

ALASKA ECONOMIC

TRENDS

SEPTEMBER
2000



The Aging of Alaska's Workforce

Also in this Issue:
A Shift-Share
Economic Analysis

Department of Labor
and Workforce Development

Tony Knowles
Governor of Alaska

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The Aging of Alaska's Workforce

by Jeff Hadland, Economist, and Greg Williams, Demographer

Are labor shortages around the corner?

Historically, Alaska has had a relatively young population. Oil pipeline construction in the mid-1970s and the employment boom associated with high oil prices in the early '80s brought a large number of young workers to Alaska. Many of these workers remained in Alaska and have aged in place, resulting in a significant increase in the average age of Alaska's workers. Because of a number of demographic factors, it is not likely there will be enough children of those older workers to fill the anticipated employment needs of Alaska employers over the coming decade. The potential labor shortage presents opportunities for unemployed and under-employed Alaskans. A rise in the average age at retirement may also help reduce the potential shortage. The "graying" of the Alaska worker will place new demands on training institutions. It may push wages higher and is likely to lead to more nonresident workers.

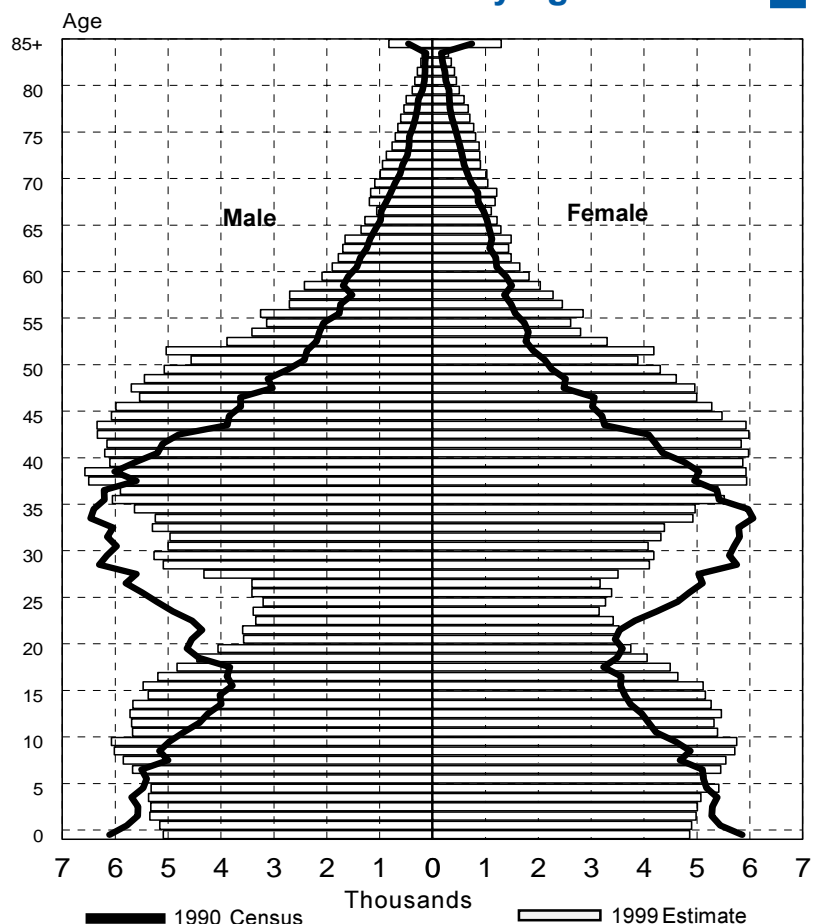
Alaska's demographic profile

Alaska's median age has risen from 29.3 in 1990 to 32.9 in 1999, due in part to a change in migration patterns and long term demographic trends. There has been a continued decline in the number of 18-year-olds migrating to Alaska. In 1998-99, the number of 18-year-olds coming into Alaska was equivalent to about 4 percent of the 18-year-old population. This is about half of the percentage of in-migrants experienced during the first couple of years of the decade. There has not been any general increase in out-migration

of persons of college age, except for that related to military cutbacks. In fact, the percentage of 18-year-olds leaving the state (about 9 percent

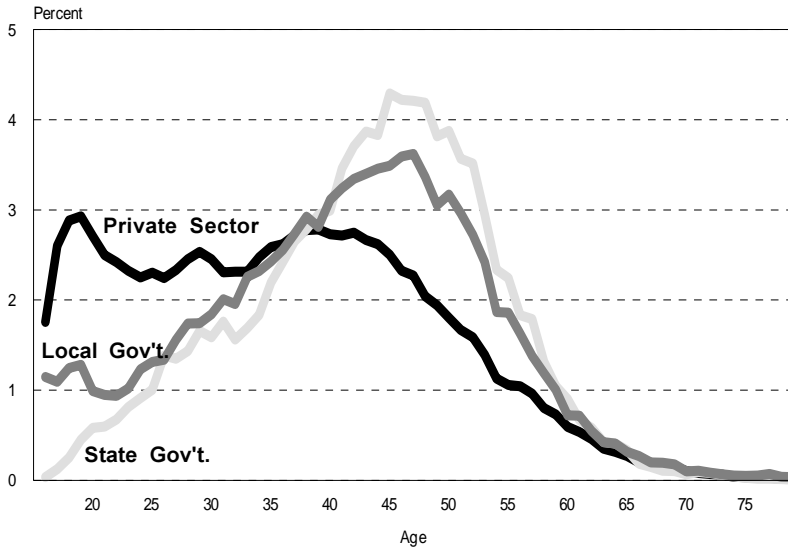
Alaska Population 1990 & 1999

By age and sex



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

2 Percent Distribution by Age Workers in private sector, state and local government—Alaska 1999



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

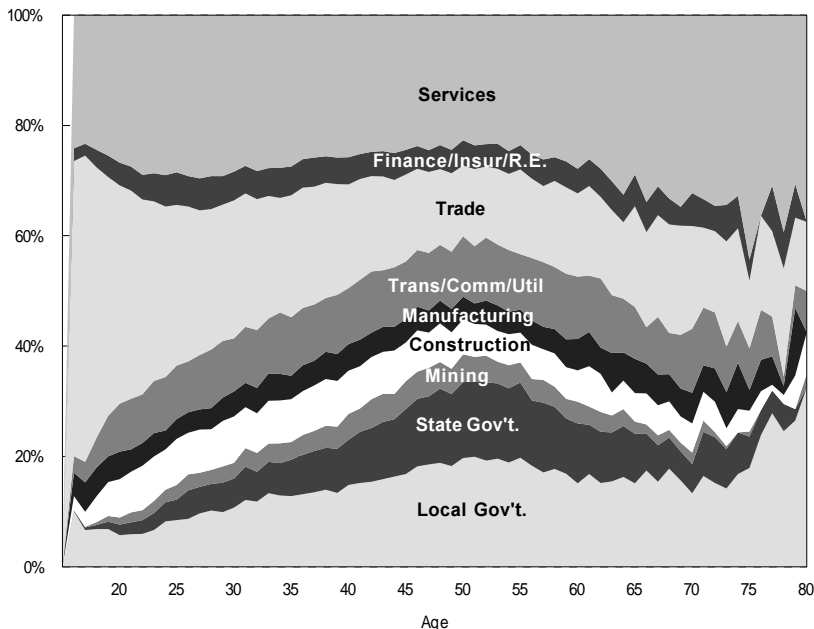
annually) is lower than at any time during the 1990s.

The decline of young adults in Alaska is primarily a result of long term demographic trends. The number of Alaskans age 20 to 34 has declined significantly in total numbers (by about 36,000) since the 1990 census. Exhibit 1 shows how the relatively low number of Alaskans that were in their early teens in 1990 is reflected in the low number of Alaskans in their early twenties today. Just as a disproportionately large number of Alaskans approach retirement age there will be relatively few Alaskans that will have completed postsecondary education or training needed to fill the openings created by retiring workers.

Age profile of Alaska workers

Employment openings result from several factors including overall industry growth, normal turnover, retirements, and death. Assuming no significant change in the average retirement age, the quickly increasing average age of workers suggests that retirement (and death) will play a bigger role in the number of Alaska job openings during the next several years.

3 Workers by Industry and Age Percent—Alaska 1999



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

Although many private sector industries are expecting a significant increase in those eligible to retire, there are major differences in the age profiles of private versus public sector workers in Alaska. (See Exhibit 2.) The average age of private sector wage and salary workers in Alaska in 1999 was 36.1 years, while state and local government workers had an average age of 43.5 and 41.1 respectively. About 29 percent of state government workers and 25 percent of local government workers were age 50 or older in 1999. Although Alaska federal government wage records are not available for analysis, the *Washington Post* reported in their May 7, 2000, issue that based upon Office of Personnel Management data, 30 percent of federal government workers will be eligible to retire in the next five years.

Young Alaska workers are much more likely to work in the wholesale or retail trade industries while middle-age workers are much more heavily represented in state and local government. (See Exhibit 3.) The state and local government sectors have the largest numbers of workers age 50 and over and among the very highest percentages of workers age 50 and over. (See Exhibit 4.) Although there is no significant difference in the age profiles of education and non-education government workers, most teachers are eligible for retirement after 20 years, while most non-education Alaska state and local government workers first hired prior to mid-1986 are eligible for full retirement at age 55. Although many workers continue to work after they are first eligible to retire, there is likely to be a significant need for replacement teachers and other government workers over the next decade.

Industries and occupations facing the highest retirement rates

Private sector industries with the largest number of workers age 50 and over include health services, oil and gas extraction, membership organizations, engineering firms, eating and drinking places, social services, and air transportation. (See Exhibit 9.) In 1999 the health services industry, which includes medical services and hospitals, had more than 3,100 workers age 50 and over.

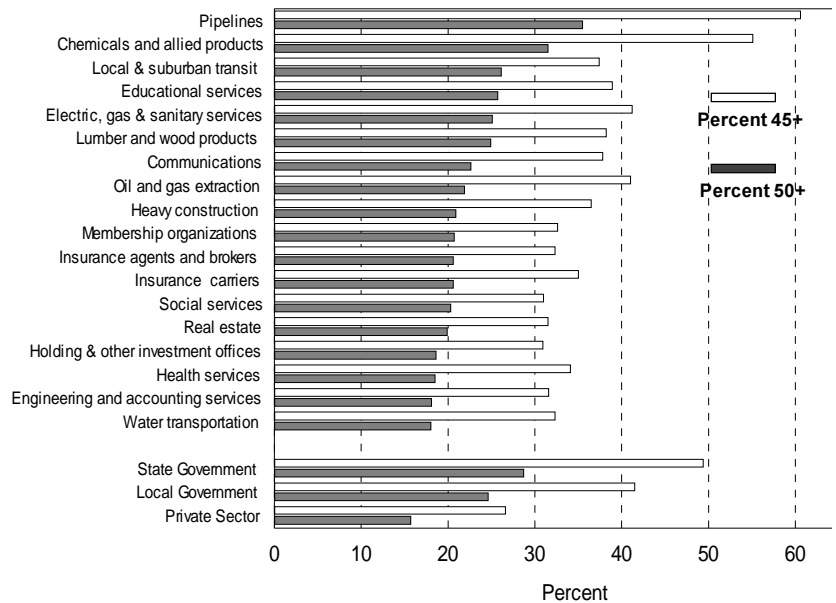
Large industries with high percentages of workers age 50 and over include pipelines, chemicals, educational services, electric utilities, lumber and wood products, communications, oil and gas extraction, and heavy construction. For industries with more than 100 total workers, pipelines had the oldest average age, with the average worker about 47 years of age in 1999. Many of these industries will need to replace workers with skills that can be acquired only through extensive training or education.

