&P Services	80
17	ASCG Inspection Services	79
18	R & K Industrial	78
19	Inlet Drilling	75
20	CCI, Inc.	63

Note: Numbers represent companies' total employment, not all of which is necessarily in the oil industry. See note at end of article.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

2 Oil Earnings in a League of their Own

2002 annual average wage and salary



Source: Alaska Department of Labor & Workforce Development, Research and Analysis Section

industry employment stood at 8,800, and represented only three percent of all wage and salary employment in Alaska. If this definition were broadened to include pipeline transportation (mostly Alyeska), petroleum refineries and other downstream operations, the percent of total wage and salary employment would climb to nearly four percent. Because oil industry earnings are nearly three times Alaska's average earnings, payroll impacts are more impressive. (See Exhibit 2.) Oil industry employment represents seven percent of all wage and salary payroll, and if pipelines and downstream operations are included the share grows to nine percent.

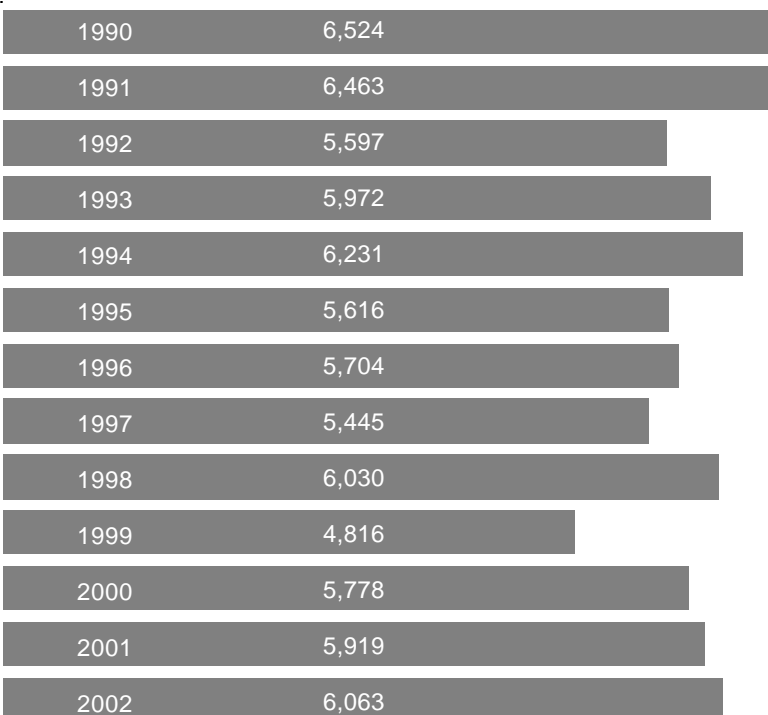
Thousands of other jobs service this industry, but they are not classified as oil industry employment. For example, in 2002 of the more than 6,000 jobs in Prudhoe Bay, 27 percent were not associated with oil industry employers. Jobs directly created by the oil industry, but not identified as oil industry employment include catering, security, construction contracting, transportation, engineering, and other support services. In Anchorage, Alaska's headquarters for the industry, the size of the workforce directly attached to the oil and gas industry but not identified as oil industry employment is probably even larger. According to the University of Alaska Anchorage, nearly a quarter of all jobs in the state can be attributed to petroleum. If the Permanent Fund and the Constitutional Budget Reserve were included in the aggregation, the share would move closer to a third of all jobs. (See Exhibit 3.)

Employment peaked in 1991 but 2001 was fairly strong

For most of the past decade, employment levels in the oil industry fluctuated from year to year, with an overarching declining trend punctuated by strong recoveries. Oil industry employment peaked in 1991 at 10,700, three years after oil production reached its high point in 1988. (See Exhibits 4 and 5.) The fact that national oil industry employment peaked nearly a decade earlier in 1982, signals the relative youth of Alaska's oil industry. (See Exhibit 6.) Factors other than production levels and prices help explain

3 Prudhoe Bay Employment

Average annual oil and support industries



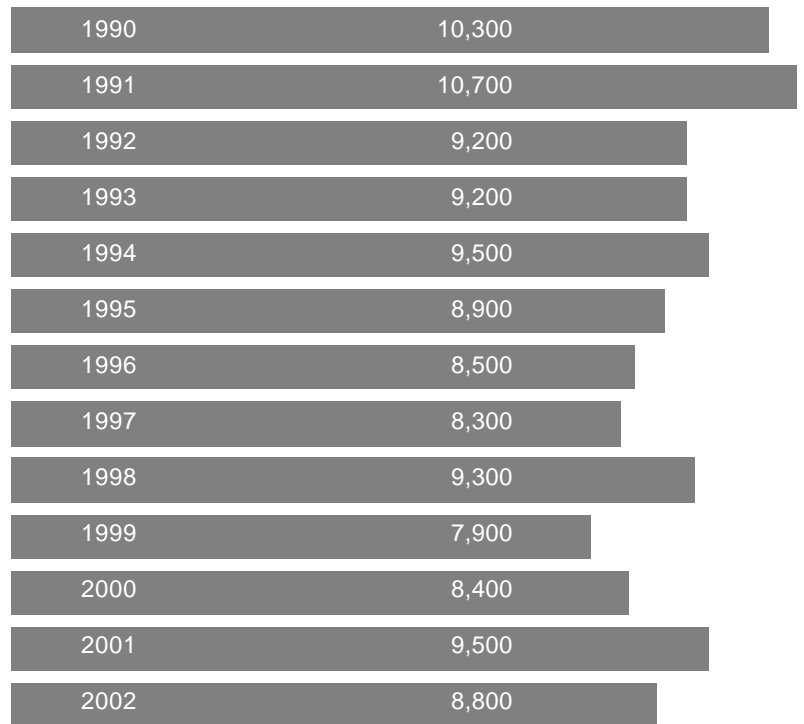
Source: Alaska Department of Labor & Workforce Development, Research and Analysis Section

the changing size of the industry's workforce. Over the decade dramatic improvements in technology affected employment levels. Major oil producers increasingly relied upon contractors, consultants, outside suppliers and temporary workers to perform tasks previously performed by their permanent staff. Because these employers were not identified as oil producers, employment gains and losses caused by oil related work were increasingly attributed to other industries.

In 1991-1992, British Petroleum and other oil industry employers and contractors responded to declining oil prices with major restructuring and consolidation. For the next three years employment remained relatively stable. Weak oil prices and other factors eventually caught up with the industry in late 1994 and 1995 when Atlantic Richfield made major cuts in the workforce. The downsizing cost the industry 1,800 jobs between 1991 and 1995, a record loss. These losses were spread among the major oil producers and oil field service companies. Smaller losses continued through 1997. In 1998 employment in Alaska's oil patch began a strong recovery with the development of Alpine, Tarn, and Badami, complemented by drilling at West Sak and preliminary work at North Star, Liberty and other fields. This new investment led to an optimism captured by Atlantic Richfield's mantra "no decline after 1999". In fact, as a result of these developments, overall North Slope production stabilized in 2001 for the first time in about a decade and should remain relatively stable for a number of years.

While oil production shows signs of stability, oil prices continue to fluctuate, sometimes widely, driven by world markets. Changes in the price per barrel can affect employment levels in the state. As an example, oil prices plunged from nearly \$19 per barrel in 1997 to \$12.55 in 1998. Near-record employment losses followed in 1999 when oil industry employment fell below the 8,000 level for the first time since 1983. (See Exhibit 4.) These reductions reverberated throughout the state's economy. That year total employment in Alaska grew by barely one percent compared to 2.3% in 1998. In fact, nearly every

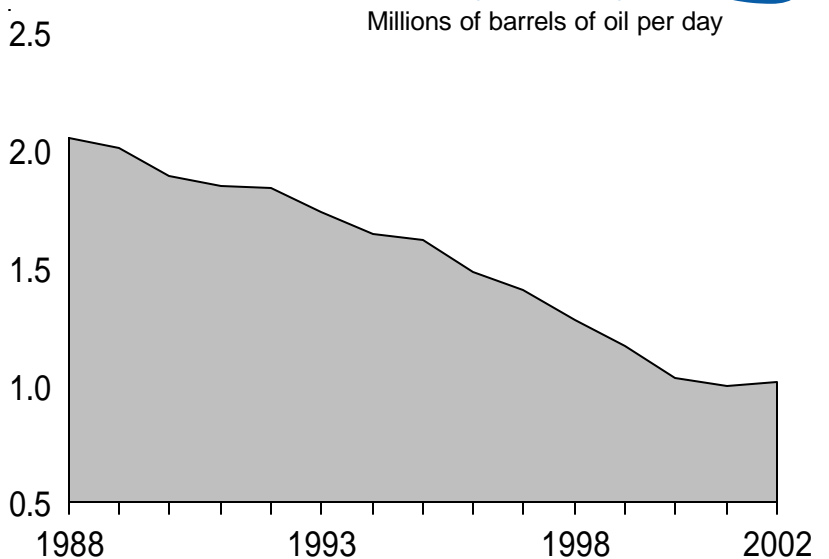
Oil Industry Employment In Alaska **4**



Note: See explanatory note at end of article.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Oil Production Has Fallen Faster Than oil industry employment **5**



Source: Alaska Department of Revenue, Oil and Gas Division

year of sub-par employment growth in the overall economy over the past decade coincided with weak years in the oil patch—evidence of the multiplier effect the industry has on the state’s economy. By late 2000, recovery was in full swing and in 2001 employment reached a ten-year high. This peak was nearly 1,600 jobs higher than the industry’s nadir in 1999, a recovery which most observers had not thought possible. The near concurrent development of both the Alpine and North Star oil fields was the major reason for this strong upswing. A factor contributing to the resurgent employment involved the Alaska construction of large oil modules. Historically these had been built in the lower 48 states or overseas but now were being fabricated in Kenai and Anchorage. The year 2000 was momentous for another reason: Alaska’s largest oil industry employer and the discoverer of the Prudhoe Bay fields, Atlantic Richfield, disappeared from the scene when it sold its assets to British Petroleum and Phillips (now ConocoPhillips).

Work on the Alpine and North Star projects was nearing completion by late 2001 and employment began to fall steeply. By 2002, oil industry employment had declined by eight percent and by June of 2003 it has reached near 1999 levels. While high oil prices have prevailed over the past four years, employment has continued this downward trend. Few new projects are underway and little is on the horizon that would change this pattern in the near term. Most job losses have been in oil field services and the contractor share of the industry. British Petroleum trimmed its workforce by moving the exploration department out of the state, but contractors, drillers and other supporting employers account for more than 90 percent of the reductions.

