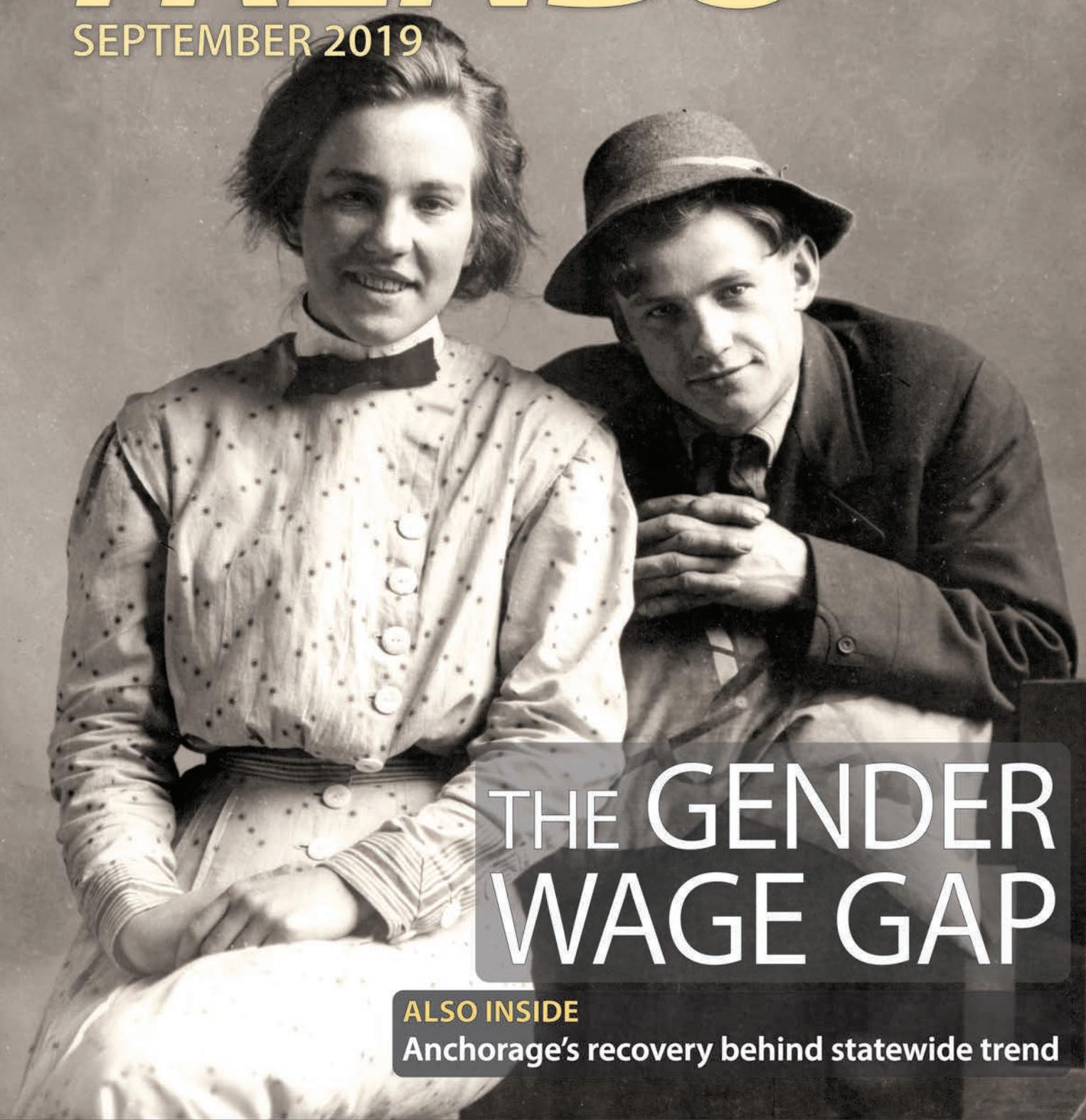


# ALASKA ECONOMIC **TRENDS**

SEPTEMBER 2019



## THE GENDER WAGE GAP

**ALSO INSIDE**

Anchorage's recovery behind statewide trend

## FROM THE COMMISSIONER

# September is Workforce Development Month

**By Dr. Tamika L. Ledbetter**, Commissioner

In 2018, the U.S. Senate passed a bipartisan resolution to designate September as National Workforce Development Month. The resolution encouraged states to promote workforce development initiatives and to recognize the crucial role they play in fueling local economies.

Through federal and state initiatives, programs and services are available to help build the labor force by strengthening workers in targeted populations that face various employment barriers. This funding provides skill-building and job training opportunities that lead Alaskans to sustainable employment, a living wage, and future wage progression.

While these programs help individuals and families, they also bolster local economies by providing workers who are better equipped, educated, and trained for current and future jobs. It's important to inform communities about the range of resources available, including business partnerships, available funding, and multiple training opportunities such as higher education, vocational and technical education, apprenticeships, on-the-job training, and more.

The Alaska Department of Labor and Workforce



Development is leading this charge to promote job growth and economic stability. The department is the lead agency implementing the state workforce development plan under the Workforce Investment and Opportunity Act, or WIOA, implemented in 2014.

As part of that effort, the department operates 14 one-stop job centers around the state, providing a range of services to job seekers and businesses at a single convenient location in each area.

WIOA reinforces the partnerships and strategies necessary for these job centers to provide quality career services, education and training, and the support necessary for Alaskans to secure good jobs and remain employed. WIOA also emphasizes the needs of employers by helping businesses find skilled workers and providing education and training for their current workers.

Contact Dr. Tamika L. Ledbetter, Commissioner, at (907) 465-2700 or [commissioner.labor@alaska.gov](mailto:commissioner.labor@alaska.gov).



Follow the Alaska Department of Labor and Workforce Development on Twitter ([twitter.com/alaskalabor](https://twitter.com/alaskalabor)) and Facebook ([facebook.com/alaskalabor](https://facebook.com/alaskalabor)).

