

ALASKA ECONOMIC **TRENDS**

OCTOBER 2015



HOW WAGES SHIFTED IN THE PAST 25 YEARS

ALSO IN THIS ISSUE

The rise of coffee shops
Migration and unemployment
Alaska's pilots

ALASKA ECONOMIC TRENDS

OCTOBER 2015

Volume 35 Number 10
ISSN 0160-3345

WORKERS and WAGES

How earning patterns have shifted in the last 25 years

By MALI ABRAHAMSON

PAGE 4

The RISE of COFFEE SHOPS

A growing industry in a state with sky-high consumption

By NEAL FRIED

PAGE 9

ALASKA MIGRATION and U.S. RECESSIONS

How the Lower 48 economy affects moves to and from Alaska

By NEAL FRIED

PAGE 11

ALASKA'S PILOTS

Alaska relies more on aviation than any other state

By DAN STRONG

PAGE 14

To request a free electronic or print subscription, e-mail trends@alaska.gov or call (907) 465-4500.
Trends is on the Web at labor.alaska.gov/trends.

ALASKA DEPARTMENT
of LABOR
and WORKFORCE
DEVELOPMENT

Bill Walker,
Governor

Heidi Drygas,
Commissioner

Dan Robinson
Chief, Research and Analysis

Sara Whitney
Editor

Sam Dapceвич
Cover Artist

ON THE COVER: Check photo by Sam Dapceвич

Alaska Economic Trends is a monthly publication whose purpose is to objectively inform the public about a wide variety of economic issues in the state. *Trends* is funded by the Employment and Training Services Division of the Alaska Department of Labor and Workforce Development and is published by the department's Research and Analysis Section. *Trends* is printed and distributed by Assets, Inc., a vocational training and employment program, at a cost of \$1.37 per copy. Material in this publication is public information, and with appropriate credit may be reproduced without permission.

Alaska's income gap is smaller, but we have work to do



Heidi Drygas
Commissioner

When I go to work every day, I think about how the Department of Labor and Workforce Development can contribute to growth in jobs, wages, and economic security for working Alaskans. This is a daunting challenge considering the realities of national income inequality and wage stagnation.

Consider this: Over the last four decades, the richest 1 percent of Americans had 181 percent income growth, meaning their income nearly tripled. Everyone else — the 99 percent — saw income increase a mere 2.6 percent. Men's wages actually declined over that period. While women's median wages continued growing until around 2000, they have stagnated over the last 15 years.

Wages have stagnated and inequality has grown even as a growing percentage of Americans earn a four-year college degree. For the first time in American history, rising worker productivity has not translated into higher wages. Such failures in national economic policy are not inevitable — they are a result of more regressive taxation, union-busting, education defunding, and outsourcing.

Set against this bleak national picture, Alaska is better by comparison. Of all states, Alaska has the *lowest* share of income captured by the richest 1 percent and the highest share earned by 99 percent of workers. Unlike most other parts of the country, we have seen real wage growth since 2000, and we have among the highest median wages in America. However, our median wages are still lower now than in the glory days of pipeline construction and blockbuster oil prices. In Alaska and the rest of the country, high-paying construction and manufacturing jobs have declined as a percentage of total employment while lower-paying service sector jobs have proliferated.

The service sector isn't going away, and we certainly can't expect large capital budgets in the near future to generate construction jobs. What we can do is expand career ladders, strengthen training programs, and create conditions for wage growth in the service sector, particularly the health care industry. This strategy is necessary to sustain Alaska's higher-than-average wages and lower-than-average inequality.

Our department recently won a \$2.9 million American Apprenticeship Grant from the U.S. Department of Labor, which we are using to expand Registered Apprenticeship and pre-apprenticeship training programs in the health care industry. We are working with employers like Alaska Regional Hospital, Mat-Su Regional Medical Center, and the Alaska Psychiatric Institute, in coordination with labor unions that represent their employees.

Our data show that 47 of the 50 fastest-growing occupations are in the health care industry, and Governor Walker's Healthy Alaska Plan will create even more job growth in the industry. By working in partnership with employers and unions, we can create more robust training networks and career pathways to improve quality of care and raise wages in this critical part of the service sector.

Health care training should produce better health outcomes for patients and better economic outcomes for our state. As the rest of the country is demonstrating, low wages and rising inequality pose a dire threat to working families' prosperity. By investing in service sector training and workforce development while maintaining our existing training programs in the construction and oil industry, we can continue Alaska's median wage growth and protect families' economic security.



Follow the Alaska Department of Labor and Workforce Development on Facebook (facebook.com/alaskalabor) and Twitter (twitter.com/alaskalabor) for the latest news about jobs, workplace safety, and workforce development.

WORKERS AND WAGES

How earning patterns have shifted in the last 25 years

By **MALI ABRAHAMSON**

The number of workers in Alaska and the total amount earned has grown steadily over the past 25 years, but there have been shifts in the distribution of those earnings. (See exhibits 1 and 2.)

The percentage of year-round workers making relatively low wages — between \$20,000 and \$40,000 — increased from 28 percent in 1989 to 34 percent in 2014. Conversely, the percentage making moderately high wages — between \$70,000 and \$150,000 — fell

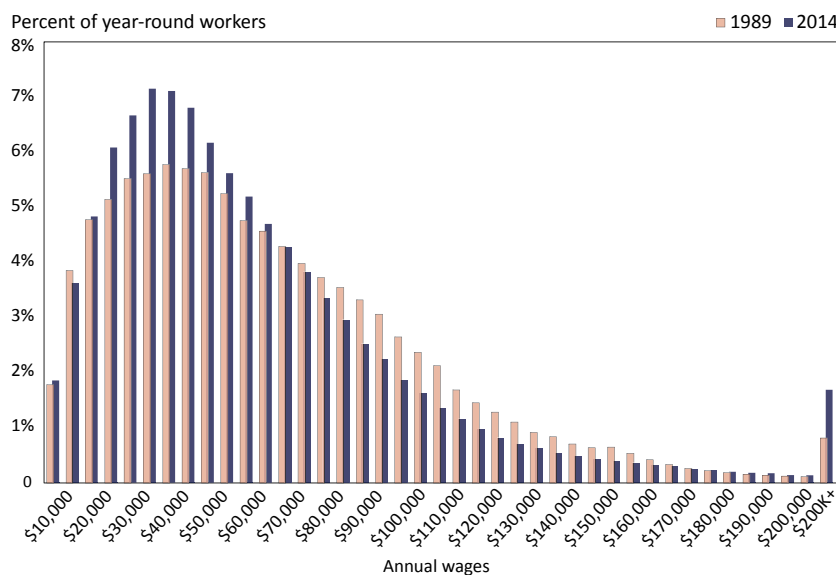
from 34 percent to 26 percent.