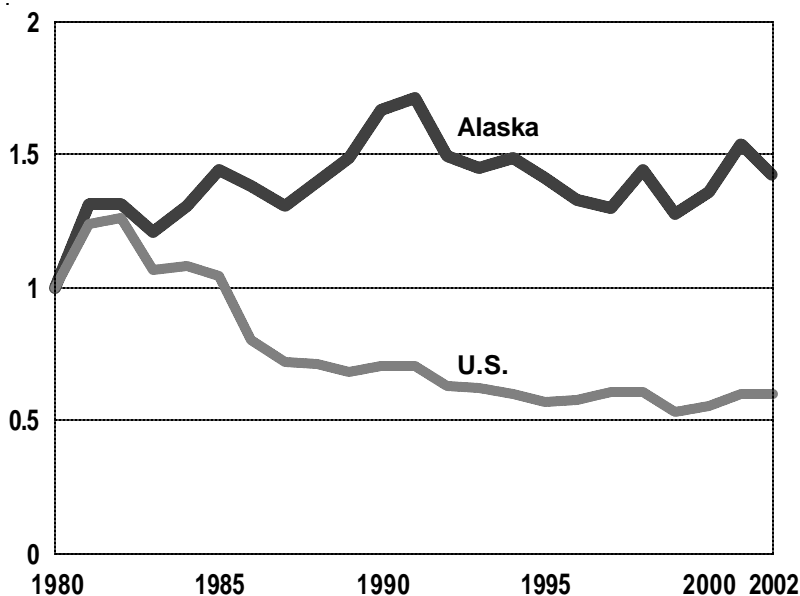
On the brighter side, a number of independents have entered the market in recent years, and Cook Inlet has experienced some resurgence in activity. The new players include Anadarko, XTO Energy, Forest Oil Corporation, Evergreen, Pioneer, Winstar, the French company Total, and a number of others. Winstar was formed by a group of Alaska investors. Arctic Slope Regional Corporation recently announced plans to expand their oil service contracting operations to include exploration and production. The phenomenon of independents’ moving into what were considered mature fields by larger producers and breathing new life into them has happened in other places in the country, such as the Gulf of Mexico.

Most of the workforce is in the North Slope, Anchorage, and Kenai

Three of Alaska’s boroughs, Anchorage, the North Slope, and the Kenai Peninsula, account for over ninety percent of oil patch employment. (See Exhibit 7.) Production facilities are based in the latter two while management headquarters are typically located in Anchorage. The North Slope has the largest concentration of oil industry workers. The oil industry accounts for nearly half of the North Slope’s wage and salary employment. Alaska’s mature oil province, the Kenai Peninsula, has the most diverse hydrocarbon industry in the

6 U.S. Oil Industry Employment Peaks in 1982

Indexed employment (base 1980 = 1)



Sources: U.S. Department of Labor, Bureau of Labor Statistics; Alaska Department of Labor and Workforce Development, Research and Analysis Section

state—oil and gas production, pipeline transportation, a liquid natural gas facility (LNG), an oil refinery and a urea-ammonia fertilizer plant. These players represent 10 percent of the Peninsula’s wage and salary employment and 18 percent of the payroll. Most oil industry employment in Valdez and Fairbanks involves the transport of North Slope oil. Approximately 15 percent of Valdez’s direct employment is tied to the Trans-Alaska Pipeline. Although direct oil industry employment is relatively small, Fairbanks is a major logistic and supply center for the North Slope. Valdez and Fairbanks are also home to oil refineries.

Although most of the jobs in the industry are located in a limited number of geographic areas, the workforce is drawn from all around the state and nation. This is particularly true for the North Slope, where very few oil workers reside. For example, there are only a handful of oil industry jobs in the Mat-Su Valley but three percent of the borough’s labor force commute to the North Slope to work. Many residents of the Kenai Peninsula, which has the second highest concentration of oil industry related jobs, work in the oil industry elsewhere. According to the 2000 Census, 755 Kenai Peninsula residents worked on the North Slope, a figure exceeded only by Anchorage (1,541) and the Mat-Su Borough (813). Over the past decade, between 22 and 29 percent of Alaska’s oil industry workers have been nonresidents. (See Exhibit 8.) In places like Fairbanks, Anchorage, Valdez and Kenai, local residents make up a much larger percentage of the oil industry workforce. There is probably not an area in the state that does not send some of its workforce to Alaska’s oil fields.

How does Alaska compare to other oil producing states?

Since 1979, Alaska has been the nation’s number two oil-producing state but one would not know it from the size of its workforce. In 2002 Texas produced 15 percent more oil than Alaska employing an oil industry workforce of 133,802, 15 times larger than Alaska’s. (See Exhibit 9.)

Oil Industry Employment

By location – 2002

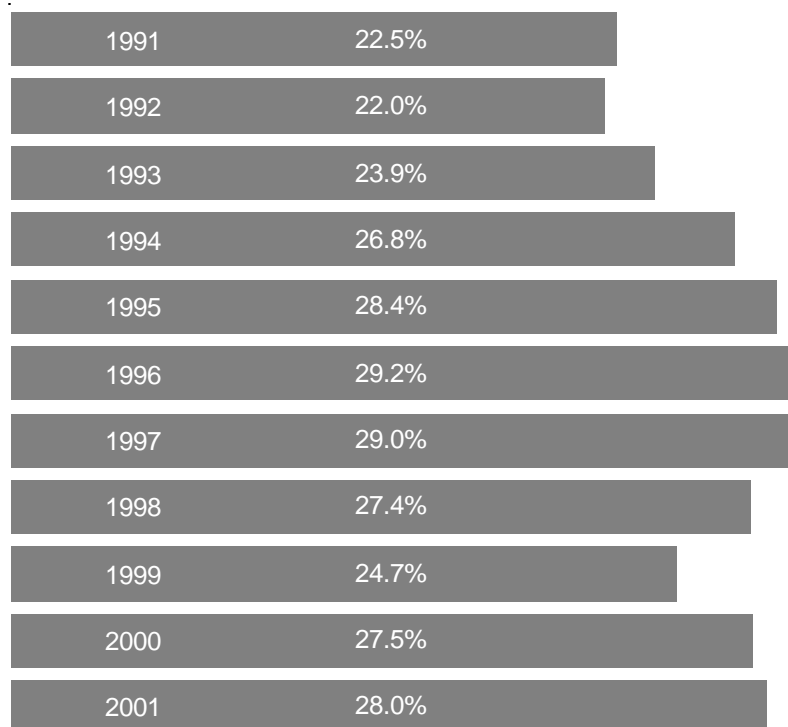
	Oil Industry	Petro-chemical/ Refinery	Oil Transportation	Total	Percent
Statewide	8,761	732	1,036	10,529	100%
Anchorage	2,897	15	343	3,255	31%
Fairbanks North Star	49	221	202	472	4%
Kenai Peninsula	1,266	473	15	1,754	17%
North Slope	4,424		41	4,465	42%
Valdez-Cordova	23	23	375	421	4%
Other	102		60	162	2%

Note: See explanatory note at end of article.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Percent Nonresident Workers

In Alaska’s oil industry



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Oklahoma, with oil production one fifth that of Alaska, employed a workforce nearly three times larger. Alaska produces 17 percent of the nation's oil with only 2.6 percent of the industry's U.S. workforce. (See Exhibit 10.)

One of the reasons for the state's relatively small workforce is that Alaska oil fields enjoy economies of scale. Prudhoe Bay accounts for 45 percent of the North Slope's production and is the largest oil field in the nation. Large fields do not necessarily require more workers than smaller fields. Other fields on the North Slope such as Kuparuk (second largest), Alpine, Milne Point, and Liberty are among the nation's larger oil fields. In Texas, Oklahoma, and other oil producing states, oil is produced from large, medium and very small fields. They also produce more gas commercially. In 2001, Texas had 128,823 operating "stripper wells," which produce 10 barrels of oil or less per day. In many states, there are literally hundreds of "mom and pop" type oil producers, but such small scale efforts do not currently exist in Alaska. The rig count of current drilling operations is an indicator of activity level; the June 2003, Baker

Hughes rig count showed 5 for Alaska, 466 for Texas and 154 for Louisiana. Even the count in Ohio was higher! If Alaska's oil fields were not so remote, employment in Alaska's oil patch would be considerably higher. Oil fields now considered marginal or noneconomic would be viable in a more populated, less remote environment.

Company headquarters are elsewhere

Few oil companies are headquartered or regionally based in Alaska. This means that much of the employment associated with Alaska oil production is located elsewhere. Although Alaska's oil production represents 58 percent of BP's domestic production and 84 percent of Conoco/Phillips' production, company headquarters are located in other parts of the nation and world. This is also true for many of the oil field service companies and contractors. Other corporate functions such as planning and research are undertaken in places like Houston, which is home to nearly 60,000 oil industry workers. Many of these workers are servicing oil industry activity elsewhere in the country and world.

Firms like Alaska Petroleum Contractors, VECO, Winstar, and Houston/NANA are home grown and headquartered in the state. But nearly all the Alaska oil industry workforce is dedicated to the production of Alaska oil, and is not involved in worldwide development. There are, of course, exceptions. Some Alaska based firms have used their arctic expertise to perform work in places like Sakhalin Island.

Not only does Alaska have a relatively smaller oil extraction workforce, it also has a relatively smaller transportation infrastructure and fewer downstream operations, such as refineries. While the state has an 800-mile pipeline and a number of shorter ones, they do not compare to the thousands of miles of pipeline that snake through other states. There are a number of reasons why there are fewer downstream-type operations. Alaska is distant from consuming markets and it is more cost effective to ship crude oil long distances than refined products. Refineries in Alaska service

9 Employment and Production

Oil industry by state – 2002

	Oil and Gas Employment	Petroleum Refinery Employment	Pipeline Transportation (Millions of barrels)	Annual Oil Production
Alaska	8,761	732	1,037	359.3
Texas ²	133,802	20,960	15,455	412.0
California ¹	16,441	13,447	n/a	258.0
Colorado ²	7,257	372	790	17.7
Louisiana ²	69,009	9,536	2,294	93.5
Oklahoma	25,031	2,206	1,625	66.6
New Mexico	9,765	611	1,002	67.0
Wyoming	9,903	834	610	54.7

Note: Employment data are preliminary for 2002, except for California.

¹ Employment data are for year 2001.

² Employment averages based on first three quarters of 2002.

Sources: Alaska Department of Labor and Workforce Development, Departments of Labor, Texas, California, Colorado, Louisiana, Oklahoma, New Mexico, and Wyoming. Energy Information Administration

only local demand, which is relatively small. These refineries include Williams and Petro Star in Fairbanks, Tesoro in Kenai, and Petro Star in Valdez. There are two downstream operations that are exceptions—the Phillips LNG operation and Agrium’s urea plant on the Kenai Peninsula. Both of these operations export their products to national and international markets.

Earnings in the oil industry are high

The oil industry provides the highest annual average wages in Alaska, \$96,158 in 2002. (See Exhibit 2.) This was nearly 160 percent above the all-industry average of \$37,101. Several reasons underlie this large pay differential. Some significant ones include the profitability of the industry, the high skill and experience level of its workforce and the demanding work schedules. Overtime, mostly stemming from scheduled shift rotations on the North Slope or on the platforms, plays a big role and significantly enhances annual earnings. The most common shift rotations are based on a schedule of one week on/one week off or two weeks on/two weeks off. Often employees on remote sites are scheduled to work 84 hours a week, which would translate into 40 hours of straight time and 44 hours of overtime.