SEPTEMBER  
2019

Volume 39 Number 9  
ISSN 0160-3345

SARA WHITNEY  
Editor

SAM DAPCEVICH  
Cover Artist

DAN ROBINSON  
Chief, Research  
and Analysis

ON THE COVER:

This studio portrait of a young couple in Douglas was taken in the early 1900s. Photo courtesy of Ed Andrews Photo Collection, Alaska State Library

**ALASKA**  
DEPARTMENT of LABOR  
and WORKFORCE  
DEVELOPMENT

Governor  
Michael J. Dunleavy  
Commissioner  
Dr. Tamika L. Ledbetter

# ALASKA ECONOMIC TRENDS

## 4 THE GENDER WAGE GAP

How education affects difference  
in men's and women's wages

## 15 ANCHORAGE'S RECOVERY BEHIND STATEWIDE TREND

Why Alaska job growth resumed  
in 2018, but the city lags

## 18 GAUGING ALASKA'S ECONOMY

*Trends* is a nonpartisan, data-driven magazine  
that covers a range of economic topics in Alaska.

ON THIS PAGE: The background image for 2019 is an aerial photo of rivers near Circle by Dr. Travis Nelson, who teaches at the Center for Pediatric Dentistry in Seattle. Nelson visited Alaska in May 2010 to provide dental care to children in Venetie, Circle, and Fort Yukon.

If you have questions or comments, contact editor Sara Whitney at [sara.whitney@alaska.gov](mailto:sara.whitney@alaska.gov) or (907) 465-6561.  
This material is public information, and with appropriate credit it may be reproduced without permission.  
To sign up for a free electronic subscription, read past issues online, or purchase a print subscription, visit [labor.alaska.gov/trends](http://labor.alaska.gov/trends).

# The Gender Wage Gap

How education affects difference in men's and women's wages

By **KARINNE WIEBOLD**

**W**hile women represent nearly half of Alaska's workers and hold more of the positions requiring higher education, they earn 72 percent of what men make, on average.

A number of factors influence the gender gap in wages, and many studies have tried to measure and explain them, but that type of analysis is outside this article's scope.

We've visited this issue a handful of times over the decades, most recently in March 2017 ("The gender gap: Women earn an average of 68 percent of what men make in Alaska"). Another article, in May 2016, looked at whether traditionally male and female occupations were becoming more integrated ("Gender and nontraditional work: Are men and women branching out, and is it paying off?").

This time, we're examining the levels of education Alaska's occupations typically require and how they affect what men and women earn.

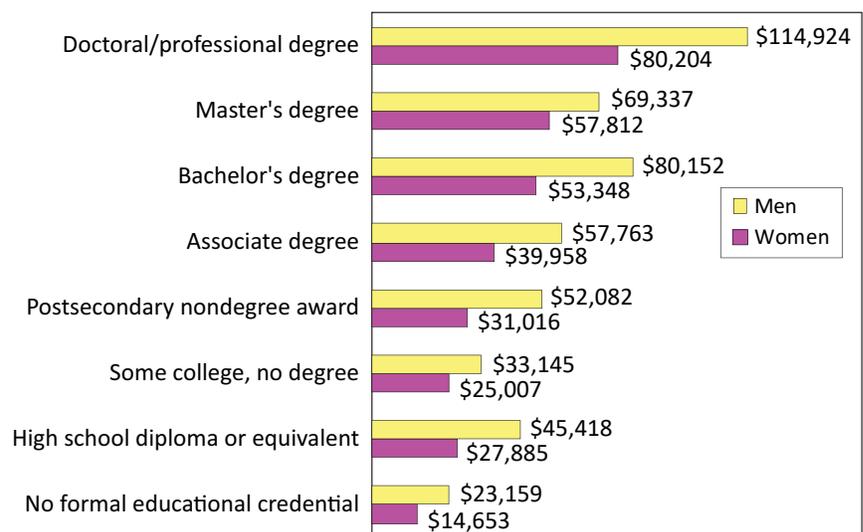
## Men earn more at every level of education occupations require

Women make up a larger percentage of workers in occupations requiring additional education, especially in those that require any type of college degree. Thirty-nine percent of women who worked in 2017 held positions that required more than a high school diploma, but just 28 percent of men did.

In general, jobs requiring more education pay more, but the data clearly show that when men and women work in occupations that require a similar level of education, the gender wage gap does not disappear.

## 1 Men Earn More At Every Level

BY EDUCATION REQUIREMENT OF OCCUPATION, ALASKA, 2017



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

Men earn more than women at every educational level and in the vast majority of occupations, including some dominated by women. Women outnumber men nine to one as registered nurses, for example, but men make about 14 percent more. Still, the gender wage gap narrows as education increases, although not consistently.

Men are also disproportionately represented in certain occupations that pay well in Alaska despite not requiring much formal education. For example, men are much more likely than women to work in oil, mining, and construction, where workers often make higher-than-average salaries and don't need more than a high school education. (See the sidebar on page 6, on occupations' education requirements versus training requirements.)

Average wages for women ranged from nearly \$15,000 in 2017 for positions with no formal education requirements to just over \$80,000 when a doctoral or professional degree was required. Average wages for men followed the same pattern, but ranged

from \$23,000 to \$115,000.

## Education isn't the only factor in wages

How much workers are paid varies on an individual basis as well as by occupation, and a number of factors besides education determine average pay.

While we expect a job requiring a master's degree to pay more than one that doesn't require a high school diploma, the type of work also affects the typical wage. Jobs with inherent risk, remote work sites, and challenging conditions, schedules, or shifts can drive up the average wage, even among similar jobs. For example, underwater welding pays more than standard welding. Likewise, a garbage collector might make more than a fast food worker, even though neither position requires graduating high school, because it's dirty and physically demanding work.

A number of high-paying jobs in Alaska with low educational requirements have these characteristics, such as remote work on the North Slope oil fields that requires unusual schedules such as two weeks on and two weeks off.

