ALASKA ECONOMIC TRENDS

MAY 2009

Building the Next Pipeline

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ALASKA DEPARTMENT OF LABOR
& WORKFORCE DEVELOPMENT

Sarah Palin, Governor
Commissioner Click Bishop

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& WORKFORCE DEVELOPMENT

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Cover: This photo, taken sometime during the 1976-1977 construction of the trans-Alaska oil pipeline, shows workers and equipment laying the pipeline through a mountain pass. Photo courtesy of the Alaska State Library, Alyeska Pipeline Service Company - Trans-Alaska Pipeline Construction Collection, 1976-1977, P002-3A-03

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Alaska's Gas Line Will Deliver Energy and Jobs

By Governor Sarah Palin

We're celebrating Alaska's 50th anniversary of statehood this year. As the 49th state, Alaska is relatively young, but we're growing – and advancing.

This month's *Trends* includes articles on an Alaska natural gas pipeline and our state's population growth.

Our future, like our past, will be about the development of our natural resources. After the construction of the trans-Alaska oil pipeline in the 1970s, our economy boomed, and we built much of the state's infrastructure, strengthened our educational system and established the Alaska Permanent Fund.

Since shortly after oil began moving through the pipeline in 1977, Alaskans began pursuing the next economic engine for our state. With AGIA – the Alaska Gasline Inducement Act of 2007 – we're finally making substantial progress that will result in a gas line to deliver new energy to Alaska and to the nation.

My administration's top priority is still commercializing our natural gas for Alaskans, and for America. But we have been working diligently to develop an in-state pipeline to address our local energy needs even while the larger project moves ahead. I appreciate the Legislature's steps to lay the foundation for this project.

During the construction of the oil pipeline, we had to import much of our skilled labor. Nonresidents still account for almost 20 percent of Alaska's work force, with many of those in high-paying, skilled jobs, and they earned almost $1.7 billion in 2007. The better we are at delivering skilled Alaskans to employers, the more our economy gains.

The Alaska Department of Labor and Workforce Development's award-winning *AGIA Training Strategic Plan: A Call to Action* will help us close the skills gap and prepare a work force for this century.

As you will see in this month's second article, Alaska's population has grown more than 8 percent since 2000. That was an increase of 52,000, bringing our total number of residents to nearly 680,000. During the 2006-2016 period, employment is expected to increase by almost 44,000 jobs. In addition to those new jobs, we expect an additional 74,000 job openings due to vacancies from occupational changes or retirement.

We're at a crossroad of vital need and compelling opportunity that offers Alaska workers an opportunity to upgrade their skills and acquire new ones. The Department of Labor and its partners are working to ensure that our work force preparedness system, including public K-12 schools and post-secondary education, meets current – and future – demands to deliver vital energy to Alaska and to our country.

Building the Next Pipeline

By Brian Rae,
Economist

Assessing and training the gas line work force

"A gas line from Prudhoe Bay to the contiguous lower 48 is still on [the president's] energy list. He has submitted an energy reorganization plan which creates a federal inspector to supervise the enforcement of permit regulations during the construction of the 4,748-mile-long gas line. The plan also calls for a seven member policy board to monitor construction."

Alaska Economic Trends, May 1979

The topic of constructing and operating a transportation system to move North Slope natural gas to the Lower 48 is obviously not a new one. The president referred to above was Jimmy Carter, and a lot has changed since then.

Alaska's population was 414,000 in 1979, about 60 percent of the 680,000 it is today. The median age of residents was just 26, significantly younger than the current 33½. There were nearly 13 percent more men than women; today, there are 4 percent more men. And since then, more than 15 billion barrels of crude oil have been pumped from the North Slope. But so far, a natural gas pipeline is still only a project waiting to proceed.

Since the late 1970s, people have proposed various alternatives to a gas pipeline to get the additional energy resource to market, ranging from icebreaking liquified natural gas tankers that would load product from offshore facilities in the Beaufort or Chukchi seas, to superconducting powerlines that would transmit electricity generated by gas-powered utilities on the North Slope, and even huge blimps that would float the gas to utilities in the Lower 48.

Still, the old way of transporting natural gas is widely believed to be the best alternative: using high pressure and large steel pipes. And 30 years after President Carter talked about it, President Barack Obama says building a gas pipeline is a priority project that would reduce the nation's demand for foreign-supplied energy and provide a cleaner source of fuel to help reduce carbon emissions.

So, let's get to work (or not if, but when?)

Given the amount of recoverable energy contained in the North Slope's natural gas, many believe it's almost certain the gas will be brought to market. Still, issues remain that will affect just when that happens.

Several companies are competing for the gas pipeline project. The leading contenders are TransCanada, Denali and the Alaska Gasline Port Authority.

TransCanada, a Canadian pipeline firm, proposes tying the gas pipeline into an existing distribution system in Alberta, Canada. Denali, a joint venture between BP and ConocoPhillips, is considering a similar plan, with an option to extend the pipeline to Chicago if required. The Alaska Gasline Port Authority, a coalition of North Slope, Interior and Valdez local governments, proposes a line ending in Valdez.

Many believe that an "open season" – the time when pipeline owners solicit binding contracts from producers to ship gas for a set price – will occur in 2010. Those contracts will help determine the size of the pipeline required, and the amount of labor that would be needed to build it.

The current worldwide economic malaise, though, creates more uncertainty. As global

energy consumption slows in the wake of the ongoing recession, does the world need to develop more energy resources? Will customers be willing to pay enough for natural gas to warrant investment in such a large-scale project?

It's important to remember that the actual transport of Alaska's natural gas will be years down the road, and markets then are likely to be very different than they are now. There's also a growing demand for greener energy sources. Natural gas is the current fossil fuel of choice to reduce carbon emissions, and it's likely to be many years before good alternative energy sources replace it.

Finally, requirements for permitting and possible environmental mitigation, and negotiations for leases and rights-of-way, plus likely legal challenges all create uncertainty for a gas pipeline start date.

Once ground is broken, the timeline for pipeline construction will affect the number of workers that will be needed. The trans-Alaska oil pipeline was built on a very aggressive schedule – it was completed in just 27 months. At its peak, more than 28,000 people were working on the pipeline. A less-aggressive schedule could have greatly reduced the need for so many workers and increased the length of their employment.

This article is a look at the occupations that will be needed to build and operate a natural gas pipeline, and how we might fill that need with qualified Alaska workers. It looks at the demographics of current Alaska workers, their experience and training, and examines the training the pipeline occupations require, the existing in-state training providers and how people usually advance into those occupations.

Is it too early to plan?

Certainly not. The experience of building the trans-Alaska oil pipeline left many believing that the state could have reaped more of the economic benefits of such a large construction project. Alaska's small population and its lack of a highly skilled work force meant that many of the pipeline jobs went to specialty trades workers who weren't Alaska residents. They were instrumental in building the first pipeline, but, for the most part, they spent the money they earned in Alaska outside the state.

While we can't tell with certainty how many of the workers on the trans-Alaska oil pipeline were nonresidents, it's widely believed that nonresidents filled many of the construction and operation jobs in the 1970s.

Quoting from another *Trends* article, from November 1976:

"Probably the greatest single factor to impact Alaska's labor force during construction of the oil pipeline has been the tremendous number of highly paid workers needed to complete the project. It is the uncertainty of just exactly what the pipeline workers will do when they are laid off that is currently affecting Alaska's economy. By looking at the type of workers who came to Alaska in search of employment on the trans-Alaska pipeline, one can get a better understanding of what pipeline workers may do when construction is finished."

Similar questions remain today, and there's a push to ensure more qualified Alaskans are employed to build and operate the gas pipeline. The Alaska Gasline Inducement Act of 2007[1] states, "the Commissioner of Labor and Workforce Development shall develop a job training program that will provide training for Alaskans in gas pipeline project management, construction, operations, maintenance and other gas pipeline related positions."[2]

Gas line occupations

Regardless of the gas pipeline's route, size or when it's built, it will require workers in hundreds of different occupations to build and operate it. The first requirement is to determine which occupations will be needed the most.

After consultation with potential gas pipeline operators, construction firms, training providers

[1] The Alaska Legislature ratified AGIA in May 2007 "to encourage expedited construction of a natural gas pipeline from Alaska's North Slope," according to AGIA documents.
[2] Alaska Statute 43.90.470

1 The 113 Gas Line Occupations
Grouped by various project functions, Alaska

Administration

Bookkeeping, accounting, and auditing clerks
Budget analysts
Computer and information systems managers
Computer programmers
Computer support specialists
Computer systems analysts
Cost estimators
Database administrators
Employment, recruitment and placement specialists
Executive secretaries and administrative assistants
File clerks
First-line supervisors/managers of office and administrative support workers
Human resources assistants, except payroll and timekeeping
Payroll and timekeeping clerks
Receptionists and information clerks
Training and development specialists

Camps/Catering

Cooks, institution and cafeteria
Cooks, restaurant
Dishwashers
Emergency medical technicians and paramedics
First-line supervisors/managers of food preparation and serving workers
First-line supervisors/managers of housekeeping and janitorial workers
Food preparation workers
Food service managers
Janitors and cleaners, except maids and housekeeping cleaners
Laundry and dry-cleaning workers
Maids and housekeeping cleaners
Maintenance and repair workers, general

Crafts

Carpenters
Cement masons and concrete finishers
Construction and building inspectors
Construction laborers
Construction managers
Crushing, grinding and polishing machine setters, operators and tenders
Electricians
Explosives workers, ordnance handling experts and blasters
Fence erectors
First-line supervisors/managers of construction trades and extraction workers
First-line supervisors/managers of helpers, laborers and material movers (hand)
First-line supervisors/managers of production and operating workers
Helpers, construction trades, all other

Crafts (Continued)

