

ALASKA ECONOMIC **TRENDS**

MAY 2013

Alaska's Mining Industry

WHAT'S INSIDE

A look at new resident workers

What drives other states' unemployment



ALASKA DEPARTMENT OF LABOR
& WORKFORCE DEVELOPMENT

Sean Parnell, Governor

Dianne Blumer, Commissioner

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On the cover: Miners ascend the summit of Chilkoot Pass in 1898. Photo courtesy of the Alaska State Library, Winter and Pond Collection

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Recent Alaska legislation, programs support mining industry



**By Dianne Blumer,
Commissioner**

This month's *Trends* focuses on the economic impact of Alaska's mining industry, which has grown from 1,500 jobs in 2005 to more than 3,500 last summer. Although nowhere near the 1916 peak of almost 8,600 miners in the state, the industry has experienced remarkable growth.

Gov. Sean Parnell signed legislation in April establishing May 10 as Alaska Mining Day, recognizing the enormous role played by miners and the mining industry, which has created opportunities for Alaska families for generations. The day will be celebrated for the first time this month.

The Alaska Legislature passed Gov. Parnell's legislation to reform Alaska's oil tax system to attract new investment and increase production on the North Slope. The Legislature also passed the governor's Interior Energy Plan, which will provide cheaper energy to the Interior and Alaska's road and river communities and help provide the energy needed for responsible resource development.

House Bill 129 and Senate Bill 27, the governor's permitting legislation passed by the Legislature, will give Alaskans more say over the permitting process.

Two other recent laws also support the mining industry. The Alaska Minerals Commission, which was created in 1986 and due to sunset in early 2014, was extended through 2024. The commission makes recommendations on ways to mitigate constraints on mineral development in the state.

SB2 authorized the state to join and participate in the Interstate Mining Compact Commission, which is a collective national voice of mining states.

Many of the jobs in the highly competitive mining industry require specialized skills, but the industry also provides highly competitive salaries — the industry's annual average is \$98,000, up from more than \$80,000 in the early 2000s.

One current workforce development program is supporting training to increase local hire in entry-level positions in Alaska's mining industry. Under a partnership with the Alaska Department of Labor and Workforce Development, NANA Management is training drillers' helpers as well as camp cooks and bakers. When their training in Kotzebue and Anchorage is complete, NANA will hire the 22 participants to work at NOVA Copper in Northwest Alaska's Ambler District.

Through its Alaska Youth First program, the department helps support externships for Alaska secondary teachers. The teachers are placed with oil, gas, mining, energy, water, and related construction industries. Through their own learning experiences, the teachers can make their students' learning more relevant to the 21st century workplace.

Tax credits for vet-hire

On the back page, employers who hire veterans and members of some nonveteran target groups are eligible for federal Work Opportunity Tax Credits through 2013.

Nonveteran target groups are vocational rehabilitation referrals, recipients of Temporary Assistance for Needy Families, recipients of Supplemental Nutrition Assistance Program, recipients of Supplemental Security Income, and ex-offenders.

Employees must work at least 120 hours in the first year for employers to receive credits of \$1,200 to \$9,600, depending on each qualified new hire.

Employers are also entitled to a state tax credit for hiring veterans with qualifying employment, which includes the veterans having been unemployed for more than four weeks, among other qualifiers. For more information about the federal or state credits, go to Jobs.Alaska.Gov/veterans/veteran-tax-credits.pdf, e-mail dol.wotc@alaska.gov, or call (907) 465-5952.

Alaska's Mining Industry

Strong growth in jobs, wages, and production value

Alaska's mining industry¹ has been a stand-out over the last decade for its job and wage growth, and the production value of its minerals climbed from less than \$1 billion in 2001 to \$3.5 billion in 2011. The gains have come from new mines as well as expanded operations at existing mines, and increasing exploration and development spending suggest more growth in the future.

Production values rose substantially in 2006 when zinc prices doubled, and surges in gold and

¹Mining as an industry classification includes oil and gas as well as minerals, but for this article, "mining" excludes oil and gas.

silver prices helped drive values to a record high in 2011. (See Exhibit 1.)

The state's most high-value concentrates are zinc, gold, lead, and silver, with zinc and lead as its two leading exports. (See Exhibit 2.) Alaska's other mined minerals include sand and gravel for building roads, a variety of gemstones and semiprecious stones, and coal. (See the sidebar on page 9 for a list of products and their industrial uses.)

Mining's geology and geography

The state's vast acreage and complex geologic history have created the perfect recipe for mineral deposits in every region of the state.

Generations of mountain formation, volcanic activity, and an ideal blend of temperature, pressure, and liquid in the earth's crust laid the foundation for large mining operations in all of the state's economic regions except Southwest and the Gulf Coast, although those areas have some mining history as well. Many out-of-the-way towns were founded on historic mines, such as Homer coal seams and Nome, the quintessential gold rush town.

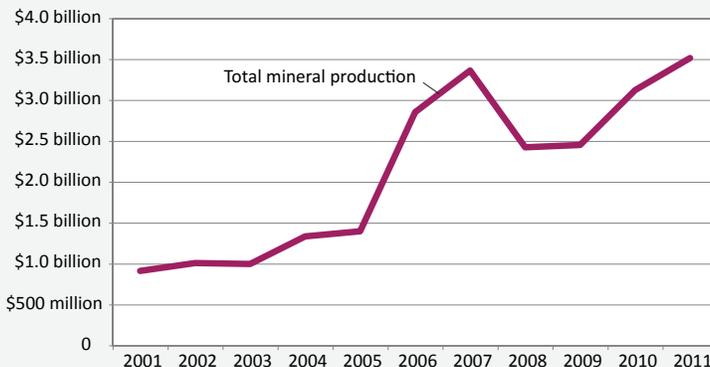
A century of ups and downs

The Klondike Gold Rush was old news by 1913, when the mine inspector for the Territory of Alaska reported to the U.S. Department of the Interior:

"During the year there was an oversupply of labor in all but the most remote parts of the Territory. This condition was due in part to the prominence given to Alaskan affairs by the press of the States, which led people to believe that there was work in abundance."

1 Estimated Production Hits \$3.5 Billion

Alaska minerals, 2001 to 2011



Source: Alaska Department of Natural Resources, Division of Geologic and Geophysical Surveys