For the small number of workers making more than \$200,000 a year, the percentage more than doubled between 1989 and 2014, from 0.8 percent to 1.7 percent. That growth came mostly from upper management occupations in the oil and gas industry.

Related to the shift in wages, Alaska’s median wage is also lower now than it was 25 years ago, though it has been steadily rising since 1999. (See Exhibit 3.) All wages in this article are adjusted for inflation and are in 2014 dollars.

1 A Higher Share of Workers Are Lower-Wage

ALASKA, 2014 VERSUS 1989



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

About the data

This article covers only year-round workers, or those who worked in Alaska in all four quarters of the year. Wages and worker counts include full-time and part-time employees and exclude federal civilian and military workers as well as the self-employed.

It also only covers payroll workers, or those who earn a wage or salary. Business owners, including partners in a business who share profits but don't receive a wage or salary, are excluded.

The median wage went down

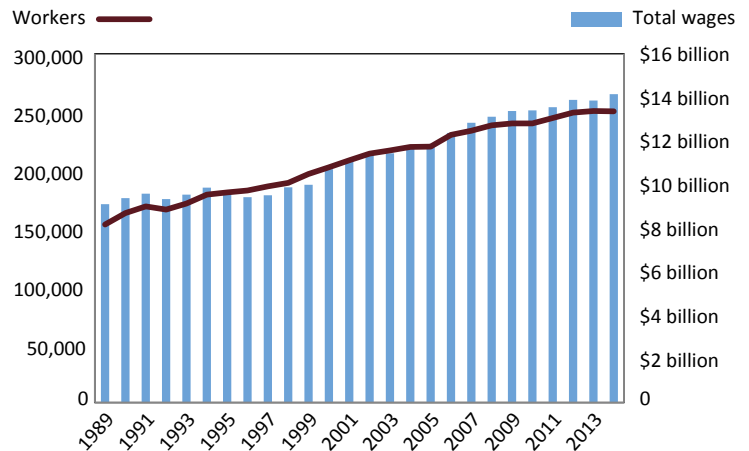
In 1989, Alaska's median wage was \$48,654, the highest over the 25-year period. The state's economy changed as the service sector expanded in the early '90s, bringing in more lower-paying jobs in office administration, food service, and retail.

State and local government workers' wages also dropped significantly as Alaska emerged from the high-demand labor market of the 1970s and 1980s brought on by pipeline construction and the boom fueled by new oil revenue.

By 1999, the median wage hit its lowest point at \$40,350. It has gradually increased since then, to \$44,750 by 2014.

2 Workers, Total Wages Grew

ALASKA, 1989 TO 2014



Note: Includes year-round workers only.

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

More workers with lower wages

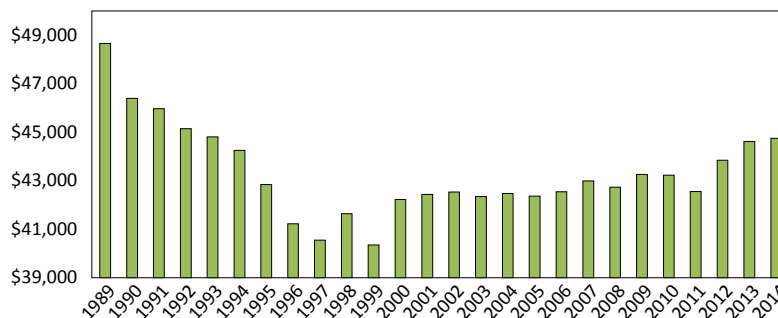
Two-thirds of the numerical growth in year-round workers since 1989 has been among those making less than \$50,000 a year. There was little to no increase in the number of workers in the \$90,000 to \$200,000 range. (See Exhibit 4.)

The high earners

To help explain some of the shifts, we grouped workers into five wage categories and adjusted their earnings to 2014 dollars for comparison. (See Exhibit 5.)

3 Adjusted for Inflation, Median Wage is Down

ALASKA YEAR-ROUND WORKERS, 1989 TO 2014

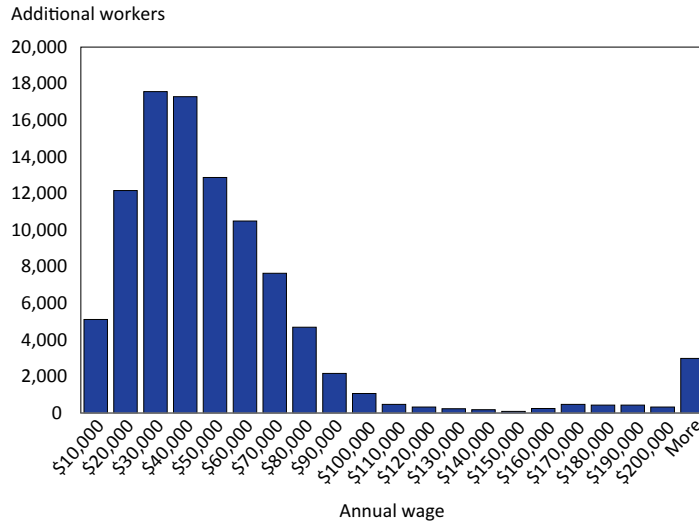


Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

4

Growth Mainly in Low-Wage Workers

BY WAGE RANGE, 1989 TO 2014



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

In 2014, the top 20 percent earned 45 percent of Alaska's total wages. The top 40 percent earned more than two-thirds. The top 1 percent earned 6.5 percent.

Median wages fell for all quintiles through 1999, but the top 20 percent's earnings have recovered the most since. In this group, median wages fell by \$18,000, or 16 percent, from 1989 to 1999. But by 2014, the median was down just \$7,400 from 1989. (See Exhibit 6.)

The *mean or average* wage among the top earners grew, however, from \$124,000 in 1989 to \$128,000 in 2014. The reason the median went down but the average went up for this group is that the number and percentage of especially high earners grew, skewing the average upward. In 2014, more than 40 people earned

more than \$1 million, while in 1989 there were just a few.

The low earners

The lowest 20 percent of earners made less than 5 percent of total wages in 2014. Their wages varied the least over the 25-year period.

This group's 2014 median wage of \$14,700 was about a hundred dollars less than it was in 1989. Although these were all year-round workers, many in the lowest bracket worked part-time.