Helpers – carpenters
Helpers – electricians
Helpers – extraction workers
Helpers – installation, maintenance and repair workers
Helpers – pipelayers, plumbers, pipefitters and steamfitters
Helpers – production workers
Highway maintenance workers
Insulation workers, floor, ceiling and wall
Insulation workers, mechanical
Millwrights
Painters, construction and maintenance
Plumbers, pipefitters and steamfitters
Sheetmetal workers
Structural iron and steel workers
Welders, cutters, solderers and brazers
Welding, soldering and brazing machine setters, operators and tenders

Environmental

Environmental engineering technicians
Environmental science and protection technicians, including health
Environmental scientists and specialists, including health
Hazardous materials removal workers
Landscape architects

Equipment Operators

Bus and truck mechanics and diesel engine specialists
Crane and tower operators
Excavating and loading machine and dragline operators
First-line supervisors/managers of mechanics, installers and repairers
Industrial machinery mechanics
Maintenance workers, machinery
Mobile heavy equipment mechanics, except engines
Operating engineers and other construction equipment operators
Paving, surfacing and tamping equipment operators
Pile-driver operators
Truck drivers, heavy and tractor-trailer

Logistics

Bus drivers, transit and intercity
Dispatchers, except police, fire and ambulance
Purchasing agents, except wholesale, retail and farm products
Truck drivers, light or delivery services

Material Handling

First-line supervisors/managers of transportation and material moving machine and vehicle operators
Laborers and freight, stock, and material movers (hand)

and others, 113 occupations were identified to be critical to the completion and operation of the gas pipeline. (See Exhibit 1.) They're listed in the *AGIA Training Strategic Plan*.[3]

The 113 occupations were simply those that have traditionally been critical in completing a project of similar type and magnitude. All 113 will be integral in building the pipeline, based on one or more of the following factors: they will be in high demand based on normal staffing needs, they require specialized skills, or they are occupations with jobs that potential contractors have identified as hard to fill.

The 113 are more varied than one might expect. After grouping them into 10 categories

[3] The publication's full name is the *Alaska Gasline Inducement Act Training Strategic Plan: A Call to Action*. It's available on the Internet on the Department of Labor's Web site. Go to labor.alaska.gov, and click on the plan, which is in the middle column.

Material Handling (Continued)
Order clerks
Stock clerks and order fillers
Office and Field Engineering
Architectural and civil drafters
Cartographers and photogrammetrists
Chemical engineers
Civil engineering technicians
Civil engineers
Control and valve installers and repairers, except mechanical door
Electrical and electronic engineering technicians
Electrical engineers
Engineering managers
Engineering technicians, except drafters, all other
Environmental engineers
Inspectors, testers, sorters, samplers and weighers
Managers, all other
Materials engineers
Mechanical drafters
Mechanical engineering technicians
Mechanical engineers
Office and administrative support workers, all other
Office clerks, general
Procurement clerks
Production, planning and expediting clerks
Surveying and mapping technicians
Surveyors
Telecommunications equipment installers and repairers, except line installers
Weighers, measurers, checkers and samplers, recordkeeping
Operations
Gas compressor and gas pumping station operators
Gas plant operators
Plant and system operators, all other
Safety
Health and safety engineers, except mining safety engineers and inspectors
Occupational health and safety specialists
Occupational health and safety technicians
Security guards

Note: The *Alaska Gasline Inducement Act Training Strategic Plan: A Call to Action*, published in January 2008, identifies the 113 occupations as critical to the completion and operation of a natural gas pipeline. The plan provides more information about each occupation's labor force.

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

according to the function of each occupation[4] – the categories range from office and field engineering to safety, and camps and catering – the diversity of skills, knowledge and abilities becomes apparent.

While the gas pipeline project is fundamentally a construction and operations project, its sheer size presents problems not normally encountered on the average construction job. Job sites become small cities. Their remote location requires them to be self-sufficient, so a broad range of work must be performed.

That explains why certain occupations identified as gas line-related might seem unusual to those unfamiliar with the logistics required in managing such a large project – one doesn't normally find bus drivers, laundry workers, maids and housekeeping cleaners, cooks, dishwashers, or even employment and recruitment specialists on most construction sites.

A labor force to fill those occupations

While we don't know how many workers the gas pipeline will need from each occupation, by focusing on the 113 occupations, we can help determine whether Alaska workers will be able to fill some of the increased demand once pipeline construction begins and as current workers retire.

One good indicator of the current supply of skilled workers is looking at the demographic characteristics of those workers.[5]

As touched on earlier, the median age of Alaskans has been rising. The same holds true for Alaska workers overall.

The state's overall work force is now older than it was during the first pipeline project. In 2007, 36.9 percent of Alaska's over-

[4] This differs from the Department of Labor's normal aggregation using the federal Standard Occupational Classification, or SOC, code system.

[5] Throughout this article, the age, Alaska residency and place of residence for workers was determined by matching the Alaska Department of Revenue's Permanent Fund dividend data file with the Department of Labor's wage records file.

The PFD file is a list of Alaskans who applied for a PFD. Workers included in the wage file were considered Alaska residents if they applied for either a 2007 or 2008 PFD.

The wage records file contains quarterly reports submitted by every employer subject to the state's unemployment insurance laws. Those quarterly reports contain industry, occupation, wages and place of work for each worker. The wage records are used for Alaska's Occupational Database, mentioned later in this article.

2 Workers' Age Affects Supply

Older workers in selected occupations, Alaska 2007

	Percentage Age 45 and Over	Percentage Age 50 and Over
All Occupations	**36.9%**	**25.0%**
Gas Line Occupations	**37.9%**	**25.2%**
Equipment Operators and Mechanics[1]	**49.1%**	**32.4%**
Pile-driver operators	50.5%	40.9%
Crane and tower operators	53.4%	40.7%
Supervisors of mechanics, installers and repairers	64.3%	40.3%
Safety	**43.6%**	**32.1%**
Occupational health and safety specialists	66.7%	50.0%
Health and safety engineers, except mining safety engineers and inspectors	62.9%	41.2%
Operations	**42.3%**	**29.6%**
Gas plant operators	38.8%	26.3%
Gas compressor and gas pumping station operators	33.3%	20.3%
Logistics	**43.7%**	**29.4%**
Bus drivers, transit and intercity	62.7%	48.6%
Truck drivers, light or delivery services	34.8%	21.7%
Office and Field Engineering	**39.6%**	**27.0%**
Engineering managers	61.6%	41.8%
Inspectors, testers, sorters, samplers and weighers	31.1%	20.0%
Administration	**39.7%**	**26.6%**
Cost estimators	56.5%	40.6%
Training and development specialists	54.8%	36.4%
Environmental	**39.7%**	**26.0%**
Environmental engineering technicians	46.9%	31.0%
Environmental scientists and specialists, including health	40.5%	26.8%
Camps/Catering	**37.0%**	**24.9%**
Cooks, institution and cafeteria	52.4%	34.8%
Laundry and dry-cleaning workers	44.5%	31.6%
Crafts	**34.2%**	**21.6%**
Construction and building inspectors	69.8%	56.3%
Construction managers	62.8%	46.0%
Supervisors of construction trades and extraction workers	61.4%	42.1%
Material Handling	**26.6%**	**16.5%**
Supervisors of transportation and material moving machine operators	55.8%	37.9%
Laborers and freight, stock and material movers (hand)	25.5%	15.4%
Order clerks	33.6%	20.5%

[1] The equipment operators and mechanics occupational category is referred to as the equipment operators category in the *Alaska Gasline Inducement Act Training Strategic Plan: A Call to Action*.

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

all work force was at least 45 years old and 25.0 percent was 50 or older.[6]

The 113 gas line occupations are even slightly older – 37.9 percent of Alaskans working in those occupations in 2007 were 45 or older and 25.2 percent were 50 or older.

Looking at the categories of occupations by job function (see Exhibit 1), the equipment operators and mechanics category is at the top of the list as far as workers' ages, indicating a need to recruit new and younger workers for gas pipeline construction. (See Exhibit 2.) Nearly half, 49.1 percent, were age 45 or older in 2007 and 32.4 percent were 50 or older.

At the other extreme, material handling occupations – often entry level jobs – have the fewest older workers: 26.6 percent were age 45 or older in 2007 and 16.5 percent were 50 or older.

Some occupations require extensive experience before workers become fully qualified and competent. For example, in most cases inspectors need experience in doing the tasks they're inspecting. Normally supervisors and foremen were regular workers first, so having a larger percentage of older workers in those occupations isn't surprising.

More than 60 percent of construction supervisors and managers, mechanics supervisors, engineering managers, and health and safety engineers were 45 or older in 2007, and half of construction and building inspectors and occupational health and safety specialists were 50 or older.

The high pay and long hours that will likely occur during the gas pipeline construction may cause some workers to remain in the work force, and lure others back. Still, many of today's workers age 50 and older will retire before pipeline construction begins. Their departure from the work force gives younger workers more chances to move up, but that also presents a challenge to ensure the retired workers' replacements are ready for the gas pipeline project in terms of their knowledge,

[6] If PFD information wasn't available for a worker (the worker's date of birth), then that worker wasn't included in the wage statistics for this article.

skills and experience.

When demand exceeds supply

There's a reason we refer to a "labor market." Labor, just like housing, food and energy, operates by the basic economic rules of supply and demand. When consumers of skilled labor can't find what they need in the local labor market, they offer higher wages. Since the suppliers of labor – workers – can move to fill this demand, the market reaches an equilibrium, where just enough labor providers satisfy the labor demand.

In extreme conditions, labor providers (workers) will move long distances, including across state lines.

As mentioned earlier, it's widely believed that's what happened with the trans-Alaska oil pipeline construction: that many of the oil pipeline construction jobs went to nonresidents. In 1973, the average monthly employment in the construction industry was below 8,000. Three years later, it was more than 30,000, and by 1979 the average monthly employment was just below 11,000.

After the construction was done, the work of operating the oil pipeline began. Those more permanent jobs – jobs such as pump station operators, industrial machinery mechanics, various engineering occupations, and inspectors and safety specialists – were also filled by a large number of nonresidents.