The health services industry and the oil industry

Workers Age 50 and Over Industries with high percentages

4

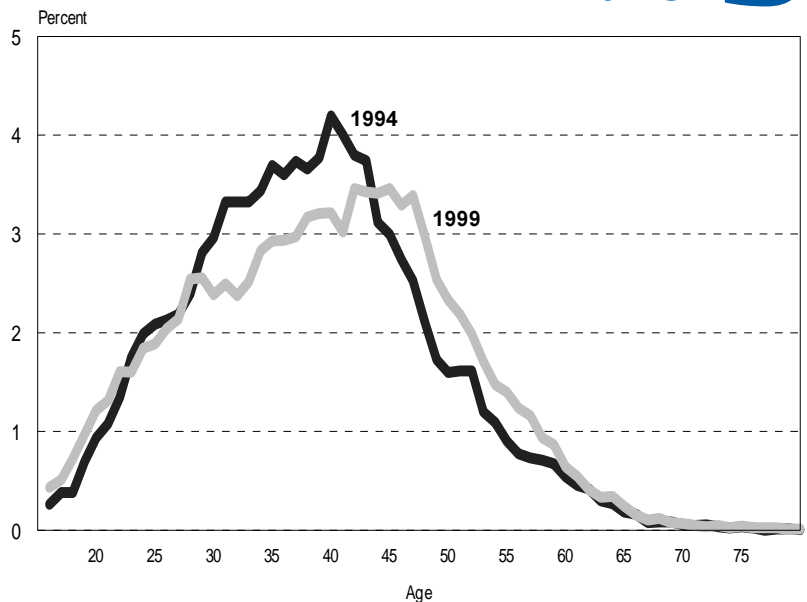
Alaska 1999



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

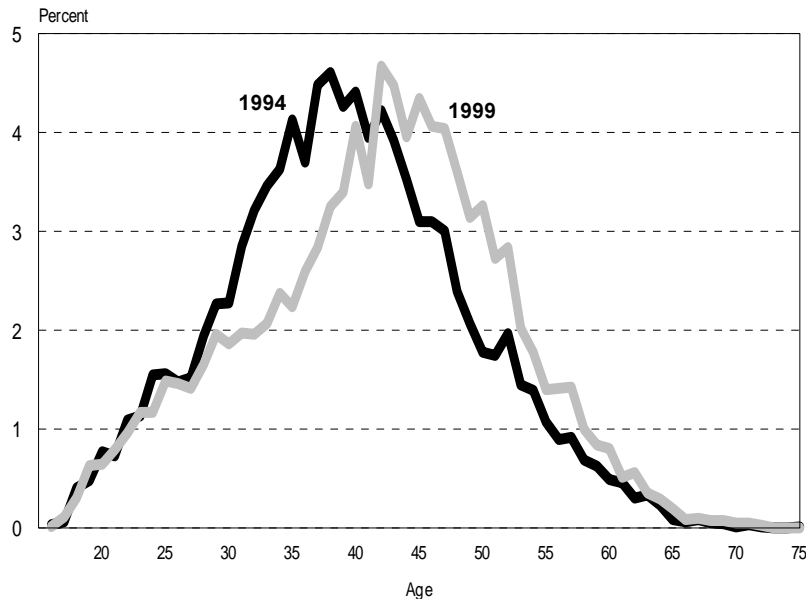
Alaska Health Service Workers Percent distribution by age

5



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

6 Oil Industry Workers Percent distribution by age—Alaska

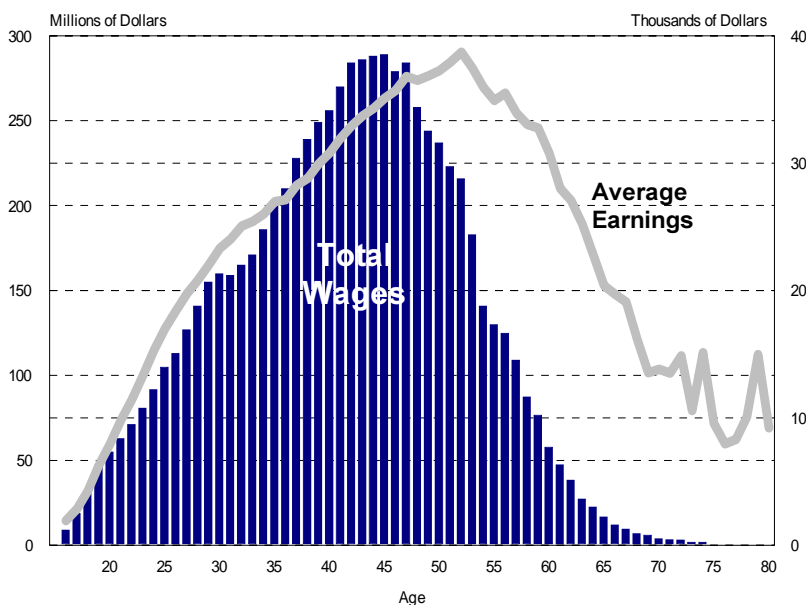


Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

have each had a significant shift in their worker age profile in the five years since 1994, with a much larger number of workers clustered in the 45 to 50 year age group. (See Exhibits 5 and 6.)

A large cluster of older workers is found in state and local government. Alaska's local governments had the highest total number of workers known to be age 50 and over in 1999, nearly 9,900 workers or about one-quarter of total workers employed during the year. State government had more than 6,500 workers age 50 and over and 11,000 workers age 45 and over. Workers age 45 and over comprised nearly 50 percent of total workers (a large increase from the 39.5% of workers age 45 and over in 1994). Only 36.8% of Alaska's private sector workers were age 45 or older.

7 Wage/Salary Earnings by Age Averages and totals—Alaska 1999



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

Occupations

Occupations with the largest number of workers age 50 and over include general office occupations, janitors, elementary school teachers, sales clerks, general managers, bookkeepers, secretaries, and registered nurses. Five of the top 20 occupational categories with the largest number of workers age 50 and over are teaching-related occupations. (See Exhibit 10.)

Many occupations are specific to particular industries and are easy to identify and target for training programs. The largest number of workers age 50 and over in the mining industry were petroleum technologists and technicians. There were more than 400 carpenters in the construction industry over age 50. (See Exhibit 8.)

Total and average earnings by age

Workers' average wage and salary earnings change over their lifetime. With additional education, experience, and attachment to the labor force, earnings increase. In 1999, average earnings of Alaska workers peaked at age 52 at \$38,712. (See Exhibit 7.) Earnings decline after

Jobs with Many Workers Over 50 In selected industries—Alaska 1999



age 52 as workers quit, retire, or work part-time. As older workers retire, jobs that pay the most and require significant training and education will become available.

Training Alaskans for jobs

The number and percent of workers in Alaska that are nonresident has fallen to its lowest level in over ten years. About 18 percent of all workers employed at some time during the year were estimated to be nonresident in 1999. Alaska's per capita personal income and average earnings are currently hovering at the national average, providing little economic incentive for workers from high wage areas in western states to choose jobs in Alaska. Training Alaska workers may be the best and least expensive solution for many employers. The oil industry, health care industry, and construction industry have begun to develop new training programs to provide skilled workers to meet anticipated hiring needs.

Analysis of demographic trends, employment forecasts, and nonresident hire by occupation can assist in identifying Alaska's unique training needs for the coming decade.

Methodology

Alaska's 1999 and 1994 wage files were matched with historical Permanent Fund Dividend applicant and Alaska voter registration files in order to obtain date of birth information on as many Alaska workers as possible. Age information was available for about 86 percent of workers employed in wage and salary jobs in private sector, state and local government in 1999, with a larger percentage of age information available in those industries with a high percentage of resident workers. Age and worker information was not available for federal government, military, or the self-employed. Each worker employed at any time during the year, whether full-time or part-time, was included in the analysis; however, only workers eligible to vote or eligible for a PFD were matched. The worker population for this analysis consisted primarily of year-round residents.

| Occupation | Number of Workers Age 50 and Over |
|--|--------------------------------------|
| Mining | |
| Petroleum Technologists & Technicians | 133 |
| Misc. Plant Systems Operators | 106 |
| Electricians | 93 |
| Truck Drivers, Heavy | 68 |
| Construction | |
| Carpenters | 423 |
| Construction Laborers | 281 |
| Operating Engineers | 197 |
| Electricians | 195 |
| Truck Drivers, Heavy | 134 |
| Manufacturing | |
| Cannery Workers, incl. Seafood Process | 688 |
| Misc. Hand Working Occupations | 80 |
| Excavating & Loading Machine Operators | 49 |
| Automobile Mechanics | 43 |
| Transportation, Communications, Utilities | |
| Bus Drivers | 374 |
| Airplane Pilots & Navigators | 318 |
| Reservation Agents & Ticket Clerks | 195 |
| Communications Equipment Repairers | 178 |
| Wholesale Trade | |
| General Office Occupations | 77 |
| Salespersons NEC | 74 |
| Stock & Inventory Clerks | 57 |
| Freight, Stock, & Material Movers NEC | 57 |
| General Managers & Other Top Executives | 52 |
| Retail Trade | |
| Sales Clerks | 879 |
| Cashiers | 324 |
| Supervisor; Sales, Retail | 242 |
| Waiters & Waitresses | 216 |
| Finance, Insurance, Real Estate | |
| General Office Occupations | 148 |
| General Managers & Other Top Executives | 137 |
| Secretaries | 87 |
| Bank Tellers | 80 |
| Services | |
| General Office Occupations | 658 |
| Registered Nurses | 550 |
| Janitors & Cleaners | 496 |
| Social Workers | 413 |
| Local Government | |
| Elementary School Teachers | 1,207 |
| Teacher Aides | 736 |
| Secondary School Teachers | 613 |
| Janitors & Cleaners | 504 |
| Teachers, except Postsecondary | 449 |

Notes: Age data from 1994 through 1999 PFD and 1999 Voter Registration File. Employment data preliminary. NEC = Not elsewhere classified.

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

9 Industries with Largest Number of Workers 50 and Over

Wage and salary workers employed during 1999—Alaska

| | Total Workers | Total with Age Info | Average Age | Percent 45 and Over | Number 45 and Over | Percent 50 and Over | Number 50 and Over |
|---|------------------|------------------------|----------------|---------------------------|--------------------------|---------------------------|--------------------------|
| State Government | 23,186 | 22,475 | 43.5 | 49.6 | 11,146 | 28.9 | 6,504 |
| Local Government | 41,625 | 39,836 | 41.1 | 41.7 | 16,593 | 24.8 | 9,878 |
| Total Private Sector | 291,947 | 237,403 | 36.1 | 26.8 | 63,677 | 15.9 | 37,745 |
| Health services | 18,333 | 16,670 | 39.5 | 34.3 | 5,716 | 18.7 | 3,125 |
| Membership organizations | 9,883 | 9,238 | 37.9 | 32.8 | 3,028 | 20.9 | 1,935 |
| Social services | 10,132 | 9,116 | 38.0 | 31.2 | 2,848 | 20.5 | 1,867 |
| Oil and gas extraction | 9,804 | 8,242 | 41.8 | 41.2 | 3,395 | 22.1 | 1,818 |
| Eating & drinking places | 26,011 | 20,466 | 29.7 | 14.2 | 2,898 | 8.5 | 1,737 |
| Business services | 12,669 | 10,336 | 36.2 | 26.0 | 2,684 | 16.5 | 1,703 |
| Engineering, accounting research mgmt & services | 10,794 | 9,220 | 39.0 | 31.8 | 2,930 | 18.3 | 1,684 |
| Transportation by air | 11,301 | 9,518 | 38.0 | 28.9 | 2,749 | 17.5 | 1,666 |
| Construction-special trade contractors | 11,494 | 9,799 | 36.5 | 24.4 | 2,393 | 13.5 | 1,323 |
| Food and kindred products | 22,991 | 6,959 | 36.6 | 28.5 | 1,982 | 17.9 | 1,249 |
| General merchandise stores | 12,430 | 10,823 | 32.2 | 18.4 | 1,995 | 11.3 | 1,226 |
| Communications | 5,422 | 5,139 | 40.7 | 38.0 | 1,955 | 22.8 | 1,174 |
| Hotels and other lodging places | 10,676 | 7,504 | 34.2 | 23.7 | 1,782 | 14.7 | 1,101 |
| Miscellaneous retail | 8,429 | 7,160 | 33.3 | 22.8 | 1,635 | 14.6 | 1,045 |
| Building construction-general contractors | 7,875 | 6,815 | 36.9 | 26.2 | 1,786 | 13.8 | 939 |
| Automotive dealers & gasoline service stations | 8,042 | 7,250 | 34.1 | 20.2 | 1,463 | 12.0 | 867 |
| Heavy construction other than building | 4,730 | 4,106 | 40.1 | 36.7 | 1,507 | 21.1 | 865 |
| Food stores | 8,939 | 8,032 | 32.0 | 18.6 | 1,497 | 10.5 | 843 |
| Electric, gas & sanitary services | 3,304 | 3,123 | 41.6 | 41.4 | 1,294 | 25.3 | 789 |
| Real estate | 4,224 | 3,845 | 38.3 | 31.7 | 1,218 | 20.1 | 772 |
| Wholesale trade-nondurable goods | 6,601 | 5,689 | 35.4 | 21.9 | 1,247 | 12.2 | 695 |
| Local & suburban & interurban highway transit | 3,009 | 2,543 | 39.3 | 37.6 | 957 | 26.3 | 669 |
| Wholesale trade-durable goods | 4,932 | 4,503 | 37.5 | 27.5 | 1,238 | 14.7 | 661 |
| Depository institutions | 4,803 | 4,504 | 35.7 | 23.3 | 1,048 | 13.7 | 618 |
| Amusement & recreation services | 5,894 | 4,460 | 32.3 | 19.4 | 865 | 12.0 | 533 |
| Motor freight transportation & warehousing | 3,646 | 3,312 | 37.2 | 28.0 | 928 | 15.8 | 524 |
| Holding & other investment offices | 2,720 | 2,563 | 38.0 | 31.1 | 797 | 18.8 | 482 |
| Lumber and wood products, except furniture | 2,578 | 1,882 | 40.4 | 38.4 | 722 | 25.1 | 473 |
| Water transportation | 3,181 | 2,451 | 37.8 | 32.5 | 796 | 18.2 | 447 |
| Educational services | 1,739 | 1,504 | 41.0 | 39.1 | 588 | 25.9 | 390 |
| Bldg. materials, hardware, garden supply, mobile home | 3,010 | 2,700 | 35.4 | 24.5 | 662 | 13.8 | 373 |
| Personal services | 2,486 | 2,152 | 34.8 | 23.4 | 504 | 16.4 | 352 |
| Pipelines, except natural gas | 965 | 936 | 46.6 | 60.8 | 569 | 35.7 | 334 |
| Legal services | 1,926 | 1,778 | 38.6 | 31.7 | 563 | 17.4 | 309 |
| Printing, publishing and allied industries | 2,098 | 1,896 | 36.6 | 25.7 | 487 | 14.6 | 276 |
| Automotive repair, services & parking | 3,326 | 2,916 | 32.3 | 16.0 | 467 | 9.2 | 267 |
| Insurance agents, brokers & service | 1,133 | 1,061 | 39.1 | 32.5 | 345 | 20.8 | 221 |
| Transportation services | 2,270 | 1,902 | 34.0 | 19.9 | 378 | 11.0 | 210 |
| Chemicals and allied products | 635 | 627 | 45.4 | 55.3 | 347 | 31.7 | 199 |
| Home furniture, furnishings & equipment stores | 1,915 | 1,652 | 32.7 | 20.1 | 332 | 11.4 | 189 |
| Metal mining | 1,585 | 1,325 | 37.3 | 26.4 | 350 | 13.7 | 181 |
| Insurance carriers | 914 | 867 | 40.4 | 35.2 | 305 | 20.8 | 180 |
| Apparel & accessory stores | 1,974 | 1,670 | 28.9 | 15.9 | 266 | 10.3 | 172 |
| Miscellaneous repair services | 1,155 | 965 | 36.6 | 25.3 | 244 | 15.4 | 149 |