2 Zinc is Alaska's Highest-Value Mineral Export

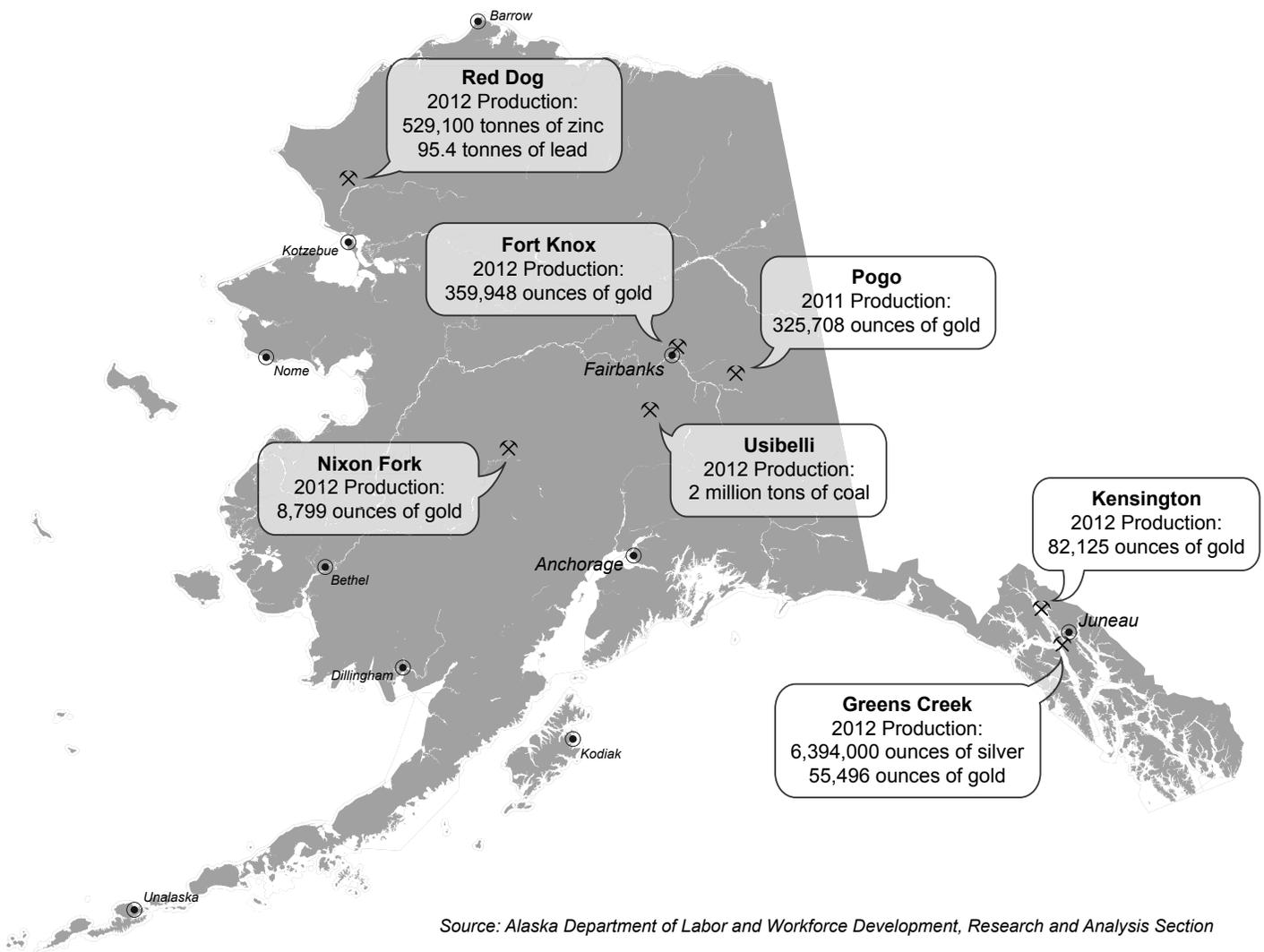
Select minerals, 2009 to 2012

Rank	Description	2009 value	2010 value	2011 value	2012 value
1.	Zinc ores and concentrates	\$610 million	\$877 million	\$972 million	\$807 million
2.	Lead ores and concentrates	\$160 million	\$402 million	\$495 million	\$442 million
9.	Copper ores and concentrates	\$64 million	\$37 million	\$199 million	\$169 million
14.	Precious metal ores/concentrates, exc silver	—	\$20 million	\$142 million	\$108 million
18.	Gold, nonmonetary, unwrought	\$151 million	\$213 million	\$266 million	\$82 million

Source: U.S Census Bureau, <http://www.census.gov/foreign-trade/statistics/state/data/ak.html>

3 Alaska's Major Mines

Amount and type of production



The three years that followed were the most productive in Alaska's pre-Prudhoe Bay history, a record we are approaching for 2012.

The number of miners in Alaska peaked in 1916 at 8,590, with wages ranging from \$3 per shift minus a \$1 board charge in Southeast to \$5 per shift with free board in Nome during the high season.

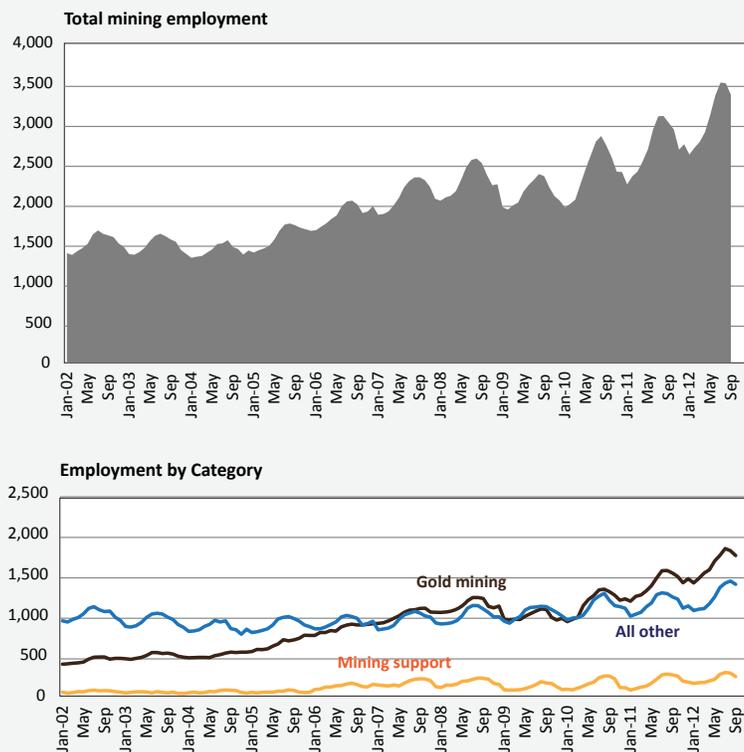
As the century went on, mine disasters, fixed gold prices, and global war took a toll on the industry. By statehood in 1959, the mining workforce dwindled to 1,700, and with the beginning of the petroleum era in the 1960s, Alaska mining employment remained depressed until the recent upturn began in 2006.

In 2012, Alaska ranked sixth in the United States for production value behind Nevada, Arizona, Minnesota, Florida, and California and was responsible for 4.58 percent of domestic nonfuel mineral production value.

Most of Alaska's production comes from six main mines, shown in Exhibit 3. A seventh, Nixon Fork, began to ramp up commercial production in 2011.

Mining's economic reach extends outside these large operations as well. The Department of Natural Resources' Division of Geologic and Geophysical Surveys also reports on placer and non-employer mining operations — "mom and pop" Alaska mines — which lends some insight into

4 Growth in Monthly Mining Employment Alaska, 2002 to 2012



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

economic activity not reported in the Department of Labor’s jobs data. Alaska has 45,000 active state mining claims, 441 state prospecting sites, and 8,745 federal claims as of 2010. In 2010, 225 placer operations produced 69,318 ounces of gold. Recreational mining employment and guiding isn’t tracked, but it’s a niche activity for visitors and locals enjoying Alaska’s outdoors.

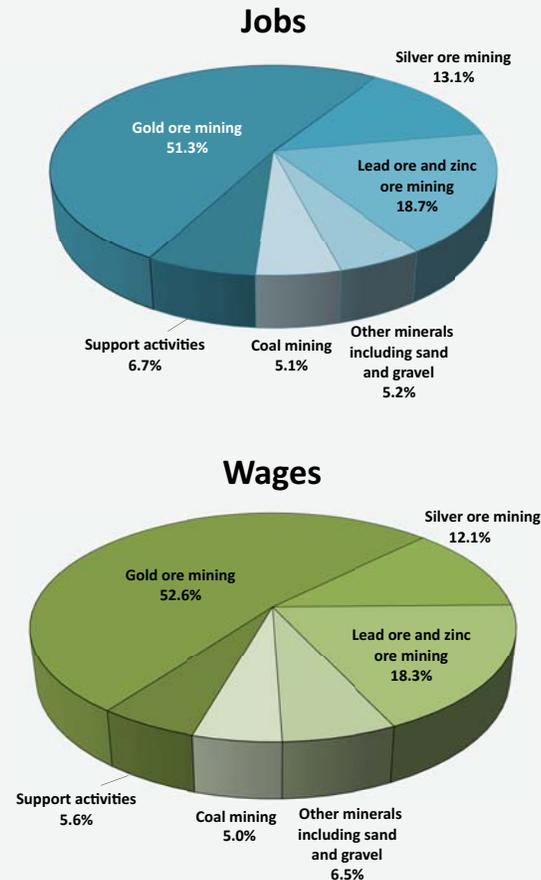
Jobs double in a decade

Mining jobs hovered around the 1,500 level until 2005 before beginning a strong growth streak that pushed industry jobs past the 3,500 mark in July 2012. (See Exhibit 4.)

Alaska metal mining employment makes up 5.5 percent of the U.S. total, and 10.4 percent of all U.S. gold jobs are in Alaska. Gold mines provide over half the state’s mining jobs and wages, and are responsible for most of the industry’s growth in the past few years. (See exhibits 4 and 5.)

Two new operations, Kensington Mine in South-

5 Jobs, Wages by Mineral Alaska mining, 2011



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

east Alaska and Nixon Fork in Interior Alaska, contributed much of the job growth.

Wage growth and high pay

Mining’s share of private-sector wages grew from 1.2 to 2.1 percent between 2002 and 2011. Firms paid over two-and-a-half times more in total wages in 2012 than they paid in 2002, or 175 percent more when adjusted for inflation. (See Exhibit 6.)

Average wages also increased 22 percent from 2002 to 2011, significantly more than the 8 percent growth for private-sector wages overall. (See Exhibit 7.) Adjusted for inflation, average wages in the early 2000s were over \$80,000 a year — well above the state average — and reached \$98,000 by 2011.

Part of the wage increase is likely due to seasoned miners earning raises and bonuses, making payrolls more “top heavy” until those workers retire. Among resident miners, 15 percent were over age 55 in 2011, and close to 40 percent were over 45. (See Exhibit 8.)

One reason for the high average pay is the difficulty of the job and the special demands of working in remote locations. Many of the occupations require highly skilled workers who operate specialized machinery or heavy equipment. (See Exhibit 9.)

Mining workforce characteristics

Most resident mining workers are male. Women made up just 12.4 percent of Alaska’s mining workforce in 2011 and received 9.4 percent of resident wages. (See Exhibit 8.)