Similar jobs will be available for Alaska workers after the gas pipeline is complete. Like the operation jobs on the oil pipeline, the jobs are year-round and they're required for the life of the pipeline.

Unlike in the pipeline construction era of the mid-1970s, the Department of Labor now has the ability to determine the residency of workers, including those in the 113 gas line occupations. In 2007, the most recent year for which data are available, 17 percent of the people employed in the 113 occupations were nonresidents, which is slightly below the average for all occupations – 19 percent.[7]

How to fill the supply gap

Training is the most obvious way to increase the supply of workers prepared to work on the gas pipeline.

Of the 113 gas line occupations, 53 only require on-the-job training of less than 12 months. Many of the 53 occupations will have

[7] As mentioned in an earlier footnote, Alaska residency was determined by matching the PFD data file with the wage records file.

Training Providers for Gas Line Occupations
Alaska, 2007

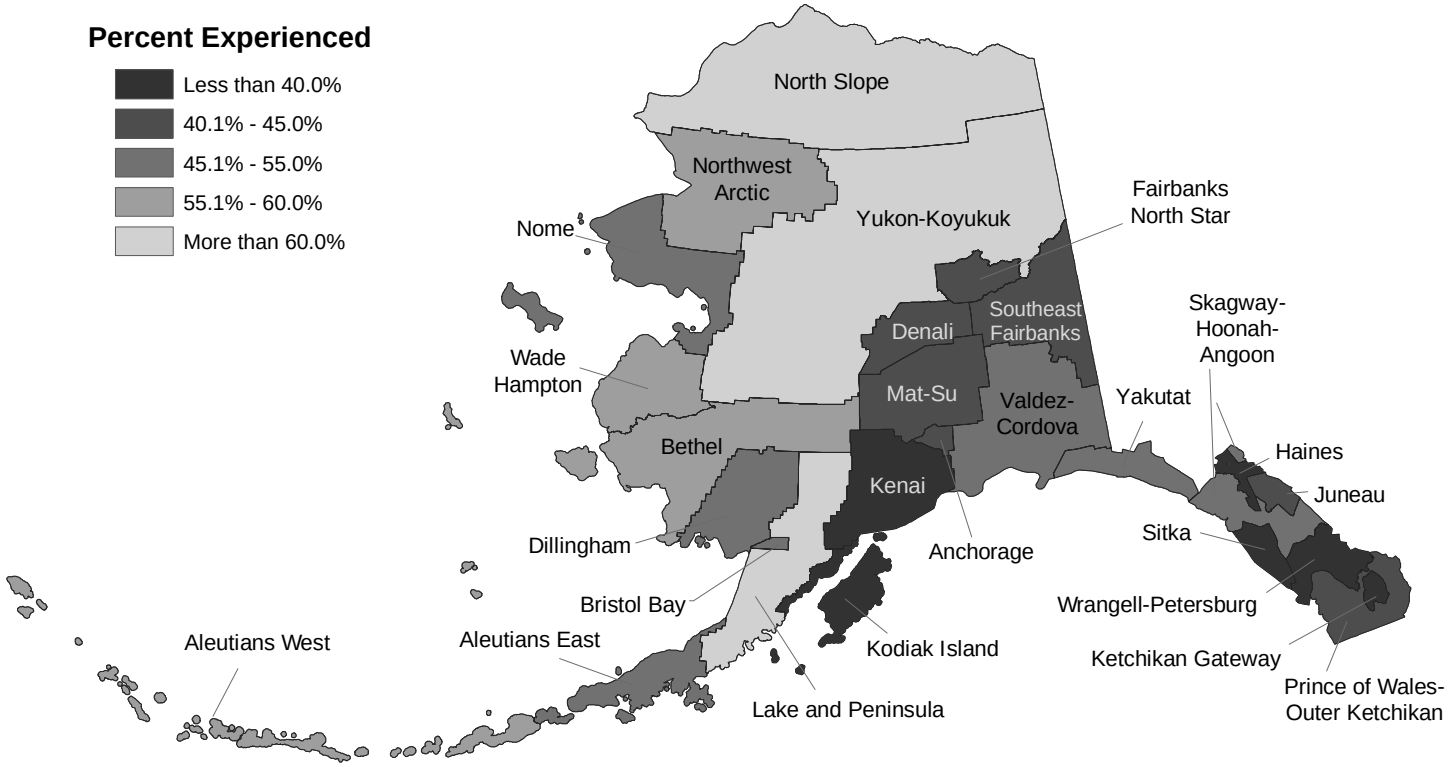
3

Associated Builders and Contractors of Alaska
AGC Safety Inc.
Alaska Computer Essentials
Alaska Inventor and Entrepreneurs Association
Alaska Ironworkers
Alaska Joint Electrical Apprenticeship Training Trust
Alaska Laborers Training Trust
Alaska Medical Training Services
Alaska Operating Engineers Apprentice Training Trust
Alaska Technical Center
Alaska Technology Learning Center
Alaska Trowel Trades Apprenticeship and Training Trust
Alaska Vocational Technical Center
Alaska Works Partnership Inc.
Arctic Safety Training & Consulting
Asbestos Removal Specialists of Alaska
Career Academy
Center for Employment Education
Charter College
Delta Mine Training Center
Environmental Management, Inc.
Fairbanks Alaska Carpenter Training Center
Fairbanks Area Painting and Allied Trades JATC[1]
Fairbanks Area Plumbers and Pipefitters JATC[1]
GeoNorth
Heat and Frost Insulators and Asbestos Workers Local 97
Ilisagvik College
International Union of Bricklayers and Allied Craftsmen Local 1
New Frontier Vo-Tech Center
Northern Industrial Training
Northwest Technical Services
Project Education Residential School
Satori Group Inc.
SERRC – Alaska Vocational Institute
Southern Alaska Carpenters Union Training Center
Southwest Alaska Vocational & Education Center
University of Alaska Anchorage
University of Alaska Fairbanks
University of Alaska Southeast
Vocational Training & Resource Center
Wayland Baptist University – Anchorage Campus
Wilderness Medicine Institute
Yuut Elitnaurviat

Note: This is a list of training providers that are eligible to receive Workforce Investment Act funds; it's not a list of all training providers in the state. Some of these providers haven't had recent graduates from a pipeline-related study program, but officials with those programs said they would be willing to offer classes if there was enough interest.
[1] JATC is an acronym for Joint Apprenticeship and Training Committee.
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

4 Where the Experienced Alaskans Are

Workers who have experience in the 113 gas line occupations,[1] 2007



[1] A worker was considered experienced in an occupation if he or she received wages in that occupation during any four quarters from 2005 through 2007.
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

the highest employment levels – jobs like construction laborers, skilled craftsmen helpers, and housekeeping-related workers in the camps.

Conversely, 60 of the 113 occupations require extensive on-the-job training, significant work experience or a certificate or degree in an appropriate field. Given the expected competition for gas line jobs, attaining only the minimum amount of training and experience required for a job may not be enough. Alaska workers will be competing against a national – and possibly international – pool of workers, so providing Alaska workers with more training helps ensure their chance for employment.

Fortunately, Alaska already has schools and programs in place to train workers for the gas line occupations; they're expected to expand and increase in number as construction of the gas pipeline gets closer. The *AGIA Training Strategic Plan* identifies 41 Alaska-based training providers and various campuses of the University of Alaska system that provide training in gas line-related occupations. (See Exhibit 3.)

Typical progressions for careers

The Department of Labor researched the typical career movements of Alaska workers and used that data to create the Alaska Career Ladder. The Department of Labor tracked and analyzed actual occupation-to-occupation changes that Alaska workers made over a six-year period, from 2001 through 2006.[8]

The Alaska Career Ladder shows that there can be good chances for advancement for workers in lower-skilled and lower-wage jobs. It identi-

[8] More detail about the Alaska Career Ladder is available in last month's *Trends*. For current and past *Trends* issues online, go to the Department of Labor Web site at labor.alaska.gov and click on the *Trends* cover in the lower right. The *Trends* link is also available at laborstats.alaska.gov, the home page for the Department of Labor's Research and Analysis Section.

Experienced Alaska Workers Are Out There
Gas line jobs may lure them back, Alaska 5

Occupation	Workers with Experience in the Occupation: Resident workers with experience in the specific occupation[1]	Of the experienced workers, those who were employed in another occupation in 2007	Of the experienced workers, those who were employed in a less-skilled occupation in 2007[2]	Workers Employed in the Occupation: Workers employed in the occupation in 2006 who filed for unemployment benefits in 2007[3]
Construction laborers	6,502	2,361	848	2,752
Laborers and freight, stock and material movers (hand)	5,222	2,333	1,334	1,251
Carpenters	4,102	1,262	195	1,618
Maintenance and repair workers, general	3,615	1,166	381	530
Operating engineers and other construction equipment operators	3,468	973	405	1,348
Security guards	2,246	952	505	315
Truck drivers, heavy and tractor-trailer	2,713	821	203	754
Electricians	2,133	492	171	685
First-line supervisors/managers of construction trades and extraction workers	1,003	444	133	163
Helpers – installation, maintenance and repair workers	914	374	231	231
Plumbers, pipefitters and steamfitters	1,784	348	53	506
Welders, cutters, solderers and brazers	589	318	65	161
Food service managers	461	298	38	62
Computer support specialists	1,135	295	126	60
First-line supervisors/managers of mechanics, installers and repairers	655	283	102	51
Bus and truck mechanics and diesel engine specialists	722	272	7	104
Environmental scientists and specialists, including health	553	253	2	19
Construction managers	919	242	42	103
Mobile heavy equipment mechanics, except engines	680	228	11	98

[1] A worker was considered experienced in an occupation if he or she received wages in that occupation during any four quarters from 2005 through 2007. A single worker can be considered experienced in multiple occupations using this criteria.
[2] The workers in this column are a subset of the number of workers in the second column.
[3] A worker was considered employed in the occupation where he or she received the most wages in 2006. A worker was only considered employed in one occupation during that year.

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

fies 76 occupations that show strong possibilities for career advancement into one or more of the 113 gas line occupations.