Note: Age data from 1994 through 1999 PFD and 1999 Voter Registration File. Employment data preliminary.

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

Occupations with Largest Number of Workers 50 and Over

Wage and salary workers employed during 1999—Alaska

| | Total Workers | Total with Age Info | Avg Age | Percent 45 and Over | Number 45 and Over | Percent 50 and Over | Number 50 and Over |
|--|------------------|------------------------|------------|---------------------------|--------------------------|---------------------------|--------------------------|
| General Office Occupations | 14,233 | 13,006 | 36.3 | 27.7 | 3,597 | 17.2 | 2,235 |
| Janitors & Cleaners | 6,769 | 5,934 | 38.3 | 34.0 | 2,019 | 21.3 | 1,261 |
| Elementary School Teachers | 5,070 | 4,880 | 42.4 | 46.1 | 2,252 | 25.4 | 1,241 |
| Sales Clerks | 9,764 | 8,445 | 31.7 | 19.6 | 1,657 | 12.6 | 1,064 |
| General Managers & Other Top Executives | 3,056 | 2,832 | 45.8 | 56.5 | 1,600 | 35.9 | 1,018 |
| Bookkeepers & Accounting & Auditing Clerks | 5,009 | 4,747 | 39.2 | 32.2 | 1,528 | 19.3 | 917 |
| Secretaries | 4,375 | 4,164 | 40.1 | 36.6 | 1,524 | 21.9 | 910 |
| Registered Nurses | 3,732 | 3,260 | 43.8 | 48.1 | 1,567 | 25.2 | 823 |
| Postsecondary Teachers | 1,814 | 1,681 | 48.3 | 65.8 | 1,106 | 47.8 | 804 |
| Management Related Occup., NEC, et al | 3,827 | 3,563 | 39.5 | 36.6 | 1,304 | 21.8 | 775 |
| Adult Education & Other Teachers, NEC | 2,979 | 2,692 | 41.7 | 41.9 | 1,127 | 28.6 | 771 |
| Teacher Aides | 4,467 | 4,238 | 38.6 | 32.5 | 1,376 | 18.0 | 764 |
| Manual Occupations, NEC | 8,800 | 7,178 | 32.8 | 18.5 | 1,328 | 10.4 | 749 |
| Cannery Workers, incl. Seafood Processors | 16,520 | 4,575 | 34.8 | 25.0 | 1,144 | 16.0 | 734 |
| Carpenters | 5,242 | 4,538 | 38.4 | 29.5 | 1,337 | 15.6 | 708 |
| Social Workers | 3,220 | 3,013 | 40.3 | 38.7 | 1,166 | 22.3 | 672 |
| Secondary School Teachers | 2,846 | 2,667 | 41.8 | 43.3 | 1,154 | 23.7 | 632 |
| Bus Drivers | 1,786 | 1,635 | 45.1 | 52.4 | 857 | 36.0 | 589 |
| Admin. Support Occup, including Clerical | 2,483 | 2,335 | 39.5 | 36.1 | 844 | 23.3 | 545 |
| Officials & Administrators; Other, NEC | 1,818 | 1,736 | 44.1 | 51.4 | 892 | 30.9 | 536 |
| Mgr; Administrative Services | 1,982 | 1,888 | 43.4 | 46.0 | 868 | 27.9 | 526 |
| Construction Laborers | 5,266 | 4,631 | 34.5 | 21.0 | 974 | 10.9 | 506 |
| Maids & Housemen | 3,528 | 2,734 | 35.6 | 28.7 | 786 | 18.0 | 492 |
| Guards & Police, except Public Service | 1,957 | 1,717 | 40.7 | 38.6 | 663 | 27.7 | 475 |
| Cashiers | 5,339 | 4,750 | 31.5 | 16.9 | 802 | 9.9 | 470 |
| Receptionists | 3,488 | 3,161 | 34.6 | 23.9 | 756 | 13.9 | 439 |
| Truck Drivers, Heavy | 1,890 | 1,744 | 42.0 | 41.2 | 718 | 24.9 | 435 |
| Maintenance Repairers, General Utility | 2,194 | 1,909 | 39.5 | 35.1 | 671 | 21.5 | 410 |
| Administrative Assistants & Officers | 2,061 | 1,899 | 38.9 | 33.4 | 635 | 21.2 | 402 |
| Operating Engineers | 1,859 | 1,649 | 42.1 | 42.4 | 699 | 24.0 | 395 |
| Electricians | 2,128 | 1,858 | 40.0 | 34.1 | 634 | 21.2 | 393 |
| Airplane Pilots & Navigators | 2,042 | 1,458 | 42.3 | 40.0 | 583 | 26.3 | 383 |
| Cooks, Institution & Cafeteria | 1,484 | 1,265 | 43.9 | 46.5 | 588 | 30.2 | 382 |
| Mechanics & Repairers, NEC | 1,625 | 1,516 | 40.9 | 38.9 | 589 | 23.9 | 362 |
| Supervisory Mechanics & Repairers | 1,373 | 1,294 | 44.2 | 49.8 | 645 | 27.7 | 358 |
| Sheriffs, Bailiffs, & Other Law Officers | 1,476 | 1,455 | 41.6 | 42.4 | 617 | 24.5 | 356 |
| Kitchen Workers, Food Preparation | 3,304 | 2,698 | 32.0 | 21.3 | 576 | 13.0 | 351 |
| Misc. Food & Beverage Preparation Occup. | 3,952 | 3,067 | 31.4 | 18.1 | 554 | 11.4 | 351 |
| Waiters & Waitresses | 5,911 | 4,528 | 31.7 | 13.7 | 622 | 7.7 | 348 |
| Salespersons NEC | 2,628 | 2,335 | 33.9 | 21.9 | 511 | 14.0 | 328 |
| Nursing Aides, Orderlies, & Attendants | 2,333 | 2,124 | 37.5 | 27.4 | 582 | 15.3 | 325 |
| Accountants & Auditors | 1,696 | 1,616 | 40.6 | 34.3 | 555 | 19.0 | 307 |
| Bartenders | 2,014 | 1,725 | 38.7 | 29.5 | 509 | 17.2 | 297 |
| Supervisor; Sales, Retail | 1,905 | 1,776 | 38.8 | 27.8 | 493 | 16.6 | 295 |
| Record Clerks NEC | 785 | 762 | 45.8 | 52.5 | 400 | 37.1 | 283 |
| Stock & Inventory Clerks | 1,921 | 1,783 | 36.1 | 26.6 | 475 | 15.6 | 279 |
| Misc. Plant Systems Operators | 902 | 852 | 45.6 | 58.3 | 497 | 31.8 | 271 |
| Heavy Equipment Mechanics | 1,289 | 1,100 | 42.5 | 42.6 | 469 | 24.2 | 266 |
| Teachers, Except Postsecondary | 1,075 | 1,006 | 41.8 | 43.2 | 435 | 26.1 | 263 |
| Teachers, Special Education | 1,038 | 974 | 43.5 | 50.6 | 493 | 26.2 | 255 |
| Administrators, Elementary & Secondary Ed. | 553 | 531 | 48.4 | 71.9 | 382 | 47.6 | 253 |
| Inspectors & Compliance Officers | 980 | 845 | 43.4 | 47.6 | 402 | 28.8 | 243 |
| Freight, Stock, & Material Movers, NEC | 3,348 | 2,991 | 32.9 | 15.7 | 470 | 8.0 | 240 |
| Personnel, Training, & Labor Relations Spec. | 770 | 753 | 44.3 | 51.5 | 388 | 31.5 | 237 |
| Civil Engineers | 1,045 | 981 | 42.2 | 41.2 | 404 | 24.1 | 236 |
| Supervisory Food & Beverage Preparation | 1,602 | 1,384 | 36.8 | 27.7 | 384 | 17.1 | 236 |
| Automobile Mechanics | 2,078 | 1,891 | 36.3 | 22.2 | 419 | 12.4 | 234 |
| Purchasing Agents & Buyers, NEC | 1,221 | 1,142 | 40.9 | 35.2 | 402 | 20.0 | 228 |
| Engineers, NEC | 928 | 829 | 43.0 | 44.8 | 371 | 27.4 | 227 |
| Truck Drivers, Light | 2,323 | 2,092 | 35.1 | 19.9 | 416 | 10.6 | 221 |
| Reservation Agents & Ticket Clerks | 1,800 | 1,630 | 34.7 | 23.2 | 378 | 13.6 | 221 |
| Technicians, NEC | 1,048 | 993 | 40.5 | 38.3 | 380 | 22.1 | 219 |
| Health Aides, Except Nursing | 1,318 | 1,255 | 37.9 | 29.0 | 364 | 16.4 | 206 |
| Plumbers, Pipefitters & Steamfitters | 1,542 | 1,393 | 38.5 | 29.4 | 409 | 14.5 | 202 |
| Lawyers | 947 | 900 | 42.0 | 40.7 | 366 | 18.3 | 165 |

Note: Age data from 1994 through 1999 PFD and 1999 Voter Registration File. Employment data preliminary. NEC = not elsewhere classified

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

A Shift-Share Economic Analysis

by Jamie Kenworthy
Executive Director
Alaska Science and Technology Foundation

How Alaska compares with the national economy

Most economic analysis and reporting focus on assessing the current state of Alaska's economy and forecasting its future. These assessments are largely based on two factors—what the world will pay for oil and the state of the business cycle—which, at least in the near term, are determined outside of Alaska.

What if it were possible to separate the so-called “cyclical” components (external factors) from the longer-term “structural” components (internal factors) of Alaska's economy? Such an understanding of the separate factors, even if admittedly less than perfect, could help Alaskans better understand how competitive our economy is. It could also help focus Alaskans on what we all must do to create more wealth during the inevitable ups and downs of oil prices and the local, state and national economies.