Much of the state’s mining workforce also commutes to remote work sites. Though some of today’s large mines are close to populated Railbelt areas, many jobs are far-flung. (See Exhibit 10.) Like North Slope oil workers, mining workers often live on-site in firm-provided lodging and work atypical shifts ranging from two weeks to several days.

Because of relatively low-cost commuting and remote company housing, towns are neither viable nor necessary near modern mines. In 2011, just 41 percent of mine workers were residents of the borough or census area where they worked.

Greater demand for labor

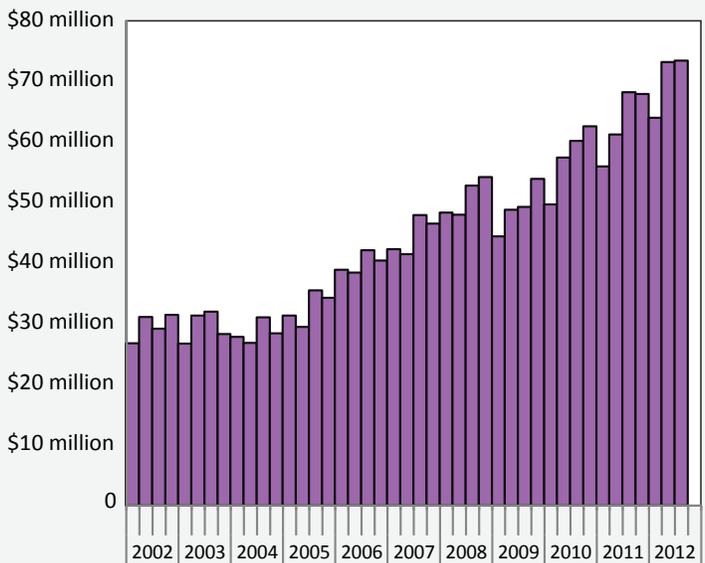
With increased mining activity, the need for skilled employees has increased and so has the number of nonresidents hired to fill those jobs.

The early 2000s were marked by a steady share of nonresident workers at around 20 percent, but the rate jumped in 2005 and has remained elevated ever since. In 2011, 35 percent of mining workers were nonresidents. Although the percentage of nonresident workers has increased, the number of resident jobs has also increased, so Alaskans are filling some of the additional demand for workers.

One of the most frequently cited reasons for hiring nonresidents in mining and other industries

6 Total Wages by Quarter

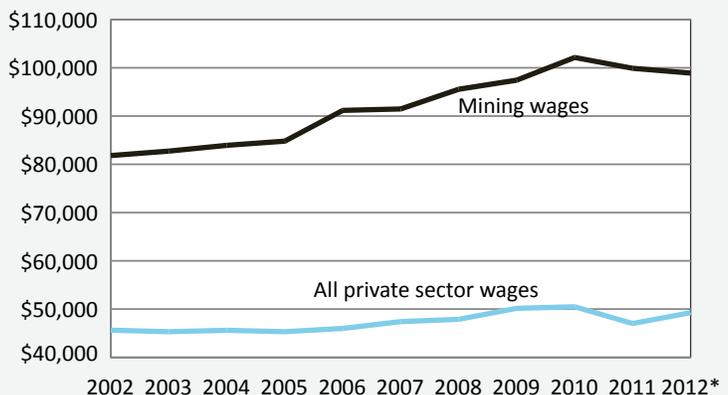
Alaska mineral mining, 2002 to 2012



Note: All values are in 2012 dollars.
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

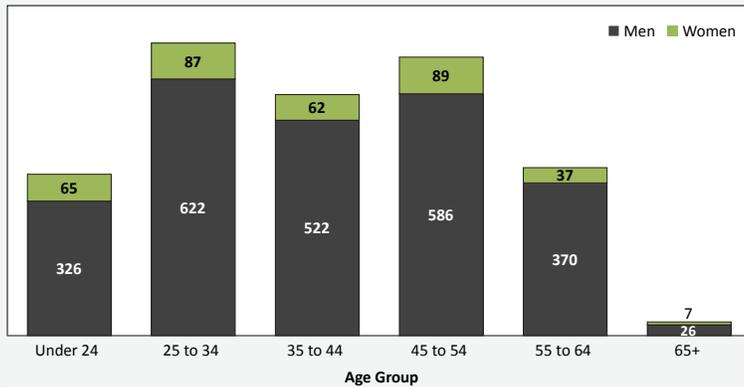
7 Average Wages Rise

Alaska mining vs. all private, 2002 to 2012



*Preliminary
Note: All values are in 2012 dollars.
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

8 Resident Mining Workers by Age, Sex Alaska, 2011



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

is the lack of workers in the state who are trained and willing to fill the vacancies. Another likely explanation for the relatively high nonresident rate is that mining companies are often based in other states and countries and benefit from using

their existing workers rather than rehiring locally.

Government work

Although most mining is private-sector, it creates government jobs in Alaska as well. State universities, state geologists, and federal departments are responsible for surveying and geologic analysis in Alaska. Agencies that map Alaska's natural resources provide public information crucial for mining and exploration firms.

Mining creates jobs in regulation as well as research. Like construction and fishing, mining affects public resources such as air and water and is therefore regulated, requiring unbiased state and federal scientists, land managers, and resource specialists.

Regulation becomes more complicated when mining takes place on public property, creating a bigger workload for those who issue permits, enforce environmental compliance, litigate over rights, and collect taxes.

9 Top 20 Occupations in Mining Alaska, 2011

	Total wages	Number of workers	Percent nonresident	Average monthly wage	Occupational outlook, all industries (see key below)
Mining Machine Operators, All Other	\$34,315,000	600	33%	\$5,063	growth moderate, openings moderate
Miners, Except Drillers and Machine Operators	\$33,726,000	419	55%	\$4,726	growth strong, openings moderate
Extraction Workers, All Other	\$14,833,000	258	45%	\$4,726	growth strong, openings moderate
Millwrights	\$18,938,000	205	34%	\$5,488	growth strong, openings low
Construction Laborers	\$5,360,000	161	17%	\$3,859	growth moderate, openings very high
Mining and Geo Engineers, Incl Mining Safety Engrs	\$8,796,000	134	46%	\$8,623	growth strong, openings low
Earth Drillers, Except Oil and Gas	\$4,288,000	124	66%	\$4,298	growth low, openings low
Mechanics, Mine Machinery	\$10,642,000	111	36%	n/a	n/a
Mine Cutting and Channeling Machine Operators	\$5,572,000	86	72%	n/a	growth strong, openings low
Plant and System Operators, All Other	\$5,544,000	71	11%	\$5,928	growth moderate, openings low
1st-Line Supervisors of Mechanics, Installers, Repair	\$7,738,000	68	26%	\$6,371	growth low, openings high
Excavating and Loading Machine and Dragline Oper	\$2,734,000	65	46%	\$5,309	growth moderate, openings moderate
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	\$4,548,000	62	13%	\$4,493	growth strong, openings low
Mobile Heavy Equipment Mechanics, Except Engines	\$4,900,000	61	36%	\$5,433	growth moderate, openings high
Electricians	\$5,436,000	60	47%	\$6,003	growth low, openings very high
Maintenance Workers, Machinery	\$4,154,000	51	22%	\$4,734	growth low, openings moderate
Heavy and Tractor: Trailer Truck Drivers	\$2,149,000	47	4%	\$4,171	growth low, openings very high
Drilling and Boring Mach Tool Setters, Oper and Tenders, Metal and Plastic	\$1,711,000	41	63%	n/a	growth moderate, openings low
Geoscientists, Except Hydrologists and Geographers	\$3,011,000	41	49%	\$8,697	growth low, openings high
Laborers and Freight, Stock, and Matl Movers, Hand	\$1,900,000	40	18%	\$2,853	growth low, openings very high

Openings	
Very high	300 openings or more in this occupation
High	At least 130 but fewer than 300 openings in this occupation
Moderate	At least 80 but fewer than 130 openings in this occupation
Low	Fewer than 80 openings in this occupation

Employment growth	
Robust	21% growth or more over the 10-year forecast
Strong	At least 15% but less than 21% growth
Moderate	At least 10% but less than 15% growth
Low	Less than 10% growth over the 10-year forecast