Other reasons for the higher pay include remote work sites, the hazards of some occupations, and the extreme climate encountered in Alaska’s oilfields. Moreover, an incentive premium is most likely inherent in the hourly pay to compensate workers for the prolonged periods of separation from their families. Long tenure in the industry is also reflected in hourly pay rates.

Wages in oil producer companies tend to be higher than those in oilfield or drilling support firms. Producer firm employment also provides greater job security. Work in support firms is more project-oriented, and often terminates upon completion of the project. This partially explains the dramatic variance in employment levels that characterizes oil support industries.

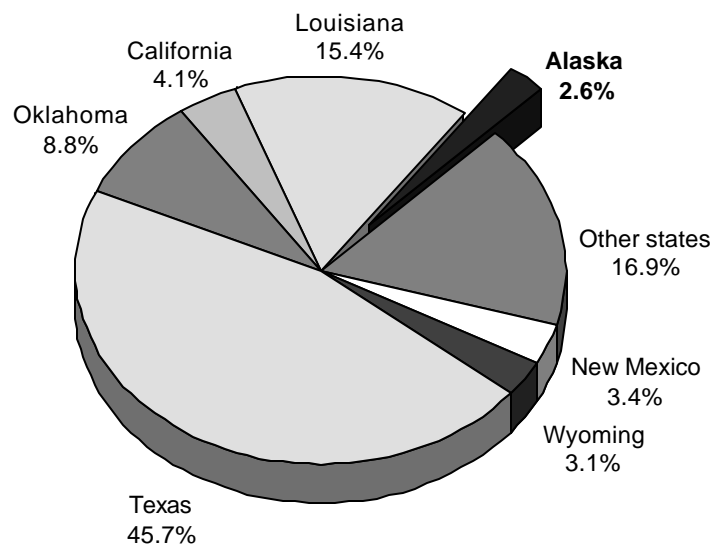
It is a high skill industry

The industry’s workers are known not only for their high pay, but also for their expertise and endurance. Workers are often very specialized and hold occupations that exist only in the oil industry. They are part of a global workforce and many Alaska workers have worked in oilfields in other parts of the world.

In general, the industry employs careful and selective hiring practices. Potential workers undergo thorough scrutiny. According to industry employers, hiring, training, transportation to and accommodations at remote sites are high cost expenses, and careful personnel selection plays a pivotal role in business success. Usually the oil industry can hire employees from a large candidate pool. Job seekers face stiff competition from other applicants attracted by the high wages.

In 2002, nine oil producer firms formed the core of the Alaska oil industry while 65 businesses contracted with these producers to perform oil

Nationally, Alaska Plays Small **10** Role in oil industry employment



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

field services or drilling support. Employment at producer firms made up 32 percent of the industry's workforce and the remainder represented employment in firms under contract to the producers.

Staffing patterns in the industry

Although occupational titles and duties may vary from one company to another, most job functions in the industry are similar. Staffing patterns in producer companies do not change as frequently as in oil-service companies. During development phases of new oilfields for example, oil service support firms typically furnish most of the required construction labor. This workforce waxes and wanes with oil field development activity.

Alaska's oil workers have strong technical backgrounds

Alaska's oil and gas industry occupational mix differs to some degree from that in the oil-producing states in the lower 48. Distribution and marketing play a smaller role in Alaska's workforce than elsewhere because the industry concentrates on exploration and production. This difference means that Alaska's oil workforce tends to have a stronger technical background. The industry's staffing pattern in year 2000 indicates that roughly 80 percent of all employees are in occupations that require technical skills of varying degrees.

The industry's specific occupational mix

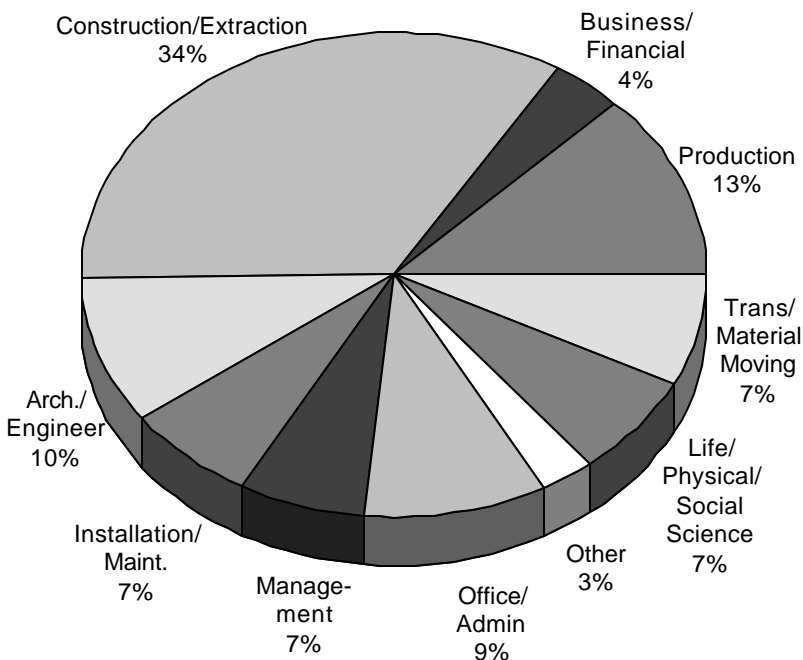
The occupational mix in the oil industry changes with the nature of the work being done at the time. The occupational staffing pattern in the following discussion reflects conditions in year 2000, when large oil development projects such as Alpine and Northstar were under way.

The sorting of occupations according to the Standard Occupational Classification system revealed that construction and extraction related jobs formed the largest group, (34 percent) in the oil industry. (See Exhibit 11.) Roustabouts, operating engineers and construction equipment operators were the most frequently occurring occupations.

Production occupations formed the second largest work group, claiming 13 percent of all jobs. Within this group the highly specialized occupation of petroleum pump system operator was the most numerous. Welders were the second largest production occupation.

Architecture and engineering occupations made up the third largest group with 10 percent of all occupations. This group included several engineering specialties with petroleum engineers the largest. Drafters, engineering and mapping technicians were included in the second most prevalent occupation group.

11 A Distinct Staffing Pattern Underlies Alaska oil industry



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Office support and administrative jobs formed a nine percent share of the industry's workforce. The three most common occupations were secretaries, office clerks, and human resource assistants.

Among transportation and material moving personnel, who claimed seven percent of all jobs, the occupation of pump operator dominated. Installation, maintenance and repair jobs accounted for an additional seven percent. Within this group, general maintenance and repair workers and industrial machine mechanics were the two most frequent job titles. Life, physical, and social science occupations were also represented with a seven percent share. Geological & petroleum technicians were the most frequent of this group.

Management consisted of a diversified team with a seven percent share of the industry's workforce. While nearly 60 percent of leadership positions were closely linked to a professional field, 40 percent were classified as general managers.

The remainder of the occupational mix attributes four percent to business and financial functions and three percent to other functions. Industry business and financial occupations list jobs such as cost estimators, accountants, and purchasing agents. The "other" category includes computer specialists, legal professionals, communications specialists, sales personnel, and health care practitioners. Among them, occupational health & safety specialists & technicians formed the largest occupation.

Education and training

The oil industry workforce is a well educated and experienced labor pool. More than 20 percent of its workers have jobs that require bachelor degrees or higher, often combined with additional experience. Petroleum engineers, other engineers, and geo-scientists and their managers form the largest professional and managerial categories that require a bachelor degree and higher.

Nearly 12 percent of all occupations require associate or other post-secondary vocational degrees. Petroleum and engineering technicians and drafters usually have associate degrees, and many craftsmen were trained in post-secondary vocational institutes, graduating with certificates in their specialized trade. Among the crafts represented in the oil industry that require vocational training, welders are the most widespread.

Work experience is important in the industry and 26 percent of the positions require long term training. Most first-line supervisors had long term on-the-job training in their specialty and were promoted through the ranks. Other tradesmen such as plumbers, electricians, and other maintenance workers also attain expertise in their trade at work over a long period of time.

Operating engineers & other construction equipment operators and roustabouts hold positions that can be learned in special schools and on the job. Medium term training of more than four weeks but less than a year is required. In the oil industry 32 percent of all jobs require medium term on-the-job training.

Only 10 percent of all jobs in the oil industry can be learned on the job in four weeks or less. Laborers and freight and material movers, office clerks, and human resource assistants are jobs that belong in this category.

According to a 2002 worker age analysis, the average age for workers in Alaska's oil and gas extraction companies was 41.1. Among Alaska's private sector industries this average age ranked as the ninth oldest. Oil and gas workers were five years older than the average employee in the private sector.

Conclusion

Oil has played a fundamental role in Alaska's economy since before statehood. Despite significant changes over the years, including major

shifts in production levels and industry restructuring and consolidation, the one constant has been oil's dominant economic influence on the state. Revenue from oil industry taxes is essential to both state and local governments and oil jobs command some of the state's highest salaries.

More change for the industry can be expected in the coming years. Oil industry employment levels and workforce skill requirements will fluctuate as the industry develops new projects and technologies. Oil field production, which has declined steadily over the past decade, is difficult to predict, but the potential for development is strong, whether through drilling in the National Petroleum Reserve-Alaska, the opening of the Arctic National Wildlife Refuge, the construction of a gas pipeline, or the development of new oil finds in mature basins. The extent to which this potential is realized will have a lot to do with Alaska's economic future.

Note: The companies listed in Exhibit 1 are all engaged primarily in the oil industry, although they may also employ workers in other industries. The employment numbers listed show the companies' total employment, and not just that part strictly defined as being in the oil industry. In other words, a portion of VECO's employment of 1,127 may be classified under another industry.

Exhibits 4 and 7, on the other hand, display only the employment of these and other companies that are classified as part of the oil industry. Therefore, Exhibit 1 should not be compared to Exhibits 4 and 7. For example, it would be incorrect to say that VECO represents 13 percent of all oil industry employment (VECO total employment of 1,127 from Exhibit 1 divided by total oil industry employment of 8,800 from Exhibit 4.)

The Gender Difference in Earnings by Alexander Kotlarov Labor Economist

Ratio of women's to men's earnings shows little change from 1999 to 2001

Women earned 66.4 percent as much as men in 2001, based on total annual average earnings, a slight decline from the 1999 rate of 66.8 percent. The ratio of women's earnings as a percent of men's is often described as the "gender gap".

The "gap" was wider in the private sector than the public sector, with women making an average of 62 percent as much as men in Alaska's private sector and 76 percent as much in state and local government. Women earned an average of \$11,000 less than men, up from the \$10,000 difference in 1988. (See Exhibit 1.)