1 Alaska/U.S. Sector Comparison 1985–1999 Peak to Peak

| Industry | State Competitive Shift | National Growth | Nat. Industry Differential | Total Change |
|---|-------------------------------|--------------------|-------------------------------|-----------------|
| Total Nonagricultural Employment | -25,628 | 72,347 | 0 | 46,719 |
| Mining | 3,781 | 2,984 | -6,889 | -124 |
| Oil & Gas | 3,283 | 2,782 | -7,058 | -993 |
| Oil & Gas Extraction | 229 | 1,489 | -3,736 | -2,018 |
| Oil & Gas Field Services | 3,041 | 1,293 | -3,308 | 1,026 |
| Other Mining | 1,055 | 202 | -388 | 869 |
| Construction | -11,202 | 5,837 | 310 | -5,055 |
| General Construction | -2,045 | 1,675 | -952 | -1,322 |
| Heavy Construction | -2,903 | 1,559 | -945 | -2,289 |
| Special Trades Construction | -5,442 | 2,603 | 1,394 | -1,445 |
| Manufacturing | 3,031 | 3,794 | -4,262 | 2,563 |
| Seafood Processing | 3,092 | 1,929 | -1,890 | 3,131 |
| Logging | 96 | 328 | -416 | 8 |
| Other Wood | -245 | 198 | -77 | -124 |
| Pulp Mills | -474 | 197 | -290 | -567 |
| Printing & Publishing | -451 | 581 | -411 | -281 |
| Other Nondurables | 222 | 290 | -354 | 158 |
| Other Durables | 282 | 271 | -315 | 238 |

(continued next page)

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

Alaska/U.S. Sector Comparison (continued) **1**

1985—1999 Peak to Peak

To better understand what is happening in key sectors of the Alaska economy requires comparing the performance of different sectors of the Alaska economy with their national counterparts. This tool—called “shift-share analysis” by economists—can be helpful in explaining the performance of an industry by separating out the influence of the business cycle from underlying competitive factors.

If, for example, an industry in Alaska grew 20 percent during a period of time when its national competitors grew only 10 percent, then the Alaska industry has a positive competitive shift. Alaska firms in that industry must have some competitive advantage, enabling them to increase their employment relative to firms in the rest of the nation. On the other hand, if Alaska firms in a sector grew only 5 percent while their competitors grew 10 percent, or Alaska firms shrank by 10 percent while the national sector shrank by only 5 percent, then the Alaska sector became less competitive.

The shift-share analysis can provide a quick snapshot of Alaska’s economy during a particular time period. The analysis uses

Subtotals may not add to totals due to rounding.

Based on nonagricultural wage and salary employment. 1999 data are an average of Current Employment Statistics estimates from October 1998 to September 1999. Employment data are subject to revision.

National Growth component: Change that would have occurred in number of jobs if Alaska industry had grown (or declined) at the same rate as all U.S. nonagricultural employment.

National Industry Differential component: Change in number of jobs if Alaska industry had grown (or declined) at the same rate as its national counterpart minus change in number of jobs attributable to growth of all U.S. nonagricultural employment (National Growth Component).

State competitive shift: Actual change in number of jobs minus change in number of jobs if Alaska industry had grown (or declined) at the same rate as its national counterpart.

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

| Industry | State Competitive Shift | National Growth | Nat. Industry Differential | Total Change |
|---|-------------------------------|--------------------|-------------------------------|-----------------|
| Transportation, Comm., & Utilities | 2,043 | 5,862 | -468 | 7,437 |
| Local Passenger Transport | 100 | 345 | 456 | 901 |
| Trucking & Warehousing | -11 | 706 | 13 | 708 |
| Water Transportation | 537 | 434 | -455 | 515 |
| Air Transportation | -4,178 | 1,809 | 5,929 | 3,560 |
| Air Trans. Scheduled | -1,594 | 1,062 | 3,457 | 2,925 |
| Air Trans. Nonscheduled | -3,767 | 552 | 3,498 | 284 |
| Airports, Flying Fields, Services | -370 | 195 | 526 | 351 |
| Pipelines, except Natural Gas | 190 | 292 | -550 | -69 |
| Transportation Services | -89 | 346 | 421 | 678 |
| Communications | 26 | 1,296 | -708 | 614 |
| Utilities | 693 | 632 | -784 | 541 |
| Railroads | -7 | 3 | -7 | -10 |
| Wholesale Trade | -1,571 | 2,739 | -862 | 306 |
| Wholesale Durables | -2,019 | 1,663 | -551 | -907 |
| Wholesale Nondurables | 449 | 1,076 | -312 | 1,213 |
| Retail Trade | -118 | 11,629 | -155 | 11,355 |
| Bldg. Materials & Furniture | -946 | 1,026 | 411 | 491 |
| General Merch & Apparel | 3,123 | 1,676 | -760 | 4,039 |
| Food Stores | -456 | 1,891 | -346 | 1,089 |
| Auto Dealers & Service Stations | 591 | 1,192 | -182 | 1,602 |
| Eating & Drinking Places | -2,076 | 4,217 | 917 | 3,059 |
| Miscellaneous Retail | -759 | 1,627 | 209 | 1,077 |
| Finance, Insurance & Real Estate | -3,587 | 4,005 | -473 | -55 |
| Banks, Credit Unions & S&Ls | -1,868 | 1,784 | -1,084 | -1,168 |
| Insurance | -1,274 | 739 | -32 | -567 |
| Brokers, RE, Holding Co. | -580 | 1,482 | 778 | 1,680 |
| Services & Misc. | -9,113 | 14,058 | 20,075 | 25,019 |
| Hotels, Motels | 473 | 1,471 | 151 | 2,095 |
| Personal Services | -596 | 606 | -111 | -102 |
| Business Services | -11,351 | 2,600 | 9,345 | 594 |
| Repair Services | -195 | 758 | 440 | 1,002 |
| Health Services | 1,574 | 2,746 | 2,326 | 6,646 |
| Hospitals | 1,521 | 1,203 | 32 | 2,756 |
| Other Health Services | -111 | 1,543 | 2,458 | 3,890 |
| Legal Services | -962 | 565 | 225 | -172 |
| Social Services | -1,536 | 1,394 | 3,376 | 3,234 |
| Membership Organizations | 246 | 1,247 | 1,048 | 2,542 |
| Engineering & Management Svcs | N/A | N/A | N/A | N/A |
| Rest of Services | 350 | 2,672 | -1,730 | 1,293 |
| Government | -10,091 | 21,439 | -6,074 | 5,274 |
| Federal | 585 | 5,511 | -6,671 | -575 |
| Civilian Military | N/A | N/A | N/A | N/A |
| Other Federal | N/A | N/A | N/A | N/A |
| State | -3,332 | 6,421 | -1,930 | 1,159 |
| State Education | -301 | 1,510 | -253 | 956 |
| State Noneducation | -2,792 | 4,911 | -1,916 | 204 |
| Local | -4,805 | 9,507 | -13 | 4,689 |
| Local Education | -1,725 | 5,213 | 609 | 4,097 |
| Local Noneducation | -3,071 | 4,294 | -630 | 593 |

employment growth (or decline) in Alaska and the nation as a measure of economic growth (or decline). To remove the cyclical effects from the analysis, two “peak” or growth years for both the Alaska and national economies were chosen as the start and end points—1985 as the starting point and 1999 as the end point.

The most basic shift-share calculation compares Alaska’s actual job growth with the growth that would have taken place if the state’s total nonagricultural employment increased at the same rate as total U.S. employment (called the national growth component). The 1985-1999 analysis shows that Alaska’s economy gained 46,719 jobs during that time period. (See Exhibit 1.) However, the state would have gained 72,347 jobs if it had grown as quickly as total national employment. The difference between the total number of jobs gained in Alaska and the national growth component (-25,628) is termed the state competitive shift.

The state competitive shift represents the change in employment in Alaska not accounted for by nationwide employment growth. A positive state competitive shift documents that, for whatever reason, the state has been competitive in developing new jobs. A negative shift component shows that Alaska is not adding employment at the same rate seen nationally, as seen in the 1985-1999 analysis.

The shift-share analysis is not a perfect tool for two reasons. First, Alaska competes not just nationally but internationally, so comparing Alaska firms and their U.S. counterparts offers a meaningful, but not perfect, comparison. Second, because the structure of Alaska’s economy is different than the national economy (more oil and government, less manufacturing and services, etc.), shift-share analysis is more useful for understanding how different sectors (industries) of the economy perform than explaining the performance of the economy as a whole.

To make this Alaska industry to national industry

comparison, the shift-share analysis uses another calculation, termed the national industry differential. The differential isolates employment changes that are specific to a particular industry—changes that are above and beyond growth in the national economy as a whole. In the hotels and motels sector, for example, Alaska added 2,095 jobs from 1985-1999. (See Exhibit 1.) Of those additional jobs, 1,471 (national growth component) can be attributed to general growth in the national economy. Above average growth in the national services sector indicates that 151 additional jobs (national industry differential) would be expected from growth in the national hotel and motel industry. So, 1,622 (national growth component plus national industry differential) of the jobs added in Alaska can be attributed to national growth. The state competitive shift 473 jobs (2,095 minus 1,622) can be specifically attributed to competitive advantages in Alaska. While the national industry differential attempts to correct for the different proportion of industries in Alaska and the national economy, the effects of one industry spill over to other industry sectors and cannot be perfectly separated.

Some tentative conclusions:

Winners: oil and gas, mining, seafood processing, health care, and retail

What does this analysis tell us about how competitive Alaska’s economy is and its longer-term structural health? From a shift-share perspective, this analysis suggests that the oil industry cannot be blamed for Alaska’s growing more slowly than the nation in the last fifteen years. In that period, the Alaska oil industry lost 993 real jobs, but because the oil industry was declining much faster nationally than in Alaska, the oil sector had a positive competitive shift of 3,283 jobs. The explanation for the positive competitive shift is that Alaska’s oil industry is becoming more competitive by lowering labor and supply costs, improving productivity and

Peak to Peak Comparisons **2** By industry, 1985-1999

infrastructure, accessing larger reserves over which to spread fixed expenses, etc. It can also be explained by national competitors becoming less profitable due to declining access to resources or higher production costs. This is not to say that other impacts of a declining Alaska oil industry have had no effect on Alaska's economy. It is recognized that the impact of the oil industry on Alaska goes beyond its relative level of employment.

In addition to the oil industry, other winning sectors in Alaska in the 1985 to 1999 cycle include other mining, which added 869 jobs (or a positive competitive shift of 1,055 jobs) and seafood processing, which added 3,131 jobs. Health services also grew more rapidly in Alaska than nationally, adding 6,646 jobs, of which 1,574 were a positive shift component. The general merchandise and apparel sector, which added 4,039 jobs, had a positive state shift of 3,123 jobs. (See Exhibit 1.)

While still relatively small at 11,000 jobs, the Alaska seafood processing industry is the only sector that employs a large portion of the total number of national workers. Better yet, Alaska's share of total employment in the industry is growing. While Alaska had less than 10 percent of national seafood processing employment in 1975, by 1992 Alaska's share was more than 20 percent. This growth occurred less because the national industry was declining than because the Alaska industry was growing. (The seafood processing industry does not include seafood harvesters [fishers], most of whom are self-employed and generally are not included in employment counts.) While there has been significant turmoil in specific fisheries and a large expansion of the bottomfish industry in Alaska, the industry as a whole has grown fairly steadily since 1975. Almost all of the added jobs in this sector were the result of a positive competitive shift, while national seafood processing employment was flat.