Those in the middle

Wages for quintiles two through four fell considerably through 1999, then had ups and downs through 2014 but didn't recover to 1989 levels.

In 2014, the second-lowest earning group, group two, had a median wage that was \$3,000 lower than it was in 1989. Group three's wages were \$6,250 lower, and group four's were \$9,600 lower. (See Exhibit 6.)

More women in low, high brackets

In both 1989 and 2014, women were much more like-

5

Yearly Wage Ranges

ALASKA, BY QUINTILE, 2014

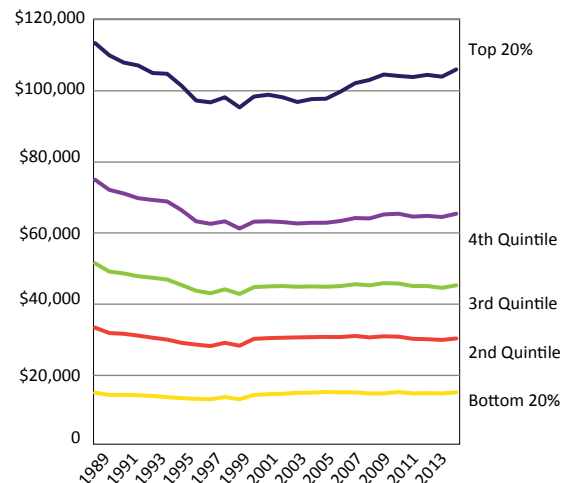
	Median	Maximum	Minimum
Bottom 20%	\$14,700	\$22,800	–
2nd Quintile	\$29,900	\$36,900	\$22,800
3rd Quintile	\$44,700	\$53,900	\$36,900
4th Quintile	\$64,900	\$79,500	\$53,900
Top 20%	\$105,500	–	\$79,500

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

6

Top 20% Recovered Most

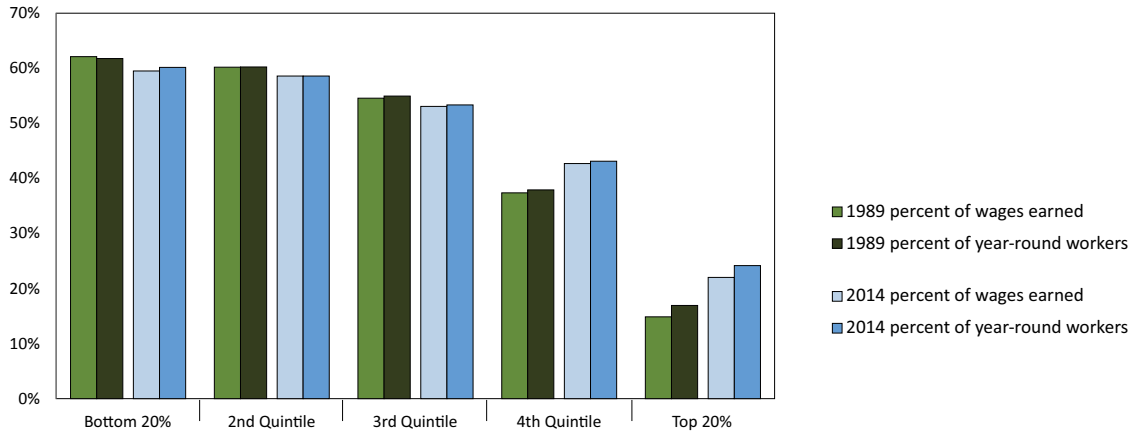
MEDIAN WAGES, ALASKA, 1989 TO 2014



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

7 Percent Female, Workers and Wages

ALASKA, 1989 VERSUS 2014



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

ly than men to earn low wages. More than 60 percent of workers in the bottom 20 percent of earners were women in 1989 and that percentage had dropped only slightly by 2014. (See Exhibit 7.)

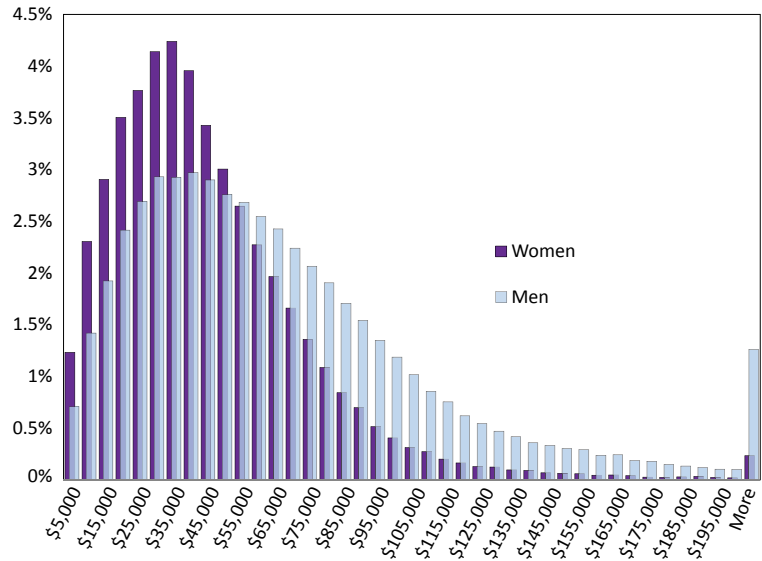
There were noticeable increases in women in the overall percentage of workers and wages in the top two quintiles, although in the highest quintile women still are just 24 percent of workers and make 22 percent of that group's wages.

In 2014, the ten lowest earning levels, from \$5,000 to \$50,000, all had higher percentages of women than men, and the reverse is true at higher earning levels. (See Exhibit 8.) The fact that women are more likely to work part time explains some, but not all, of the difference.

Mali Abrahamson is a research analyst in Juneau. Reach her at (907) 465-6029 or mali.abrahamson@alaska.gov.

8 More Low Earners Are Women

PERCENT OF ALL WORKERS BY WAGE RANGE, 2014



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

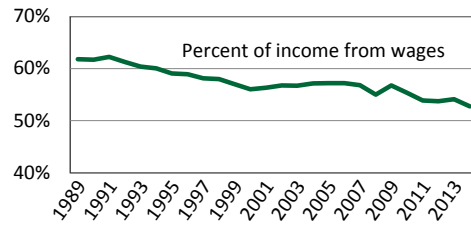
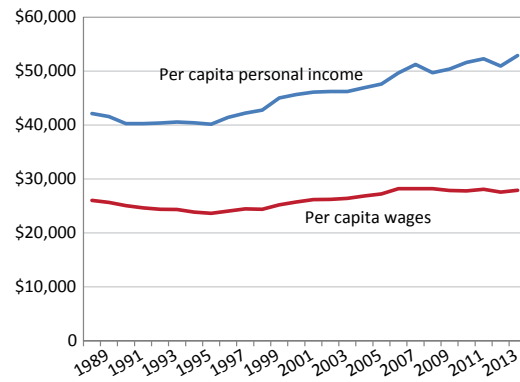
Wages and their connection to personal income

Income inequality has become a hot national topic in recent years, and although the distribution of wages is relevant to questions about income inequality in Alaska, there are important differences.