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

Alaska's historical mined minerals

Name/ Symbol	Mineral Summary
Gold (Au)	Gold has been mined in Alaska since the 1880s. Sixty-six percent of U.S. gold is used for jewelry, and other uses include electronics, currency, and dental applications.
Lead (Pb)	Minor amounts of lead have been mined in Alaska since the 1880s. Except for a brief swell in the late 1920s, production growth started in 1989. Most lead is used in acid-lead batteries, which power a variety of equipment types. It is also used for ammunition and alloys such as bronze. Environmental concerns have led to a reduced role for lead in gasoline, paint additives, solder, and pipes.
Zinc (Zn)	Zinc production had a brief stint in Alaska from 1947 to 1949. Then, the 1989 opening of the Red Dog Mine raised production levels. Over half of domestic zinc is used for galvanizing. Zinc is also an important component in alloys such as bronze and brass.
Copper (Cu)	Copper production started in 1901 and peaked in 1916 with the help of the Kennecott Mine near McCarthy, slowly petering out by the 1960s. Production was minimal between 1996 and 2002. The bulk of copper is in construction and electronics, but it is also used for machinery and consumer products.
Antimony (Sb)	Used in flame retardants and shrapnel alloys, antimony production was reported from 1914 to 1918 and again in 1937. Also used in lead-acid batteries and plastic, antimony continued to be mined sporadically in Alaska until the mid-1980s.
Chromium (Cr)	Chromium is an ingredient in stainless steel and was produced in Alaska from 1942 to 1943 and 1954 to 1957 in minimal amounts.
Platinum (Pt)	Platinum was dredge-mined in Southwest Alaska and is a byproduct of copper mining. It is used in vehicles as a catalyst for air pollution abatement. Platinum's properties make it useful for many chemical and electronic technologies. It is also made into jewelry.
Tin (Sn)	Tin production was first reported in Alaska in 1902 and halted in 1993. Tin was used for tin cans, containers, and electronics. Other uses include construction, vehicles, and solder.
Mercury (Hg)	Some production of mercury, a transition metal, was reported from 1940 to 1973, though not in high economic amounts. This toxic metal was historically used in thermometers, batteries, cosmetics, and paint. Due to EPA restrictions, mercury is now mostly used for chlorine caustic soda. It occurs as a byproduct of gold mining and was once used by miners to separate gold from placer gravels.
Silver (Ag)	Silver is used for photography supplies, a declining market. Emerging medical and hygiene applications have put silver in clothing and bandages, and other demand stems from the manufacture of coins, jewelry, and soldering alloys. Alaska was the top silver producing state in the U.S. in 2012.
Coal	Coal is composed of mostly carbon, oxygen, and hydrogen and occurs in a variety of forms depending on metamorphic grade and volatile concentration. Usibelli Coal Mine produces subbituminous coal that is used as fuel for electricity generation. Alaska has produced coal in every decade since the 1880s and produces approximately 2 billion tons per year.

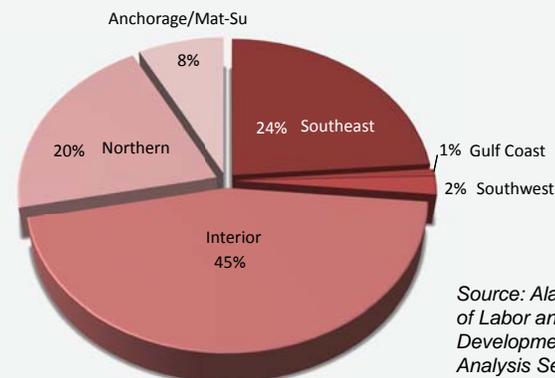
Sources: Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys; United States Geological Survey, Mineral Commodity Summaries 2009; and Alaska Department of Labor and Workforce Development, Research and Analysis Section

Exploration spending way up

Until 2003, exploration expenditures in Alaska were around \$25 to \$35 million annually. Those figures have increased dramatically in recent years, and DNR's Division of Geological and Geophysical Surveys estimates 2011 exploration expenditures at \$365 million, a tenfold increase in just eight years.

Mineral prices are volatile, though, so nothing is certain in terms of future industry growth. Gold prices soared during the 2007-09 recession as purchasers rushed to it as a safe investment. Production of gold drove much of the recent surge in Alaska employment as well, but mines have long

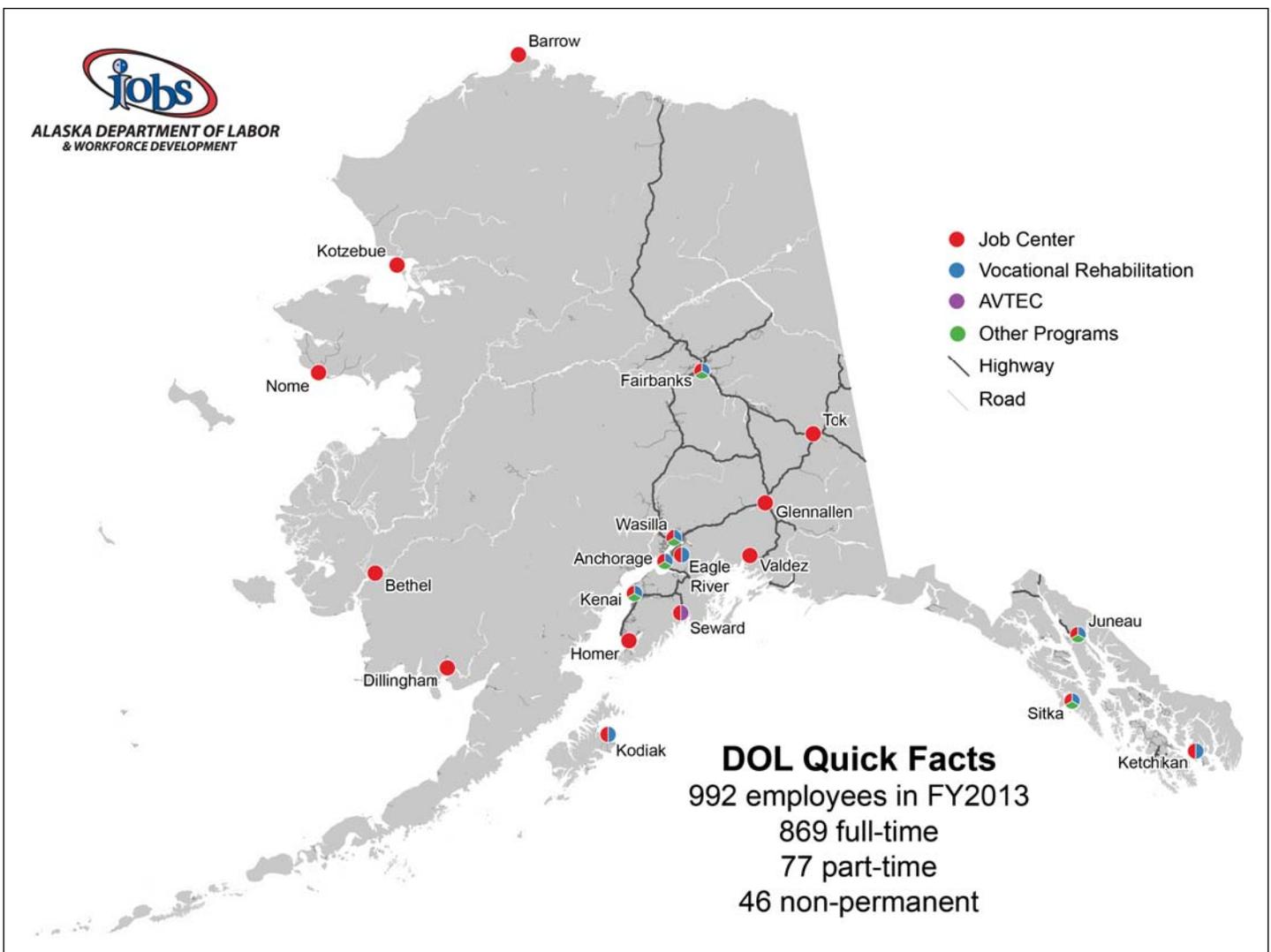
10 Most Mining Jobs are Remote Alaska regions, 2011



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

planning stages — it can take decades from discovery of an ore deposit to commercial production — so the exact effect high prices had on that growth is unclear. The outlook for Alaska’s mining economy can’t be solely tied to large and recent market fluctuations.

Much of Alaska’s mineral potential is in industrial minerals such as zinc, copper, and even the lesser-known “rare earth elements.” Despite the recession’s impact on the global economy, demand has grown for minerals used in a variety of consumer goods, from toasters to smart phones.



A Look at New Resident Workers

Jobs and wages of nonresidents who stay in Alaska

Alaska is one of the most remote states and it has the nation's most transient population — as a proportion of the state total, more people move in and out than in any other state. This highly migratory population is closely linked to the state's labor market, since many migrants are part of Alaska's workforce.