While seafood processing was the star performer

| Industry | Percent State Growth | Percent National Growth | State Competitive Shift (# of jobs) |
|-----------------------------------|----------------------|-------------------------|-------------------------------------|
| All Industries | 20.3 | 31.4 | -25,628 |
| General Merchandise & Apparel | 75.6 | 17.1 | 3,123 |
| Seafood Processing | 50.9 | 0.6 | 3,092 |
| Oil & Gas Field Services | 24.9 | -48.9 | 3,041 |
| Health Services | 75.9 | 57.9 | 1,574 |
| Other Mining | 134.8 | -28.9 | 1,055 |
| Engineering & Management Svcs* | 67.9 | 50.8 | 803 |
| Utilities | 26.9 | -7.6 | 693 |
| Auto Dealers & Service Stations | 42.1 | 26.6 | 591 |
| Federal Government | -3.3 | -6.6 | 585 |
| Water Transportation | 37.3 | -1.6 | 537 |
| Hotels, Motels | 44.7 | 34.6 | 473 |
| Wholesale Nondurables | 35.4 | 22.3 | 449 |
| Rest of Services | 15.2 | 11.1 | 350 |
| Other Durables | 27.6 | -5.1 | 282 |
| Membership Organizations | 63.9 | 57.7 | 246 |
| Oil & Gas Extraction | -42.5 | -47.3 | 229 |
| Other Nondurables | 17.0 | -6.9 | 222 |
| Pipelines, except Natural Gas | -7.4 | -27.8 | 190 |
| Local Passenger Transport | 81.9 | 72.8 | 100 |
| Logging | 0.7 | -8.4 | 96 |
| Communications | 14.9 | 14.2 | 26 |
| Railroads | -100.0 | -35.5 | -7 |
| Trucking & Warehousing | 31.4 | 32.0 | -11 |
| Transportation Services | 61.5 | 69.6 | -89 |
| Repair Services | 41.5 | 49.6 | -195 |
| Other Wood Products | -19.6 | 19.2 | -245 |
| State Education | 19.9 | 26.1 | -301 |
| Printing & Publishing | -15.2 | 9.2 | -451 |
| Food Stores | 18.1 | 25.6 | -456 |
| Pulp Mills | -90.1 | -14.7 | -474 |
| Brokers, Real Estate, Holding Co. | 35.6 | 47.8 | -580 |
| Personal Services | -5.3 | 25.6 | -596 |
| Miscellaneous Retail | 20.8 | 35.4 | -759 |
| Bldg. Materials & Furniture | 15.0 | 44.0 | -946 |
| Legal Services | -9.6 | 43.9 | -962 |
| Insurance | -24.1 | 30.0 | -1,274 |
| Social Services | 72.8 | 107.4 | -1,536 |
| Local Govt. Education | 24.7 | 35.0 | -1,725 |
| Banks, Credit Unions & S&Ls | -20.5 | 12.3 | -1,868 |
| Wholesale Durables | -17.1 | 21.0 | -2,019 |
| General Construction | -24.7 | 13.6 | -2,045 |
| Eating & Drinking Places | 22.8 | 38.2 | -2,076 |
| State Noneducation | 1.3 | 19.1 | -2,792 |
| Heavy Construction | -46.1 | 12.3 | -2,903 |
| Local Noneducation | 4.3 | 26.8 | -3,071 |
| Air Transportation | 61.7 | 134.2 | -4,178 |
| Special Trades Construction | -17.4 | 48.2 | -5,442 |
| Business Services | 7.2 | 144.1 | -11,351 |

* 1988-1999

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

3 Comparing Two Recoveries

| | 1978–1985 (Trough 1 to Peak 1) | | | | 1987–1999 (Trough 2 to Peak 2) | | | |
|--------------------------------------|--------------------------------|-----------------------|----------------------------|--------------|--------------------------------|-----------------------|----------------------------|--------------|
| | Competitive Shift | State National Growth | Nat. Industry Differential | Total Change | Competitive Shift | State National Growth | Nat. Industry Differential | Total Change |
| Total Nonagricultural Employment | 43,072 | 20,586 | 0 | 63,657 | 13,755 | 53,525 | 0 | 67,280 |
| Mining | 3,505 | 680 | -187 | 3,998 | 2,691 | 2,239 | -4,329 | 601 |
| Oil & Gas | 1,897 | 633 | 1,202 | 3,732 | 1,815 | 2,055 | -4,057 | -187 |
| Oil & Gas Extraction | N/A | N/A | N/A | N/A | -177 | 1,136 | -2,689 | -1,730 |
| Oil & Gas Field Services | N/A | N/A | N/A | N/A | 2,065 | 918 | -1,440 | 1,544 |
| Other Mining | 335 | 47 | -116 | 266 | 951 | 185 | -347 | 788 |
| Construction | 5,065 | 1,513 | -239 | 6,338 | 922 | 2,569 | -23 | 3,468 |
| General Construction | 1,683 | 443 | -376 | 1,750 | 838 | 752 | -521 | 1,069 |
| Heavy Construction | 1,909 | 408 | -660 | 1,657 | -628 | 725 | -261 | -165 |
| Special Trades Construction | 1,746 | 662 | 523 | 2,931 | 1,044 | 1,093 | 427 | 2,564 |
| Manufacturing | 881 | 1,473 | -2,205 | 148 | 2,085 | 3,289 | -3,626 | 1,748 |
| Seafood Processing | 599 | 774 | -1,498 | -125 | 3,010 | 1,698 | -2,091 | 2,617 |
| Logging | -41 | 135 | -140 | -46 | -464 | 427 | -586 | -623 |
| Other Wood Products | -90 | 97 | -164 | -157 | -50 | 127 | -69 | 9 |
| Pulp Mills | -242 | 130 | -309 | -422 | -623 | 224 | -419 | -818 |
| Printing & Publishing | 788 | 110 | 65 | 962 | -79 | 406 | -348 | -21 |
| Other Nondurables | 31 | 122 | -221 | -67 | 221 | 235 | -295 | 161 |
| Other Durables | 58 | 106 | -161 | 3 | 437 | 173 | -186 | 424 |
| Transportation, Commun., & Utilities | 1,307 | 2,016 | -986 | 2,336 | 4,031 | 4,476 | 50 | 8,557 |
| Local Passenger Transportation | 225 | 100 | -41 | 285 | 29 | 309 | 452 | 789 |
| Trucking & Warehousing | -250 | 295 | -187 | -142 | 11 | 613 | -69 | 555 |
| Water Transportation | 345 | 144 | -275 | 214 | 811 | 263 | -206 | 867 |
| Air Transportation | -49 | 560 | 709 | 1,221 | -1,413 | 1,350 | 4,091 | 4,027 |
| Air Trans. Scheduled | N/A | N/A | N/A | N/A | 573 | 719 | 2,194 | 3,487 |
| Air Trans. Nonscheduled | N/A | N/A | N/A | N/A | -3,281 | 483 | 2,948 | 149 |
| Airports, Flying Fields, Services | 120 | 42 | 121 | 283 | -77 | 148 | 321 | 392 |
| Pipelines, except Natural Gas | -366 | 167 | -230 | -428 | 203 | 234 | -492 | -56 |
| Transportation Services | 377 | 55 | 223 | 656 | 112 | 268 | 347 | 727 |
| Communications | -176 | 499 | -241 | 82 | 471 | 926 | -288 | 1,110 |
| Utilities | 380 | 171 | 75 | 626 | 753 | 501 | -667 | 588 |
| Railroads | -114 | 23 | -85 | -176 | -37 | 13 | -25 | -50 |
| Wholesale Trade | 2,151 | 706 | 146 | 3,004 | 222 | 1,888 | -481 | 1,629 |
| Wholesale Durables | 1,021 | 453 | 158 | 1,631 | -458 | 1,033 | -233 | 343 |
| Wholesale Nondurables | 1,117 | 254 | 2 | 1,373 | 685 | 855 | -254 | 1,286 |
| Retail Trade | 9,377 | 2,870 | 1,542 | 13,789 | 6,925 | 8,592 | -809 | 14,708 |
| Bldg. Materials & Furniture | 945 | 242 | 117 | 1,304 | 935 | 539 | 173 | 1,647 |
| General Merch & Apparel | 927 | 521 | -330 | 1,118 | 3,929 | 1,246 | -685 | 4,490 |
| Food Stores | 1,783 | 415 | 464 | 2,663 | 230 | 1,490 | -450 | 1,269 |
| Auto Dealers & Service Stations | 1,279 | 306 | -269 | 1,317 | 1,407 | 852 | -201 | 2,058 |
| Eating & Drinking Places | 3,243 | 944 | 1,600 | 5,787 | 404 | 3,170 | 488 | 4,061 |
| Miscellaneous Retail | 865 | 442 | 295 | 1,602 | -195 | 1,295 | 83 | 1,183 |
| Finance, Insurance & R.E. | 1,171 | 1,135 | 1,251 | 3,557 | -456 | 2,886 | -1,047 | 1,384 |
| Banks, Credit Unions & S&Ls | 442 | 511 | 586 | 1,539 | -795 | 1,287 | -1,027 | -535 |
| Insurance | 327 | 217 | 58 | 601 | -553 | 506 | -148 | -195 |
| Brokers, RE, Holding Co. | 135 | 408 | 874 | 1,417 | 838 | 1,093 | 182 | 2,114 |
| Services & Misc. | 6,660 | 3,487 | 6,387 | 16,533 | 1,812 | 10,818 | 14,747 | 27,377 |
| Hotels, Motels | 564 | 377 | 686 | 1,627 | 1,116 | 1,180 | -144 | 2,152 |
| Personal Services | 604 | 141 | 39 | 784 | -237 | 450 | -150 | 63 |
| Business Services | -389 | 634 | 2,900 | 3,146 | -6,421 | 1,857 | 6,157 | 1,593 |
| Repair Services | 777 | 156 | 216 | 1,149 | 408 | 545 | 325 | 1,278 |
| Health Services | 1,540 | 677 | 1,043 | 3,261 | 2,182 | 2,302 | 1,880 | 6,364 |
| Hospitals | 787 | 318 | 148 | 1,253 | 1,826 | 963 | 23 | 2,812 |
| Other Health Services | 661 | 359 | 988 | 2,008 | 205 | 1,340 | 2,007 | 3,552 |
| Legal Services | -143 | 148 | 596 | 601 | -760 | 490 | -23 | -293 |
| Social Services | 151 | 396 | 686 | 1,233 | -1,089 | 1,182 | 2,944 | 3,037 |
| Membership Organizations | 807 | 387 | -354 | 840 | 57 | 1,110 | 994 | 2,161 |
| Engineering & Management Svcs | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Rest of Services | 2,222 | 570 | 1,100 | 3,893 | 3,032 | 1,702 | -1,600 | 3,133 |
| Government | 11,452 | 6,706 | -4,204 | 13,953 | -4,067 | 16,768 | -4,892 | 7,809 |
| Federal | -2,635 | 2,385 | -1,528 | -1,778 | 673 | 4,558 | -6,125 | -894 |
| Civilian Military | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Other Federal | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| State | 4,610 | 1,773 | -291 | 6,092 | -438 | 4,773 | -1,441 | 2,895 |
| State Education | 1,406 | 373 | 9 | 1,788 | 252 | 1,148 | -137 | 1,263 |
| State Noneducation | 3,305 | 1,400 | -401 | 4,304 | -457 | 3,625 | -1,534 | 1,633 |
| Local | 9,113 | 2,548 | -2,021 | 9,640 | -1,769 | 7,437 | 140 | 5,807 |
| Local Education | 3,884 | 1,491 | -851 | 4,525 | 132 | 4,069 | 546 | 4,747 |
| Local Noneducation | 5,170 | 1,057 | -1,111 | 5,115 | -189 | 3,015 | -377 | 2,448 |

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

of Alaska's base economy, mining and other manufacturing also grew relative to national competitors. Whether measured from trough to peak (1987 to 1999) or peak to peak (1985 to 1999), Alaska's manufacturing sector—led by seafood processing but also including durable and nondurable goods—is growing both absolutely, in real jobs, and relatively when compared to national competitors. (See Exhibits 1 and 3.)

Relative losers: business services, government, and forest products

Comparing Alaska with the U.S. economy between 1985 and 1999, the state's services, government, construction, and forest products sectors were the relative competitive losers. While the services sector grew by 25,019 jobs in that period, the negative competitive shift figure of 9,113 shows it lacked the growth to keep up with services nationally. The entire negative shift in the services sector can be attributed to the slow growth of Alaska's business services sector—jobs in information technology, accounting, marketing, consulting, temporary services, etc., that support other businesses. Other data from the American Electronics Association indicates that Alaska's high-tech sector (telecommunications and computer hardware and software) is growing rapidly, but this growth is from a small base. So part of the state's slow growth in business services is explained by a larger national tech sector that has been booming.

With the closing of the Sitka and Ketchikan pulp mills and continued disputes over timber sales from the Tongass National Forest, the forestry industry is a declining part of Alaska's economic base. But these recent events only highlight long-term trends. Before 1965 there were more timber processing jobs than logging jobs. Since then, the number of logging jobs has grown modestly while the number of jobs processing logs into forest products has declined. As a result, the seafood processing industry, which was twice

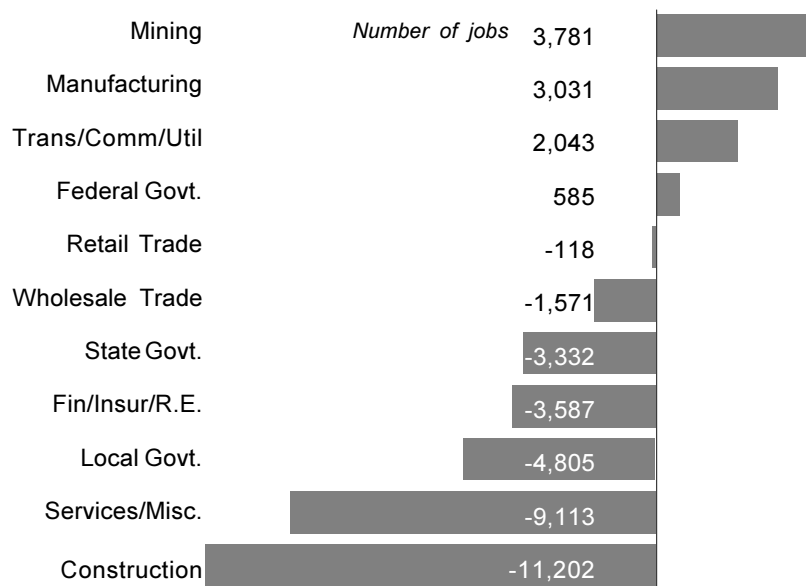
the size of the timber industry in 1965, grew to be almost four times as large by 1990.