Income includes three main categories: 1) “earnings by place of work,” of which wages are the largest piece; 2) “dividends, interest, and rent,” broadly defined as investment or property income; and 3) “personal current transfer receipts,” or payments to people “for which no current services are performed.” This last category includes Medicaid and Medicare, retirement and disability benefits, unemployment insurance benefits, and the Alaska Permanent Fund Dividend.

Over the period measured, Alaskans’ per capita income climbed about 25 percent, though per capita wages rose by only 7 percent. That means we are bringing in a smaller percentage of our income from year-round wage and salary jobs.

Growth in per capita income has come from the dividends, interest, and rent category, which has increased by 20 percent, and from personal current transfer receipts, which have nearly doubled.



Source: U.S. Department of Commerce, Bureau of Economic Analysis

A large, artistic watercolor splash in shades of yellow and orange, resembling coffee stains, serves as a background for the title and the top portion of the page. The splash is centered and overlaps the title text.

the rise of coffee shops

A rising industry for a state with sky-high consumption

By **NEAL FRIED**

*M*ocha Motion, A Whole Latte of Love, Latte Dah, Elim Café, Java Junkie, The Grind, Fish Eye Coffee, All Hopped Up Brother Espresso, and The Daily Buzz are just a few of the names that adorn Alaska's many coffee houses.

According to the National Coffee Association, 59 percent of Americans 18 and older drink coffee daily, and water is the only more popular beverage. And when it comes to coffee consumption, Alaskans put even their fellow Americans to shame. You could say coffee shops all over the state contribute to the daily productivity of Alaska's workforce through many drips, lattes, espresso shots, Americanos, cappuccinos, and a long list of other drinks.

It's not your imagination

It is hard avoiding the purveyors of the coffee bean in Alaska, wherever you live. Fancy downtown glass and steel structures dot the cities, and coffee huts are common along some of our rural highways and in tiny communities. They dispense their product from small coffee huts in parking lots, storefronts in strip malls, freestanding buildings, and the increasingly common coffee truck.

Locals and visitors alike often comment on coffee shops' omnipresence in this state, and this ubiquity is no accident. Although there are no statewide statistics for coffee consumption, according to NDP Group, Anchorage has repeatedly vied for the top spot in the country for per capita espresso shops. At last count, Seattle had edged Anchorage out of the No. 1 spot nationally. There is little doubt the rest of the state shares Anchorage's obsession with coffee.

Anchorage is No. 2 in the nation for per capita coffee shops.

One popular opinion is that Alaskans drink so much coffee because of our proximity to Seattle and the strong premium coffee culture found throughout the Pacific Northwest. That's probably true, as Seattle is the coffee roasting center of the world. Our patronage may also have something to do with staying warm in such a cold climate. The top two

coffee-consuming countries, Finland and Sweden, share similar latitudes with Alaska.

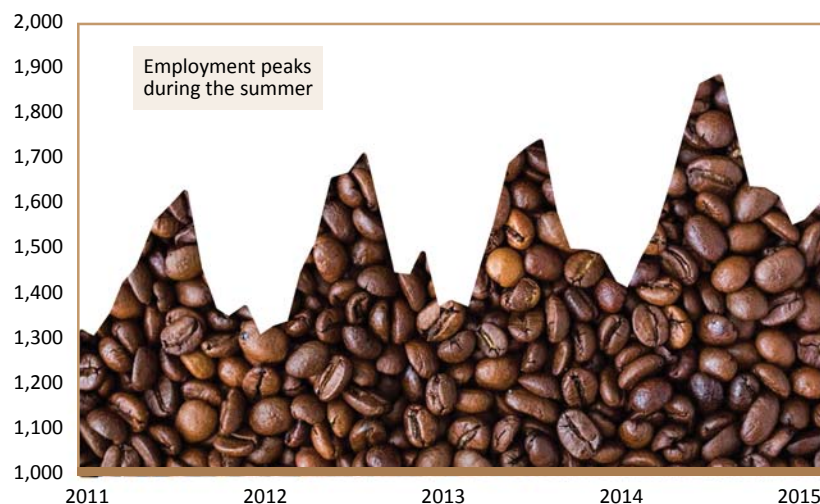
Coffee shops are everywhere

Coffee shop jobs are counted in the broader category of snack and nonalcoholic beverage bars, which also covers businesses that serve ice cream, frozen yogurt, pretzels, donuts, and cookies. Coffee shops dominate this category and represented nearly three-quarters of its jobs in 2014.

In 2014, Alaska had nearly 200 individual coffee operators that had at least one employee, and this doesn't

1 More Jobs at Coffee and Snack Bars

AVERAGE MONTHLY EMPLOYMENT, ALASKA, 2011 TO 2015



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

factor in businesses with more than one location, such as Heritage Coffee of Juneau, Mocha Dan's of Fairbanks, or Kaladi Brothers of Anchorage, which has 13 different locations. This figure also doesn't include businesses run by a single owner/operator, nor reflect the many places you can buy coffee outside of these shops, such as in restaurants, gas stations, grocery stores, and hotel lobbies.

Growing much faster than average

Although the snack and nonalcoholic bar category is small and represents less than 1 percent of statewide employment, it's continuously growing. (See Exhibit 1.) In 2014, coffee shops alone represented about 1,500 jobs.

Growth in this industry's number of establishments and employment outpaced overall job growth in recent years. Between 2011 and 2015, jobs at snack and nonalcoholic drink bars grew by 20 percent versus 4 percent for jobs overall.

These jobs don't pay much, as they're often part-time and entry-level and many begin near the minimum wage. The average annual wage for employees in the snack and nonalcoholic beverage bars industry in 2014 was \$13,094, just a fraction of the statewide average wage of \$52,848. However, this doesn't figure in tips, which can be a big part of these workers' take-home pay.

More than just a jolt for some

Besides helping Alaskans get going in the morning, coffee shops provide other economic and social benefits that can't be measured. They're a primary place to meet with friends or discuss business. For some customers with a laptop, the local coffee house can be their primary workplace or "portable office" away from home.