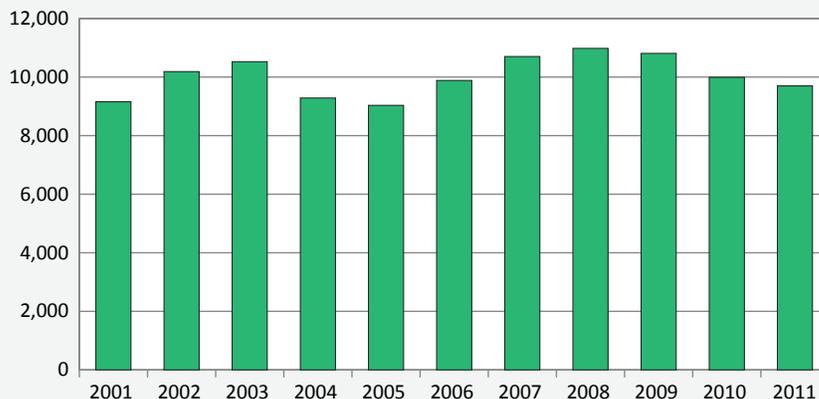
Many things lure people to Alaska, including jobs, the military, adventure, or friends and family. One way to understand what draws new people to Alaska is to examine the kind of work they do when they get here. Identifying all workers who are new Alaskans is impossible, but it is possible to capture a subset of new Alaska workers by examining those who were classified as nonresidents in one year and became residents the next.

Since 2001, around 10,000 nonresident workers a year became resident workers in the next year. (See Exhibit 1.) These new residents accounted for about 14 percent of the previous year's nonresident worker population.

Throughout the past decade, the number of new resident workers has remained fairly constant, with changes in the level correlated to the health of Alaska's economy and labor market.

Comparing the number of new resident workers to a two-year lag of Alaska's average annual unemployment rate reveals a relationship between Alaska's economy and the new workers who make their home here. Although some workers may be nonresidents for many years before deciding to settle in Alaska, most workers who become residents begin living and working in the state with the intention of staying — but they typically have to wait two years before qualifying for a PFD.

1 Nonresident Workers Who Became Residents Alaska, 2001 to 2011



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

Because of this lag, the number of new resident workers increases two years after periods of low or declining unemployment in Alaska. Similarly, the number of new resident workers typically declines two years after periods of rising unemployment.

This trend suggests new residents are drawn to Alaska while its economy is faring well and demand for labor is stronger. Conversely, when Alaska's economy softens and the number unemployed increases, workers from Outside are less likely to move to the state and stay.

What new residents do

New residents work in all of Alaska's major industry groups, but they are more heavily concentrated in some industries. (See Exhibit 2.) For the most part, new residents and all residents are distributed across industries in similar proportions.

In 2011, the highest concentration of new

residents was in the trade, transportation, and utilities industry, followed by private education and health.

Exhibits 3 and 4 show the numbers and percentages by industry of nonresident workers in 2010 who became residents in 2011. State government had the highest rate of conversion to residency followed by local government; finance, insurance, information, and real estate; and private education and health care. Although the level of new resident workers wasn't as high in these industries, these jobs tend to be less seasonal and higher-paying. (See Exhibit 6.)

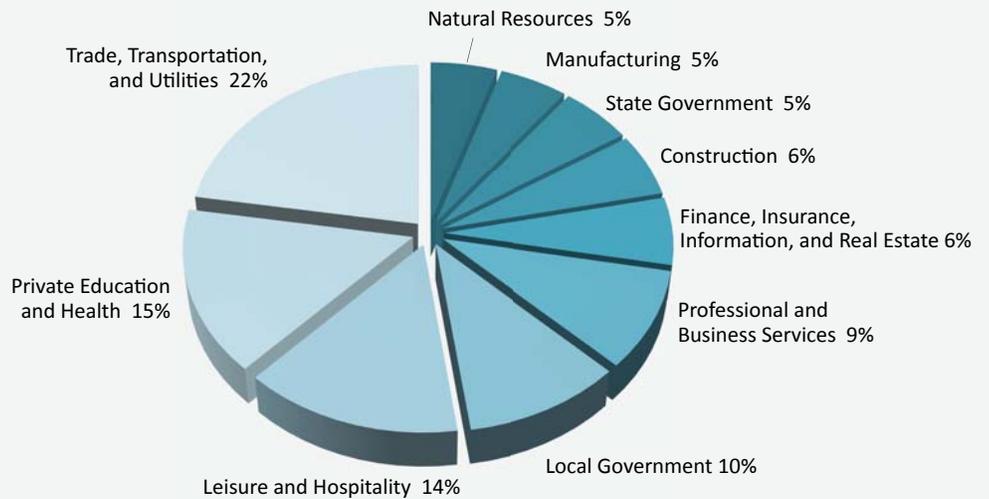
New resident workers are young

New resident workers are younger on average than all resident workers. The largest age group among new residents in 2011 was 25 to 29, and the number of new resident workers visibly tapers with age. (See Exhibit 5.)

Younger workers are typically more mobile, and many are looking for work after completing college or job training.

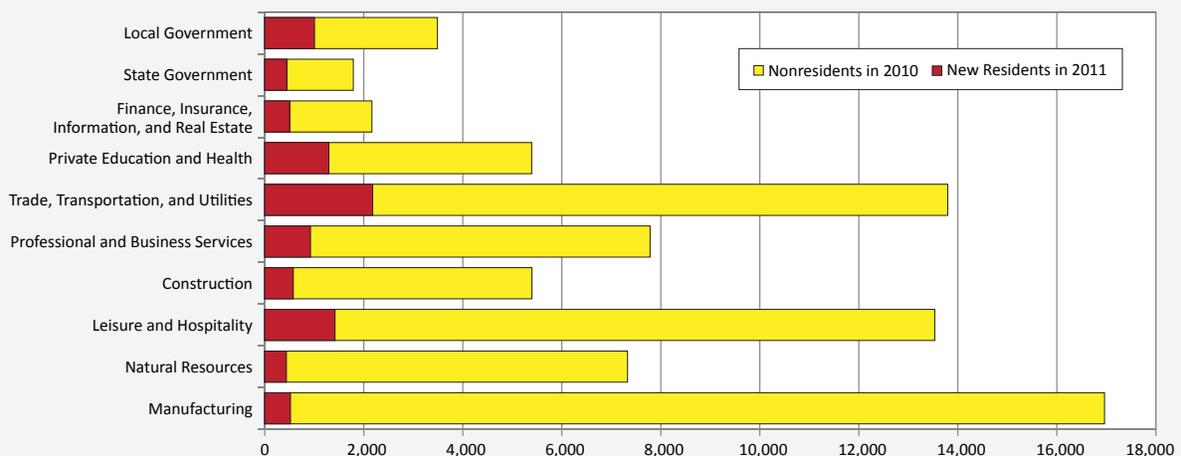
The population of all resident workers, on the other hand, has a bulge of younger workers ages 20 to 29, and a bulge of working baby boomers between 45 and 59. The average age in 2011 for all resident workers was 39, and the average for new resident workers was 35.

2 New Resident Workers by Industry Alaska, 2011



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

3 Nonresident Conversion by Industry, Number of Workers Alaska, 2010 to 2011



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

About the data

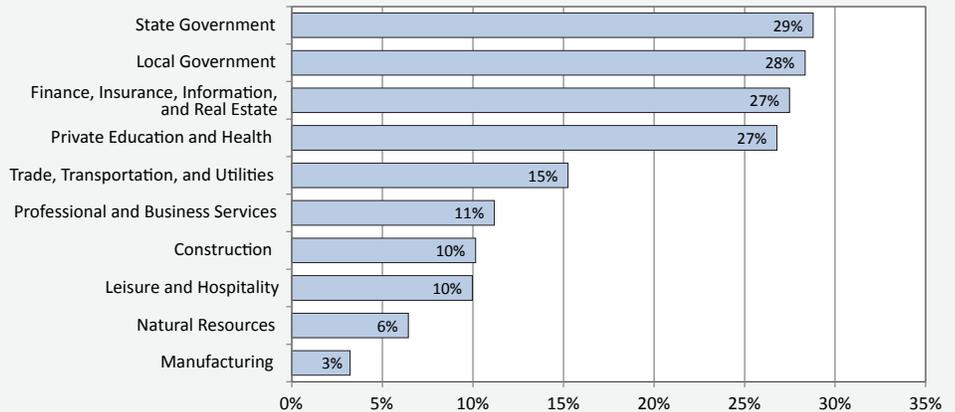
Alaska has a unique set of databases that can track workers by industry, occupation, and region as well as identify their Alaska residency status as determined by Permanent Fund Dividend eligibility. Because at least one complete calendar year of living in Alaska is required to qualify for a PFD, many workers who move to Alaska and weren't previously residents spend at least two years classified as nonresidents.

There are likely other new workers who were not classified as nonresidents the prior year. These could include college graduates who did not relinquish their Alaska residency while attending college out of state and ex-military workers who kept their Alaska residency while stationed elsewhere, then returned to Alaska after retirement. There may also be new residents who did not work in Alaska while they were establishing residency, so were never classified as a non-resident Alaska worker.