The declining size of government in the Alaska economy requires special explanation. While the public sector remains a much larger part of Alaska's economy than in the national economy, this sector is growing more slowly here than outside. Alaska added 5,274 government jobs in the last 14 years. However, this represents a negative competitive shift of 10,091 jobs, or 40 percent of the overall competitive decline of 25,628 jobs in the Alaska economy.

The decline in the government sector is entirely in state and local employment, both in the education and non-education sectors. From 1985 to 1999, federal employment dropped by 575 jobs in Alaska, but federal employment had a

Mining, Manufacturing had Competitive Advantage **4**

State competitive shift 1985-1999



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

positive competitive shift of 585 jobs; in other words, federal employment declined more slowly here than nationally. There is no doubt that this positive competitive shift was due to the superior ability of Alaska's congressional representatives to protect the state from budget cuts.

While most Alaskans would agree that the declining share of government jobs in the entire economy is a healthy development, this decline of jobs and income is a two-edged sword. The jobs and income in a relatively shrinking public sector support fewer private sector jobs. In effect, we have already run the experiment of expecting a shrinking public sector to produce a more competitive private sector. There may be good reason to reduce the public sector to achieve state fiscal stability, but as an economic development strategy the evidence of the last 14 years is that this tactic has failed to make the private sector more competitive.

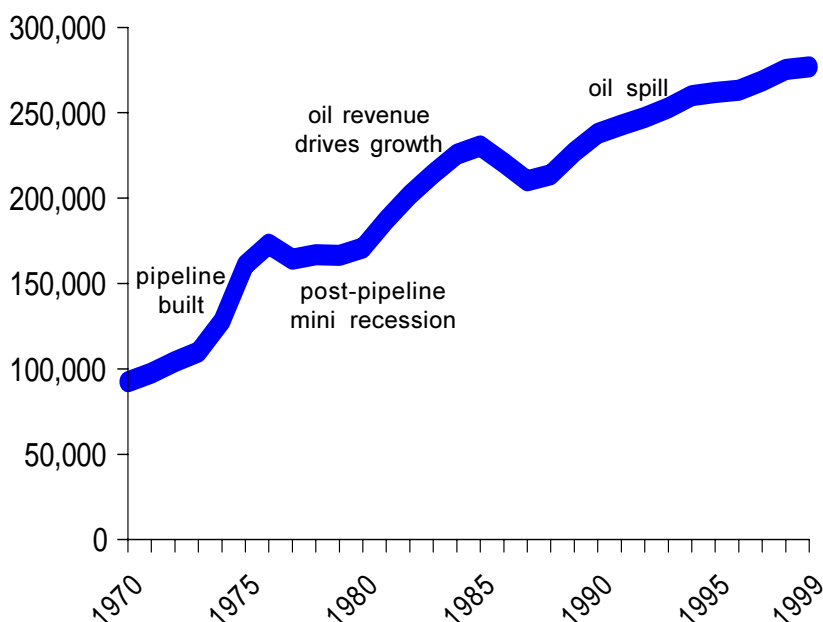
Comparing two recoveries: 1990s vs. the 1980s

Comparing how Alaska recovered in the early 1980s (1978 trough to 1985 peak) to the recent recovery (1987 trough to 1999 peak) provides another perspective on the health of the state's economy. (See Exhibit 3.) Alaska had a positive 43,072 job competitive shift in the 1980s recovery compared to a positive shift of 13,755 jobs in the recent 1990s expansion. There is no doubt that Alaska recovered faster than the nation, or had an overall positive competitive shift, due, at least in part, to its recovering from lower lows than the national economy. The analogy may be to a roller coaster ride with each high being lower than the previous one. So while Alaska had an overall positive competitive shift of only 13,755 jobs in the recent expansion, this is almost 30,000 fewer jobs than the earlier recovery.

The good news is that the composition of the recent recovery showed a more diverse mix of industries. The 1980s expansion was driven by big increases in construction and government, which came primarily from oil revenue. The recent expansion included the manufacturing (primarily seafood processing), oil and gas, and retail trade sectors. The biggest competitive losers in this period were business services, forest products, and local and state government.

Recent competitive shifts in Alaska's economic base and their ripple effects have made Alaska's economy more nearly resemble the national economy than a frontier economy. There has been growth in Alaska's small manufacturing sector and less dependence on Alaska's large oil and oil-financed state and local government sector and the oil-driven construction sector. Alaska's services and retail trade sectors are growing faster than nationally, but wages in these sectors are lower than in the goods producing economic base. Since wealth, not employment, is a larger driver of the service and retail economy, Alaska has to be more concerned with increasing the competitive position of its goods producing economic base if Alaska's growth is to return to national rates.

5 Nonag Wage and Salary Employment Alaska totals 1970-1999



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

Economy Absorbs More Workers in June

Alaska Employment Scene

by
John Boucher
Labor Economist

Western Alaska fisheries are in serious trouble

Unemployment in the state of Alaska dropped one-tenth of a percentage point in June to 6.0%. The number of unemployed Alaskans increased slightly to over 19,900, 350 more than in May. The statewide jobless rate remained below last year's level and was the second-lowest rate posted for June in the last twenty years. In June 1999, the statewide unemployment rate was 6.5% and 20,900 Alaskans were unemployed. The comparable national unemployment rate in June was 4.2%. (See Exhibit 7.)

Many areas of Alaska saw relatively small changes in unemployment in June. Those that experienced sharper drops in unemployment tended to be areas dependent on tourism and/or fishing for summer job generation. The Denali Borough, which posted the lowest unemployment rate in the state at 3.3% in June, is an example of an area rate positively influenced by the surging visitor industry.

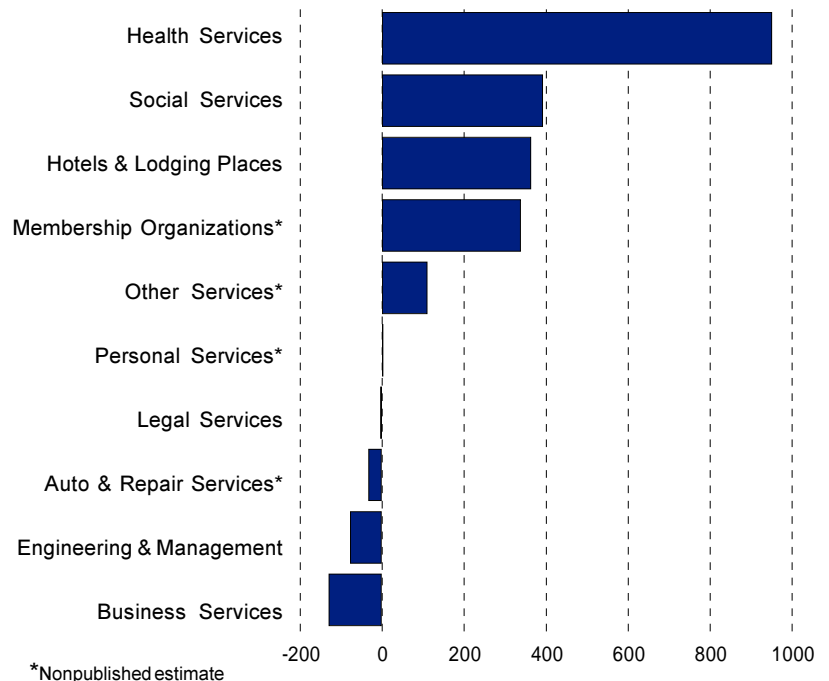
Some of Alaska's coastal areas either posted low rates or showed improvement in unemployment compared to May. The Kenai Borough, Wrangell-Petersburg Census Area, and Valdez-Cordova Census Area all showed sharp drops in the rate of unemployment in June. Kodiak was an exception to this trend, though, and saw its unemployment rate increase from 8.8% to 12.3% due to less fishing activity. Some economies in western Alaska saw the rate of unemployment climb in June. For example, the

Wade Hampton Census Area, which had the highest unemployment rate in the state in May at 21.1%, saw its rate increase in June to 21.8%.

In urban areas of Alaska unemployment held steady, a sign of a relatively robust labor market.

2000 New Jobs in Services June 1999—June 2000

Here's where they are



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

Every June, the number of individuals seeking work increases dramatically as high school and college aged individuals enter the labor market en masse for the summer vacation period. In years when summer employment opportunities are scarce, these new entrants to the labor force can drive up the rate of unemployment. This year though, Alaska's urban labor markets were able to absorb this labor pool, and in many industries workers are still needed.

At the same time the jobless rate dropped, 7,600 wage and salary jobs were added to the state's economy. (See Exhibit 4.) The biggest contributor to the June job increase was Alaska's visitor industry. Hotels and lodges, retailers, passenger transportation firms and amusement and recreation services all added employees in June. Most of the rest of the job gains were accounted for by increased construction activity or seafood processors gearing up for the peak salmon-processing season.

Most job losses in June were related to the beginning of the summer vacation period for schools. Local government employment dropped 2,700 jobs from May to June as seasonal employees of local school districts were let go, and state government employment posted a drop of 1,600 jobs, most of it related to the University of Alaska. The drop in federal government employment was caused by the layoff of a portion of the workforce hired to conduct the 2000 Census.

Services sector continues to drive job growth

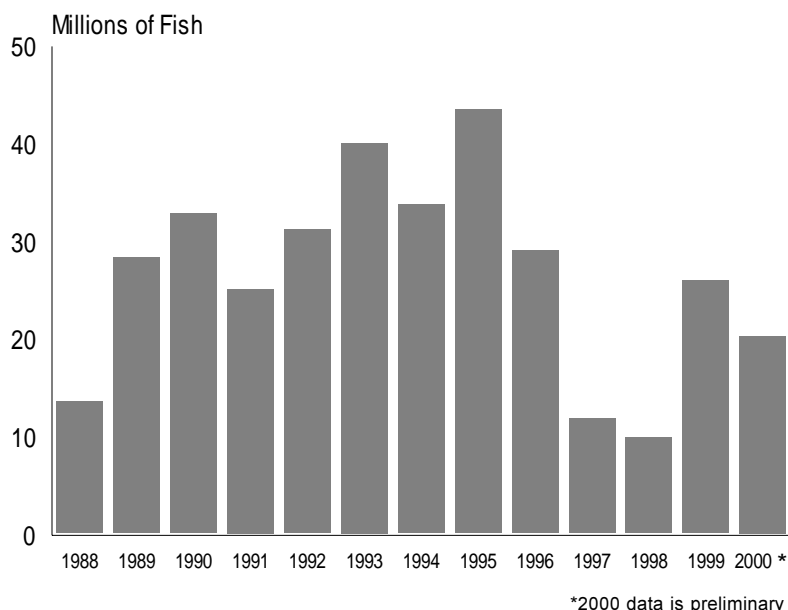
The services sector of Alaska's economy continues to lead the way in job growth. Looking at the change from June 1999 to June 2000, services accounted for 2,000 of the 4,100 job gain. (See Exhibits 1 and 4.)

Exhibit 1 gives a June 1999 to June 2000 employment comparison for all segments of the services sector that are estimated by the Research and Analysis Section. (Some of these segments are not regularly published in *Trends* because they are not approved by the U.S. Department of Labor, Bureau of Labor Statistics.)

The health care sector is far and away the leading area of job growth in the state. About half of job growth in services is due to the health care sector. This means that nearly 25 percent of the jobs added in Alaska between June of 1999 and June of 2000 were in the health care field. This is an impressive share of overall job growth; at least a portion of it is due to the privatization of the Alaska Native Medical Center in Anchorage. However, even with a rough adjustment to account for the privatization effect, health care is still responsible for between 15 and 20 percent of the jobs added during the past 12 months.