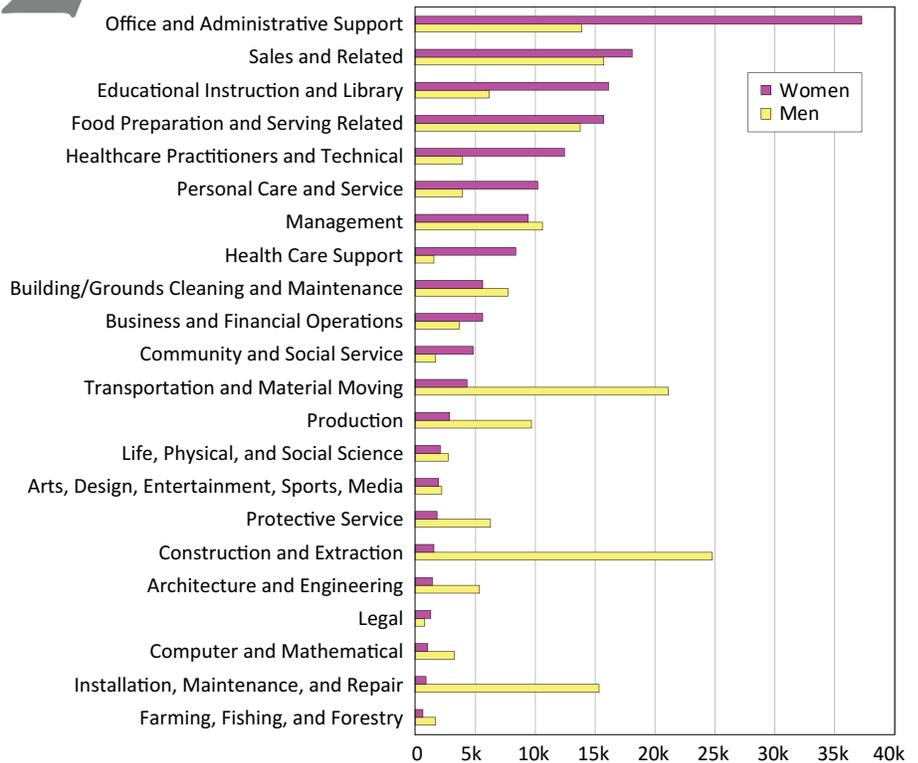
On an individual basis, a worker's job history, competence, hours worked, and negotiated starting pay also

affect wages — and some studies have shown men are more likely to negotiate when accepting an employment offer.

From here, we'll look closer at each level of educational requirements to see how women and men are repre-

# 2 Men and Women Choose Different Jobs

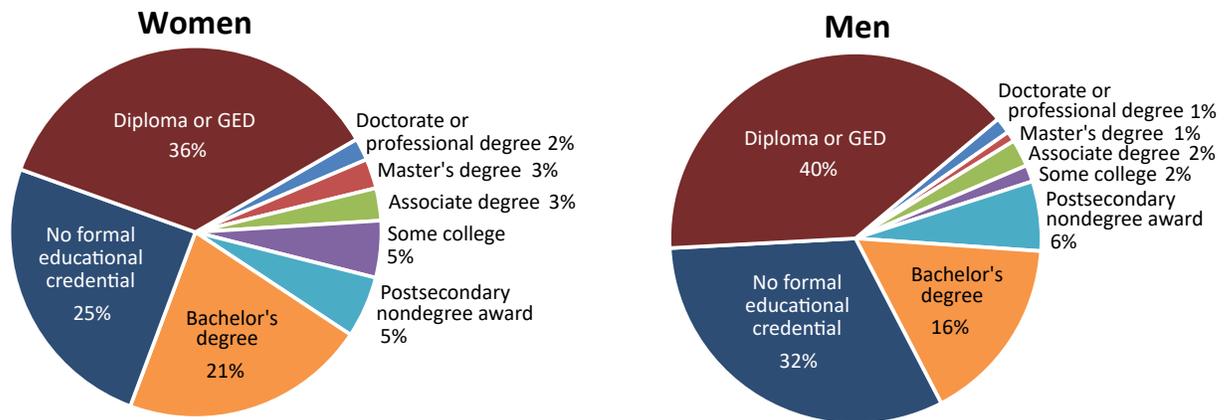
## ALASKA OCCUPATIONS AND NUMBERS OF WORKERS, 2017



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

# 3 Women Hold Jobs With Higher Education Requirements

## ALASKA, TYPICAL EDUCATIONAL REQUIREMENTS OF OCCUPATIONS WORKED, 2017



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

sented in these occupations and how they fare for wages.

We refer to women's average wages divided by men's as the earnings ratio. For example, the average wage for a retail salesman in 2017 was \$22,100 and the average wage for a woman in the same job was \$16,626, resulting in an earnings ratio of 75.2 percent.

It's important to note that this article determines education by what the occupation typically requires rather than the credentials workers actually have. For example, although retail sales positions don't typically require formal education, some of these workers have college degrees or other certifications.

Karinne Wiebold is an economist in Juneau. Reach her at (907) 465-6039 or [karinne.wiebold@alaska.gov](mailto:karinne.wiebold@alaska.gov).

## Training requirements are also important, but not included here

State and federal data sets classify every occupation by the level of education it requires and, independently, by its level of training. Each occupation is assigned the level of formal education typically required for hire at the entry level, ranging from "no formal education credential" to "doctoral or professional degree." Each occupation's training classification ranges from none to "long-term on-the-job training" and, for doctors, "internship/residency."

The separate categorization of education and training requirements can lead to misunderstandings, at the occupation level and also in interpreting education and training needs for the state. For example, electricians and plumbers require only a high school diploma, but both also require successful completion of an apprenticeship program.

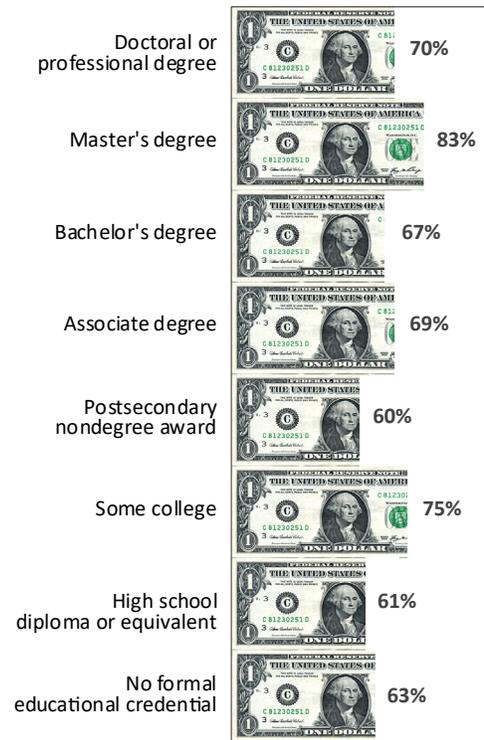
The distinction between education and training can also seem arbitrary or artificial for some occupations; for example, firefighters require an associate degree plus long-term on-the-job training while police officers require only a high school diploma and moderate on-the-job training.