Qualification to apply for a PFD is not the only measure of residency in Alaska, but it has been determined to be the most comprehensive. Voter registration, motor vehicle registration, driver's licenses, and fishing/hunting licenses have significant definitional weaknesses in residency eligibility requirements, quality of data, or percent of the working population contained in the respective files. The PFD provides the applicant with a monetary incentive to complete the form and a penalty for providing false information and is, overall, an excellent measure of residency.

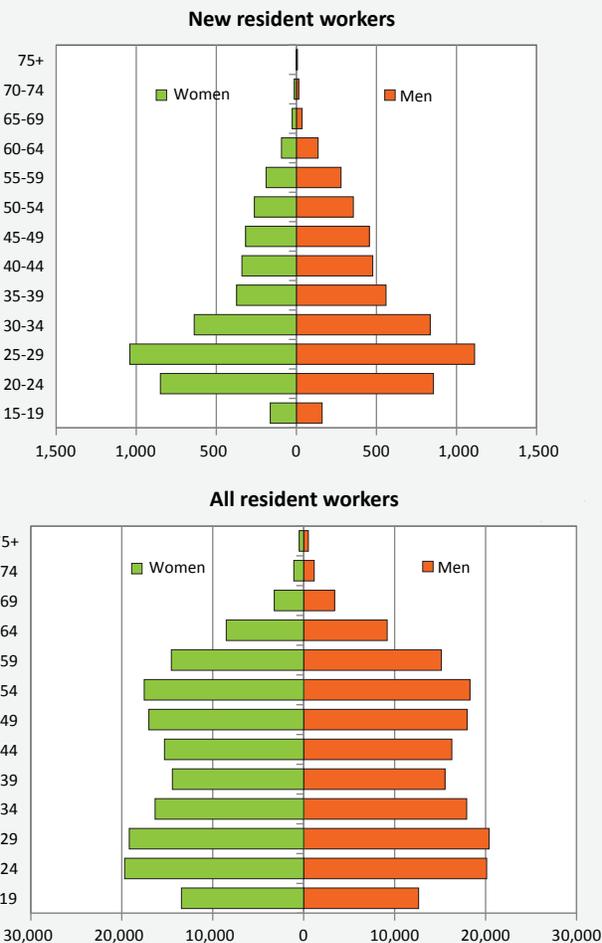
It is also important to note these data don't include federal employees and the self-employed. Although federal employees will not appear in this study, they likely make up a considerable share of new resident workers because federal jobs recruit nationally.

4 Percent By Industry Who Became Residents Alaska, 2010 to 2011



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

5 New Resident Workers Young Alaska, age and sex distribution, 2011



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

6 Top Occupations for New Residents

Alaska, 2011

Occupation Title	Resident Workers	Nonresident Workers	New Resident Workers	Average Quarterly Resident Earnings
Retail Salespersons	11,672	2,587	428	\$5,388
Seafood Processing Workers, Except Surimi and Fish Roe	3,252	13,045	284	\$5,339
Cashiers	9,285	1,652	273	\$4,760
Waiters and Waitresses	3,829	1,568	223	\$4,981
Registered Nurses	4,672	1,068	183	\$15,577
Combined Food Preparation and Serving Workers, Including Fast Food	5,565	1,316	178	\$3,842
Office and Administrative Support Workers, All Other	6,726	833	164	\$8,967
Construction Laborers	5,929	1,292	156	\$9,490
Office Clerks, General	6,421	987	149	\$7,497
Food Preparation Workers	3,869	1,126	133	\$3,938
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	5,717	944	128	\$5,767
Maids and Housekeeping Cleaners	3,502	1,702	128	\$5,200
Sales and Related Workers, All Other	2,830	531	120	\$7,994
Personal Care Aides	4,285	487	114	\$6,036
Elementary School Teachers, Except Special Education	3,018	237	113	\$13,407
Cooks, Restaurant	1,912	1,117	113	\$5,361
Laborers and Freight, Stock, and Material Movers, Hand	4,737	1,146	113	\$6,885
Secondary School Teachers, Except Special and Career/Technical Education	2,839	165	99	\$13,972
Teacher Assistants	4,051	350	96	\$4,711
Carpenters	3,688	932	95	\$11,882
Executive Secretaries and Executive Administrative Assistants	3,865	298	90	\$9,926
General and Operations Managers	4,139	528	88	\$21,526
Bookkeeping, Accounting, and Auditing Clerks	4,501	350	87	\$9,355
First-Line Supervisors of Retail Sales Workers	1,979	261	86	\$10,805
Heavy and Tractor-Trailer Truck Drivers	2,811	504	82	\$14,036
Food Preparation and Serving Related Workers, All Other	2,284	698	81	\$4,426
Receptionists and Information Clerks	3,042	352	80	\$6,663
Teachers and Instructors, All Other	2,247	399	76	\$9,937
Stock Clerks and Order Fillers	2,742	413	76	\$6,165
Tellers	1,293	166	72	\$6,891
Sales Representatives, Services, All Other	1,535	250	67	\$12,953
Customer Service Representatives	2,645	431	66	\$8,086
Security Guards	2,192	430	65	\$9,175
Home Health Aides	1,905	264	64	\$7,117
Maintenance and Repair Workers, General	3,032	516	64	\$10,909
Dishwashers	1,410	641	62	\$3,380
Lawyers	1,068	85	60	\$23,125
Electricians	2,217	696	58	\$17,883
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	2,812	168	53	\$8,377
Operating Engineers and Other Construction Equipment Operators	3,350	868	48	\$16,345
Child Care Workers	1,787	345	46	\$4,052
Hotel, Motel, and Resort Desk Clerks	1,004	476	46	\$5,183
Accountants and Auditors	1,749	175	45	\$15,661
Engineers, All Other	1,059	344	44	\$27,972
Managers, All Other	2,734	437	42	\$20,395
Personal Care and Service Workers, All Other	1,144	130	42	\$5,653
Light Truck or Delivery Services Drivers	1,293	242	42	\$9,669
Counter and Rental Clerks	1,261	223	41	\$5,655
Plumbers, Pipefitters, and Steamfitters	1,658	388	41	\$16,887
Bartenders	1,519	466	40	\$4,702
Automotive Service Technicians and Mechanics	1,769	275	40	\$10,809
Airline Pilots, Copilots, and Flight Engineers	882	910	40	\$22,805

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

Employment Scene

What drives various states' unemployment rates

Thirty-two states and the District of Columbia have seasonally adjusted March unemployment rates that are significantly different from the U.S. rate of 7.6 percent, according to the U.S. Bureau of Labor Statistics. (See Exhibit 1.)

At 6.2 percent, Alaska is one of 21 states with rates well below the nation's March rate. Leading that group is North Dakota at 3.3 percent, followed by Nebraska at 3.8 percent, and Vermont at 4.1.

Nevada's rate was the nation's highest in March at 9.7 percent. Until dropping to 9.8 percent in December 2012, Nevada's rate had been in the double digits for nearly four years, peaking in 2010 at 14 percent. Illinois had the nation's second-highest March rate at 9.5 percent, followed by California and Mississippi at 9.4 percent.

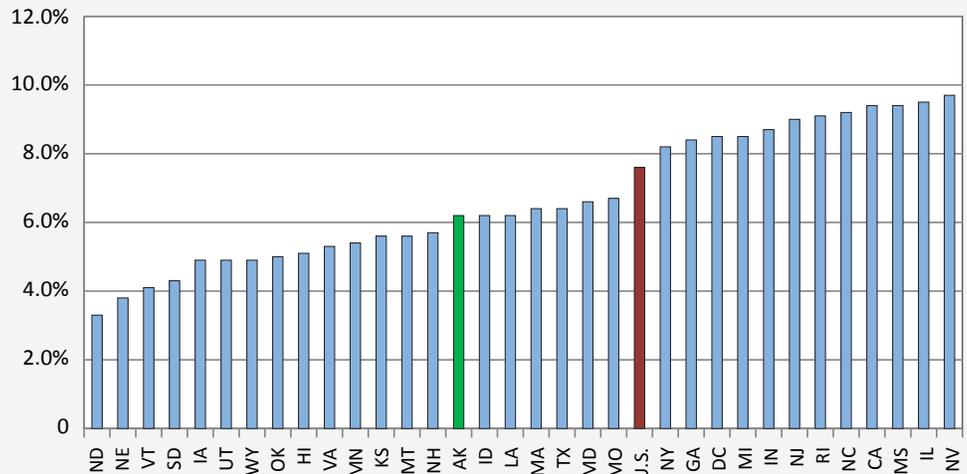
Oil's role in many strong states

Several of the states with low unemployment rates are big producers of oil. Texas, North Dakota, Alaska, Oklahoma, Louisiana, Wyoming, and Kansas ranked in the top eight states for crude oil production in January 2013, the most recent month for which data are available from the U.S. Energy Information Administration.