Neal Fried is an economist in Anchorage. Reach him at (907) 269-4861 or neal.fried@alaska.gov.

ALASKA MIGRATION AND U.S. RECESSIONS

How the Lower 48 economy affects moves to and from Alaska

By **NEAL FRIED**

In 2009, as the nation was in a deep recession, we published an article in the June issue of *Trends* asking whether that recession, like others in the past, would affect Alaska’s migration patterns.

Historically, fewer people leave Alaska during a national recession and more move north seeking job opportunities. The reverse is also true; when the national economy is flourishing and Alaska has a downturn, Alaska is more likely to register net migration losses.

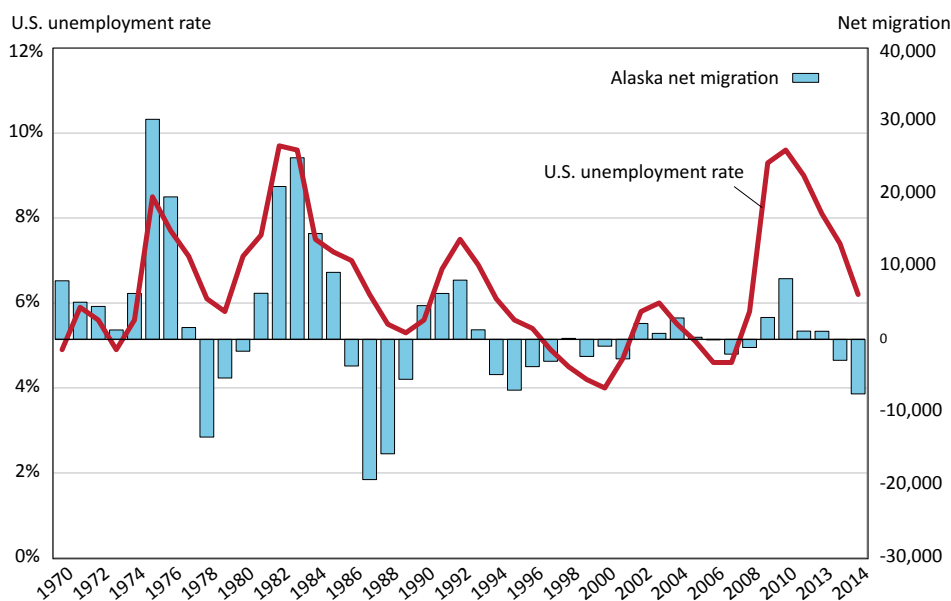
Now that the U.S. recession has played itself out, it’s

clear it was no exception — Alaska gained population each year from 2009 to 2012 through net migration, or migration in minus migration out. (See Exhibit 1.)

In, out migration usually cancel out

Alaska has significant population turnover every year. During the past decade, typically between 40,000 and 50,000 people moved to and from Alaska annually. These common, relatively large migration flows aren’t always tied to economic conditions, as people move for a range of reasons including military rotations, school calendars, retirement, or changing family responsibilities.

1 Alaska Migration, U.S. Jobless Rate Track Together 1970 TO 2014



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

2 U.S. Unemployment and Alaska Migration 1970 to 2014

Year	AK Total Net Migration	Unemployment Rate, National
1970	8,040	4.9%
1971	5,107	5.9%
1972	4,533	5.6%
1973	1,287	4.9%
1974	6,320	5.6%
1975	30,222	8.5%
1976	19,576	7.7%
1977	1,637	7.1%
1978	-13,414	6.1%
1979	-5,289	5.8%
1980	-1,629	7.1%
1981	6,326	7.6%
1982	20,992	9.7%
1983	24,934	9.6%
1984	14,526	7.5%
1985	9,206	7.2%
1986	-3,646	7.0%
1987	-19,245	6.2%
1988	-15,710	5.5%
1989	-5,480	5.3%
1990	4,637	5.6%
1991	6,310	6.8%
1992	8,138	7.5%
1993	1,314	6.9%
1994	-4,840	6.1%
1995	-6,980	5.6%
1996	-3,741	5.4%
1997	-3,001	4.9%
1998	145	4.5%
1999	-2,337	4.2%
2000	-927	4.0%
2001	-2,676	4.7%
2002	2,196	5.8%
2003	819	6.0%
2004	2,948	5.5%
2005	292	5.1%
2006	-56	4.6%
2007	-2,023	4.6%
2008	-1,111	5.8%
2009	3,009	9.3%
2010	8,347	9.6%
2011	1,131	8.9%
2012	1,113	8.1%
2013	-2,870	7.4%
2014	-7,488	6.2%

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

Typically, the in-flows and out-flows are about equal so they cancel each other out, and Alaska's growth comes primarily from natural increase. But the national recession of the past decade, often characterized as the worst since the Great Depression, turned Alaska's net migration numbers positive.

Recovery was long, and nearby states suffered

The recession officially began in December 2007 and ended in June 2009, but the subsequent economic recovery was slow. The national unemployment rate was 9 percent or higher for the next two years and didn't drop below 8 percent until 2013. U.S. employment didn't fully recover recession losses until April 2014.

Job markets also deteriorated in three of the four states that regularly provide Alaska with its largest numbers of migrants: California, Washington, and Oregon. The fourth state, oil-rich Texas, was the exception.

California's unemployment rate hit double digits in 2009 and stayed there for four years, peaking at 12.2 percent in 2010. The number of unemployed Californians topped 2 million and stayed there for three years. Oregon's unemployment rate moved into double-digit territory in 2009 and didn't fall below 9 percent until 2012. In Washington, the state most economically aligned with Alaska, the jobless rate peaked at 10.4 percent in January 2010 and remained above 9 percent for 2009 through 2011.

Combined, the number of unemployed in these three feeder states grew from 1.1 million in October 2006 to 2.8 million in October 2010.

In 2009, Alaska's net migration gain was 3,009, the largest since 1992. In 2010, that jumped to 8,347, the largest since 1985. Then in 2011 and 2012, as the nation continued to struggle, Alaska's net migration gains continued but were smaller.

Migration muted over time

Those numbers are much smaller than past migrations to Alaska during national recessions, such as those of the 1970s and 1980s. Although the national unemployment rates in 1983 and 2010 were identical at 9.6 percent, Alaska's net migration in 1983 hit 24,934.

Alaska's wages were much higher in those early decades, and there haven't been any large projects on the scale of the Trans-Alaska Oil Pipeline construction acting as an attractant.