Data showing Alaska has a large number of occupations that don't require formal education beyond high school doesn't mean those occupations don't require postsecondary training such as an apprenticeship, a certain number of training hours, or other specific training programs. The data shown here also shouldn't be interpreted to mean Alaska doesn't need more people with college degrees or that high school graduates are prepared for the workforce as soon as they graduate. The bulk of the occupations that don't require formal education beyond high school do require some type of postsecondary training.

# 4

## Women's Average Wages As A Percent of Men's

RATIO BY EDUCATION REQUIREMENT, 2017



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

## About the data

To produce the data in this article, we combined information from the quarterly reports nearly all Alaska employers are required to file under state unemployment insurance law with data from Permanent Fund Dividend applications. Matching the two allowed us to determine the gender and age of Alaska resident workers (using the PFD criteria for residency) as well as their earnings and occupations.

It isn't possible to determine whether workers are full-time or part-time, a major limitation in this article. The data also exclude most nonresidents, who are about 20 percent of the state's annual workforce, as well as the self-employed, federal civilian and military workers, and PFD applicants who didn't specify a gender.

We considered only the occupation in which a worker made the most money during the year. A school teacher, for example, who made \$50,000 teaching and \$10,000 during the summer working as a construction laborer would be counted as a school teacher with wages of \$50,000.

# Occupations With No Formal Education Requirements

**Average wage: \$19,579**

*Women make about 63¢ on the dollar*

**63.3%**

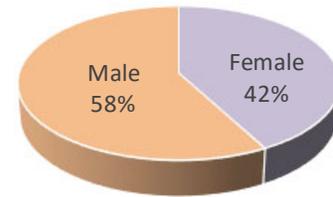


Occupations that don't require a high school diploma or GED make up the second-largest category in Alaska. This category encompasses a wide range of wages, from low-paying food service and retail jobs to high-paying oil and gas extraction jobs such as service unit operators, derrick operators, and rotary drill operators.

The types of jobs men and women choose heavily influence the earnings ratio in this category. In its nine highest-earning, male-dominated occupations, men earned \$165.7 million a year in 2017 but women, who worked in only six, earned just \$6.1 million.

These highest-paying occupations employed more than 2,100 workers, but less than 100 were women. While women in these jobs earned a higher average wage than the average for the category overall and had a high earnings ratio, they represented just 0.2 percent of all women working in jobs without any education requirements in 2017.

**Total workers: 96,242**



**Total occupations 103**

|                                |          |
|--------------------------------|----------|
| High-wage occupations (\$50k+) | 9        |
| Number of high-wage women      | 85       |
| Number of high-wage men        | 2,058    |
| High-wage women's average      | \$71,564 |
| High-wage men's average        | \$80,497 |

The largest part of this category by far is the 62 occupations that pay less than \$20,000, representing nearly 74,000 workers. Half of these lowest-paid workers were women, and 91 percent of all women in this education category worked in the lowest-paid occupations in 2017, compared to 66 percent of all the men.

## 10 Largest Occupations for Women With No Formal Education Requirements, 2017

| Occupation                                   | Total Wages in Millions | Total Workers | Percent Women | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|--|-------------------------|---------------|---------------|------------------|----------------|----------------|-----------------|---------------|
| Retail salespeople                           | \$282.6                 | 14,785        | 55%           | \$16,626         | \$22,100       | 75%            | 35              | 34            |
| Cashiers                                     | \$120.9                 | 8,052         | 65%           | \$13,824         | \$17,193       | 80%            | 35              | 33            |
| Waiters and waitresses                       | \$72.9                  | 4,386         | 71%           | \$16,332         | \$17,306       | 94%            | 33              | 33            |
| Combined food prep/serving, incl fast food   | \$58.0                  | 5,050         | 56%           | \$11,215         | \$11,840       | 95%            | 29              | 28            |
| Maids and housekeeping cleaners              | \$56.5                  | 3,482         | 77%           | \$15,233         | \$19,551       | 78%            | 39              | 41            |
| Food preparation workers                     | \$59.2                  | 4,965         | 51%           | \$11,776         | \$12,085       | 97%            | 30              | 28            |
| Janitors/cleaners, exc maids/housekeepers    | \$105.1                 | 5,608         | 36%           | \$16,023         | \$20,232       | 79%            | 43              | 43            |
| Counter attend, cafeteria/concession/coffee  | \$22.5                  | 2,196         | 79%           | \$10,158         | \$10,483       | 97%            | 25              | 26            |
| Meat, poultry, and fish cutters and trimmers | \$69.2                  | 4,378         | 34%           | \$15,304         | \$16,061       | 95%            | 44              | 43            |
| Bartenders                                   | \$22.8                  | 1,465         | 69%           | \$14,563         | \$17,803       | 82%            | 40              | 39            |