For example, people working as construction laborers have shown strong tendencies to move up and fill positions in seven of the 113 gas line occupations: cement masons, paving equipment operators, insulation workers, sheetmetal workers, hazardous materials removal workers, explosives workers, and excavating and loading machine operators.

Who has experience?

Another way to fill gas line-related jobs is by recruiting people with experience in the occupations. By reviewing the quarterly unemployment insurance tax information that employers file with the state, and Alaska's Occupational Database,[9] we determined the number of people with previous experience in gas line occupations[10] who weren't employed in those occupations in 2007. We also determined the number of people employed in gas line occupations in 2006 who filed claims for unemployment insurance benefits in 2007.

It's not surprising that the largest number of workers with gas line-related experience live in the highly populated Southcentral region. However, when we consider the percentage of total workers with such experience, it's apparent that all regions in the state have workers with experi-

[9] For more information on Alaska's Occupational Database, go to Research and Analysis' Web site at laborstats.alaska.gov, click on "Occupational Information" on the left, then "Occupational Database."
[10] Throughout this article, a worker was considered experienced in an occupation if he or she received wages in that occupation during any four quarters from 2005 through 2007. A single worker can be considered experienced in multiple occupations using this criteria.

ence in the 113 gas line occupations. (See Exhibit 4.) Many of Alaska's more rural areas have workers experienced in the occupations that are needed most for building a gas pipeline.

Some of the workers with gas line experience have moved up to higher-paying jobs and may not want to return to their old jobs. Still, many of the highly skilled gas line jobs will provide high wages.

Looking at carpenters as an example, there were more than 4,100 workers in Alaska in 2007 who had worked at least four quarters from 2005 through 2007 as carpenters. (See Exhibit 5.) For the purposes of this article, we considered those workers to be experienced in the occupation, though a worker might have at least four quarters of wages in more than one occupation during those years. Of the 4,100 experienced carpenters, more than 1,200 in 2007 made the majority of their wages in a different occupation, and of those, nearly 200 were working in occupations that required less education, training and experience.

Also in 2007, 1,600 people who made the majority of their income as carpenters in 2006 filed for unemployment insurance benefits at some point during the year. Those 1,600 would also be a supply of workers to fill the demand for pipeline occupations.

Not your average project

Building the gas pipeline is far from a typical large construction project. While some of the required skills can be taught and some necessary experience gained through other work, certain aspects of employment on the gas line will be new to many workers.

Like the trans-Alaska oil pipeline project, many workers will be living in camps for extended times – particularly those working on the most remote spreads. Rotations might not be as grueling as the first pipeline's, where many worked for eight weeks on and two weeks off. But it's likely workers will be in camp for several weeks at a time, working 12-hour days, seven days a week.

Transportation to the camps will be provided by the employers, and as a worker, missing your plane could mean losing your job. And in such potentially dangerous work environments, workers will be expected to attend safety and health training classes. They should also expect pre-employment and then random drug testing, and they'll be working and living in drug- and alcohol-free camps.

But, if the experiences of those who worked on the first pipeline are any indication, the hard work and harsh working conditions often come with significant monetary rewards.

In closing, a quote from another *Trends* issue is appropriate. This one is from April 1976:

"It is important to note that due to the massive construction effort necessary to build the Alaskan oil pipeline from Prudhoe Bay, the effect of future energy resource development may never have such a dramatic impact on the labor force in Alaska."[11]

For many reasons, the economic impact of building a gas pipeline will likely be only a fraction of the impact from the first pipeline. Even so, it's still a big project that will still have an impact on Alaska's economy.

[11] The authors for the *Trends* excerpts in this article: Lynn Pistoll and Barbara Baker (May 1979); Christopher L. Miller (November 1976); and author not listed (April 1976).

Alaska's 2008 Population

By Gregory Williams,
State Demographer

State and local estimates

Alaska's statewide population increased 8.3 percent, or 52,187 people, from 2000 to 2008, bringing Alaska's statewide population estimate to 679,720, based on estimates released in March by the Alaska Department of Labor and Workforce Development.

Alaska's growth was almost the same as the 8.0 percent increase for the United States as a whole during the 2000-2008 period.

The Alaska Department of Labor starts with the U.S. Census Bureau's annual estimates at the state level and decennial census numbers, then creates its own estimates for a detailed count of Alaska's population. It uses various indicators of population change and characteristics, including Alaska Permanent Fund dividend applications, military and other surveys, and birth and death statistics.

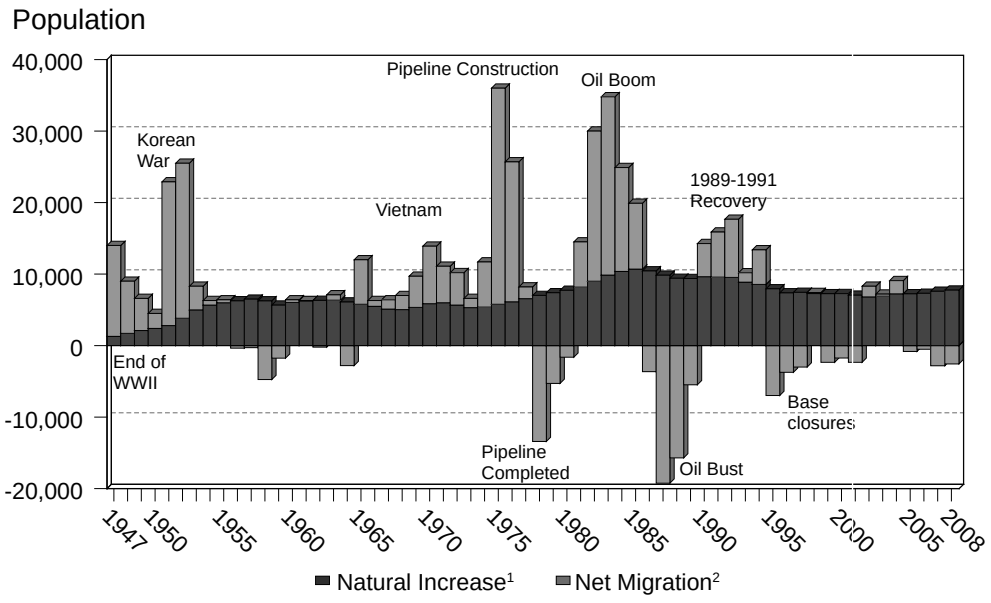
The 2008 estimates are provisional. All population estimates in this article are as of July 1 of a particular year (the average annual population for that year) unless indicated otherwise.

The state as a whole

The number of people living in Alaska climbed from 627,533 in 2000 to 679,720 in 2008. (See Exhibit 2.)

Alaska's average annual rate of population change was 1.0 percent during the 2000-2008 period and 0.8 percent for the 2007-2008 period.

1 Components of Population Change
Alaska, 1947 to 2008



[1] The difference between births and deaths
[2] The difference between the number of people who migrate into and out of the state
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit

Alaska is still the 47th most populous state. It's larger than North Dakota, Vermont, the District of Columbia and Wyoming.

Population change is made up of four main components: births, deaths, in-migration and out-migration. Natural increase is the difference between births and deaths, and net migration is the difference between the number of people who migrate into and out of the state.

Currently, growth in Alaska as a whole is primarily through natural increase. From 2000 to 2008, Alaska's natural increase added 58,094 people, while net migration accounted for a loss of 5,907 people. During the 2007-2008 period, Alaska added 7,770

people through natural increase and lost 2,560 people to net out-migration.

When international and domestic migration are considered separately, the loss of 2,560 migrants between 2007 and 2008 breaks down to a gain of 810 international migrants and a loss of 3,370 domestic migrants. Therefore, international migration is currently compensating for some of the outward domestic migration.

About 92,500 people now migrate to and from Alaska each year. In- and out-migration are nearly equal at about 45,000 in and 47,500 out.

It's important to note that, because these estimates are for resident population, any troops deployed overseas are counted as being in Alaska. That means that the populations for the Municipality of Anchorage and Fairbanks North Star Borough – where the main Alaska military bases are located – and other communities with a substantial National Guard presence may be somewhat lower than these estimates indicate, depending on the current deployment of military and National Guard personnel.

Boroughs and census areas

Alaska Department of Labor population estimates have also been released for Alaska's 29 boroughs and census areas (see Exhibit 3), and 349 occupied places located throughout the state. (See Exhibit 4.) Unlike Exhibit 2, which considers population change from the average annual population in 2000 (July 1), Exhibit 3 and the remainder of this article consider population change from the April 1, 2000[1] U.S. Census.

Of Alaska's 29 boroughs and census areas, only 10 gained population between 2000 and 2008. The largest increases were in the Municipality of Anchorage (+24,711), Matanuska-Susitna Borough (+23,193), Fairbanks North Star Borough (+7,056), Kenai Peninsula Borough (+3,299), Bethel Census Area (+894), Southeast Fairbanks Census Area (+834) and Wade Hampton Census Area (+642).

[1] And the April 1, 1990 U.S. Census

Population growth in the Municipality of Anchorage and the Mat-Su Borough accounted for roughly 78.4 percent of the growth in the 10 boroughs and census areas. The Municipality of Anchorage made up 40.4 percent of the growth and the Mat-Su Borough made up 37.9 percent.

The Mat-Su Borough continued in 2008 to be the fastest-growing area in the state, as it has been since 1990. Between 2000 and 2008, it grew at an average annual rate of 4.0 percent, matching its rate during the 1990s. However, the borough's growth slowed to 3.5 percent between 2007 and 2008.

The increases in both the Municipality of Anchorage and the Mat-Su Borough between 2000 and 2008 were due to a mix of natural increase and net migration.

For the 2007-2008 period, about a quarter of Anchorage's in- and out-migration came from other parts of Alaska; the remainder came from out of state. Of the in-state migration to and from Anchorage, 28 percent came into Anchorage from the Mat-Su Borough, while 47 percent of the in-state migration from Anchorage went out to the Mat-Su.