California, one of the high unemployment states, is also one of the nation's top oil producers — it was the nation's third-largest producer for years behind Texas and Alaska, until North Dakota's oil boom dropped California to the fourth slot. But California's oil industry has a very small

1 Rates That Differ Considerably From U.S. Average

Select states' unemployment, March 2013



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

influence on the state's economy overall, which was hit especially hard by the housing market collapse.

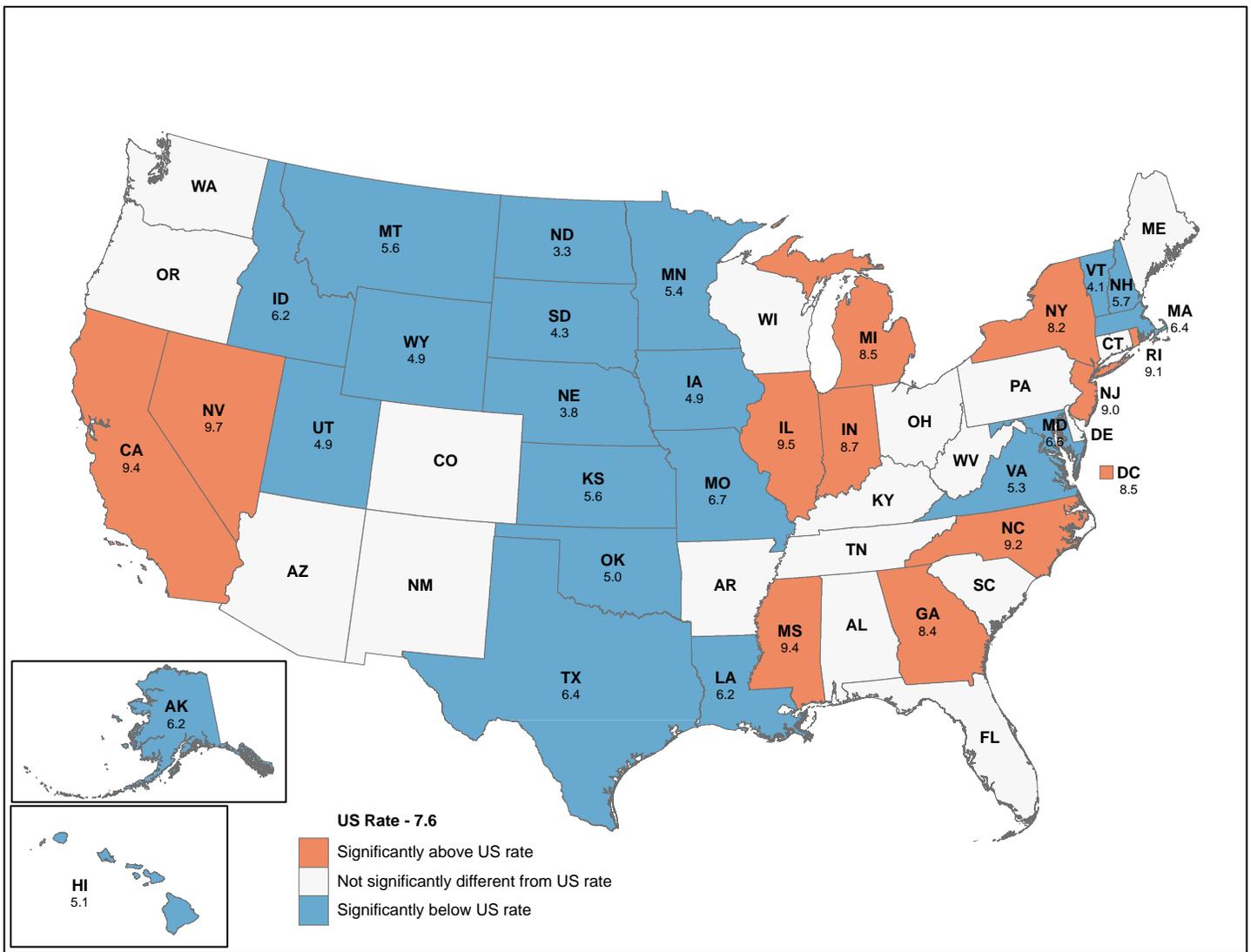
Jobs categorized as "mining and logging," a category that includes oil and gas employment, made up just 0.2 percent of California's jobs in 2012 in contrast to 2.5 percent for Texas, 5 percent for Alaska, and 6 percent for North Dakota. Texas bears the most resemblance to California in terms of being a large, diverse state, but Texas has nine times as many mining and logging jobs — the largest share are oil and gas related.

Tourism's rebound has helped

A number of the states with low unemployment rates have economies with little or no connection to oil. Hawaii depends on tourism, and though the recession affected consumer spending, it turns out a trip to Hawaii is something American and international consumers will only deny themselves for so long.

2 Unemployment Rates by State

March 2013



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

Visits to Hawaii fell from a record high of 7.5 million in 2006 to just 6.4 million by 2009 before bouncing back over the next few years and setting a record in 2012 at 7.8 million. Early 2013 numbers show strong growth, especially in international travelers.

Alaska tourism is similar to Hawaii's in that it takes a little more planning and money to get here. Alaska's mostly cruise-ship based tourism industry hasn't yet returned to the number of visitors that were recorded in 2007-09, but the numbers were up in both 2011 and 2012.

Tourism's broader revival has benefitted a number of states on the list of those with low rates.

Nearly every state benefits from tourism and visitor spending to some degree, but it's especially important to Louisiana (New Orleans), South Dakota (Mount Rushmore), Utah (skiing and national parks), and Vermont (skiing and fall foliage).

Several of the higher-rate states have also benefitted from the rebound in tourism, but other struggles have outweighed that boost. Gambling-related tourism had historically been resistant to economic recessions, but both Nevada and New Jersey continue to face high unemployment.

Nevada's pre-recession housing boom was particularly strong and the subsequent bust severe. Though the 9.7 percent rate is still high, it's down

from 11.6 percent in March 2012 and well below the 14 percent from a few years ago. New Jersey has also struggled to dig itself out from the housing collapse, and like California has had to wrestle with crippling state budget deficits.

Strength in farming

States that depend heavily on farming are generally performing well, judging by their lower-than-average unemployment rates. That list includes Kansas, Minnesota, Missouri, and Nebraska. Part of that strength stems from the fact that demand for agricultural products didn't drop off as much during the recession as manufactured goods. Not surprisingly, it's harder to delay purchase of corn and wheat than it is a new car or dishwasher.

World demand for U.S. agricultural goods fell 2 percent in 2009, but rebounded strongly in 2010 and 2011, rising 18 percent each year according to the U.S. Department of Agriculture. Developing countries especially have increased their demand due to a combination of economic growth and a favorable exchange rate against the U.S. dollar.

There are also farm states on the list of higher-rate states — Illinois and Indiana, for example — but as with tourism, other weaknesses in those states still outweigh the economic boost from farming. In most cases, the weaknesses are connected to the housing market and construction.

In some states, the loss of manufacturing jobs, which began long before the recession but accelerated from 2008 to 2009, was especially severe. There have been signs of strength in manufacturing, though. Nationally, manufacturing jobs have bounced back from a low of 11.5 million in late 2009 to 12 million in March 2013. Michigan alone has added more than 100,000 manufacturing jobs since hitting its recession low in June 2009, and its unemployment rate has fallen from above 14 percent to 8.5 over that period.

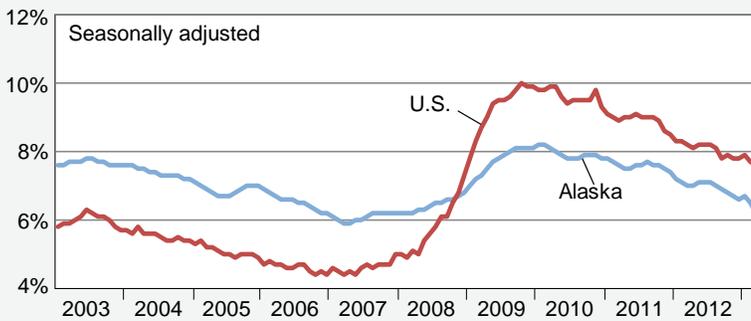
Regional differences

The majority of the states with low rates are west of the Mississippi River and away from the coasts. (See Exhibit 2.) In the east, Maryland and Virginia have benefitted from their proximity to Washington, D.C. and all of the direct and indirect federal government jobs in and around the nation's capital.

At 8.5 percent, Washington, D.C. has a relatively high unemployment rate, but the district's rate has historically been at least a few percentage points higher than neighboring Maryland and Virginia.