Another explanation is that in the long run, migration

rates have fallen overall; Americans are simply moving less than they did in the past. National mobility rates hit a historic low in 2011 and have risen only slightly since.

National recovery changed the course

With the national economy in full recovery and U.S. employment reaching record levels, Alaska's net migration turned negative in 2013 and again in 2014. The net migration loss for 2014 was 7,488, the largest in 26 years. The loss was large enough that natural increase didn't offset it entirely, leading to a dip in Alaska's total population for the first time since 1988.

This reverse is not a reflection of Alaska's current economic challenges, though, as the 2014 numbers came before the large drop in oil prices and, more importantly, Alaska has continued to add jobs through the first half of 2015. It's more likely that the 2014 drop was due to pent-up demand to leave Alaska that may have built up during the long recession but wasn't feasible because the job market was so poor in the Lower 48 for so long.

If national economic conditions continue to hold sway over Alaska's migration numbers, however, Alaska's net migration numbers could remain negative, especially with a softer economic picture brought on by troop losses and low oil prices.

Neal Fried is an economist in Anchorage. Reach him at (907) 269-4861 or neal.fried@alaska.gov.

ALASKA'S PILOTS



Alaska relies more on pilots than any other state

By **DAN STRONG**

No state relies on air taxis and commuter planes as heavily as Alaska. Many Alaska communities are accessible only by air or water, and for many, flights are the only reliable form of year-round transportation. Because of that critical link, aviation provides services here that drivers would cover elsewhere, including carrying mail, groceries, and supplies and providing medical transport.

Over 1 percent of the state's population has some level of pilot certification, which is 3.6 times the U.S. average. Per capita, Alaskans own six times the national average number of aircraft, and the state has four times

the number of airports per square mile.

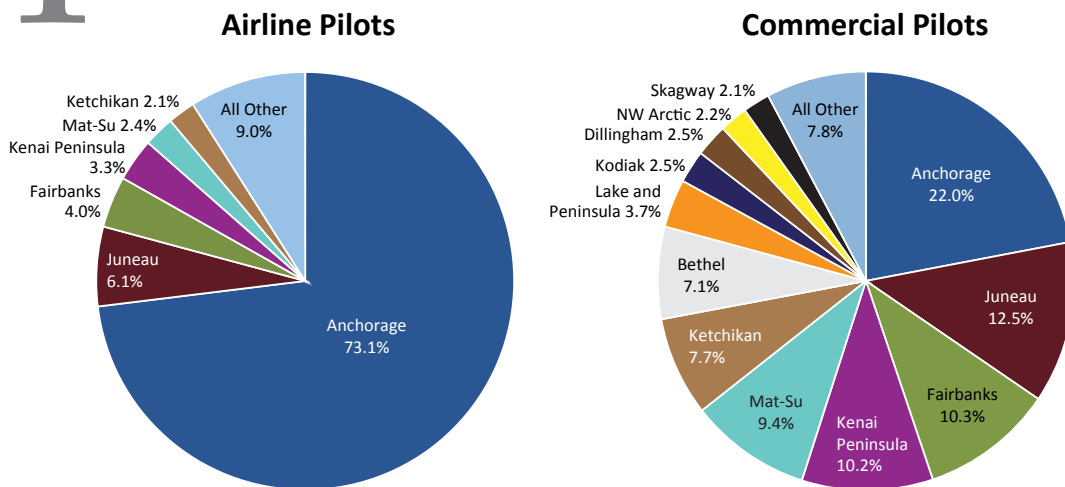
Pilots' contribution to the state's economy is just as much of a standout nationally. In 2012, their share of the state's gross domestic product was \$7.5 million, fourth-highest in the nation.

The industry's backbone

As of July 2015, Alaska had 10,378 active pilots, of which 17.1 percent were commercial pilots and 28.4 percent were airline transport pilots or flight engineers. The rest were student pilots, private pilots, and flight instructors.

1 Where Alaska's Pilots Are Located

BY BOROUGH OR CENSUS AREA, 2013



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

Airline pilots, the largest group, typically fly cargo and passengers on scheduled routes using large, multi-engine aircraft. This group includes their copilots and flight engineers.

Commercial pilots fly fixed-wing planes or helicopters, sometimes on nonscheduled routes, for rescue operations, ambulance services, health care, tourism, fire-fighting support, and transportation. Pilots for Alaska's companies that provide flight service to smaller communities are commercial pilots.

Harsh conditions and long hours

Alaska pilots flew more than 5.7 million air miles in 2014, or about 5,492 miles per active pilot.

During those trips, they transported about 179 million pounds of freight and 173 million pounds of mail, which was 5.8 times the national average. They also flew 3.3 million passengers, or 1.4 times the national average.

Long trips frequently involve unforgiving terrain, marginal weather, and widely dispersed airports and highways. Radio and RADAR coverage is often limited.

Irregular schedules and a significant time away from home are common. Most pilots are required to abide by Federal Aviation Administration flight duty limitations, which restrict their work to between nine and 19 hours at a time. Airline pilots fly an average of 75 hours a month, and work an additional 150 hours on other duties. Commercial pilots fly fewer hours each month,

2 Wages Around the State

PILOTS, AVERAGE ANNUAL, 2014

	Airline Pilots	Commercial Pilots
Anchorage/Mat-Su	\$145,213	\$73,327
Northern Region	\$75,756	\$89,778
Interior Region	\$51,899	\$57,913
Southwest Region	\$49,864	\$54,741
Southeast Region	\$35,332	\$54,899
Gulf Coast Region	\$30,443	\$61,615

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

averaging 30 to 90, but often have more responsibilities outside of flying.

Commercial pilot work is also more seasonal. In 2014, 40 percent of commercial pilots worked in all four quarters of the year versus 63 percent of airline pilots.