Why are the average total earnings of Alaska men so much greater than women's? Although some have argued that discrimination plays a role in these earnings differences, there is insufficient data to support that claim. Many other factors affect total earnings: career choices, differences in full time versus part-time work, level of education or training, and years of work experience. Most of these factors cannot currently be measured. No Alaska data is currently available to measure wage rates, hours worked

or education level for individual workers by gender, nor determine their relative effect on differences in average total earnings.

The "gap" in earnings narrowed gradually from the 1998 level of 61.7 percent to the 1999 rate of 66.8 percent, but increased slightly in 2001 due in part to changes in Alaska's industry and occupational mix. Earnings differences exist, to varying degrees, across all industries and age groups, almost all geographic areas, and most occupations.

On the national scene

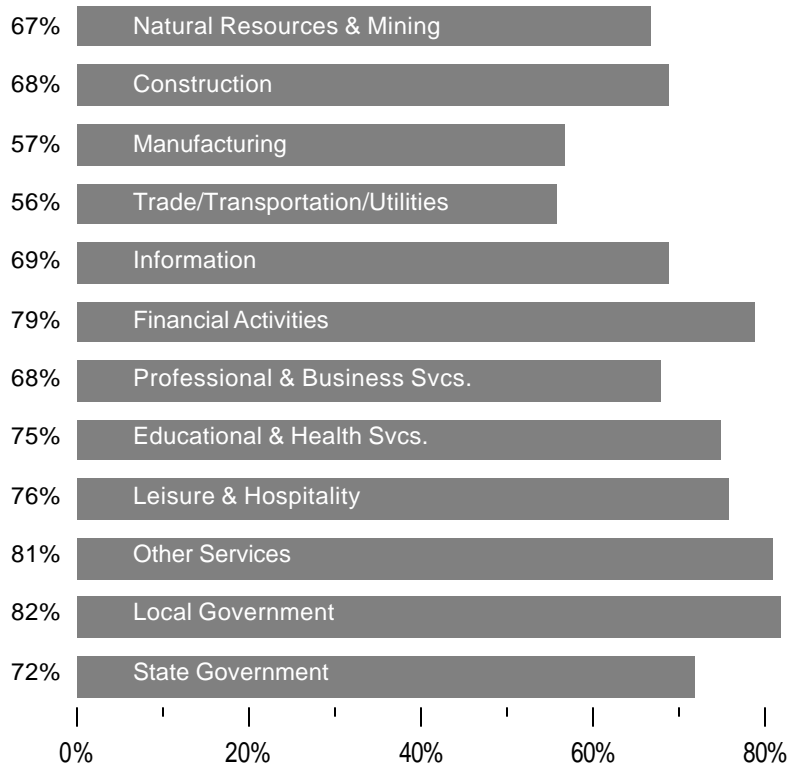
While nationwide figures are not directly comparable to Alaska's, the U.S. Census Bureau median income data for full time year round workers for 2002 showed the gender gap at 76 percent nationally.

Employment and Earnings By sex, 1988–2001

		1988	1990	1995	1997	1999	2001
Employment (Percent)	Male	53	53	52	53	52	53
	Female	47	47	47	47	48	48
Total Wages (Percent)	Male	65	65	63	63	62	63
	Female	35	36	37	37	38	38
Avg. Annual Earnings	Male	\$24,232	\$27,655	\$29,261	\$29,327	\$30,066	\$32,618
	Female	\$14,962	\$16,934	\$19,182	\$19,059	\$20,079	\$21,644
Ratio Female to Male Avg. Wage		61.7%	61.2%	65.6%	65.0%	66.8%	66.4%

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

2 Ratio female/male average annual earnings By industry—2001



Comparison by industry group

In 2001, women in Alaska continued to earn less than men in all industries. Men's average earnings were \$32,618 and women's were \$21,644. The natural resources and mining industry paid the highest average wages to both sexes. Women employed in natural resources and mining (which includes the oil industry) were well paid with average annual earnings of \$43,305, but women's representation in the industry was small, 14 percent. (See Exhibits 2, 3 and 4.) Natural resources and mining, together with construction, is an example of a heavily male dominated industry. Manufacturing is another industry dominated by males. Manufacturing at 57 percent and trade, transportation and utilities at 56 percent show the broadest differences between men's and women's earnings.

The earnings differential was smallest in local government, where women earned approximately 82 percent as much as men in 2001. Close behind in ratio of women's to men's wages are other services and financial activities. In terms of

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

3 Workers and Earnings by Sex and Major Industry Alaska 2001

	Total Avg. Ann. Earnings	Male Workers	Male Earnings	Male Avg. Ann. Earnings	Male Quarters Worked	Male Avg. Qtrly Earnings
Natural Resources and Mining	\$61,546	12,805	\$825,295,722	\$64,451	45,577	\$18,108
Construction	30,632	19,143	609,797,971	31,855	60,289	10,115
Manufacturing	22,738	7,000	183,628,937	26,233	22,746	8,073
Trade, Transportation, Utilities	25,078	42,654	1,302,121,227	30,528	144,233	9,028
Information	39,202	4,520	205,946,134	45,563	16,043	12,837
Financial Activities	29,522	6,030	204,195,217	33,863	19,955	10,233
Professional and Business Svcs.	27,306	12,457	399,418,555	32,064	40,123	9,955
Educational and Health Services	27,939	7,131	247,509,300	34,709	24,393	10,147
Leisure and Hospitality	11,367	16,456	215,022,263	13,066	48,753	4,410
Other Services	20,033	6,008	131,122,011	21,825	18,801	6,974
Total Private Sector	29,536	134,204	4,324,057,336	33,416	440,913	9,807
Local Government	27,559	17,957	552,775,179	30,783	59,976	9,217
State Government	34,522	11,770	474,281,881	40,296	43,315	10,950

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

real wages, industrial sectors with above average female income are state government, and information, which now includes everything from traditional publishing companies to computer related businesses.

Exhibit 4 displays a side-by-side comparison of women's participation in the workforce by industry, with their average annual earnings in the industry. Educational and health services is the industry most heavily dominated by females, at 77 percent. The industry ranks fifth in average annual earnings for females, at \$25,904. In 2001 as in 1999, women held the large majority of jobs in educational and health services, financial activities and local government.

Comparison by occupation

The 50 occupations with the greatest number of male and female employees are shown in Exhibits 8 and 9. The top five occupations for women include retail salesperson, office clerk, cashier, bookkeeping, accounting & auditing clerks, and

teacher assistants. For men the top occupations include construction laborer, material mover, retail salesperson, carpenter, and janitor. The list is virtually unchanged from prior years.

Gender-dominated occupations

Occupations with five percent or fewer women included: carpenters, operating engineers, heavy truck drivers, plumbers, electricians, welders, auto mechanics, construction managers, roustabouts, and aircraft mechanics. Another seven occupations on the male top 50 list have between five and 10 percent female workers, for a total of 17 occupations (34 percent of occupations on the list) with 10 percent or fewer females.

The top female occupations, on the other hand, show only eight occupations with 10 percent or fewer males. While males have made inroads into traditionally female occupations, females have entered traditionally male occupations to a far lesser degree.

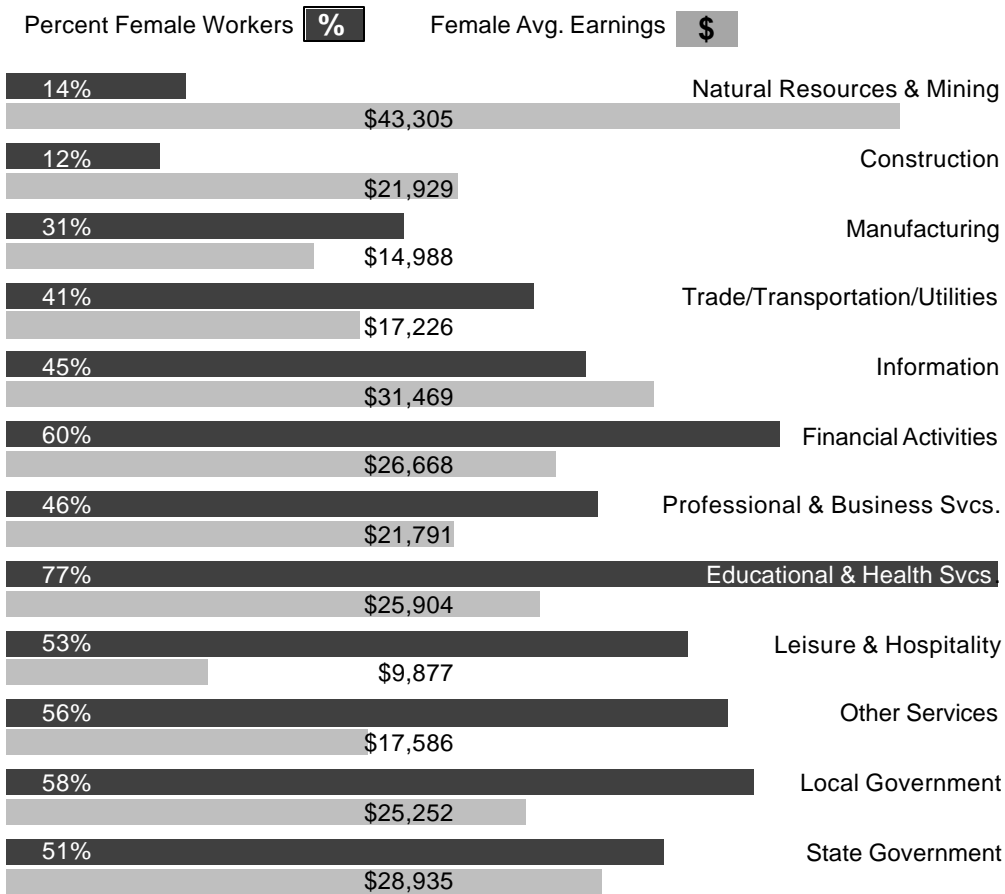
Workers and Earnings by Sex and Major Industry 3

Alaska 2001 (continued)

	Female Workers	Female Earnings	Female Avg. Annual Earnings	Female Avg. Qtrly Earnings	Female Quarters Worked	Fem/Male Avg. Annual Earnings %	Fem/Male Avg Qtrly Earnings %
Natural Resources and Mining	2,039	\$88,299,891	\$43,305	\$12,493	7,068	67%	69%
Construction	2,690	58,988,667	21,929	6,976	8,456	68%	69%
Manufacturing	3,157	47,318,070	14,988	4,797	9,864	57%	59%
Trade, Transportation, Utilities	29,605	509,985,573	17,226	5,251	97,115	56%	58%
Information	3,718	117,000,935	31,469	8,830	13,251	69%	69%
Financial Activities	9,171	244,570,471	26,668	7,601	32,174	79%	74%
Professional and Business Svcs.	10,746	234,169,086	21,791	6,666	35,131	68%	67%
Educational and Health Services	23,730	614,711,391	25,904	7,418	82,866	75%	73%
Leisure and Hospitality	18,780	185,494,883	9,877	3,323	55,821	76%	75%
Other Services and Public Admin.	7,614	130,843,905	17,586	5,326	24,568	81%	76%
Total Private Sector	111,250	2,231,382,872	23,074	6,868	366,314	62%	62%
Local Government	25,094	633,665,456	25,252	7,345	86,273	82%	80%
State Government	12,164	351,965,712	28,935	7,956	44,240	72%	73%

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

4 Percent Female Workers & Earnings By industry – 2001



Child care workers and combined food preparation and serving-related workers are the lowest paid occupations on the top 50 lists. Female child care workers earn 26 percent more than male workers; their wages average \$9,212 per year. Legal secretaries' pay is 20 percent higher than the pay of the few males among their ranks. The reverse gender gap for legal secretaries has shrunk markedly since the last report using 1999 data, when females' wages were 92 percent more than males'.