The Mat-Su Borough was the only area of the state where growth came primarily from net in-migration. During the 2000-2008 period, net in-migration accounted for 17,632, or 76 percent of the borough's population increase of 23,193.

The Mat-Su Borough, Kenai Peninsula Borough (+582) and Southeast Fairbanks Census Area (+307) were the only areas where in-migration noticeably exceeded out-migration during the 2007-2008 period.

The Municipality of Anchorage gained a total of 2,619 people, while the Mat-Su Borough gained 2,816. And while Anchorage had a current natural increase of 3,098 compared to the Mat-Su Borough's 861, Mat-Su gained 1,955 migrants and Anchorage lost 479.

Nineteen boroughs and census areas lost population between 2000 and 2008.

The Southeast region continued to have the largest overall decline, losing 5.6 percent of its population, with a natural increase of 4,099 people and a net out-migration of 7,979. No Southeast area had long-term growth during the period.

During the shorter 2007-2008 period, only the Juneau City and Borough (+86), Haines Borough (+57) and Prince of Wales-Outer Ketchikan (+7) had any population gain through migration. In the rest of Southeast, out-migration was greater than natural increase. In part, that was due to people aging.

Annual Components of Population Change
Alaska, 1990 to 2008

2

July 1 to June 30	End of Period Population	Population Change	Average Annual Rate of Change	Components of Change				Net International Migrants[1,2]	Net Internal Migrants[3]
				Births	Deaths	Natural Increase	Net Migrants		
1990	553,171	14,271	2.61%	11,776	2,142	9,634	4,637	—	—
1990-91	569,054	15,883	2.83%	11,798	2,225	9,573	6,310	—	—
1991-92	586,722	17,668	3.06%	11,744	2,214	9,530	8,138	—	—
1992-93	596,906	10,184	1.72%	11,347	2,477	8,870	1,314	—	—
1993-94	600,622	3,716	0.62%	10,978	2,422	8,556	-4,840	—	—
1994-95	601,581	959	0.16%	10,439	2,500	7,939	-6,980	—	—
1995-96	605,212	3,631	0.60%	10,079	2,707	7,372	-3,741	—	—
1996-97	609,655	4,443	0.73%	10,018	2,574	7,444	-3,001	—	—
1997-98	617,082	7,427	1.21%	9,924	2,642	7,282	145	—	—
1998-99	622,000	4,918	0.79%	9,864	2,609	7,255	-2,337	—	—
1999-00	627,533	5,533	0.89%	10,102	2,829	7,273	-1,740	—	—
2000-01	631,957	4,424	0.70%	9,980	2,934	7,046	-2,622	888	-3,510
2001-02	640,183	8,226	1.29%	9,871	3,075	6,796	1,430	-102	1,532
2002-03	647,188	7,005	1.09%	10,025	3,107	6,918	87	-2,138	2,225
2003-04	656,569	9,381	1.44%	10,299	3,060	7,239	2,142	2,049	93
2004-05	663,085	6,516	0.99%	10,368	3,167	7,201	-685	618	-1,303
2005-06	669,716	6,631	1.00%	10,680	3,165	7,515	-884	1,379	-2,263
2006-07	674,510	4,794	0.71%	11,051	3,442	7,609	-2,815	443	-3,258
2007-08[4]	679,720	5,210	0.77%	11,252	3,482	7,770	-2,560	810	-3,370

Notes: All columns represent Alaska Department of Labor and Workforce Development estimates unless stated otherwise. All estimates represent July 1 of that year (the average annual population) unless stated otherwise.
[1] According to the U.S. Census Bureau
[2] Migration between Alaska and countries outside the U.S.
[3] Migration between Alaska and the rest of the U.S.
[4] Provisional estimate
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit; U.S. Census Bureau

In the Southwest region, between 2000 and 2008, net out-migration (-5,361) was greater than the natural increase (+5,222). The two Southwest areas that increased population were the Bethel Census Area (+894) and Wade Hampton Census Area (+642). In every other area, net out-migration exceeded natural increase or broke even.

In the Northern region, natural increase (+3,508) failed to keep up with out-migration (-3,685) during the 2000-2008 period. The greatest loss was in the North Slope Borough where out-migration (-1,777) substantially exceeded natural increase (+1,098). The Nome Census Area and Northwest Arctic Borough had natural increases that were slightly higher than out-migration.

In the Gulf Coast region, natural increase (+4,656) kept ahead of out-migration (-2,579). The Kodiak Island Borough had more net out-migration (-1,854) than natural increase (+1,314) and the Valdez-Cordova Census Area declined as natural increase (+625) failed to match net out-migration (-1,307). The Kenai Peninsula Borough grew mainly through natural increase (+2,717) as opposed to net-migration (+582).

During the 2007-2008 period, the Valdez-Cordova Census Area declined, as net out-migration (-131) exceeded natural increase (+71). In the Kenai Peninsula Borough, however, both natural increase (+292) and net-migration (+577) were positive. The Kodiak Island Borough lost population because natural increase (+137) was less than out-migration (-259).

In the Interior, during the 2000-2008 period, the Fairbanks North Star Borough (+7,056) and Southeast Fairbanks Census Area (+834) grew, largely due to natural increase. The Yukon-Koyukuk Census Area (-841) and Denali Borough (-45) shrank as out-migration exceeded natural increase.

During the 2007-2008 period, the Fairbanks North Star Borough (-1,444) and Yukon-Koyukuk Census Area (-63) had population losses.

3 Alaska's Population, 1990 to 2008
By economic region, borough and census area

	Vintage 2008 Population Estimates								April 1 Census	April 1 Census
	Estimate 2008	Estimate 2007	Estimate 2006	Estimate 2005	Estimate 2004	Estimate 2003	Estimate 2002	Estimate 2001	2000	1990
Alaska	679,720	674,510	669,716	663,085	656,569	647,188	640,183	631,957	626,931	550,043
Anchorage / Mat-Su Region	367,509	362,074	359,850	351,867	347,858	340,245	331,982	326,520	319,605	266,021
Anchorage, Municipality of	284,994	282,375	282,722	277,883	277,491	272,775	267,669	264,784	260,283	226,338
Matanuska-Susitna Borough	82,515	79,699	77,128	73,984	70,367	67,470	64,313	61,736	59,322	39,683
Gulf Coast Region	75,876	75,189	74,531	74,845	74,687	75,392	74,346	73,666	73,799	64,063
Kenai Peninsula Borough	52,990	52,121	51,352	51,172	51,168	51,399	50,645	50,063	49,691	40,802
Kodiak Island Borough	13,373	13,495	13,427	13,667	13,554	13,802	13,633	13,560	13,913	13,309
Valdez-Cordova Census Area	9,513	9,573	9,752	10,006	9,965	10,191	10,068	10,043	10,195	9,952
Interior Region	104,421	105,811	101,966	101,907	99,609	96,213	98,883	97,532	97,417	92,111
Denali Borough	1,848	1,762	1,793	1,820	1,848	1,915	1,886	1,901	1,893	1764
Fairbanks North Star Borough	89,896	91,340	87,607	87,578	85,358	82,087	84,705	83,244	82,840	77,720
Southeast Fairbanks Census Area	7,008	6,977	6,734	6,462	6,136	5,917	5,941	5,905	6,174	5,913
Yukon-Koyukuk Census Area	5,669	5,732	5,832	6,047	6,267	6,294	6,351	6,482	6,510	6,714
Northern Region	23,612	23,538	23,637	23,651	23,867	23,837	23,797	23,615	23,789	20,380
Nome Census Area	9,499	9,465	9,523	9,450	9,419	9,344	9,336	9,262	9,196	8,288
North Slope Borough	6,706	6,711	6,796	6,886	7,123	7,217	7,234	7,228	7,385	5,979
Northwest Arctic Borough	7,407	7,362	7,318	7,315	7,325	7,276	7,227	7,125	7,208	6,113
Southeast Region	69,202	68,971	70,271	70,786	70,831	71,730	71,885	71,745	73,082	68,989
Haines Borough	2,310	2,246	2,234	2,205	2,250	2,316	2,356	2,368	2,392	2,117
Juneau City and Borough	30,427	30,134	30,753	31,179	31,087	31,266	30,981	30,446	30,711	26,751
Ketchikan Gateway Borough[2]	12,993	13,089	13,176	13,111	13,067	13,512	13,667	13,742	14,059	13,828
Prince of Wales-Outer Ketchikan Census Area[3]	5,360	5,299	5,469	5,502	5,562	5,586	5,678	5,813	6,157	6,278
Sitka City and Borough	8,615	8,602	8,972	8,931	8,814	8,882	8,788	8,724	8,835	8,588
Skagway-Hoonah-Angoon Census Area[4]	2,946	2,986	3,010	3,059	3,114	3,162	3,240	3,371	3,436	3,680
Hoonah-Angoon Census Area	2,100	2,145	2,157	2,226	2,242	2,320	2,397	2,534	2,574	2,988
Skagway, Municipality of	846	841	853	833	872	842	843	837	862	692
Wrangell-Petersburg Census Area[5]	---	5,997	6,022	6,157	6,262	6,317	6,457	6,586	6,684	7,042
Petersburg Census Area	3,847	---	---	---	---	---	---	---	4,260	---
Wrangell City and Borough[6,7]	2,112	---	---	---	---	---	---	---	2,448	---
Yakutat City and Borough	592	618	635	642	675	689	718	695	808	705
Southwest Region	39,100	38,927	39,461	40,029	39,717	39,771	39,290	38,879	39,239	38,479
Aleutians East Borough	2,699	2,789	2,588	2,654	2,654	2,712	2,722	2,547	2,697	2,464
Aleutians West Census Area	4,439	4,493	4,910	5,239	5,238	5,325	5,068	5,252	5,465	9,478
Bethel Census Area	16,940	16,755	17,011	17,066	16,860	16,733	16,502	16,100	16,046	13,656
Bristol Bay Borough	1,029	1,030	1,056	1,174	1,099	1,102	1,162	1,173	1,258	1,410
Dillingham Census Area	4,771	4,769	4,795	4,784	4,845	4,899	4,914	4,888	4,922	4,012
Lake and Peninsula Borough	1,552	1,531	1,555	1,618	1,608	1,625	1,638	1,732	1,823	1,668
Wade Hampton Census Area	7,670	7,560	7,546	7,494	7,413	7,375	7,284	7,187	7,028	5,791

Note: All columns represent Alaska Department of Labor and Workforce Development estimates unless stated otherwise. All estimates are as of July 1 of that year (the average annual population for that year) unless stated otherwise.