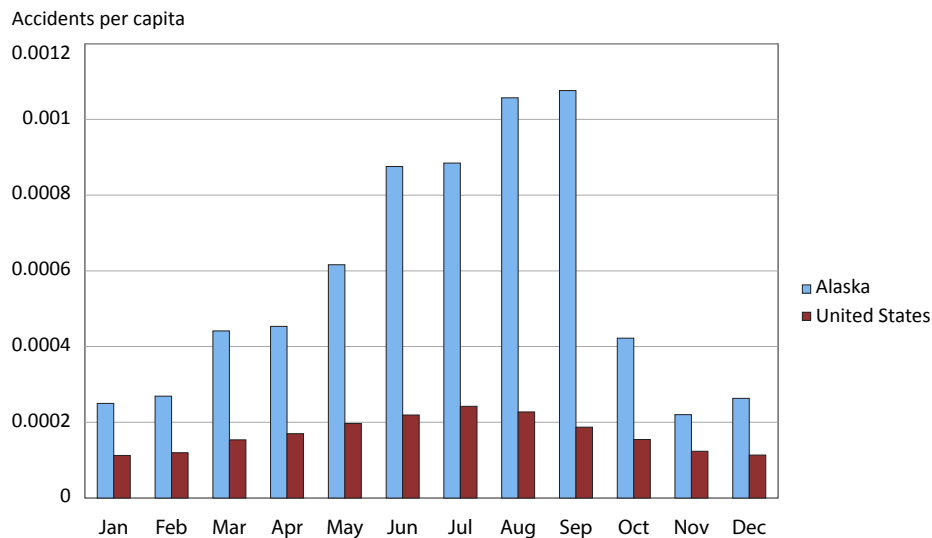
Airline pilots nationally tend to be older and more experienced, with an average age of 49.8 versus 45.5 for commercial pilots. In Alaska, however, it's the reverse — 44 percent of resident commercial pilots are 45 or older versus 37 percent of resident airline pilots.

Flight school and required hours

Alaska has 10 pilot training schools, three of which have Airline Transport Pilot programs, which issue the certifi-

3 Plane Crash Rates Climb Through Summer

ALASKA MONTHLY AVERAGE, 1982 THROUGH 2014



Source: National Transportation Safety Board

cate required to become an airline pilot. Trainees must also have a bachelor's degree and be at least 23 years old. Most begin their careers as commercial or military pilots to get the training and necessary flight time, which is 1,500 hours for the ATP.

Commercial pilots must be at least 18 with a high school diploma and commercial pilot certification. Certifications require 250 hours of flight time and allow pilots to accrue hours for the ATP. Additional ratings may be required, depending on the aircraft and employer.

New pilots at regional airlines generally have about 2,000 hours of flight time, and those starting at major airlines have 4,000 hours. Achieving the entry-level number of hours typically takes less than five years.

Highest U.S. employment

Alaska has the highest concentration of employment for both commercial and airline pilots in the country. Nearly three-quarters of Alaska's airline pilots work in Anchorage, which is the fourth-highest paying municipality in the United States at an average of \$145,450 a year. (See exhibits 1 and 2.)

Anchorage also has the nation's highest concentration of airline pilot jobs, with a location quotient nearly three times that of the next-highest metropolitan area. The location quotient is the ratio of the area's concentration of jobs to the national average.

Anchorage was also the top location for commercial pilots, though commercial pilots were more spread out across the state. They also made less than airline pilots. In 2014, commercial pilots in Alaska made an average of \$82,430, which was 7.7 percent below the national average.

Although airline pilot employment is projected to drop by 7 percent nationally between 2012 and 2022, Alaska's employment is expected to grow by 5.4 percent.

For commercial pilots, anticipated employment growth is 9 percent nationally, which is roughly the same as for all occupations combined, and 13 percent for Alaska.

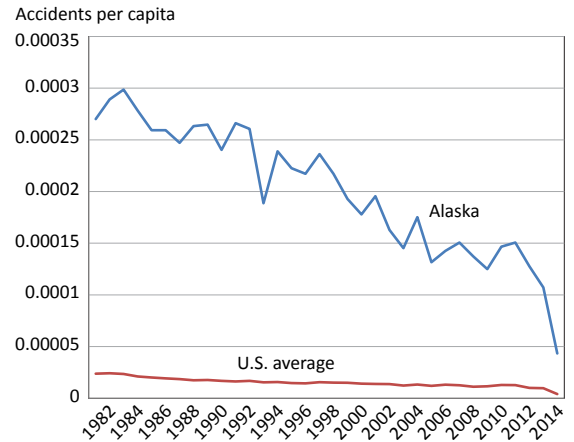
Because pilots have a mandatory retirement age of 65, both occupations are expected to have very high numbers of job openings in the next decade.

It's become safer in recent years

Alaska has the highest number of per capita plane crashes of any state. The necessity of air travel in Alas-

4 Crash Rates Have Dropped

PER CAPITA, 1982 TO 2014



Source: National Transportation Safety Board

ka, combined with unique meteorological conditions and mountainous terrain, make flying here more hazardous than in most states.

Accidents tend to peak in the summer and early fall. (See Exhibit 3.) Per capita, accidents during peak months are four to five times higher on average than the lower spring and winter months.

Though Alaska's per capita accidents remain No. 1 nationally, the state's percentage of nationwide crashes has dropped significantly since 1982. (See Exhibit 4.)

The 1990s were a deadly decade, but a combination of infrastructure improvements including weather cameras, better weather reporting, and advanced GPS tracking systems helped reduce fatal crashes in Alaska by more than half from 2000 to 2010. The occupational fatality rate also dropped by 40 percent from the '90s.

The total number of crashes in Alaska has steadily decreased, from a high of 220 in 1984 to 79 in 2014. Of those, just 14 involved commercial and airline pilots.

This year, there have been 39 airplane crashes as of July, six of which were fatal. Of those, five total crashes, one fatal, involved a confirmed commercial operator. However, more than 40 percent didn't specify the type of flight.

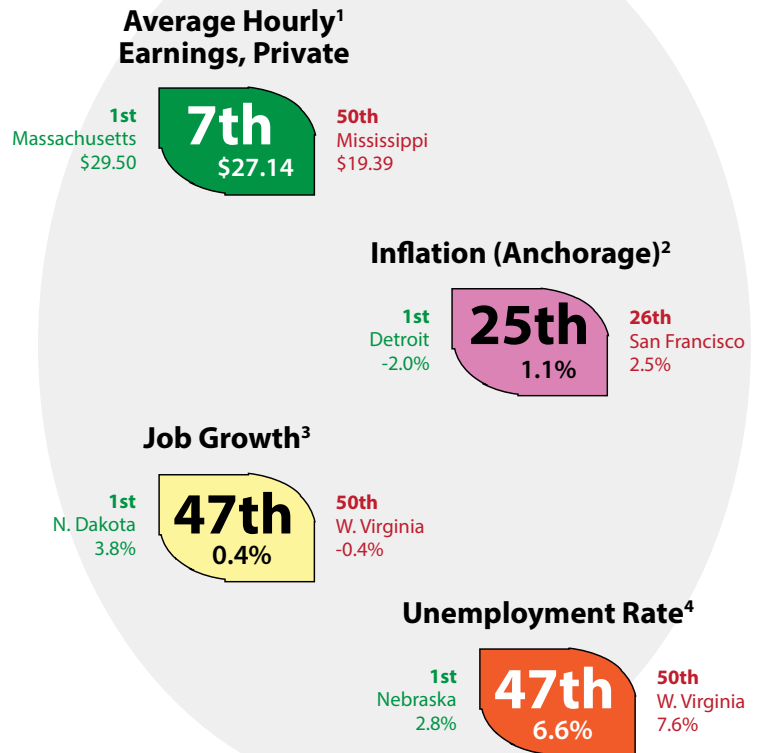
Dan Strong is a research analyst in Juneau. Reach him at (907) 465-6036 or daniel.strong@alaska.gov.