Health care is not the only strong performer in services when it comes to job growth. Hotels and

2 Bristol Bay Run Near 20 Million Total sockeye salmon catch 1988-2000



Source: Alaska Department of Fish and Game

lodging places, social services, and membership organizations are also among the job growth leaders in services.

Fisheries dealt blow by lower runs, trawl closure

Alaska's fisheries industry was dealt several setbacks in the last month. Some came on the fishing grounds and another came in federal court. Alaska's most productive salmon harvest, the Bristol Bay sockeye run, came in below last year's level, and so far prices are well below 1999's level as well. Through the end of July, the Alaska Department of Fish and Game estimated that approximately 20.4 million sockeye had been caught in Bristol Bay, down from the 26.1 million fish harvested in 1999. (See Exhibit 2.) Prices paid for fish have ranged between 50 and 75 cents a pound, down from last year's average of about 85 cents.

The Bristol Bay sockeye fishery is an important economic engine in western Alaska, and the plunge in its value has had a major impact. The catch provides income to fishers, crew, communities, and businesses that support the fishery. The area's subsistence fishers also rely on the fishery as a major source of food and cash. As recently as 1995, the Bristol Bay catch was valued at almost \$190 million. Three out of the last four years, including this year, the fishery was valued in the neighborhood of \$70 million. (See Exhibit 3.)

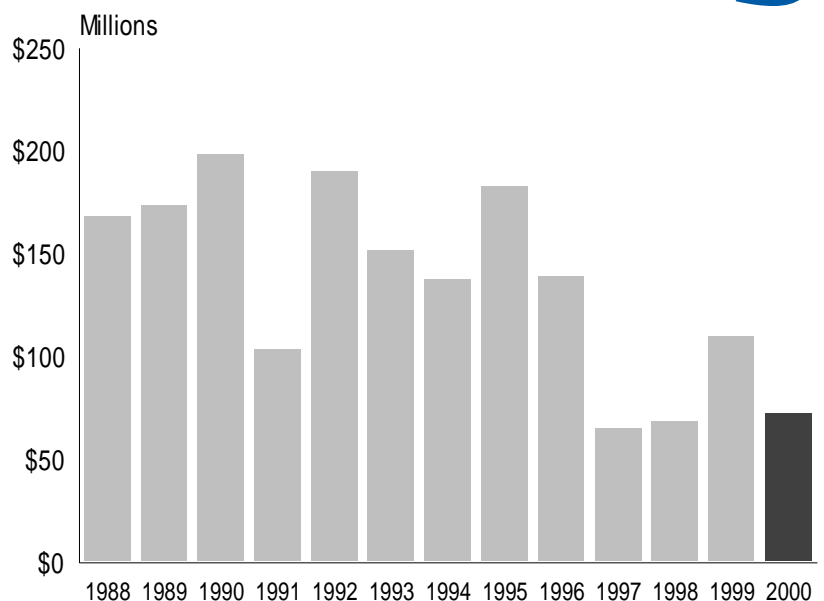
In addition to disappointing returns in Bristol Bay, smaller fish runs hit other areas in western and northern Alaska. King and chum salmon runs in the Yukon, Kuskokwim, and Norton Sound watersheds were critically low again this year. These fisheries, both commercial and subsistence, are important to the economic well being of many rural Alaska communities. Due to the poor fish runs, the state has asked the federal government to declare these areas an economic

disaster zone. This makes many of these communities and individuals eligible for federal assistance, and as of this writing some federal monies have already been approved to help. This is the third year out of the last four that low fish returns have prompted the state to declare an economic disaster in this region.

Alaska's bottomfish industry was dealt a blow when a federal judge placed a moratorium on trawl fishing for pollock, cod, and other bottomfish in areas deemed critical habitat for the stellar sea lion. The ruling determined that the National Marine Fishery Service (NMFS) was not going far enough to protect the stellar sea lion from becoming an endangered species. The ruling has been implemented by establishing a 20-mile buffer zone around 122 sea lion rookeries and haul outs, and declaring several large foraging

(continued on page 22)

Catch Value Falls in 2000 Sockeye in Bristol Bay Management Area



2000 data estimated, based on 20.4 million sockeye averaging 5.5 pounds at \$.65 per pound.

Sources: Alaska Department of Fish and Game, and Alaska Department of Labor and Workforce Development, Research and Analysis Section

4 Nonagricultural Wage and Salary Employment

By place of work

| Alaska | preliminary | revised | Changes from: | | | Municipality of Anchorage | preliminary | revised | Changes from: | | |
|---------------------------------------|-------------|---------|---------------|--------|-------|---------------------------------------|-------------|---------|---------------|--------|-------|
| | 6/00 | 5/00 | 6/99 | 5/00 | 6/99 | | 6/00 | 5/00 | 6/99 | 5/00 | 6/99 |
| Total Nonag. Wage & Salary | 294,300 | 286,700 | 290,200 | 7,600 | 4,100 | Total Nonag. Wage & Salary | 137,100 | 135,400 | 135,100 | 1,700 | 2,000 |
| Goods-producing | 39,900 | 36,500 | 39,400 | 3,400 | 500 | Goods-producing | 13,300 | 12,500 | 13,000 | 800 | 300 |
| Service-producing | 254,400 | 250,200 | 250,800 | 4,200 | 3,600 | Service-producing | 123,800 | 122,900 | 122,100 | 900 | 1,700 |
| Mining | 9,900 | 9,800 | 9,500 | 100 | 400 | Mining | 2,700 | 2,800 | 2,700 | -100 | 0 |
| Oil & Gas Extraction | 8,300 | 8,300 | 7,800 | 0 | 500 | Oil & Gas Extraction | 2,500 | 2,600 | 2,500 | -100 | 0 |
| Construction | 16,200 | 14,400 | 15,600 | 1,800 | 600 | Construction | 8,300 | 7,500 | 8,100 | 800 | 200 |
| Manufacturing | 13,800 | 12,300 | 14,300 | 1,500 | -500 | Manufacturing | 2,300 | 2,200 | 2,200 | 100 | 100 |
| Durable Goods | 3,000 | 2,900 | 3,300 | 100 | -300 | Transportation/Comm/Utilities | 14,800 | 14,700 | 14,500 | 100 | 300 |
| Lumber & Wood Products | 1,700 | 1,600 | 2,000 | 100 | -300 | Air Transportation | 6,200 | 6,200 | 6,000 | 0 | 200 |
| Nondurable Goods | 10,800 | 9,400 | 11,000 | 1,400 | -200 | Communications | 3,500 | 3,500 | 3,400 | 0 | 100 |
| Seafood Processing | 8,200 | 6,800 | 8,400 | 1,400 | -200 | Trade | 32,600 | 31,600 | 32,300 | 1,000 | 300 |
| Transportation/Comm/Utilities | 28,500 | 27,800 | 28,200 | 700 | 300 | Wholesale Trade | 6,600 | 6,500 | 6,600 | 100 | 0 |
| Trucking & Warehousing | 3,200 | 3,000 | 3,100 | 200 | 100 | Retail Trade | 26,000 | 25,100 | 25,700 | 900 | 300 |
| Water Transportation | 2,300 | 2,200 | 2,300 | 100 | 0 | Gen. Merchandise & Apparel | 4,900 | 4,700 | 4,800 | 200 | 100 |
| Air Transportation | 10,200 | 9,700 | 10,000 | 500 | 200 | Food Stores | 2,700 | 2,700 | 2,800 | 0 | -100 |
| Communications | 5,200 | 5,100 | 5,100 | 100 | 100 | Eating & Drinking Places | 9,600 | 9,200 | 9,400 | 400 | 200 |
| Electric, Gas & Sanitary Svcs. | 2,800 | 2,700 | 2,800 | 100 | 0 | Finance/Insurance/Real Estate | 7,900 | 7,700 | 7,900 | 200 | 0 |
| Trade | 62,000 | 58,300 | 61,500 | 3,700 | 500 | Services & Misc. | 40,300 | 39,100 | 39,400 | 1,200 | 900 |
| Wholesale Trade | 9,300 | 8,900 | 9,400 | 400 | -100 | Hotels & Lodging Places | 3,600 | 3,200 | 3,400 | 400 | 200 |
| Retail Trade | 52,700 | 49,400 | 52,100 | 3,300 | 600 | Business Services | 6,400 | 6,100 | 6,600 | 300 | -200 |
| Gen. Merchandise & Apparel | 9,900 | 9,300 | 9,600 | 600 | 300 | Health Services | 8,700 | 8,600 | 8,300 | 100 | 400 |
| Food Stores | 7,000 | 6,600 | 7,200 | 400 | -200 | Legal Services | 1,200 | 1,200 | 1,200 | 0 | 0 |
| Eating & Drinking Places | 18,900 | 17,500 | 18,500 | 1,400 | 400 | Social Services | 4,100 | 4,000 | 3,900 | 100 | 200 |
| Finance/Insurance/Real Estate | 13,200 | 12,900 | 13,200 | 300 | 0 | Engineering & Mgmt. Svcs. | 6,100 | 6,100 | 6,100 | 0 | 0 |
| Services & Misc. | 77,500 | 73,500 | 75,500 | 4,000 | 2,000 | Government | 28,200 | 29,800 | 28,000 | -1,600 | 200 |
| Hotels & Lodging Places | 9,800 | 7,800 | 9,400 | 2,000 | 400 | Federal | 10,100 | 10,200 | 10,000 | -100 | 100 |
| Business Services | 9,000 | 8,500 | 9,200 | 500 | -200 | State | 8,300 | 8,900 | 8,300 | -600 | 0 |
| Health Services | 16,700 | 16,600 | 15,700 | 100 | 1,000 | Local | 9,800 | 10,700 | 9,700 | -900 | 100 |
| Legal Services | 1,700 | 1,600 | 1,700 | 100 | 0 | | | | | | |
| Social Services | 8,100 | 8,200 | 7,700 | -100 | 400 | | | | | | |
| Engineering & Mgmt. Svcs. | 8,200 | 8,100 | 8,300 | 100 | -100 | | | | | | |
| Government | 73,200 | 77,700 | 72,400 | -4,500 | 800 | | | | | | |
| Federal | 18,100 | 18,300 | 17,500 | -200 | 600 | | | | | | |
| State | 21,000 | 22,600 | 21,100 | -1,600 | -100 | | | | | | |
| Local | 34,100 | 36,800 | 33,800 | -2,700 | 300 | | | | | | |

Notes to Exhibits 4, 5, & 6—Nonagricultural excludes self-employed workers, fishers, domestics, and unpaid family workers as well as agricultural workers. Government category includes employees of public school systems and the University of Alaska.

Exhibits 4 & 5—Prepared in cooperation with the U.S. Department of Labor, Bureau of Labor Statistics.

Exhibit 6—Prepared in part with funding from the Employment Security Division.

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

5 Hours and Earnings

For selected industries

| | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings | | |
|-------------------------------|-------------------------|--------------|------------|----------------------|--------------|------|-------------------------|--------------|---------|
| | preliminary 6/00 | revised 5/00 | 6/99 | preliminary 6/00 | revised 5/00 | 6/99 | preliminary 6/00 | revised 5/00 | 6/99 |
| Mining | | | | | | | | | |
| Construction | \$1,325.02 | \$1,281.17 | \$1,263.28 | 51.1 | 50.4 | 48.7 | \$25.93 | \$25.42 | \$25.94 |
| Manufacturing | 1,244.88 | 1,226.67 | 1,249.40 | 45.6 | 44.9 | 45.9 | 27.30 | 27.32 | 27.22 |
| Seafood Processing | 523.38 | 506.84 | 584.55 | 36.6 | 36.1 | 45.0 | 14.30 | 14.04 | 12.99 |
| Transportation/Comm/Utilities | 388.75 | 375.61 | 483.36 | 33.6 | 33.9 | 45.6 | 11.57 | 11.08 | 10.60 |
| Trade | 697.14 | 693.81 | 671.83 | 33.5 | 34.9 | 34.9 | 20.81 | 19.88 | 19.25 |
| Wholesale Trade | 474.64 | 467.51 | 434.83 | 34.9 | 34.2 | 33.5 | 13.60 | 13.67 | 12.98 |
| Retail Trade | 696.40 | 675.26 | 660.10 | 39.3 | 38.0 | 38.2 | 17.72 | 17.77 | 17.28 |
| Finance/Insurance/Real Estate | 436.48 | 432.10 | 395.67 | 34.1 | 33.6 | 32.7 | 12.80 | 12.86 | 12.10 |
| | 599.16 | 593.74 | 574.49 | 35.1 | 34.6 | 36.2 | 17.07 | 17.16 | 15.87 |