[1] This period represents April 1, 2000, to June 30, 2008.

[2] No adjustment has been made to the 2000 population shown here for the May 2008 Ketchikan Gateway Borough annexation (8 people) from Outer Ketchikan.

[3] The Prince of Wales-Outer Ketchikan Census Area boundaries changed and the census area was renamed the Prince of Wales-Hyder Census Area in May 2008. No adjustment has been made to the 2000 population shown here for the May 2008 Ketchikan Gateway Borough annexation (8 people) from Outer Ketchikan.

[4] The Skagway-Hoonah-Angoon Census Area became the Hoonah-Angoon Census Area and the Municipality of Skagway in June 2007.

[5] The Wrangell-Petersburg Census Area became the Petersburg Census Area and Wrangell City and Borough in May 2008.

The Denali Borough (+86) and Southeast Fairbanks Census Area (+31) had slight gains. In the Fairbanks North Star Borough, natural increase (+1,543) was exceeded by net out-migration (-2,987). The net out-migration was mostly military and dependents associated with the loss of a fighter wing at Eielson Air Force Base.

Places

A place is an incorporated city (municipalities and city-boroughs fall into this category), Census Designated Place (a closely settled unincorporated population center) or an Alaska Native Village Statistical Area (the settled area associated with each Alaska Native Village).

Change			Average Annual Rate of Change			Natural Increase (Births minus Deaths)	Net Migration (In minus Out)	Natural Increase (Births minus Deaths)	Net Migration (In minus Out)
2007-2008	2000-2008	1990-2000	2007-2008	2000-2008	1990-2000	2007-2008	2007-2008	2000-2008[1]	2000-2008[1]
5,210	52,789	76,888	0.8%	1.0%	1.3%	7,770	-2,560	59,828	-7,039
5,435	47,904	53,584	1.5%	1.7%	1.8%	3,959	1,476	31,139	16,765
2,619	24,711	33,945	0.9%	1.1%	1.4%	3,098	-479	25,578	-867
2,816	23,193	19,639	3.5%	4.0%	4.0%	861	1,955	5,561	17,632
687	2,077	9,736	0.9%	0.3%	1.4%	500	187	4,656	-2,579
869	3,299	8,889	1.7%	0.8%	2.0%	292	577	2,717	582
-122	-540	604	-0.9%	-0.5%	0.4%	137	-259	1,314	-1,854
-60	-682	243	-0.6%	-0.8%	0.2%	71	-131	625	-1,307
-1,390	7,004	5,306	-1.3%	0.8%	0.6%	1,686	-3,076	11,204	-4,200
86	-45	129	4.8%	-0.3%	0.7%	18	68	127	-172
-1,444	7,056	5,120	-1.6%	1.0%	0.6%	1,543	-2,987	10,245	-3,189
31	834	261	0.4%	1.5%	0.4%	87	-56	527	307
-63	-841	-204	-1.1%	-1.7%	-0.3%	38	-101	305	-1,146
74	-177	3,409	0.3%	-0.1%	1.5%	484	-410	3,508	-3,685
34	303	908	0.4%	0.4%	1.0%	179	-145	1,285	-982
-5	-679	1,406	-0.1%	-1.2%	2.1%	132	-137	1,098	-1,777
45	199	1,095	0.6%	0.3%	1.6%	173	-128	1,125	-926
231	-3,880	4,093	0.3%	-0.7%	0.6%	486	-255	4,099	-7,979
64	-82	275	2.8%	-0.4%	1.2%	7	57	34	-116
293	-284	3,960	1.0%	-0.1%	1.4%	207	86	2,070	-2,354
-96	-1,066	231	-0.7%	-1.0%	0.2%	104	-200	778	-1,844
61	-797	-121	1.1%	-1.7%	-0.2%	54	7	338	-1,135
13	-220	247	0.2%	-0.3%	0.3%	66	-53	556	-776
-40	-490	-244	-1.3%	-1.9%	-0.7%	27	-67	129	-619
-45	-474	-832	-2.1%	-2.5%	-1.5%	---	---	---	---
5	-16	154	0.6%	-0.2%	2.2%	---	---	---	---
-38	-725	-358	-0.6%	-1.4%	-0.5%	18	-56	166	-891
---	-413	---	---	-1.2%	---	---	---	---	---
---	-336	---	---	-1.8%	---	---	---	---	---
-26	-216	103	-4.3%	-3.7%	1.4%	3	-29	28	-244
173	-139	760	0.4%	0.0%	0.2%	655	-482	5,222	-5,361
-90	2	233	-3.3%	0.0%	0.9%	15	-105	102	-100
-54	-1,026	-4,013	-1.2%	-2.5%	-5.4%	22	-76	216	-1,242
185	894	2,390	1.1%	0.7%	1.6%	357	-172	2,766	-1,872
-1	-229	-152	-0.1%	-2.4%	-1.1%	3	-4	61	-290
2	-151	910	0.0%	-0.4%	2.0%	82	-80	522	-673
21	-271	155	1.4%	-1.9%	0.9%	13	8	93	-364
110	642	1,237	1.4%	1.1%	1.9%	163	-53	1,462	-820

[6] The 2000 population reflects the incorporated area, which is greater than the 2000 census area population.
[7] No adjustment has been made to the 2000 population shown here for the Wrangell City and Borough incorporation (25 people).
Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit; U.S. Census Bureau

Alaska had 38 places with populations of more than 2,000 in the year 2008 (see Exhibit 4), and 23 of them were incorporated cities or city-boroughs. Thirty-five places in Alaska had populations of more than 2,000 in the year 2000.

The Municipality of Anchorage continued to dominate the state. It represented 41.9 percent of the state's population in 2008 with its population of 284,994; that percentage was up slightly from 41.5 percent in 2000.

The larger Anchorage/Mat-Su region accounted for 54.1 percent of Alaska's population in 2008 with its population of 367,509; that percentage was up from 51.0 percent in 2000.

The 15 places with populations greater than 2,000 in 2008 that had average annual growth rates above 2.0 percent during the 2000-2008 period include the Knik-Fairview Census Designated Place (+7.2 percent), Fishhook CDP (+5.5 percent), Meadow Lakes CDP (+4.7 percent), Tanaina CDP (+4.4 percent), Deltana CDP (+4.2 percent), Homer city (+3.8 percent), Gateway CDP (+3.6 percent), North Pole city (+3.5 percent), Wasilla city (+3.3 percent), Willow CDP (+3.1 percent), Butte CDP (+2.9 percent), Kalifornsky CDP (+2.7 percent), Lakes CDP (+2.5 percent), Palmer city (+2.5 percent) and Big Lake CDP (+2.3 percent).

Eleven of the top 15 places that experienced the most rapid growth between 2000 and 2008 are in the Mat-Su Borough.

Indeed, if the 11 were to incorporate now, three places in the Mat-Su Borough would be larger than Wasilla city. Knik-Fairview would become the fourth-largest city in the state.