The Month in Numbers

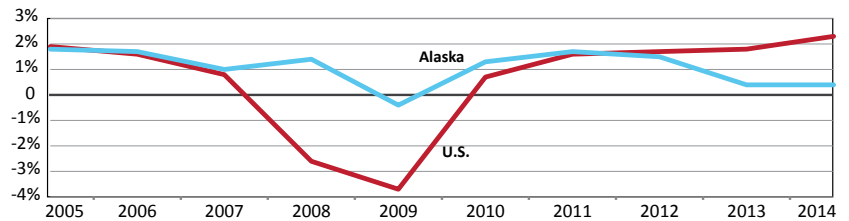
Area Unemployment Rates

	Prelim.	7/15	Revised	8/14
SEASONALLY ADJUSTED				
United States	5.1	5.3	6.1	
Alaska Statewide	6.6	6.7	6.9	
NOT SEASONALLY ADJUSTED				
United States	5.2	5.6	6.3	
Alaska Statewide	5.5	5.9	6.0	
Anchorage/Mat-Su Region				
Municipality of Anchorage	4.5	4.8	4.9	
Matanuska-Susitna Borough	6.7	7.4	7.2	
Gulf Coast Region				
Kenai Peninsula Borough	6.1	6.5	6.5	
Kodiak Island Borough	3.9	4.4	4.9	
Valdez-Cordova Census Area	5.3	6.0	6.4	
Interior Region				
Denali Borough	3.7	3.8	4.2	
Fairbanks North Star Borough	4.5	4.9	5.1	
Southeast Fairbanks CA	9.0	9.8	10.6	
Yukon-Koyukuk Census Area	15.0	16.5	15.7	
Northern Region				
Nome Census Area	11.3	13.1	12.1	
North Slope Borough	5.4	5.9	5.7	
Northwest Arctic Borough	14.4	16.8	15.0	
Southeast Region				
Haines Borough	5.1	5.5	5.7	
Hoonah-Angoon Census Area	9.8	10.9	9.0	
Juneau, City and Borough	3.9	4.3	4.4	
Ketchikan Gateway Borough	4.7	5.1	5.7	
Petersburg Borough*	5.9	6.1	6.8	
Prince of Wales-Hyder CA	9.8	10.7	10.7	
Sitka, City and Borough	3.4	3.5	3.8	
Skagway, Municipality	4.2	4.5	3.8	
Wrangell, City and Borough	5.8	6.5	6.3	
Yakutat, City and Borough	6.1	7.2	8.1	
Southwest Region				
Aleutians East Borough	2.9	3.1	4.0	
Aleutians West Census Area	2.7	3.1	4.1	
Bethel Census Area	14.1	15.7	15.7	
Bristol Bay Borough	3.9	2.1	4.5	
Dillingham Census Area	7.7	7.4	8.1	
Kusilvak Census Area	21.2	26.9	22.2	
Lake and Peninsula Borough	10.7	8.5	13.9	

How Alaska Ranks



Job Growth in Alaska and the Nation⁵



All data sources are U.S. Bureau of Labor Statistics and Alaska Department of Labor and Workforce Development, Research and Analysis Section, unless otherwise noted.

¹Annual average, 2014

²Percent change from first half of 2014 to first half of 2015. Data available for 26 cities. Consumer Price Index – all urban consumers (CPI-U)

³Annual average percent change, 2014; Maine and Utah also had 0.4 percent job growth

⁴Seasonally adjusted August rates

⁵Annual average percent change

Safety Minute

Violence prevention plans help keep working teens safe

Thousands of young people across Alaska have returned to school this fall, and many hold jobs at the same time. While many young workers never experience workplace violence, their employers should have a violence prevention plan in place. Alaska Occupational Safety and Health suggests employers first ensure management and staff commitment, which is essential to an effective safety plan.

At a minimum, workplace violence prevention programs should:

- Establish a clear policy for workplace violence, verbal and nonverbal threats, and related actions. All staff should know the policy.
- Ensure no worker who reports workplace violence faces negative repercussions.
- Encourage workers to promptly report incidents and suggest ways to reduce risks.
- Log incidents to assess risk and measure progress.

- Include a comprehensive plan for maintaining security that includes law enforcement or others who can help mitigate violence.
- Assign responsibility for the program to individuals or teams with appropriate training.
- Ensure adequate resources are available.

For more information, see the U.S. Department of Health and Human Services, Center for Disease Control and Prevention, National Institute for Occupational Safety and Health, Youth Safety. You can also visit www.cdc.gov/niosh/topics/youth/ for related topics.

For additional information on youth safety, call Alaska Occupational Safety and Health Youth Safety at (800) 656-4972 or email the youth training coordinator at elaine.banda@alaska.gov.

Safety Minute is written by the Labor Standards and Safety Division of the Alaska Department of Labor and Workforce Development.

Employer Resources

Alaska Career Ready saves employers time and money

The Alaska Career Ready program helps connect businesses with a qualified local labor pool by helping emerging, transitioning, and current members of Alaska's labor force earn the National Career Readiness Certificate, or NCRC.

Developed by ACT and adopted nationwide, the NCRC is a portable, evidence-based credential that certifies the holder has basic, essential workplace skills. For businesses, hiring applicants who hold the certificate helps reduce hiring costs, increase productivity, and decrease unnecessary turnover.

Applicants can earn the certificate at an Alaska Job Center by taking WorkKeys assessments in applied mathematics, locating information, and reading for

information. To date, more than 41,000 Alaskans have earned the NCRC at the bronze, silver, gold, or platinum level.

Alaska Career Ready allows businesses to collaborate with Alaska Job Center Business Connection professionals to recognize or request the NCRC on job orders as proof of essential workplace skills. This employee selection and development program is available at no cost. For more information, please contact one of the job centers at www.jobs.state.ak.us/offices/index.html.

Employer Resources is written by the Employment Training Services Division of the Alaska Department of Labor and Workforce Development.