Well paid occupations for women

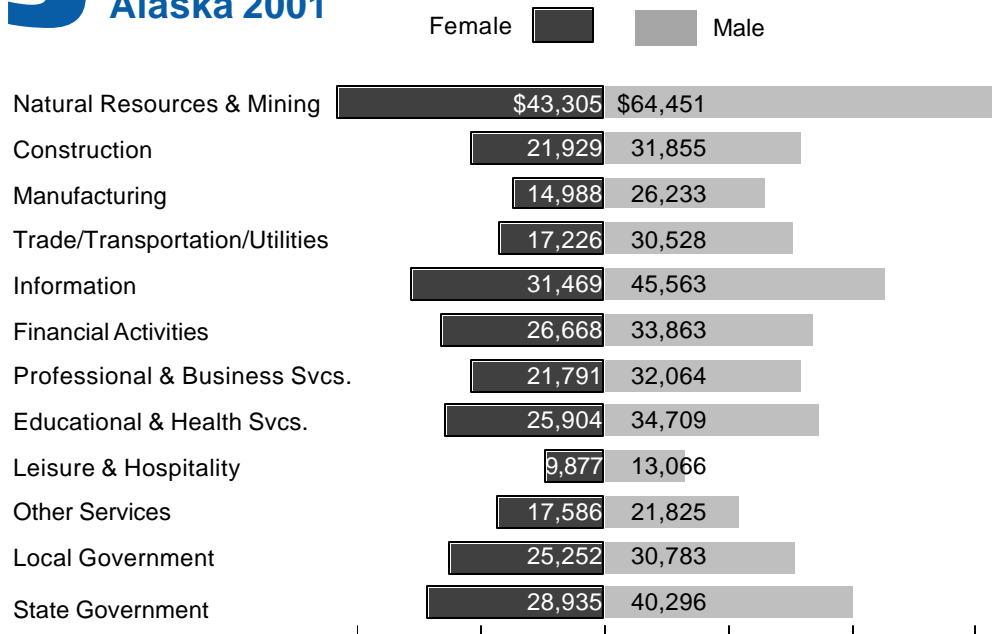
Well paid occupations on the female top 50 list include chief executives (\$55,749), financial managers (\$54,104), medical and health services managers (\$53,837), middle school teachers (\$44,407), registered nurses (\$42,248), accountants and auditors (\$40,569), and elementary school teachers (\$39,622).

Comparison by age group

The pattern of wage income for age groups did not change significantly from 1999 to 2001. As in 1999, women earned less than men in every age group. (See Exhibit 6.) Earnings for both men and women peaked in the 50-54 year age group, when women workers were earning 64.2 percent as much as men. Average income for men was \$48,065 in the peak earnings

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

5 Average Earnings by Industry Alaska 2001



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Earnings by Age Group Alaska 2001



years, and \$30,866 for women, a \$17,199 difference. The income difference between men and women was smaller in younger age groups. Women age 25-29 earned about 75 percent as much as men, while women age 30-34 earned about 70 percent as much as men.

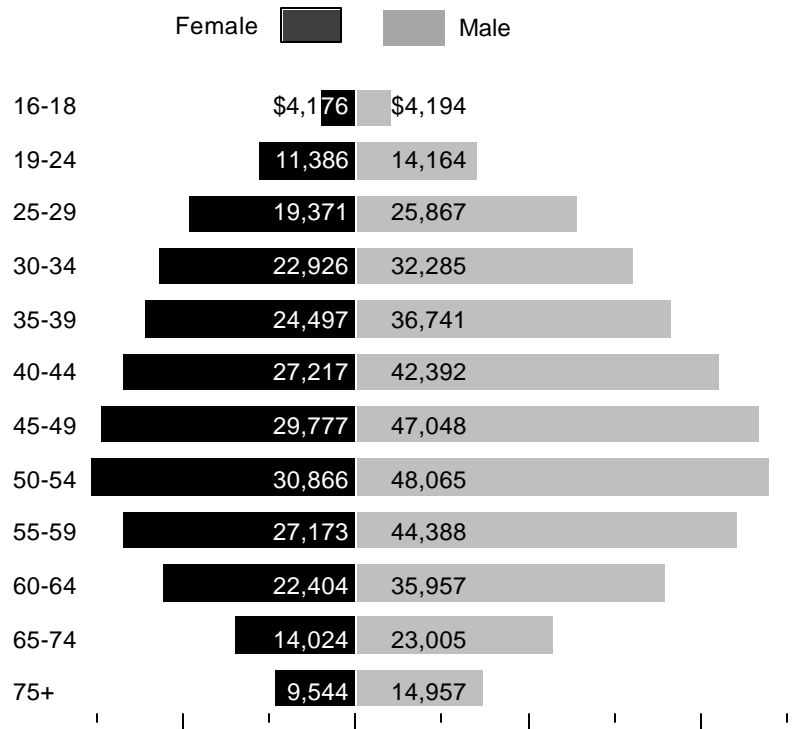
Female workers earn more in some parts of Alaska

Average earnings for females ranged from \$12,659 to \$30,256 depending upon the area of the state in which they worked. Females earned the most if they worked in the North Slope Borough, including Prudhoe Bay. Females were 25 percent of the North Slope workforce. (See Exhibit 10.) Juneau and Anchorage had relatively high average earnings for females in 2001. In Juneau where females comprised nearly 50 percent of the workers, they averaged \$24,238 and the Anchorage average was \$23,962.

Men and women in Dillingham made up equal proportions of the workforce and earned nearly identical earnings at about \$21,800. Denali Borough females made up 38 percent of the workers, and earned 38 percent as much as men, with average annual wages of only \$13,960. Denali has many visitor related service jobs which are highly seasonal and pay relatively low wages. Sitka and Haines are the only locations where females make up more than half the workforce.

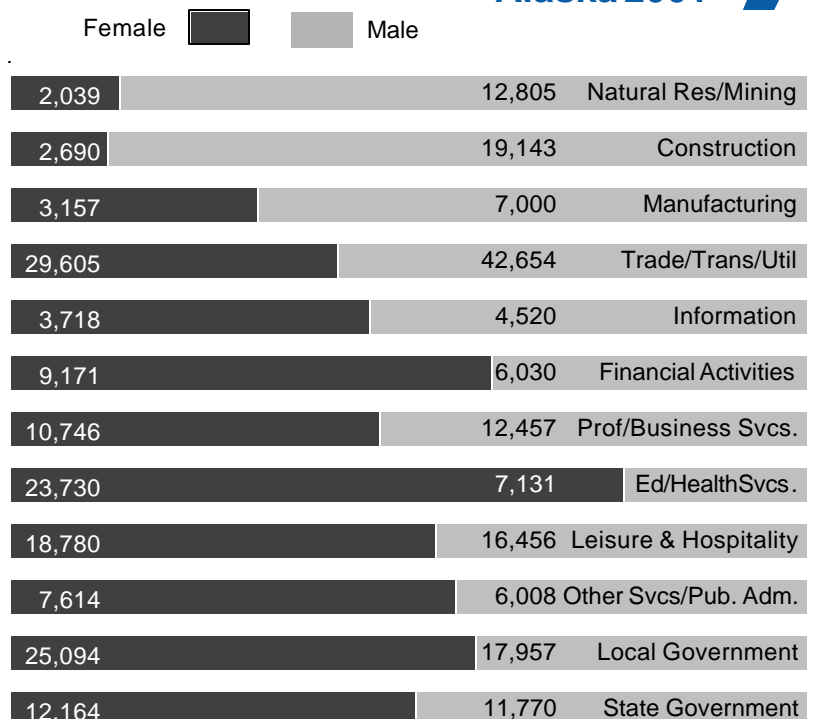
An analysis using 1999 data from the U.S. Census on full time year-round workers placed the Aleutians East Borough third among eleven very small, rural counties in the United States where women out-earn men. Women's annual earnings in the Aleutians East were \$3,484 more than men's. In these small, rural counties, men's earnings are typically depressed. In Aleutians East, fisheries, where most men work, are in decline, and about 25 percent of women work in health care, education and government.

(continued on page 20)



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Employment by Industry Alaska 2001