4 Places with More Than 2,000 People
Alaska, 2000 to 2008

	Vintage 2008 Population Estimates								April 1, 2000 Census	2000-2008 Change	Average Annual Rate of Change 2000-2008
	2008 Estimate	2007 Estimate	2006 Estimate	2005 Estimate	2004 Estimate	2003 Estimate	2002 Estimate	2001 Estimate			
Anchorage, Municipality of	284,994	282,375	282,722	277,883	277,491	272,775	267,669	264,784	260,283	24,711	1.1%
Juneau City and Borough	30,427	30,134	30,753	31,179	31,087	31,266	30,981	30,446	30,711	-284	-0.1%
Fairbanks city	30,367	31,740	30,126	31,061	30,069	28,900	29,758	29,510	30,224	143	0.1%
Knik-Fairview CDP	12,989	12,278	11,359	10,261	9,247	8,551	7,996	7,636	7,049	5,940	7.2%
College CDP	12,456	12,155	12,111	12,194	12,145	12,046	11,930	12,050	11,402	1,054	1.1%
Sitka City and Borough	8,615	8,602	8,972	8,931	8,814	8,882	8,788	8,724	8,835	-220	-0.3%
Lakes CDP	8,249	8,086	7,957	7,749	7,470	7,036	6,922	6,811	6,706	1,543	2.5%
Ketchikan city	7,508	7,629	7,624	7,673	7,702	7,970	8,369	8,455	7,922	-414	-0.7%
Kalifornsky CDP	7,312	7,136	6,978	6,823	6,635	6,242	6,156	6,014	5,846	1,466	2.7%
Tanaina CDP	7,218	7,112	7,000	6,620	6,289	5,854	5,597	5,261	4,993	2,225	4.4%
Wasilla city	7,176	6,912	6,471	6,359	6,137	6,374	5,944	5,514	5,469	1,707	3.3%
Kenai city	7,134	6,897	6,781	6,766	6,835	7,122	7,072	6,886	6,942	192	0.3%
Meadow Lakes CDP	7,106	6,827	6,520	6,373	5,942	5,571	5,305	5,038	4,819	2,287	4.7%
Kodiak city	5,974	5,640	5,657	6,128	6,201	6,102	6,095	6,072	6,334	-360	-0.7%
Bethel city[1]	5,665	5,621	5,797	5,953	5,865	5,879	5,736	5,458	5,471	194	0.4%
Palmer city	5,559	5,407	5,432	5,298	5,214	5,256	4,834	4,579	4,533	1,026	2.5%
Homer city[2]	5,390	5,442	5,429	5,392	5,347	5,872	5,532	4,068	3,946	1,444	3.8%
Sterling CDP	5,134	5,121	5,046	4,979	4,917	4,874	4,777	4,754	4,705	429	1.1%
Nikiski CDP	4,406	4,324	4,202	4,189	4,287	4,347	4,359	4,361	4,327	79	0.2%
Soldotna city	4,061	3,890	3,754	3,793	3,773	3,997	3,849	3,791	3,759	302	0.9%
Barrow city[1]	4,054	4,027	4,059	4,174	4,362	4,405	4,432	4,441	4,581	-527	-1.5%
Gateway CDP	3,996	3,998	3,854	3,680	3,559	3,296	3,213	3,119	2,952	1,044	3.6%
Valdez city	3,635	3,572	3,670	3,745	3,714	3,890	3,949	3,825	4,036	-401	-1.3%
Nome city	3,570	3,474	3,533	3,506	3,476	3,411	3,479	3,483	3,505	65	0.2%
Unalaska city[1]	3,551	3,648	4,025	4,295	4,360	4,368	4,033	4,249	4,283	-732	-2.3%
Butte CDP	3,262	3,191	3,195	3,109	2,972	2,917	2,783	2,736	2,561	701	2.9%
Fishhook CDP	3,230	3,080	2,940	2,793	2,641	2,347	2,242	2,190	2,030	1,200	5.5%
Big Lake CDP	3,191	3,140	3,076	2,979	2,924	2,886	2,703	2,613	2,635	556	2.3%
Kotzebue city[1]	3,126	3,115	3,097	3,118	3,137	3,066	3,072	3,058	3,082	44	0.2%
Petersburg city	3,009	3,036	3,118	3,150	3,128	3,077	3,154	3,223	3,224	-215	-0.8%
Eielson Air Force Base CDP	2,858	4,244	4,371	4,547	4,674	4,429	5,837	5,149	5,400	-2,542	-7.5%
Seward city	2,619	2,645	2,589	2,594	2,542	2,742	2,754	2,758	2,830	-211	-0.9%
Dillingham city[1]	2,347	2,399	2,400	2,367	2,403	2,382	2,467	2,461	2,466	-119	-0.6%
Deltana CDP	2,233	2,189	1,924	1,899	1,738	1,705	1,667	1,652	1,570	663	4.2%
Cordova city (including Eyak[1])	2,161	2,176	2,234	2,287	2,296	2,288	2,302	2,382	2,454	-293	-1.5%
Willow CDP	2,142	2,041	1,959	1,895	1,860	1,812	1,718	1,666	1,658	484	3.1%
Wrangell City and Borough	2,112	---	---	---	---	---	---	---	2,448	-336	-1.8%
North Pole city	2,099	1,973	1,644	1,598	1,527	1,600	1,600	1,468	1,570	529	3.5%

Notes:
The U.S. Census Bureau provided the census numbers.
All estimates represent July 1 of that year unless stated otherwise.
CDP is an abbreviation for Census Designated Place.
[1] Alaska Native Village Statistical Area
[2] Homer had a substantial annexation in 2002.
Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit; U.S. Census Bureau

The remaining four of the 15 rapidly growing places are the Kenai Peninsula Borough's Kalifornsky CDP and Homer city,[2] the Southeast Fairbanks Census Area's Deltana CDP and the Fairbanks North Star Borough's North Pole city.

Outside the Anchorage/Mat-Su region, a majority of the communities have flat or declining populations.

[2] Homer's growth is largely due to its annexation of a substantial part of Diamond Ridge CDP and Miller Landing CDP in 2002.

Thirteen of the places that had more than 2,000 people in 2000 have declined.

In fact, 198 (56 percent) of the 349 places in Alaska had either zero gains or population losses between 2000 and 2008. That includes five of the largest communities on the list of places with more than 2,000 people in 2000: the Juneau City and Borough (-0.1 percent), Sitka City and Borough (-0.3 percent), Ketchikan city (-0.7 percent), Kodiak city (-0.7 percent) and Barrow city (-1.5 percent).

The larger places that declined an average by more than 1.0 percent each year during the 2000-2008 period were the Eielson Air Force Base CDP (-7.5 percent), Unalaska city (-2.3 percent), Wrangell City and Borough (-1.8 percent), Cordova city (-1.5 percent), Barrow city (-1.5 percent), and Valdez city (-1.3 percent).

Population estimates are available on Research and Analysis' Web site at laborstats.alaska.gov. Click on "Population & Census" on the left and pull down to "Estimates & Projections." Then, toward the middle of the page, click on "Alaska Population Estimates 2000-2008," and then "Vintage 2008 Estimates."

A Safety Minute

June is Alaska's Safety Month

Governor Sarah Palin has proclaimed June as "Safety Month in Alaska" to coincide with the National Safety Council's annual campaign.

The summer months are active times at work and play for most Alaskans – and it's a good time to focus more attention on safety. Alaska's construction, tourism, hospitality and retail industries see big increases during the summer and it's extremely important to make sure that everyone – including seasonal workers – is trained on proper safety procedures.

Summer driving increases during Alaska's long days and that can be particularly hazardous with more motorists and more distractions.

One increasingly common distraction is talking on a cell phone while driving.

Cell phone use while driving and other forms of distracted driving account for 80 percent of all crashes, according to the nonprofit National Safety Council.

Drivers using cell phones are four times as likely to get into crashes serious enough to injure themselves, according to a 2005 study of 500 Australian drivers who ended up in emergency rooms, published in the *British Medical Journal*.

The Alaska Division of Motor Vehicles driver's manual warns: "The use of cell phones, eating, grooming, playing the radio or CD player extremely loud, or other activities while driving contributes to crashes."

The next time you're driving and reach to answer your cell phone, think about pulling over to talk instead.

Wearing seat belts is also critical for safety. Alaska law requires drivers and their passengers to wear seat belts, or, if the passengers are age 8 or younger, to be in booster or car seats. The Alaska Legislature made ignoring the seat belt law a primary offense in 2006, meaning police can pull over motorists for not wearing seat belts.

Water safety is important too. Accidents on the water are a leading problem in Alaska and by simply wearing a U.S. Coast Guard-approved life preserver, many tragedies can be avoided this summer.

Your thoughtfulness and positive attitude toward improving safety will set the example for Alaska's future generations.

For a cost-free evaluation of your work site, contact the Alaska Department of Labor and Workforce Development's Alaska Occupational Safety and Health Consultation and Training Section at (800) 656-4972. AKOSH is within the Labor Standards and Safety Division.

By Dan Robinson,
Economist

Unemployment rate climbs to 8.5 percent

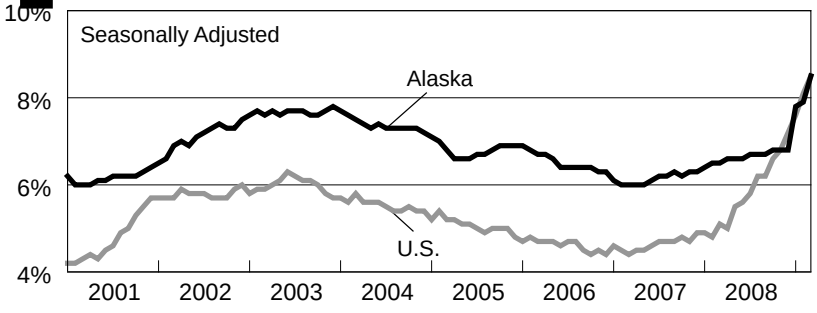
Alaska's seasonally adjusted unemployment rate rose six-tenths of a percentage point in March to 8.5 percent. The U.S. rate was also 8.5 percent in March, up four-tenths of a percentage point. (See Exhibits 1 and 3.)

Alaska still faring relatively well

Alaska's rate has been on an upward trend since hitting a low point of 6.0 percent in 2007 and has climbed two percentage points since March 2008. But nationally, the increase has been steeper, with an over-the-year jump of 3.4 percentage points.

Alaska's increase also looks relatively mild compared to most other states. At the far end of the spectrum, Michigan had the nation's highest March unemployment rate at 12.6 percent, up from 7.6 percent a year earlier. Oregon's 12.1 percent rate was the second highest, up dramatically from March 2008's 5.5 percent. California's 11.2 percent March rate was also way up from the year-ago rate of 6.4 percent.

1 Unemployment Rates, Alaska and U.S.
January 2001 to March 2009



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

Payroll growth slipping, but still positive

March estimates showed over-the-year growth of 2,100 payroll jobs, or 0.7 percent. (See Exhibit 2.) That's down from an average growth rate of 1.4 percent in 2008, but the national numbers are significantly worse, with an over-the-year decline of 4.9 million jobs in March, a drop of 3.6 percent.

The recession has already touched nearly every state

The current recession's breadth is one of several things that makes it different from the last few. During the recessions of 2001 and 1990-91, and even the severe recession of 1980-82, there were parts of the country that continued to grow despite the overall national downturn. That's something that looks increasingly unlikely this time.

In 2002, the nation lost nearly 1.5 million jobs,[1] but 12 states, including Alaska, still registered job growth that year.

By that yardstick, the recession of 1990-91 was even milder. Nearly half of the states – again including Alaska – didn't suffer net job losses in either 1991 or 1992. Contrast that with the more severe recession of 1980-82 when only eight states, Alaska among them, avoided a year with net job losses.

In the current recession, 30 states already lost jobs on an annualized basis in 2008 and all but three – Alaska, Louisana and North Dakota – were below year-ago levels in March.