## 10 Largest Occupations for Men With No Formal Education Requirements, 2017

| Occupation                                    | Total Wages in Millions | Total Workers | Percent Men | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|---|-------------------------|---------------|-------------|------------------|----------------|----------------|-----------------|---------------|
| Retail salespeople                            | \$282.6                 | 14,785        | 45%         | \$16,626         | \$22,100       | 75%            | 35              | 34            |
| Construction laborers                         | \$154.3                 | 5,431         | 90%         | \$22,460         | \$29,071       | 77%            | 35              | 36            |
| Janitors/cleaners, exc maids/housekeepers     | \$105.1                 | 5,608         | 64%         | \$16,023         | \$20,232       | 79%            | 43              | 43            |
| Laborers and freight, stock, mat movers, hand | \$92.4                  | 4,148         | 87%         | \$15,731         | \$23,239       | 68%            | 34              | 36            |
| Meat, poultry, and fish cutters and trimmers  | \$69.2                  | 4,378         | 66%         | \$15,304         | \$16,061       | 95%            | 44              | 43            |
| Cashiers                                      | \$120.9                 | 8,052         | 35%         | \$13,824         | \$17,193       | 80%            | 35              | 33            |
| Food preparation workers                      | \$59.2                  | 4,965         | 49%         | \$11,776         | \$12,085       | 97%            | 30              | 28            |
| Combined food prep/serving, incl fast food    | \$58.0                  | 5,050         | 44%         | \$11,215         | \$11,840       | 95%            | 29              | 28            |
| Cooks, restaurant                             | \$41.8                  | 2,499         | 79%         | \$14,729         | \$17,272       | 85%            | 35              | 36            |
| Material moving workers, all other            | \$60.8                  | 1,623         | 92%         | \$27,903         | \$38,314       | 73%            | 37              | 40            |

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

# Occupations That Require a High School Diploma or GED

**Average wage: \$37,368**

Women make about 61¢ on the dollar

**61.4%**



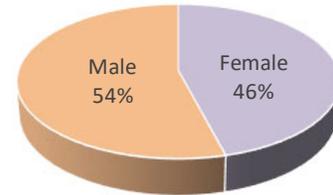
About 300 occupations in Alaska require a high school diploma or an equivalent, such as the GED, making this the largest educational requirement category. Common occupations include social and human service assistants, carpenters, and pharmacy technicians.

Nearly 129,000 Alaskans held these jobs in 2017, and nearly half were women.

As with the category requiring no formal education, this category includes a number of high-paying occupations, such as petroleum pump systems operators, production workers, and first-line supervisors of construction trades and extraction workers. Women represented a similarly tiny percentage in these three occupations, at 10 percent or less, and made less than the men.

Women working in jobs requiring a high school education are concentrated in office support jobs such as office

**Total workers: 128,723**



**Total occupations 314**

|                                |          |
|--------------------------------|----------|
| High-wage occupations (\$50k+) | 83       |
| Number of high-wage women      | 3,099    |
| Number of high-wage men        | 24,035   |
| High-wage women's average      | \$49,397 |
| High-wage men's average        | \$69,173 |

and administrative support workers, office clerks, secretaries and administrative assistants, and receptionists and information clerks. Seventy-nine percent of these workers were women, and they earned slightly more than their male counterparts, at an average of \$29,100 compared to \$27,000.

## 10 Largest Occupations for Women That Require a High School Education, 2017

| Occupation                                     | Total Wages in Millions | Total Workers | Women | Percent Women | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|--|-------------------------|---------------|-------|---------------|------------------|----------------|----------------|-----------------|---------------|
| Office and administrative support workers      | \$219.3                 | 7,885         | 5,633 | 71%           | \$28,050         | \$27,235       | 103%           | 37              | 33            |
| Office clerks, general                         | \$152.4                 | 5,579         | 4,246 | 76%           | \$27,714         | \$26,028       | 106%           | 40              | 36            |
| Personal care aides                            | \$100.4                 | 5,460         | 4,233 | 78%           | \$17,683         | \$20,801       | 85%            | 42              | 41            |
| Secretaries/admin assts, exc legal/med/exec    | \$97.6                  | 3,404         | 2,996 | 88%           | \$29,036         | \$26,017       | 112%           | 42              | 36            |
| Executive secretaries/exec admin assistants    | \$115.6                 | 3,120         | 2,696 | 86%           | \$37,554         | \$33,937       | 111%           | 44              | 39            |
| Receptionists and information clerks           | \$69.1                  | 2,837         | 2,525 | 89%           | \$24,793         | \$20,685       | 120%           | 36              | 33            |
| Customer service representatives               | \$78.2                  | 2,703         | 1,781 | 66%           | \$28,548         | \$29,633       | 96%            | 36              | 34            |
| Child Care workers                             | \$23.2                  | 1,901         | 1,689 | 89%           | \$12,217         | \$12,080       | 101%           | 33              | 29            |
| 1st-line supervisors of office/admin supt wkrs | \$94.3                  | 2,070         | 1,489 | 72%           | \$44,446         | \$48,405       | 92%            | 43              | 43            |
| Health Care support workers, all other         | \$63.8                  | 1,868         | 1,468 | 79%           | \$31,938         | \$42,352       | 75%            | 40              | 40            |

## 10 Largest Occupations for Men That Require a High School Education, 2017

| Occupation                                  | Total Wages in Millions | Total Workers | Men   | Percent Men | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|---|-------------------------|---------------|-------|-------------|------------------|----------------|----------------|-----------------|---------------|
| Operating engrs/other const equip operators | \$204.0                 | 3,560         | 3,368 | 95%         | \$40,834         | \$58,233       | 70%            | 39              | 45            |
| Maintenance and repair workers, general     | \$134.0                 | 3,283         | 3,080 | 94%         | \$24,994         | \$41,847       | 60%            | 41              | 44            |
| Carpenters                                  | \$108.8                 | 2,900         | 2,843 | 98%         | \$18,797         | \$37,907       | 50%            | 36              | 41            |
| Office and admin support workers, all other | \$219.3                 | 7,885         | 2,252 | 29%         | \$28,050         | \$27,235       | 103%           | 37              | 33            |
| Stock clerks and order fillers              | \$58.6                  | 2,801         | 2,032 | 73%         | \$17,594         | \$22,204       | 79%            | 36              | 35            |
| Security guards                             | \$68.1                  | 2,349         | 1,876 | 80%         | \$20,847         | \$31,071       | 67%            | 38              | 41            |
| Transportation workers, all other           | \$112.1                 | 2,537         | 1,856 | 73%         | \$29,004         | \$49,764       | 58%            | 40              | 40            |
| Electricians                                | \$117.7                 | 1,879         | 1,811 | 96%         | \$37,094         | \$63,610       | 58%            | 37              | 41            |
| Light truck or delivery services drivers    | \$54.5                  | 1,570         | 1,422 | 91%         | \$24,890         | \$35,758       | 70%            | 37              | 39            |
| Sales and related workers, all other        | \$57.9                  | 2,255         | 1,347 | 60%         | \$20,426         | \$29,186       | 70%            | 37              | 36            |