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

8 Top 50 Male Occupations – Workers, Earnings, Earnings Ratio

Alaska 2001

	Male Workers	Female Workers	Percent Female	Average Male Earnings	Average Female Earnings	Female Earn as % of Male	Earnings Difference
Construction Laborers	5,841	650	10.0	\$20,674	\$15,752	76.2	\$4,922
Laborers and Freight, Stock, & Material Movers, Hand	5,680	905	13.7	14,768	11,244	76.1	3,525
Retail Salespersons	5,186	7,633	59.5	19,268	11,183	58.0	8,085
Carpenters	4,088	112	2.7	24,613	13,862	56.3	10,751
Janitors & Cleaners, exc. Maids & Housekeeping Cleaners	3,646	2,067	36.2	15,780	13,738	87.1	2,043
Maintenance and Repair Workers, General	3,381	225	6.2	30,310	16,041	52.9	14,270
Operating Engineers & other Construction Equip. Operators	3,168	139	4.2	44,810	34,045	76.0	10,765
Combined Food Prep & Serving Wkrs, incl. Fast Food	2,914	3,129	51.8	5,617	6,219	110.7	-602
Seafood Processing Workers, exc. Surimi and Fish Roe	2,230	1,257	36.0	12,441	10,140	81.5	2,301
Truck Drivers, Heavy & Tractor-Trailer	2,209	103	4.5	37,600	28,873	76.8	8,727
General & Operations Managers	2,046	1,152	36.0	63,311	38,855	61.4	24,456
Electricians	1,893	75	3.8	43,827	27,214	62.1	16,614
Office Clerks, General	1,874	7,479	80.0	19,512	16,635	85.3	2,877
Stock Clerks & Order Fillers	1,683	656	28.0	17,346	12,789	73.7	4,557
Automotive Service Technicians & Mechanics	1,625	43	2.6	33,107	22,247	67.2	10,860
Cashiers	1,570	4,400	73.7	10,619	9,529	89.7	1,090
Cooks, Restaurant	1,535	388	20.2	15,269	14,527	95.1	742
Security Guards	1,464	332	18.5	25,730	17,169	66.7	8,561
Plumbers, Pipefitters, & Steamfitters	1,377	28	2.0	41,665	23,218	55.7	18,446
Truck Drivers, Light or Delivery Services	1,344	195	12.7	26,803	16,092	60.0	10,711
Dishwashers	1,257	266	17.5	6,643	5,291	79.7	1,352
First-Line Supv/Mgr Construction Trades & Extraction Wkrs	1,156	37	3.1	68,977	49,391	71.6	19,585
Roustabouts, Oil and Gas	1,131	46	3.9	45,511	26,208	57.6	19,304
Police and Sheriff's Patrol Officers	1,130	135	10.7	49,223	44,147	89.7	5,076
Aircraft Mechanics & Service Technicians	1,117	39	3.4	41,830	38,193	91.3	3,636
Food Preparation Workers	1,108	1,065	49.0	16,565	13,251	80.0	3,315
Packers & Packagers, Hand	1,058	378	26.3	8,510	6,528	76.7	1,982
Airline Pilots, Copilots, & Flight Engineers	1,053	59	5.3	61,608	49,081	79.7	12,527
Chief Executives	1,037	533	33.9	88,687	55,749	62.9	32,938
Waiters and Waitresses	941	3,476	78.7	10,725	9,316	86.9	1,409
First-Line Supv/Mgr of Mechanics, Installers, Repairers	812	59	6.8	59,822	50,651	84.7	9,171
Elementary School Teachers, exc. Special Education	810	3,077	79.2	40,242	39,622	98.5	620
Customer Service Representatives	781	2,043	72.3	24,507	23,351	95.3	1,156
Sales Reps, Wholesale and Mfg, exc. Tech & Scientific Prod	774	335	30.2	44,900	33,458	74.5	11,441
Teacher Assistants	763	3,670	82.8	11,118	11,706	105.3	-588
Counter Attendants, Cafeteria, Food Concession, Coffee Shop	762	1,590	67.6	14,270	10,081	70.6	4,189
Helpers—Installation, Maintenance, & Repair Workers	750	59	7.3	19,061	15,489	81.3	3,572
Driver/Sales Workers	748	143	16.0	18,034	9,452	52.4	8,582
Maids and Housekeeping Cleaners	736	2,749	78.9	13,143	10,624	80.8	2,519
Cleaners of Vehicles and Equipment	734	121	14.2	9,983	10,123	101.4	-140
Welders, Cutters, Solderers, & Brazers	729	13	1.8	41,631	22,082	53.0	19,549
Counter & Rental Clerks	719	1,147	61.5	16,950	12,994	76.7	3,956
Landscaping & Groundskeeping Workers	706	175	19.9	11,382	8,449	74.2	2,932
Painters, Construction & Maintenance	698	56	7.4	21,259	9,066	42.6	12,194
Sailors and Marine Oilers	696	79	10.2	27,563	13,502	49.0	14,060
Correctional Officers & Jailers	695	203	22.6	39,168	33,374	85.2	5,794
First-Line Supv/Mgr of Retail Sales Workers	681	707	50.9	38,671	26,210	67.8	12,461
Parts Salespersons	657	112	14.6	26,143	18,572	71.0	7,571
Secondary School Teachers, exc. Spe. and Voc. Education	646	930	59.0	40,836	35,168	86.1	5,667
Bookkeeping, Accounting, & Auditing Clerks	574	3,858	87.0	29,951	25,285	84.4	4,666
Construction Managers	572	33	5.5	73,957	55,072	74.5	18,885

Top 50 Female Occupations—Workers, Earnings, Earnings Ratio

Alaska 2001



	Male Workers	Female Workers	Percent Female	Male Average Earnings	Female Average Earnings	Female Earn as % of Male	Earnings Difference
Retail Salespersons	5,186	7,633	59.5	\$19,268	\$11,183	58.0	\$8,085
Office Clerks, General	1,874	7,479	79.9	19,512	16,635	85.3	2,877
Cashiers	1,570	4,400	73.7	10,619	9,529	89.7	1,090
Bookkeeping, Accounting, & Auditing Clerks	574	3,858	87.0	29,951	25,285	84.4	4,666
Teacher Assistants	763	3,670	82.8	11,118	11,706	105.3	-588
Waiters & Waitresses	941	3,476	78.7	10,725	9,316	86.9	1,409
Registered Nurses	323	3,300	91.1	50,648	42,248	83.4	8,399
Executive Secretaries & Administrative Assistants	347	3,265	90.4	26,903	26,426	98.2	477
Combined Food Prep & Serving Wkrs, incl. Fast Food	2,914	3,129	51.8	5,617	6,219	100.7	-602
Elementary School Teachers, exc. Special Education	810	3,077	79.2	40,242	39,622	98.5	620
Receptionists & Information Clerks	265	2,843	91.5	21,662	15,786	72.9	5,876
Maids & Housekeeping Cleaners	736	2,749	78.9	13,143	10,624	80.8	2,519
Secretaries, exc. Legal, Medical, & Executive	194	2,437	92.6	21,965	22,703	103.4	-738
Janitors & Cleaners, exc. Maids & Housekeeping Cleaners	3,646	2,067	36.2	15,780	13,738	87.1	2,043
Customer Service Representatives	781	2,043	72.3	24,507	23,351	95.3	1,156
Child Care Workers	258	1,698	86.8	7,308	9,212	126.0	-1,903
Counter Attendants, Cafeteria, Food Concession, Coffee Shop	762	1,590	67.6	14,270	10,081	70.6	4,189
Nursing Aides, Orderlies, and Attendants	230	1,572	87.2	24,877	21,131	85.0	3,747
First-Line Supv/Mgr Office & Admin Support Wkrs	382	1,502	79.7	48,837	34,936	71.5	13,901
Bartenders	538	1,259	70.0	13,271	11,660	87.9	1,611
Seafood Processing Workers, exc. Surimi & Fish Roe	2,230	1,257	36.0	12,441	10,140	81.5	2,301
General & Operations Managers	2,046	1,152	36.0	63,311	38,855	61.4	24,456
Counter & Rental Clerks	719	1,147	61.5	16,950	12,994	76.7	3,956
Reservation and Trans. Ticket Agents, Travel Clerks	254	1,114	81.4	18,146	20,158	111.1	-2,012
Food Preparation Workers	1,108	1,065	49.0	16,565	13,251	80.0	3,315
Accountants & Auditors	394	1,013	72.0	47,790	40,569	84.9	7,221
Billing & Posting Clerks & Machine Operators	93	1,001	91.5	41,980	26,298	62.6	15,682
Personal and Home Care Aides	157	993	86.3	13,320	11,257	84.5	2,063
Secondary School Teachers, exc. Spec. & Voc. Education	646	930	59.0	40,836	35,168	86.1	5,667
Tellers	109	919	89.4	17,365	16,545	95.3	820
Laborers and Freight, Stock, & Material Movers, Hand	5,680	905	13.7	14,768	11,244	76.1	3,525
Administrative Services Managers	483	868	64.2	54,383	39,861	73.3	14,523
Dental Assistants	35	839	96.0	27,578	21,098	76.5	6,480
Hotel, Motel, & Resort Desk Clerks	314	774	71.1	12,010	11,043	91.9	967
First-Line Supv/Mgr of Retail Sales Workers	681	707	50.9	38,671	26,210	67.8	12,461
Legal Secretaries	24	671	96.5	24,863	29,890	120.2	-5,027
File Clerks	151	664	81.5	13,708	15,053	109.8	-1,345
Home Health Aides	191	661	77.6	20,419	16,054	78.6	4,365
Stock Clerks & Order Fillers	1,683	656	28.0	17,346	12,789	73.7	4,557
Construction Laborers	5,841	650	10.0	20,674	15,752	76.2	4,922
Instructional Coordinators	181	634	77.8	34,459	29,563	85.8	4,896
Court, Municipal, & License Clerks	98	625	86.4	24,426	25,042	102.5	-617
Recreation Workers	353	587	62.4	9,717	10,062	103.5	-345
Hairdressers, Hairstylists, & Cosmetologists	34	580	94.5	17,907	16,811	93.9	1,096
Financial Managers	358	567	61.3	81,799	54,104	66.1	27,695
Hosts & Hostesses, Restaurant, Lounge, Coffee Shop	140	555	79.9	7,500	6,229	83.0	1,272
Cooks, Institution & Cafeteria	334	545	62.0	23,423	16,510	70.5	6,914
Chief Executives	1,037	533	33.9	88,687	55,749	62.9	32,938
Middle School Teachers, exc. Spec. and Voc. Education	307	491	61.5	46,559	44,407	95.4	2,152
Child, Family, & School Social Workers	154	487	76.0	35,281	28,488	80.7	6,793
Medical & Health Services Managers	134	447	76.9	74,291	53,837	72.5	20,453

10 Income by Geographic Location

And sex – 2001

	Male Workers	Female Workers	Percent Female	Male Income	Female Income	Female Earnings as % of Male
Aleutians East	789	582	42%	\$24,525	\$16,659	68%
Aleutians West	1,587	905	36%	33,945	23,775	70%
Anchorage	72,236	68,806	49%	35,641	23,962	67%
Bethel	4,472	3,810	46%	19,445	17,425	90%
Bristol Bay Borough	694	387	36%	24,120	16,641	69%
Denali Borough	877	546	38%	36,270	13,961	38%
Dillingham	1,245	1,232	50%	21,862	21,797	100%
Fairbanks	18,579	17,742	49%	30,371	20,732	68%
Haines	517	555	52%	19,576	14,934	76%
Juneau	8,578	8,533	50%	30,712	24,238	79%
Kenai	10,887	10,011	48%	30,868	16,835	55%
Ketchikan	3,821	3,699	49%	28,707	19,667	69%
Kodiak	3,020	2,966	50%	24,892	17,751	71%
Lake and Peninsula	534	410	43%	18,208	13,774	76%
Mat-Su	7,822	9,511	55%	24,262	18,015	74%
Nome	2,473	2,134	46%	22,065	19,036	86%
North Slope Borough	8,573	2,842	25%	49,295	30,256	61%
Northwest Arctic Bor.	2,291	1,520	40%	34,440	21,993	64%
POW-Outer Ketchikan	1,419	1,239	47%	21,578	14,872	69%
Sitka	2,088	2,238	52%	26,139	20,506	78%
Skagway-Angoon	813	740	48%	21,181	14,046	66%
Southeast Fairbanks	919	901	50%	23,712	14,421	61%
Valdez-Cordova	3,574	2,462	41%	38,945	20,718	53%
Wade Hampton	1,582	1,296	45%	17,245	12,659	73%
Wrangell-Petersburg	1,508	1,454	49%	23,175	16,626	72%
Yakutat	286	194	40%	21,747	16,917	78%
Yukon-Koyukuk	1,903	1,528	45%	23,484	16,787	71%
Outside Alaska	476	99	17%	76,407	32,198	42%
Unknown in Alaska	145	258	64%	23,596	16,841	71%
Total	164,129	148,671	48%	28,526	18,725	66%

Top employers of men and women

The top employers of women in Alaska's private sector include Providence Health System Alaska, Safeway, Fred Meyer, Wal-Mart, Banner Health System and Alaska Airlines. The top private employers for men are Safeway, VECO, Fred Meyer, Wal-Mart, Alaska Airlines, and BP Exploration. (See Exhibits 11 and 12.)