[1] Calculated as the average monthly job count for 2002 compared to the average monthly job count for 2001; using this measure, job losses lag the official dates of the recession

2 Nonfarm Wage and Salary Employment

Alaska	Preliminary 3/09	Revised 2/09	Revised 3/08	Changes from: 2/09	Changes from: 3/08
Total Nonfarm Wage and Salary[1]	310,500	309,100	308,400	1,400	2,100
Goods-Producing[2]	41,600	41,100	41,200	500	400
Service-Providing[3]	268,900	268,000	267,200	900	1,700
Natural Resources and Mining	15,700	15,500	14,700	200	1,000
Logging	200	200	200	0	0
Mining	15,600	15,500	14,500	100	1,100
Oil and Gas	13,100	13,000	12,400	100	700
Construction	14,200	14,000	14,500	200	-300
Manufacturing	11,700	11,600	12,000	100	-300
Wood Product Manufacturing	400	400	400	0	0
Seafood Processing	8,200	8,300	8,300	-100	-100
Trade, Transportation, Utilities	61,500	60,600	61,300	900	200
Wholesale Trade	6,300	6,200	6,300	100	0
Retail Trade	34,800	34,100	34,600	700	200
Food and Beverage Stores	6,200	6,000	6,200	200	0
General Merchandise Stores	9,600	9,400	9,300	200	300
Transportation, Warehousing, Utilities	20,400	20,300	20,400	100	0
Air Transportation	6,000	5,900	6,200	100	-200
Truck Transportation	3,200	3,100	3,000	100	200
Information	7,100	7,100	6,900	0	200
Telecommunications	4,600	4,700	4,300	-100	300
Financial Activities	14,400	14,400	14,500	0	-100
Professional and Business Services	24,700	24,700	24,700	0	0
Educational[4] **and Health Services**	38,100	38,300	37,500	-200	600
Health Care	27,400	27,600	27,000	-200	400
Leisure and Hospitality	28,000	27,600	27,800	400	200
Accommodations	6,600	6,300	6,400	300	200
Food Services and Drinking Places	17,400	17,300	17,700	100	-300
Other Services	11,200	11,100	11,200	100	0
Government	83,900	84,200	83,300	-300	600
Federal Government[5]	16,300	16,100	16,400	200	-100
State Government	25,700	25,700	25,300	0	400
State Government Education[6]	7,900	7,900	8,000	0	-100
Local Government	41,900	42,400	41,600	-500	300
Local Government Education[7]	24,000	24,400	24,000	-400	0
Tribal Government	3,600	3,500	3,300	100	300

Notes for Exhibits 2 and 4:

[1] Excludes the self-employed, fishermen and other agricultural workers, and private household workers; for estimates of fish harvesting employment, and other fisheries data, go to labor.alaska.gov/research/seafood/seafood.htm

[2] Goods-producing sectors include natural resources and mining, construction and manufacturing.

[3] Service-providing sectors include all others not listed as goods-producing sectors.

[4] Private education only

[5] Excludes uniformed military

[6] Includes the University of Alaska

[7] Includes public school systems

[8] Fairbanks North Star Borough

Sources for Exhibits 2 and 3: Alaska Department of Labor and Workforce Development, Research and Analysis Section; U.S. Department of Labor, Bureau of Labor Statistics
Sources for Exhibit 4: Alaska Department of Labor and Workforce Development, Research and Analysis Section; also the U.S. Department of Labor, Bureau of Labor Statistics, for Anchorage/Mat-Su

3 Unemployment Rates By borough and census area

	Prelim. 3/09	Revised 2/09	Revised 3/08
SEASONALLY ADJUSTED			
United States	**8.5**	**8.1**	**5.1**
Alaska Statewide	**8.5**	**7.9**	**6.5**
NOT SEASONALLY ADJUSTED			
United States	**9.0**	**8.9**	**5.2**
Alaska Statewide	**9.3**	**9.2**	**7.0**
Anchorage/Mat-Su Region	**8.1**	**7.8**	**6.0**
Municipality of Anchorage	7.2	7.0	5.4
Mat-Su Borough	11.3	11.0	8.5
Gulf Coast Region	**11.9**	**11.9**	**9.1**
Kenai Peninsula Borough	12.7	12.8	9.5
Kodiak Island Borough	7.6	6.9	5.7
Valdez-Cordova Census Area	13.1	13.7	10.9
Interior Region	**9.4**	**9.6**	**7.1**
Denali Borough	17.2	18.4	13.4
Fairbanks North Star Borough	8.3	8.5	6.1
Southeast Fairbanks Census Area	13.1	13.2	10.9
Yukon-Koyukuk Census Area	17.8	17.5	15.7
Northern Region	**9.8**	**9.5**	**8.3**
Nome Census Area	13.0	12.7	9.9
North Slope Borough	5.1	4.8	4.3
Northwest Arctic Borough	13.7	13.1	12.7
Southeast Region	**10.7**	**10.8**	**7.7**
Haines Borough	18.3	18.6	13.5
Juneau Borough	7.3	7.1	4.9
Ketchikan Gateway Borough[1]	10.4	10.7	7.0
Prince of Wales-Outer Ketchikan CA[1]	22.2	23.4	16.7
Sitka Borough	8.2	8.1	6.2
Skagway-Hoonah-Angoon CA[1]	27.3	29.3	21.0
Wrangell-Petersburg Census Area[1]	15.7	16.0	13.8
Yakutat Borough	18.7	17.4	10.7
Southwest Region	**13.8**	**13.8**	**11.3**
Aleutians East Borough	8.1	8.0	6.9
Aleutians West Census Area	4.1	4.4	2.9
Bethel Census Area	16.5	16.7	14.0
Bristol Bay Borough	16.2	16.7	13.3
Dillingham Census Area	13.0	13.4	9.8
Lake and Peninsula Borough	13.2	12.8	9.5
Wade Hampton Census Area	24.6	24.5	20.9

[1] Because of the creation of new boroughs, this borough or census area has been changed or no longer exists. Data for the new borough and census areas will be available in 2010. Until then, data will continue to be published for the old areas.

4 Nonfarm Wage and Salary Employment By region

	Preliminary 3/09	Revised 2/09	Revised 3/08	Changes from: 2/09	Changes from: 3/08	Percent Change: 2/09	Percent Change: 3/08
Anch/Mat-Su	167,800	167,600	166,000	200	1,800	0.1%	1.1%
Anchorage	149,800	149,200	148,000	600	1,800	0.4%	1.2%
Gulf Coast	26,500	26,400	26,700	100	-200	0.4%	-0.7%
Interior	43,100	41,800	42,500	1,300	600	3.1%	1.4%
Fairbanks[8]	36,900	36,000	36,700	900	200	2.5%	0.5%
Northern	20,400	20,400	19,500	0	900	0.0%	4.6%
Southeast	33,550	32,950	33,900	600	-350	1.8%	-1.0%
Southwest	19,600	19,500	19,800	100	-200	0.5%	-1.0%

For more current state and regional employment and unemployment data, visit our Web site. We have a new address:

laborstats.alaska.gov

Employer Resources

Posters that Employers Are Required to Display

Alaska and federal laws require every employer in the state to post employment-related posters so each employee can see them every day. All the posters are free and, with one exception, are available either by downloading them from a state Web site or by requesting them via phone, email or mail.

The one exception, the Employer's Notice of Insurance poster, is available from each employer's Workers' Compensation carrier.

The law requires all employers to display 10 state and federal posters. Employers who require employees to take polygraph tests must also post the Employee Polygraph Protection Act poster, and there's an optional child labor poster.

A list of the posters is available at the Alaska Department of Labor and Workforce Development's Labor Standards and Safety Division Web site. Employers can click on the title of each poster to print it in a .pdf format.

The poster list also has contact information to call or write for the federal posters. For the state posters, contact the Wage and Hour Administration (part of Labor Standards and Safety) in Anchorage at (907) 269-4900, in Juneau at (907) 465-4855 and in Fairbanks at (907) 451-2886; or email anchorage_lss-wh@labor.state.ak.us.

To download the posters or for more information, go to the Labor Standards and Safety Web site at labor.alaska.gov/lss and click on "Posters" on the right, or go to labor.alaska.gov/lss/posters.htm.

The posters are also available by going to the Department of Labor Web site at labor.alaska.gov. Click on "Employers" in the gold ribbon at the top, then "Employment-Related Posters."

You may also get to the Labor Standards and Safety Web site by going to the State of Alaska Web site at alaska.gov, clicking on "Departments" in the gold ribbon at the top, then "Labor and Workforce Development," and finally "Labor Standards and Safety."

Employer Resources

ALEXsys – Working for Employers

Employers in June will be able to search ALEXsys, the Alaska Labor Exchange System, for job seekers with a particular certification, license endorsement or academic degree, among other things.

Employers will also be able to list a requirement for specific credentials when they advertise job openings on ALEXsys, the Web-based system (at jobs.alaska.gov) that's part of the Alaska Job Center Network, a network of the state's 23 job centers.

The credentialing project is an integral part of the Alaska Gasline Inducement Act Training Strategic Plan, which gives the Alaska Department of Labor and Workforce Development the ability to track and report on specific credentials and identify training gaps. It's also part the Department of Labor's goal of continually improving and enhancing ALEXsys.

The credentialing project is in phases. Job seekers have been able to enter their certification information into the system since April. They've been able to enter the following:

- Professional licenses, certifications and endorsements
- Educational degrees
- Trade-level distinctions, such as master, journeyman and apprentice
- Recognition if the credential is recognized in Alaska

ALEXsys' "Veterans Virtual Recruiter" is also new. Veterans in the past have been notified of job openings they qualify for a day before those openings are released to the public, following a federal mandate called "Priority of Service to Veterans." The Veterans Virtual Recruiter simply makes that process automated.

It alerts veterans when ALEXsys receives the job orders – announcements of job openings from employers – the veterans qualify for. The veterans can receive the alerts by email or they can go to a system message center. Then those job orders are available to the public one to two days after the veterans are notified.

If you're an employer who's not familiar with ALEXsys, it can help you:

- Post your company's job openings online
- View resumes of Alaskans with skills that match your needs
- Find out more about labor market information in your area
- Find answers to workplace questions and resources for workplace issues

If you'd like help with ALEXsys, call or stop by an Alaska Job Center. Call (877) 724-ALEX (2539), or, for locations, go to jobs.alaska.gov on the Web and click on "Alaska Job Centers" on the left.