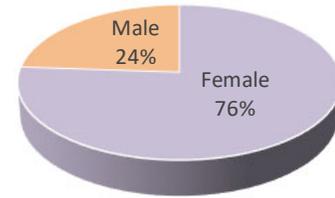
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

# Occupations That Require Some College (But No Degree)

**Average wage: \$26,955**  
*Women make about 75¢ on the dollar*

Jobs that require a high school education plus some sort of postsecondary course or study (but no formal certification or award) is a small category of just five occupations, but it represents more than 10,000 workers in Alaska. Teacher assistants and accounting clerks are the most common examples.

Total workers: 10,611



**75.4%**



More than three-quarters of these workers were female in 2017, and their earnings ratio was higher than in any other educational category except master's degrees. Again, when women dominate an occupation, their average wages tend to be closer to equal, but men still almost always make more.

| Total occupations              | 5   |
|--------------------------------|-----|
| High-wage occupations (\$50k+) | 0   |
| Number of high-wage women      | 0   |
| Number of high-wage men        | 0   |
| High-wage women's average      | \$0 |
| High-wage men's average        | \$0 |

Teacher assistants were the largest occupation, at 5,156 workers in 2017, of whom 83 percent were women. They earned slightly more than their male counterparts, at 101 percent, although wages were very low for both (\$16,872 and \$16,643, respectively).

Bookkeeping, accounting, and auditing clerks were the next largest group, at 4,218 workers in 2017, 85 percent of whom were women. Men outearned those women, but at an earnings ratio of 95 percent, which is far more equal than for most occupations.

## All Occupations That Require Some College Course(s) But No Degree, 2017

| Occupation   | Total Wages in Millions | Total Workers | Women | Percent Women | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|--|-------------------------|---------------|-------|---------------|------------------|----------------|----------------|-----------------|---------------|
| Teacher assistants                                       | \$86.8                  | 5,156         | 4,268 | 83%           | \$16,872         | \$16,643       | 101%           | 44              | 40            |
| Bookkeeping, accounting, and auditing clerks             | \$144.4                 | 4,218         | 3,566 | 85%           | \$33,937         | \$35,817       | 95%            | 44              | 40            |
| Computer user support specialists                        | \$47.1                  | 1,015         | 205   | 20%           | \$39,757         | \$48,047       | 83%            | 39              | 38            |
| Computer, automated teller, and office machine repairers | \$7.0                   | 156           | 9     | 6%            | \$31,255         | \$45,704       | 68%            | 42              | 43            |
| Actors   | \$0.8                   | 66            | 23    | 35%           | \$16,185         | \$9,765        | 166%           | 33              | 42            |

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

# Occupations That Require a Postsecondary Award (Nondegree)

**Average wage: \$42,567**

*Women make about 60¢ on the dollar*

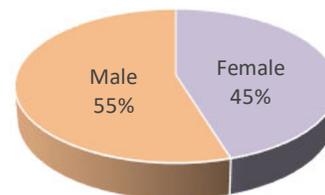


This category requires some type of certification or award beyond high school at a formal educational institution, but not a college degree. Some of these programs last just a few weeks and others last a year or two. It doesn't include certification by another type of certifying body or professional organization.

This is another broad category, with nearly 20,000 workers employed in 44 diverse occupations from paramedics to hairstylists. It included 14 occupations that averaged at least \$50,000 in 2017, and just 10 percent of these higher-paid workers were women. They also made an average of \$25,000 less than the men in these high-wage jobs.

Women in this educational category tend to be nursing assistants (2,084 workers in 2017, 88 percent women), medical assistants (1,808 workers, 89 percent women), or dental assistants (1,228 workers, 93 percent women). Again, the earnings ratios

**Total workers: 19,379**



**Total occupations 44**

|                                |          |
|--------------------------------|----------|
| High-wage occupations (\$50k+) | 14       |
| Number of high-wage women      | 468      |
| Number of high-wage men        | 4,072    |
| High-wage women's average      | \$41,736 |
| High-wage men's average        | \$66,576 |

in these occupations were high, with women earning between 87 percent and 97 percent of men's average wages, but overall wages were low for both. These types of jobs paid around \$30,000 — much lower than the average for this education category (\$42,567).

## 10 Largest Occupations for Women That Require a Postsecondary Award or Certificate, 2017

| Occupation                                      | Total Wages in Millions | Total Workers | Percent Women | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|---|-------------------------|---------------|---------------|------------------|----------------|----------------|-----------------|---------------|
| Nursing assistants                              | \$58.9                  | 2,084         | 88%           | \$28,015         | \$30,041       | 93%            | 37              | 36            |
| Medical assistants                              | \$56.5                  | 1,808         | 89%           | \$31,147         | \$32,260       | 97%            | 34              | 34            |
| Dental assistants                               | \$35.8                  | 1,228         | 93%           | \$28,867         | \$31,193       | 87%            | 34              | 31            |
| Hairdressers, hairstylists, and cosmetologists  | \$15.2                  | 706           | 94%           | \$21,473         | \$21,943       | 98%            | 34              | 35            |
| Medical records and health info technicians     | \$22.0                  | 578           | 86%           | \$36,991         | \$44,920       | 82%            | 42              | 37            |
| Massage therapists                              | \$15.0                  | 567           | 87%           | \$25,948         | \$30,046       | 86%            | 38              | 41            |
| Licensed practical and vocational nurses        | \$21.9                  | 441           | 84%           | \$46,204         | \$67,733       | 68%            | 46              | 45            |
| Health care practitioners/technical workers     | \$14.6                  | 292           | 82%           | \$48,451         | \$56,414       | 86%            | 40              | 42            |
| Psychiatric technicians                         | \$9.6                   | 345           | 61%           | \$27,787         | \$28,034       | 99%            | 36              | 35            |
| Health technologists and technicians, all other | \$12.0                  | 290           | 67%           | \$37,936         | \$48,368       | 78%            | 39              | 41            |