Summary

In the period 1999 to 2001, the gender gap increased by .4 percent to 66.4 percent. In the private sector women earned 62 cents for every dollar earned by men in 2001, and in state and local government, 76 cents. Men's average annual income was \$32,618 and women's was \$21,644. The difference in men's and women's average annual income in 2001 rose to \$11,000. Among the top 50 male occupations, 34 percent have 10 percent or fewer females. Among the top 50 female occupations, 16 percent have 10 percent or fewer males. Local government showed the smallest gender gap at 82 percent, and the largest gaps were in trade, transportation and utilities at 56 percent and manufacturing at 57 percent.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Methodology

All private sector, state and local government worker unemployment insurance wage records were aggregated to obtain total worker wage and salary earnings for 2001. The data show workers' total earnings, not wage rates. Occupation, industry and place of work data were obtained from the employer for whom the worker earned the most money in 2001. Age and gender information was obtained by matching with historical Permanent Fund Dividend applicant files.

Top Male Employers Alaska 2001

11

	Male Employees	Female Employees	Percent Female
State of Alaska	8,073	8,258	51%
University of Alaska	2,699	3,348	55%
Anchorage School District	2,186	5,757	72%
Safeway Inc.	2,112	2,058	49%
Municipality of Anchorage	1,883	1,098	37%
VECO Alaska Inc.	1,567	260	14%
Fred Meyer Shopping Centers	1,190	1,629	58%
Wal-Mart Associates Inc.	1,066	1,558	59%
Alaska Airlines Inc.	915	963	51%
BP Exploration Alaska Inc.	886	208	19%

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Top Female Employers Alaska 2001

12

	Male Employees	Female Employees	Percent Female
State of Alaska	8,073	8,258	51%
Anchorage School District	2,186	5,757	72%
University of Alaska	2,699	3,348	55%
Providence Health System Alaska	687	2,798	80%
Fairbanks North Star School Dist.	762	2,066	73%
Safeway Inc.	2,112	2,058	49%
Fred Meyer Shopping Centers	1,190	1,629	58%
Wal-Mart Associates Inc.	1,066	1,558	59%
Mat-Su Borough Schools	540	1,507	74%
Kenai Peninsula Borough Schools	577	1,185	67%

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

June has Good News and Bad News

Over-the-year job growth is positive in June, and unemployment is high

Alaska Employment Scene

by
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Labor Economist

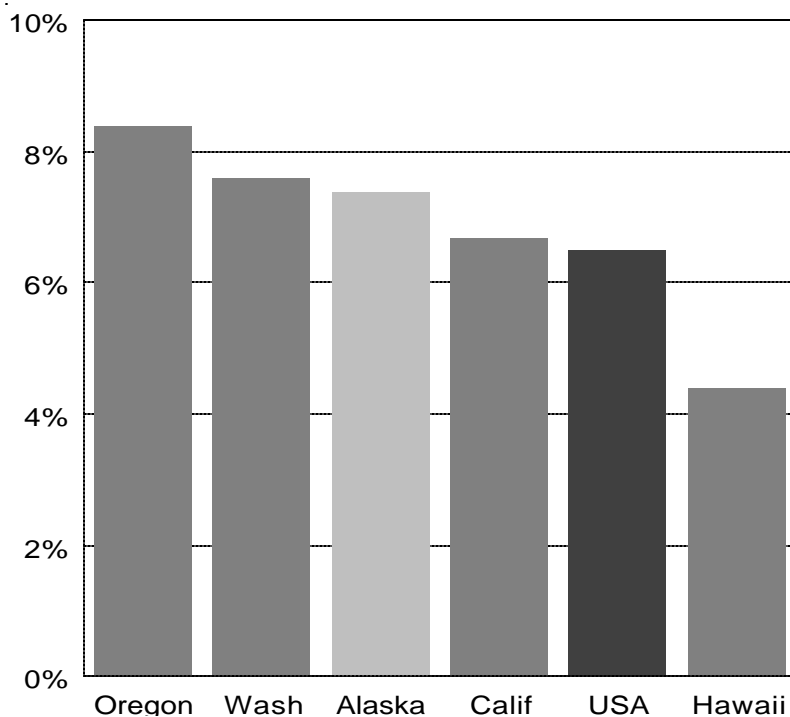
In June, much of the country's economic news was disappointing. The national unemployment rate increased to 6.5 percent, the highest recorded since April 1994. According to the Bureau of Labor Statistics, (BLS), total nonfarm employment payroll fell by 30,000, leaving 9.4 million job seekers without

work. Since March 2001, total nonfarm employment has declined by 2.6 million.

In Alaska, the news was more mixed. June's unemployment rate jumped to 7.4 percent from May's 7.1 percent. (See Exhibits 1 and 3.) This came as a mild surprise because the seasonal nature of much of the Alaska economy usually produces a slight decline in the unemployment rate as the state approaches the peak employment months of July and August. It should be remembered that this rate is subject to revision. Still, a 7.4 percent rate is not unusual for June, having occurred in 1993, 1994, and 2002, and being somewhat lower than the June rates of 1996 and 1998.

While the unemployment rate was one of the highest in the country, Alaska was also among the fastest growing states in terms of over-the-year job growth. More Alaskans are working in 2003 than were working in 2002, but more are also actively seeking employment than a year ago. In short, while the Alaska economy continues to grow and to produce jobs, the labor force is growing slightly faster than jobs are being created. Across the nation, 28 states experienced over-the-year declines in employment. Alaska, by contrast, ranked fourth in over-the-year increases, showing a job growth rate of 1.5 percent. (See Exhibit 2.) Nevada was first at 1.9 percent followed by New Mexico at 1.8 percent and Vermont with 1.7 percent.

1 Unemployment in Western States June 2003



Source: U.S. Bureau of Labor Statistics

A possible explanation for this seeming contradiction in Alaska's economic performance involves the high unemployment rates in Oregon (8.4 percent), Washington (7.6 percent), and California (6.7 percent.) When these other western states experience high unemployment, job seekers are more likely to migrate north to look for work in Alaska. While the numbers involved are insignificant in relation to those states' larger economies, a small increase in the number of non-resident workers in the Alaska labor force would register as a noticeable increase in the state's unemployment rate. Since transient and non-resident job seekers traditionally fill many seasonal jobs, a slightly larger than usual influx could result in the simultaneous growth of employment totals and unemployment rates. Alaska's relative success in job creation may have provided an additional attraction and therefore be related to the increased rate of unemployment.

Overall the state has gained 3,400 jobs since June 2002. (See Exhibit 3.) Anchorage/Mat-Su, the Interior and Southwest regions all posted gains collectively totaling 4,400, while Southeast, Northern, and Gulf Coast regions experienced job losses, which reduced the overall rate of growth. Just as the gains and losses in employment were not evenly distributed geographically, neither were they in terms of industry.

The Natural Resources & Mining, and Manufacturing sectors suffered significant over-the-year declines, resulting in 1,000 fewer jobs in June 2003 than in June 2002. In large part this was due to the elimination of 700 jobs in the oil industry. Northern Alaska was particularly hard hit, losing 400 oil-related jobs. Southwest Alaska and the Gulf Coast both showed slight reductions in seafood processing employment.

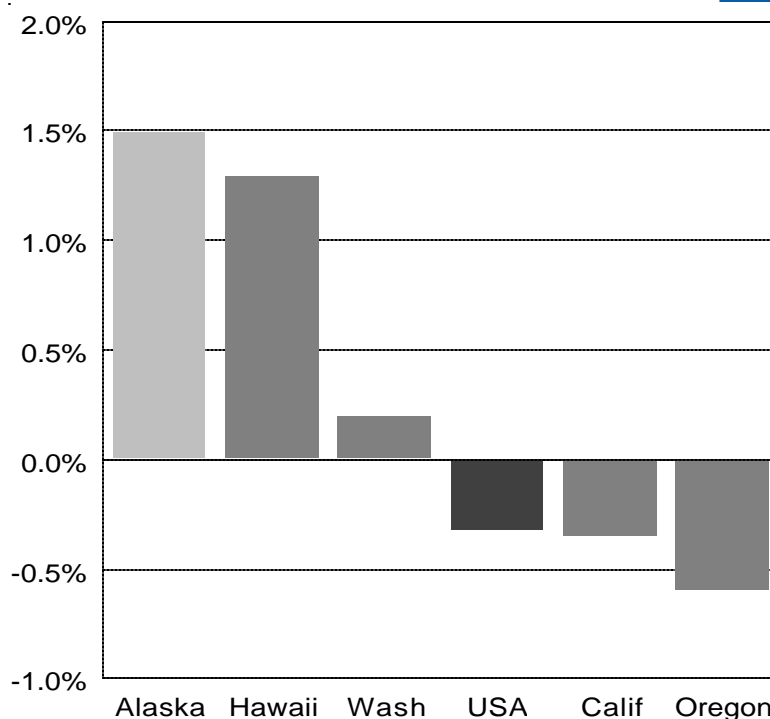
The Construction sector, by contrast, posted significant over-the-year employment gains. While oil industry construction is down this year, the cutbacks have been more than matched by increased employment on public projects and private housing starts. Federal spending on the Missile Defense Site is largely responsible for the sector's high employment in the Interior, while

the lowest mortgage rates in recent memory have apparently contributed to increased private construction activity in Alaska, especially in the Anchorage/Mat-Su area. Overall, Construction employment is up 2.7 percent from June 2002, which amounts to an increase of 500 jobs.