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 1999

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

6 Nonagricultural Wage and Salary Employment

By place of work

| | preliminary | | Changes from: | | | preliminary | | revised | | Changes from: | |
|---------------------------------------|-------------|--------|---------------|--------|------|---------------------------------------|---------|---------|---------|---------------|-------|
| | 6/00 | 5/00 | 6/99 | 5/00 | 6/99 | 6/00 | 5/00 | 6/99 | 5/00 | 6/99 | |
| Fairbanks | | | | | | Interior Region | | | | | |
| North Star Borough | | | | | | Anchorage/Mat-Su Region | | | | | |
| Total Nonag. Wage & Salary | 35,300 | 35,200 | 34,600 | 100 | 700 | Total Nonag. Wage & Salary | 42,400 | 41,250 | 41,900 | 1,150 | 500 |
| Goods-producing | 3,850 | 3,450 | 3,600 | 400 | 250 | Goods-producing | 4,100 | 3,750 | 4,050 | 350 | 50 |
| Service-producing | 31,450 | 31,750 | 31,000 | -300 | 450 | Service-producing | 38,300 | 37,500 | 37,850 | 800 | 450 |
| Mining | 1,050 | 950 | 850 | 100 | 200 | Mining | 1,150 | 1,100 | 1,050 | 50 | 100 |
| Construction | 2,200 | 1,900 | 2,150 | 300 | 50 | Construction | 2,300 | 2,050 | 2,350 | 250 | -50 |
| Manufacturing | 600 | 600 | 600 | 0 | 0 | Manufacturing | 650 | 600 | 650 | 50 | 0 |
| Transportation/Comm/Utilities | 3,400 | 3,200 | 3,400 | 200 | 0 | Transportation/Comm/Utilities | 4,350 | 4,000 | 4,300 | 350 | 50 |
| Trucking & Warehousing | 700 | 650 | 700 | 50 | 0 | Trade | 8,950 | 8,150 | 9,050 | 800 | -100 |
| Air Transportation | 900 | 850 | 950 | 50 | -50 | Finance/Insurance/Real Estate | 1,350 | 1,300 | 1,300 | 50 | 50 |
| Communications | 450 | 450 | 450 | 0 | 0 | Services & Misc. | 10,800 | 10,150 | 10,550 | 650 | 250 |
| Trade | 7,200 | 6,950 | 7,250 | 250 | -50 | Hotels & Lodging Places | 1,900 | 1,400 | 1,850 | 500 | 50 |
| Wholesale Trade | 800 | 750 | 800 | 50 | 0 | Government | 12,850 | 13,900 | 12,650 | -1,050 | 200 |
| Retail Trade | 6,400 | 6,200 | 6,450 | 200 | -50 | Federal | 4,350 | 4,250 | 4,100 | 100 | 250 |
| Gen. Merchandise & Apparel | 1,100 | 1,100 | 1,200 | 0 | -100 | State | 4,350 | 4,950 | 4,400 | -600 | -50 |
| Food Stores | 750 | 700 | 750 | 50 | 0 | Local | 4,150 | 4,700 | 4,150 | -550 | 0 |
| Eating & Drinking Places | 2,350 | 2,250 | 2,350 | 100 | 0 | Gulf Coast Region | | | | | |
| Finance/Insurance/Real Estate | 1,250 | 1,250 | 1,200 | 0 | 50 | Total Nonag. Wage & Salary | 151,000 | 148,750 | 148,200 | 2,250 | 2,800 |
| Services & Misc. | 9,250 | 8,850 | 9,000 | 400 | 250 | Goods-producing | 14,700 | 13,750 | 14,400 | 950 | 300 |
| Hotels & Lodging Places | 1,250 | 950 | 1,250 | 300 | 0 | Service-producing | 136,300 | 135,000 | 133,800 | 1,300 | 2,500 |
| Health Services | 2,050 | 2,050 | 1,950 | 0 | 100 | Mining | 2,700 | 2,800 | 2,750 | -100 | -50 |
| Government | 10,350 | 11,500 | 10,150 | -1,150 | 200 | Construction | 9,550 | 8,550 | 9,350 | 1,000 | 200 |
| Federal | 3,700 | 3,600 | 3,450 | 100 | 250 | Manufacturing | 2,450 | 2,400 | 2,300 | 50 | 150 |
| State | 4,000 | 4,700 | 4,050 | -700 | -50 | Transportation/Comm/Utilities | 15,800 | 15,800 | 15,450 | 0 | 350 |
| Local | 2,650 | 3,200 | 2,650 | -550 | 0 | Trade | 36,350 | 35,050 | 35,700 | 1,300 | 650 |
| Southeast Region | | | | | | Finance/Insurance/Real Estate | 8,400 | 8,200 | 8,400 | 200 | 0 |
| Total Nonag. Wage & Salary | 39,000 | 37,300 | 38,650 | 1,700 | 350 | Services & Misc. | 44,100 | 42,650 | 43,000 | 1,450 | 1,100 |
| Goods-producing | 5,400 | 4,800 | 5,450 | 600 | -50 | Government | 31,650 | 33,300 | 31,250 | -1,650 | 400 |
| Service-producing | 33,600 | 32,500 | 33,200 | 1,100 | 400 | Federal | 10,350 | 10,500 | 10,100 | -150 | 250 |
| Mining | 300 | 300 | 300 | 0 | 0 | State | 9,150 | 9,850 | 9,100 | -700 | 50 |
| Construction | 2,050 | 1,800 | 1,900 | 250 | 150 | Local | 12,150 | 12,950 | 12,050 | -800 | 100 |
| Manufacturing | 3,050 | 2,700 | 3,250 | 350 | -200 | Southwest Region | | | | | |
| Durable Goods | 1,500 | 1,450 | 1,700 | 50 | -200 | Total Nonag. Wage & Salary | 16,400 | 16,200 | 16,700 | 200 | -300 |
| Lumber & Wood Products | 1,250 | 1,200 | 1,450 | 50 | -200 | Goods-producing | 3,350 | 3,050 | 3,750 | 300 | -400 |
| Nondurable Goods | 1,550 | 1,250 | 1,550 | 300 | 0 | Service-producing | 13,050 | 13,150 | 12,950 | -100 | 100 |
| Seafood Processing | 1,250 | 950 | 1,250 | 300 | 0 | Seafood Processing | 3,150 | 2,850 | 3,500 | 300 | -350 |
| Transportation/Comm/Utilities | 3,550 | 3,250 | 3,550 | 300 | 0 | Government | 5,450 | 6,100 | 5,300 | -650 | 150 |
| Trade | 7,500 | 6,800 | 7,500 | 700 | 0 | Federal | 350 | 350 | 350 | 0 | 0 |
| Wholesale Trade | 650 | 600 | 650 | 50 | 0 | State | 500 | 550 | 550 | -50 | -50 |
| Retail Trade | 6,850 | 6,200 | 6,850 | 650 | 0 | Local | 4,600 | 5,200 | 4,400 | -600 | 200 |
| Food Stores | 1,300 | 1,250 | 1,400 | 50 | -100 | Northern Region | | | | | |
| Finance/Insurance/Real Estate | 1,250 | 1,200 | 1,250 | 50 | 0 | Total Nonag. Wage & Salary | 14,900 | 15,050 | 14,450 | -150 | 450 |
| Services & Misc. | 9,150 | 8,550 | 8,800 | 600 | 350 | Goods-producing | 5,300 | 5,300 | 4,750 | 0 | 550 |
| Health Services | 1,750 | 1,750 | 1,650 | 0 | 100 | Service-producing | 9,600 | 9,750 | 9,700 | -150 | -100 |
| Government | 12,150 | 12,700 | 12,100 | -550 | 50 | Mining | 4,650 | 4,650 | 4,250 | 0 | 400 |
| Federal | 2,050 | 2,100 | 1,950 | -50 | 100 | Oil & Gas Extraction | 4,150 | 4,150 | 3,800 | 0 | 350 |
| State | 5,100 | 5,250 | 5,250 | -150 | -150 | Government | 4,200 | 4,500 | 4,250 | -300 | -50 |
| Local | 5,000 | 5,350 | 4,900 | -350 | 100 | Federal | 200 | 200 | 150 | 0 | 50 |

7 Unemployment Rates

By region and census area

| Not Seasonally Adjusted | Percent Unemployed | | |
|---------------------------------|--------------------|---------|------|
| | preliminary | revised | |
| | 6/00 | 5/00 | 6/99 |
| United States | 4.2 | 3.9 | 4.0 |
| Alaska Statewide | 6.0 | 6.1 | 6.5 |
| Anch/Mat-Su Region | 4.9 | 4.9 | 5.4 |
| Municipality of Anchorage | 4.4 | 4.4 | 4.7 |
| Mat-Su Borough | 7.1 | 7.3 | 8.6 |
| Gulf Coast Region | 8.0 | 8.6 | 8.6 |
| Kenai Peninsula Borough | 7.0 | 8.7 | 9.8 |
| Kodiak Island Borough | 12.3 | 8.8 | 5.4 |
| Valdez-Cordova | 5.6 | 7.8 | 8.1 |
| Interior Region | 6.1 | 6.4 | 6.3 |
| Denali Borough | 3.3 | 5.9 | 3.2 |
| Fairbanks North Star Borough | 5.6 | 5.6 | 6.0 |
| Southeast Fairbanks | 8.9 | 9.9 | 6.1 |
| Yukon-Koyukuk | 15.1 | 17.4 | 15.7 |
| Northern Region | 13.2 | 12.0 | 13.5 |
| Nome | 14.0 | 13.6 | 15.1 |
| North Slope Borough | 11.2 | 9.2 | 10.1 |
| Northwest Arctic Borough | 14.9 | 13.9 | 16.3 |
| Southeast Region | 5.6 | 5.8 | 6.4 |
| Haines Borough | 5.0 | 6.8 | 8.2 |
| Juneau Borough | 4.2 | 4.2 | 4.9 |
| Ketchikan Gateway Borough | 6.2 | 6.4 | 6.4 |
| Prince of Wales-Outer Ketchikan | 11.6 | 12.2 | 13.2 |
| Sitka Borough | 5.1 | 4.5 | 5.7 |
| Skagway-Hoonah-Angoon | 5.1 | 4.9 | 5.7 |
| Wrangell-Petersburg | 6.3 | 7.7 | 7.2 |
| Yakutat Borough | 12.6 | 13.1 | 11.6 |
| Southwest Region | 12.3 | 11.7 | 11.1 |
| Aleutians East Borough | 4.6 | 4.0 | 2.8 |
| Aleutians West | 9.0 | 8.7 | 8.9 |
| Bethel | 12.8 | 11.8 | 12.1 |
| Bristol Bay Borough | 10.5 | 8.3 | 4.9 |
| Dillingham | 9.5 | 10.6 | 10.1 |
| Lake & Peninsula Borough | 11.4 | 11.4 | 9.9 |
| Wade Hampton | 21.8 | 21.1 | 18.7 |
| Seasonally Adjusted | | | |
| United States | 4.0 | 4.1 | 4.3 |
| Alaska Statewide | 6.1 | 6.1 | 6.2 |

(continued from page 19)

areas off limits to fishers. The effect of these measures is to push boats, particularly those of smaller size, out of some of the most productive fishing grounds. Industry analysts believe that this will move more of the catch to the fleet's larger vessels that are capable of operating more than 20 miles from shore. Bottomfish processors in Kodiak, the Alaska Peninsula, and the eastern Aleutians appear to be most vulnerable to employment drops associated with this moratorium. One industry analyst estimated the loss to the fishing industry will be \$93 million should the ban be in effect through the end of the calendar year.

As of this writing, NMFS has plans to unveil a new management strategy by the end of October, which if approved, could see fishing return to some of these areas by the end of the year. However, openings scheduled between August 8 and the implementation of any new plan will be affected by the closure of these areas.

March 1999 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

Employer Resource Page

The screenshot shows a Netscape browser window titled "Alaska Job Center Network - Netscape". The address bar displays "www.jobs.state.ak.us". The page content includes a welcome message, a navigation menu with dropdown menus for "Employer Connection", "Job Seeker Resources", "Training and Assistance", "Job Market Information", and "AJCN Partner Resources", each with a "go" button. A "Job Search Map" section features dropdown menus for "select a region" and "select a job type", followed by a "search" button. A navigation bar at the bottom contains links for "Home", "Employer Connection", "Job Seeker Resources", "Training & Assistance", "Job Market Information", and "Job Centers". The footer includes "Labor and Workforce Development", "Division of Public Assistance", "State of Alaska", and a copyright notice for AJCN.

Are you planning a Job Fair?

Post your information on the Job Fair calendar.

Would you like to plan a Job Fair or attend one?

Check out the Job Fair link for contact and date information.