## 10 Largest Occupations for Men That Require a Postsecondary Award or Certificate, 2017

| Occupation  | Total Wages in Millions | Total Workers | Percent Men | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|---|-------------------------|---------------|-------------|------------------|----------------|----------------|-----------------|---------------|
| Heavy and tractor-trailer truck drivers           | \$139.8                 | 2,922         | 95%         | \$36,611         | \$48,419       | 76%            | 43              | 46            |
| Automotive svc technicians and mechanics          | \$76.8                  | 1,964         | 97%         | \$21,626         | \$39,735       | 54%            | 32              | 38            |
| Aircraft mechanics and service technicians        | \$66.2                  | 1,207         | 96%         | \$32,948         | \$55,887       | 59%            | 36              | 44            |
| Firefighters                                      | \$57.5                  | 925           | 84%         | \$24,257         | \$69,165       | 35%            | 36              | 39            |
| Telecom equip install/repair, exc line installers | \$54.2                  | 752           | 88%         | \$69,183         | \$72,507       | 95%            | 48              | 44            |
| Captains, mates, and pilots of water vessels      | \$32.0                  | 538           | 90%         | \$34,717         | \$62,229       | 56%            | 37              | 47            |
| Heating, air cond, refig mechanics/installers     | \$19.1                  | 388           | 97%         | \$21,733         | \$50,224       | 43%            | 39              | 41            |
| Nursing assistants                                | \$58.9                  | 2,084         | 12%         | \$28,015         | \$30,041       | 93%            | 37              | 36            |
| Emergency med technicians and paramedics          | \$17.0                  | 323           | 73%         | \$42,298         | \$56,371       | 75%            | 37              | 37            |
| Electrical/electronics repair, comm/industrial    | \$19.0                  | 202           | 98%         | \$102,811        | \$93,908       | 109%           | 41              | 46            |

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

# Occupations That Require an Associate Degree

**Average wage: \$48,401**

Women make about 69¢ on the dollar



An associate degree in college is typically a two-year degree, although it can take up to four years to complete. Jobs that require an associate degree include mechanical drafters, respiratory therapists, and dental hygienists.

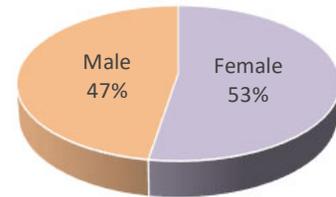
Only about 3 percent of occupations in Alaska require an associate degree, and they employed less than 9,000 workers in 2017. Women made up a slight majority, at 53 percent.

Twenty-seven occupations requiring an associate degree paid at least \$50,000 a year, and they employed more than 3,500 people in 2017.

Women made up 29 percent of these workers and earned nearly \$13,000 less than the men, on average.

Women with associate degrees are concentrated in medical, dental, and legal support occupations, while men are concentrated in engineering, computer support, and extraction.

**Total workers: 8,772**



| Total occupations              | 46       |
|--------------------------------|----------|
| High-wage occupations (\$50k+) | 27       |
| Number of high-wage women      | 1,029    |
| Number of high-wage men        | 2,488    |
| High-wage women's average      | \$58,704 |
| High-wage men's average        | \$71,656 |

## 10 Largest Occupations for Women That Require an Associate Degree, 2017

| Occupation                                       | Total Wages in Millions | Total Workers | Percent Women | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|--|-------------------------|---------------|---------------|------------------|----------------|----------------|-----------------|---------------|
| Preschool teachers, exc spec ed                  | \$18.4                  | 853           | 93%           | \$21,064         | \$29,164       | 72%            | 37              | 39            |
| Dental hygienists                                | \$25.3                  | 514           | 96%           | \$48,493         | \$67,041       | 72%            | 42              | 41            |
| Paralegals and legal assistants                  | \$24.9                  | 547           | 87%           | \$45,776         | \$44,216       | 104%           | 45              | 40            |
| Life, physical, and social science technicians   | \$20.5                  | 887           | 47%           | \$22,404         | \$23,667       | 95%            | 37              | 38            |
| Human resrc assts, exc payroll/timekeeping       | \$14.7                  | 393           | 87%           | \$38,703         | \$29,341       | 132%           | 40              | 37            |
| Radiologic technologists                         | \$25.8                  | 426           | 69%           | \$57,510         | \$67,370       | 85%            | 43              | 47            |
| Medical and clinical laboratory technicians      | \$13.9                  | 345           | 71%           | \$38,892         | \$44,247       | 88%            | 40              | 40            |
| Legal support workers, all other                 | \$12.8                  | 263           | 74%           | \$45,700         | \$56,893       | 80%            | 45              | 44            |
| Veterinary technologists and technicians         | \$5.0                   | 198           | 91%           | \$25,854         | \$20,823       | 124%           | 34              | 31            |
| Engineering technicians, exc drafters, all other | \$40.4                  | 562           | 24%           | \$53,952         | \$77,371       | 70%            | 39              | 41            |

## 10 Largest Occupations for Men That Require an Associate Degree, 2017

| Occupation                                       | Total Wages in Millions | Total Workers | Percent Men | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|--|-------------------------|---------------|-------------|------------------|----------------|----------------|-----------------|---------------|
| Life, physical, and social science technicians   | \$20.5                  | 887           | 53%         | \$22,404         | \$23,667       | 95%            | 37              | 38            |
| Engineering technicians, exc drafters, all other | \$40.4                  | 562           | 76%         | \$53,952         | \$77,371       | 70%            | 39              | 41            |
| Geological and petroleum technicians             | \$34.4                  | 464           | 84%         | \$82,531         | \$72,571       | 114%           | 39              | 38            |
| Civil engineering technicians                    | \$18.3                  | 376           | 76%         | \$47,425         | \$49,094       | 97%            | 36              | 37            |
| Computer network support specialists             | \$15.0                  | 274           | 91%         | \$48,848         | \$55,229       | 88%            | 44              | 40            |
| Environmental engineering technicians            | \$14.6                  | 225           | 83%         | \$54,270         | \$67,287       | 81%            | 40              | 39            |
| Forest and conservation technicians              | \$7.2                   | 203           | 86%         | \$28,739         | \$36,398       | 79%            | 35              | 35            |
| Electrical and electronics engineering techs     | \$13.9                  | 167           | 92%         | \$52,340         | \$85,523       | 61%            | 39              | 44            |
| Radiologic technologists                         | \$25.8                  | 426           | 31%         | \$57,510         | \$67,370       | 85%            | 43              | 47            |
| Chemical technicians                             | \$9.0                   | 187           | 68%         | \$43,382         | \$50,243       | 86%            | 33              | 36            |