The Education & Health Services sector posted an over-the-year growth rate of 5.5 percent. (See Exhibit 3.) Most of this increase of 1,700 jobs was in health care, much of it associated with Native health care programs. The remarkable growth of this sector over the last several years is partially due to the privatization of federal programs that once served Alaska Natives. It also reflects the fact that a more stable, aging Alaska population requires more health care than the younger, more mobile population that characterized the state in earlier years. Between 1990 and 2000, Alaska's senior (over 65) population increased by nearly 60 percent, and continues to grow faster than the national counterpart. Over the same period technological advances have added to the

(continued on page 26)

Employment Growth 2 Western States – June 2002 to June 2003



Source: U.S. Bureau of Labor Statistics

3 Nonfarm Wage and Salary Employment

By place of work

Alaska	preliminary revised		Changes from:			Municipality of Anchorage	preliminary revised		Changes from:		
	6/03	5/03	6/02	5/03	6/02		6/03	5/03	6/02	5/03	6/02
Total Nonfarm Wage & Salary¹	311,500	300,800	308,100	10,700	3,400	Total Nonfarm Wage & Salary¹	147,500	143,700	145,000	3,800	2,500
Goods Producing	40,300	35,800	40,700	4,500	-400	Goods Producing	14,100	12,700	14,000	1,400	100
Services Providing	271,200	265,000	267,400	6,200	3,800	Services Providing	133,400	131,000	130,900	2,400	2,500
Natural Resources & Mining	10,200	10,300	11,000	-100	-800	Natural Resources & Mining	2,700	2,600	2,900	100	-200
Logging	600	600	700	0	-100	Mining	2,700	2,600	2,800	100	-100
Mining	9,900	9,900	10,300	0	-400	Oil & Gas Extraction	2,300	2,300	2,700	0	-400
Oil & Gas Extraction	8,000	8,100	8,700	-100	-700	Construction	9,500	8,300	9,200	1,200	300
Construction	18,700	16,700	18,200	2,000	500	Manufacturing	1,900	1,800	1,900	100	0
Manufacturing	11,400	8,800	11,600	2,600	-200	Trade, Transportation, Utilities	32,500	32,100	33,200	400	-700
Wood Products Manufacturing	300	300	300	0	0	Wholesale Trade	4,600	4,500	4,800	100	-200
Seafood Processing	7,600	5,100	7,700	2,500	-100	Retail Trade	17,400	17,100	17,300	300	100
Trade, Transportation, Utilities	64,100	61,400	64,800	2,700	-700	Food & Beverage Stores	2,500	2,500	2,400	0	100
Wholesale Trade	6,200	6,000	6,500	200	-300	General Merchandise Stores	4,100	4,000	4,300	100	-200
Retail Trade	35,500	34,000	35,400	1,500	100	Trans/Warehousing/Utilities	10,500	10,500	11,100	0	-600
Food & Beverage Stores	6,200	5,900	6,000	300	200	Air Transportation	3,500	3,400	3,600	100	-100
General Merchandise Stores	9,000	8,700	9,500	300	-500	Information	4,700	4,700	4,700	0	0
Trans/Warehousing/Utilities	22,300	21,400	22,800	900	-500	Telecommunications	2,600	2,600	2,700	0	-100
Air Transportation	6,800	6,500	7,100	300	-300	Financial Activities	8,600	8,300	8,500	300	100
Truck Transportation	3,000	2,900	3,000	100	0	Professional & Business Svcs	17,400	16,800	16,900	600	500
Information	7,200	6,900	7,200	300	0	Educational & Health Services	17,500	17,100	16,300	400	1,200
Telecommunications	4,000	4,000	4,200	0	-200	Health Care/Social Assistance	16,000	15,700	15,000	300	1,000
Financial Activities	14,200	13,700	14,000	500	200	Ambulatory Health Care	6,900	6,600	6,200	300	700
Professional & Business Svcs	24,700	23,600	24,100	1,100	600	Hospitals	4,800	4,800	4,600	0	200
Educational & Health Services	32,300	31,900	30,600	400	1,700	Leisure & Hospitality	16,200	15,200	15,600	1,000	600
Health Care/Social Assistance	30,000	29,700	28,400	300	1,600	Accommodation	3,500	3,200	3,500	300	0
Ambulatory Health Care	13,200	13,000	12,100	200	1,100	Food Svcs & Drinking Places	10,800	10,300	10,300	500	500
Hospitals	7,800	7,700	7,500	100	300	Other Services	6,100	6,200	5,900	-100	200
Leisure & Hospitality	35,000	30,900	34,000	4,100	1,000	Government²	30,300	30,700	29,800	-400	500
Accommodation	9,700	7,700	9,600	2,000	100	Federal Government ³	9,800	9,600	9,700	200	100
Food Svcs & Drinking Places	20,600	18,900	19,600	1,700	1,000	State Government	9,400	9,400	9,300	0	100
Other Services	12,500	12,600	12,300	-100	200	Local Government	11,100	11,700	10,800	-600	300
Government²	81,300	84,100	80,300	-2,800	1,000	Tribal Government	300	300	300	0	0
Federal Government ³	17,600	17,000	17,400	600	200						
State Government	24,000	24,600	23,600	-600	400						
Local Government	39,700	42,500	39,300	-2,800	400						
Tribal Government	3,500	3,300	3,700	200	-200						

Notes to Exhibits 3, 5, & 7—¹Nonfarm excludes self-employed workers, fishermen, domestics, and unpaid family workers as well as agricultural workers.
²Includes employees of public school systems and the University of Alaska.
³Excludes uniformed military.
 Exhibits 3 & 4—Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.
 Exhibits 5 & 7—Prepared in part with funding from the Employment Security Division.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

4 Hours and Earnings

For selected industries

	Average Weekly Earnings			Average Weekly Hours			Average Hourly Earnings		
	preliminary 6/03	revised 5/03	revised 6/02	preliminary 6/03	revised 5/03	revised 6/02	preliminary 6/03	revised 5/03	revised 6/02
Mining	\$1,274.59	\$1,276.70	\$1,369.17	40.8	42.5	49.5	\$31.24	\$30.04	\$27.66
Construction	1,262.74	1,324.45	1,128.82	43.2	44.4	43.2	29.23	29.83	26.13
Manufacturing	494.13	539.00	420.48	39.0	44.0	29.2	12.67	12.25	14.40
Seafood Processing	483.48	510.09	254.60	43.4	47.1	25.9	11.14	10.83	9.83
Trade, Transportation, Utilities	545.04	540.62	572.80	36.0	34.5	35.6	15.14	15.67	16.09
Retail Trade	466.13	463.76	490.69	35.1	34.0	32.8	13.28	13.64	14.96
Financial Activities	697.30	671.58	710.35	38.0	36.9	34.3	18.35	18.20	20.71

Average hours and earnings estimates are based on data for full-time and part-time production workers (manufacturing) and nonsupervisory workers (nonmanufacturing). Averages are for gross earnings and hours paid, including overtime pay and hours.

Benchmark: March 2002

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

6 Unemployment Rates By region and census area

(continued from page 23)

	preliminary	revised	
	06/03	05/03	06/02
Not Seasonally Adjusted			
United States	6.5	5.8	6.0
Alaska Statewide	7.4	7.1	7.4
Anchorage/Mat-Su Region	6.0	5.6	5.8
Municipality of Anchorage	5.4	5.0	5.2
Mat-Su Borough	8.4	7.8	8.5
Gulf Coast Region	9.9	10.3	11.0
Kenai Peninsula Borough	10.2	9.9	9.5
Kodiak Island Borough	10.0	12.6	17.7
Valdez-Cordova	8.1	8.7	7.8
Interior Region	7.0	6.6	6.8
Denali Borough	4.2	5.6	4.6
Fairbanks North Star Borough	6.5	5.8	6.2
Southeast Fairbanks	9.1	10.5	10.1
Yukon-Koyukuk	15.7	17.9	16.1
Northern Region	17.7	15.5	15.8
Nome	16.8	14.5	14.9
North Slope Borough	14.6	12.5	12.8
Northwest Arctic Borough	23.1	20.9	21.1
Southeast Region	7.1	6.9	7.2
Haines Borough	7.9	9.8	7.9
Juneau Borough	5.8	5.2	5.4
Ketchikan Gateway Borough	8.1	7.6	8.6
Prince of Wales-Outer Ketchikan	11.2	11.8	13.6
Sitka Borough	5.8	4.8	5.7
Skagway-Hoonah-Angoon	6.8	7.7	7.8
Wrangell-Petersburg	9.2	10.2	8.6
Yakutat Borough	14.9	18.2	13.9
Southwest Region	15.9	15.1	14.7
Aleutians East Borough	4.7	5.2	3.8
Aleutians West	12.9	13.2	12.2
Bethel	17.5	16.7	15.8
Bristol Bay Borough	11.4	9.5	8.7
Dillingham	12.1	12.3	10.9
Lake & Peninsula Borough	13.2	15.3	14.4
Wade Hampton	27.8	24.0	27.0
Seasonally Adjusted			
United States	6.4	6.1	5.8
Alaska Statewide	7.9	7.3	7.8

2002 Benchmark

Comparisons between different time periods are not as meaningful as other time series produced by Research and Analysis. The official definition of unemployment currently in place excludes anyone who has not made an active attempt to find work in the four-week period up to and including the week that includes the 12th of the reference month. Due to the scarcity of employment opportunities in rural Alaska, many individuals do not meet the official definition of unemployed because they have not conducted an active job search. They are considered not in the labor force.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

number of medical procedures available. Many health care needs that formerly resulted in trips to Seattle or elsewhere are now met locally. These trends are expected to continue for the rest of the decade. (See Alaska Economic Trends, April 2003.)

The Leisure & Hospitality sector also experienced a high over-the-year growth rate of 2.9 percent, adding 1,000 jobs since June 2002. Most of the gain was accounted for by increased employment at eating and drinking establishments. In part, this is explained by a number of new restaurants and hotels, especially in the Anchorage area. Government employment also increased, although at the much slower rate of 1.2 percent. The growth of the Transportation Security Administration and the federalization of airport security jobs explain most of the increase in federal employment.

While the major population centers of Alaska, especially Anchorage/Mat-Su, continue to manifest growth in jobs and population, many rural areas have been stagnant or have even experienced losses. Continued erosion of what were once core industries in rural areas, such as timber in Southeast and the salmon fisheries of all coastal Alaska, is contributing to an increasingly urbanized state, as Alaskans move to areas offering greater employment opportunities. While other factors, such as births, deaths and new arrivals affect total population growth, in terms of the movement of Alaskans within Alaska over the 2000-2002 period, only Anchorage/Mat-Su, the Kenai Peninsula, and Juneau have gained population.

7 Nonfarm Wage/Salary Employment By place of work

	preliminary revised		Changes from:		
	6/03	5/03	6/02	5/03	6/02
Total Nonfarm Wage & Salary ¹	15,450	15,750	15,950	-300	-500
Goods Producing	4,900	5,000	5,350	-100	-450
Services Providing	10,550	10,800	10,550	-250	0
Oil & Gas Extraction	3,900	4,100	4,250	-200	-350
Government ²	4,900	5,250	4,900	-350	0
Federal Government ³	200	200	150	0	50
State Government	350	350	350	0	0
Local Government	4,350	4,700	4,400	-350	-50
Tribal Government	550	500	550	50	0

Southwest Region

Total Nonfarm Wage & Salary ¹	18,600	17,450	18,400	1,150	200
Goods Producing	4,000	2,700	4,150	1,300	-150
Services Providing	14,600	14,800	14,250	-200	350
Seafood Processing	3,800	2,500	3,950	1,300	-150
Government ²	7,450	7,900	7,300	-450	150
Federal Government ³	450	400	400	50	50
State Government	600	550	600	50	0
Local Government	6,400	6,950	6,300	-550	100
Tribal Government	1,450	1,450	1,600	0	-150

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Employer Resources

The Occupational Safety and Health Office in the Alaska Department of Labor and Workforce Development, Division of Labor Standards and Safety, publishes a guide designed particularly for the smaller business organization. Its purpose is to help the small business establish and maintain an effective safety and health program in the workplace. Go to: <http://www.labor.state.ak.us/lss/oshhome.htm> and click on "OSH Managers Handbook" for valuable information.