A pocket of New England states — Vermont, New Hampshire, and Massachusetts — have low rates. Other than oil-rich Texas, Louisiana, and Oklahoma, the southern states have either average or above-average unemployment rates.

3 Unemployment Rates January 2003 to March 2013



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

5 Unemployment Rates Boroughs and census areas

	Prelim.	Revised	
	3/13	2/13	3/12
SEASONALLY ADJUSTED			
United States	7.6	7.7	8.2
Alaska Statewide	6.2	6.5	7.0
NOT SEASONALLY ADJUSTED			
United States	7.6	8.1	8.4
Alaska Statewide	6.6	7.1	7.8
Anchorage/Mat-Su Region	5.6	5.8	6.7
Municipality of Anchorage	4.9	5.1	5.9
Matanuska-Susitna Borough	7.8	8.2	9.6
Gulf Coast Region	7.8	8.5	9.4
Kenai Peninsula Borough	8.3	8.9	10.0
Kodiak Island Borough	4.6	5.0	5.9
Valdez-Cordova Census Area	10.0	11.3	11.1
Interior Region	6.9	7.5	8.3
Denali Borough	20.4	22.7	22.6
Fairbanks North Star Borough	5.8	6.3	7.2
Southeast Fairbanks Census Area	11.6	12.3	12.7
Yukon-Koyukuk Census Area	14.8	16.3	16.7
Northern Region	8.9	9.6	10.4
Nome Census Area	10.7	11.6	11.9
North Slope Borough	4.6	4.8	5.6
Northwest Arctic Borough	14.5	15.4	16.9
Southeast Region	7.1	7.9	8.3
Haines Borough	10.1	11.7	11.6
Hoonah-Angoon Census Area	22.5	25.4	24.6
Juneau, City and Borough of	4.7	5.0	5.4
Ketchikan Gateway Borough	7.4	8.0	8.5
Petersburg Census Area ¹	12.0	13.5	12.4
Prince of Wales-Hyder Census Area	13.5	16.5	18.4
Sitka, City and Borough of	5.3	6.5	6.1
Skagway, Municipality of	19.8	23.3	23.2
Wrangell, City and Borough of	10.4	11.5	12.1
Yakutat, City and Borough of	12.0	13.3	13.0
Southwest Region	12.3	13.1	12.6
Aleutians East Borough	8.4	9.0	8.5
Aleutians West Census Area	4.8	5.2	4.8
Bethel Census Area	15.4	16.2	15.6
Bristol Bay Borough	8.8	8.9	11.0
Dillingham Census Area	9.3	10.1	9.7
Lake and Peninsula Borough	9.7	10.6	11.0
Wade Hampton Census Area	22.1	23.0	22.3

4 Statewide Employment Nonfarm wage and salary

Alaska	Preliminary		Revised		Year-Over-Year Change	
	3/13	2/13	3/12	3/12	90% Confidence Interval	
Total Nonfarm Wage and Salary¹	323,900	321,400	322,200	1,700	-4,377	7,777
Goods-Producing ²	43,500	42,900	43,300	200	-2,766	3,166
Service-Providing ³	280,400	278,500	278,900	1,500	-	-
Mining and Logging	17,300	17,100	16,000	1,300	65	2,535
Mining	16,900	16,800	15,800	1,100	-	-
Oil and Gas	14,000	13,900	13,000	1,000	-	-
Construction	15,100	14,900	13,600	1,500	-13	3,013
Manufacturing	11,100	10,900	13,700	-2,600	-4,959	-241
Wholesale Trade	5,900	5,800	6,000	-100	-439	239
Retail Trade	34,300	34,100	34,000	300	-484	1,084
Food and Beverage Stores	6,000	6,100	5,900	100	-	-
General Merchandise Stores	9,600	9,500	9,500	100	-	-
Transportation, Warehousing, Utilities	20,700	20,500	19,800	900	66	1,734
Air Transportation	5,500	5,400	5,500	0	-	-
Information	6,100	6,100	6,200	-100	-375	175
Telecommunications	3,900	3,900	4,200	-300	-	-
Financial Activities	13,100	13,000	13,000	100	-767	967
Professional and Business Services	27,600	27,900	27,600	0	-1,356	1,356
Educational⁴ and Health Services	47,700	47,400	46,000	1,700	565	2,835
Health Care	33,800	33,500	32,500	1,300	-	-
Leisure and Hospitality	29,200	28,400	29,100	100	-2,569	2,769
Other Services	11,400	11,200	11,400	0	-821	821
Government	84,400	84,100	85,800	-1,400	-	-
Federal Government ⁵	15,000	14,700	16,300	-1,300	-	-
State Government ⁶	26,800	26,700	26,700	100	-	-
State Government Education ⁷	8,700	8,800	8,700	0	-	-
Local Government	42,600	42,700	42,800	-200	-	-
Local Government Education ⁸	24,400	24,300	25,200	-800	-	-
Tribal Government	3,500	3,400	3,500	0	-	-

A dash means confidence intervals aren't available at this level.

¹Excludes 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.

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

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

⁴Private education only

⁵Excludes uniformed military

⁶This number is not a count of state government positions, but the number of people who worked during any part of the pay period that included the 12th of the month (the same measure used for all employment numbers in this table). The numbers can vary significantly from month to month; when attempting to identify trends, annual averages are more useful.

⁷Includes the University of Alaska. Variations in academic calendars from year to year occasionally create temporarily large over-the-year changes.

⁸Includes public school systems. Variations in academic calendars from year to year occasionally create temporarily large over-the-year changes.

Sources for Exhibits 3, 4, and 5: Alaska Department of Labor and Workforce Development, Research and Analysis Section; and U.S. Department of Labor, Bureau of Labor Statistics

Employer Resources

Extension approved for Work Opportunity Tax Credit

The Work Opportunity Tax Credit gives employers an incentive to hire certain types of new workers. Use of the WOTC has increased in recent years as Congress has introduced new target groups, expanded several groups' requirements, increased the tax credit amount for certain groups, and introduced new flexible filing provisions. The maximum credit ranges from \$1,200 to \$9,600 depending on each qualified new hire.

On January 3, the President signed in to law the American Tax Payer Relief Act of 2012, which extends authorization to December 31 of this year for all veteran target groups including those implemented under the VOW to Hire Heroes Act. The extension also retroactively reauthorizes the tax credit for recipients of Short and Long-Term Temporary Assistance for Needy Families, the Sup-

plemental Nutritional Assistance Program, Vocational Rehabilitation Referrals, and Ex-Felons and Supplemental Security Income recipients through December 31.

Employers who apply for WOTC under veteran categories must attach a copy of Form DD-214 to their applications. Providing the DD-214 will enable the Alaska Department of Labor and Workforce Development to quickly verify veteran status and determine tax credit eligibility. If the request is for a veteran entitled to compensation for a disability connected to military service, that documentation must also be attached.

For more information, see jobs.alaska.gov/wotc.htm or contact the WOTC program coordinator at (907) 465-5952 or dol.wotc@alaska.gov.

Veteran target group	Maximum tax credit	DD-214 Required	Disability Verification Required
Supplemental Nutrition Assistance Program (SNAP) (food stamps)	\$2,400	X	
Entitled to compensation for service-connected disability:			
Hired within one year of discharge or released from active duty	\$4,800	X	X
Unemployed at least six months in the year ending on the hiring date	\$9,600	X	X
Unemployed			
At least four weeks	\$2,400	X	
At least six months	\$5,600	X	

**Employees must work at least 120 hours in the first year of employment to receive any tax credit.*

Safety Minute

First-aid, CPR can be critical in first few minutes after injury

Medical literature establishes that people who receive first aid within the first few minutes after a serious injury are less likely to die or sustain permanent damage. Such injuries include trauma, respiratory arrest, cardiac arrest, and uncontrolled bleeding.

Regulatory standards require that employers responsible for workplace safety provide for timely first aid and CPR at work sites if a clinic or hospital is not nearby. This "near proximity" to the workplace or "reasonably accessible" medical care usually means emergency care is no more than three or four minutes away.

Regardless of regulatory requirements, employers should ensure people trained in first aid and CPR are available at work sites when professional medical care may not be available in those first few critical minutes after an injury. Even when such care is available, trained employees can provide effective immediate care and

comfort until help arrives. When an injury doesn't require treatment beyond first aid, trained employees can help injured employees prevent future complications such as infection.

Employers should also ensure the safety of these first responders by training them to understand the risks and protective measures associated with exposure to blood-borne pathogens. Routinely check first-aid kits to ensure they are properly stocked and contain kits for safe clean-up and disposal of bodily fluids and other potentially infectious materials.

The Alaska Department of Labor and Workforce Development's Occupational Safety and Health Section, Consultation and Training can help employers identify workplace hazards and implement solutions. Contact us at (907) 269-4955 or visit labor.alaska.gov/lss/oshhome.htm.