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

# Occupations That Require a Bachelor's Degree



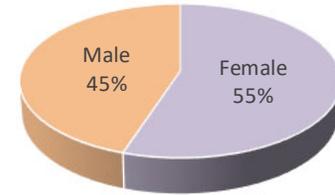
A bachelor's degree requires four or five years at a college or university. Common jobs requiring a bachelor's include budget analysts, dietitians and nutritionists, and civil engineers.

This is the third largest education category in Alaska, after occupations requiring a high school diploma and those without formal requirements. Nineteen percent of Alaska's occupations require a bachelor's degree, representing more than 63,000 workers in 2017. Women were the majority (55 percent) and earned about 67 percent of what men made.

The highest-paying occupations in this category — those averaging at least \$60,000 — employed 35,766 people, and nearly half were women. But while men made an average of \$98,832 in those occupations, women averaged nearly \$31,000 less.

The largest number of women worked as registered nurses, where they made up 88 percent of the workforce and earned an average of \$60,659 while

**Total workers: 63,479**



| Total occupations              | 171      |
|--------------------------------|----------|
| High-wage occupations (\$60k+) | 71       |
| Number of high-wage women      | 16,852   |
| Number of high-wage men        | 18,914   |
| High-wage women's average      | \$67,923 |
| High-wage men's average        | \$98,832 |

men averaged \$69,273. As in other categories that are mostly women, the earnings ratio of 88 percent for nurses was more equal than for jobs requiring a bachelor's degree overall.

The largest occupation for men was general and operations manager, where they were 63 percent of the workers and outearned women by \$26,000 a year.

## 10 Largest Occupations for Women That Require a Bachelor's Degree, 2017

| Occupation                                 | Total Wages in Millions | Total Workers | Women | Percent Women | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|--|-------------------------|---------------|-------|---------------|------------------|----------------|----------------|-----------------|---------------|
| Registered nurses                          | \$356.3                 | 5,777         | 5,093 | 88%           | \$60,659         | \$69,273       | 88%            | 44              | 43            |
| Teachers and instructors, all other        | \$108.0                 | 4,607         | 3,286 | 71%           | \$22,226         | \$26,442       | 84%            | 46              | 46            |
| Elementary school teachers, exc spec ed    | \$137.2                 | 2,530         | 2,014 | 80%           | \$54,046         | \$55,006       | 98%            | 44              | 45            |
| General and operations managers            | \$330.2                 | 4,055         | 1,519 | 37%           | \$65,033         | \$91,266       | 71%            | 46              | 49            |
| Accountants and auditors                   | \$118.5                 | 1,861         | 1,376 | 74%           | \$59,654         | \$75,172       | 79%            | 44              | 43            |
| Managers, all other                        | \$212.3                 | 2,753         | 1,310 | 48%           | \$63,155         | \$89,804       | 70%            | 46              | 49            |
| Secondary teachers, exc spec/career/tech   | \$123.4                 | 2,086         | 1,291 | 62%           | \$57,566         | \$61,706       | 93%            | 44              | 45            |
| Administrative services managers           | \$74.7                  | 1,472         | 1,022 | 69%           | \$46,921         | \$59,337       | 79%            | 44              | 46            |
| Business operations specialists, all other | \$92.3                  | 1,427         | 797   | 56%           | \$54,163         | \$77,932       | 70%            | 44              | 44            |
| Chief executives                           | \$241.1                 | 1,818         | 775   | 43%           | \$93,612         | \$161,615      | 58%            | 48              | 52            |

## 10 Largest Occupations for Men That Require a Bachelor's Degree, 2017

| Occupation                                     | Total Wages in Millions | Total Workers | Men   | Percent Men | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|--|-------------------------|---------------|-------|-------------|------------------|----------------|----------------|-----------------|---------------|
| General and operations managers                | \$330.2                 | 4,055         | 2,536 | 63%         | \$65,033         | \$91,266       | 71%            | 46              | 49            |
| Managers, all other                            | \$212.3                 | 2,753         | 1,443 | 52%         | \$63,155         | \$89,804       | 70%            | 46              | 49            |
| Teachers and instructors, all other            | \$108.0                 | 4,607         | 1,321 | 29%         | \$22,226         | \$26,442       | 84%            | 46              | 46            |
| Airline pilots, copilots, and flight engineers | \$146.3                 | 1,182         | 1,095 | 93%         | \$125,708        | \$123,651      | 102%           | 43              | 46            |
| Construction managers                          | \$109.4                 | 1,178         | 1,069 | 91%         | \$79,605         | \$94,233       | 84%            | 45              | 49            |
| Chief executives                               | \$241.1                 | 1,818         | 1,043 | 57%         | \$93,612         | \$161,615      | 58%            | 48              | 52            |
| Engineers, all other                           | \$127.5                 | 1,104         | 888   | 80%         | \$94,225         | \$120,666      | 78%            | 39              | 44            |
| Civil engineers                                | \$90.6                  | 1,126         | 852   | 76%         | \$70,472         | \$83,700       | 84%            | 42              | 44            |
| Secondary teachers, exc spec/career/tech       | \$123.4                 | 2,086         | 795   | 38%         | \$57,566         | \$61,706       | 93%            | 44              | 45            |
| Registered nurses                              | \$356.3                 | 5,777         | 684   | 12%         | \$60,659         | \$69,273       | 88%            | 44              | 43            |

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

# Occupations That Require a Master's Degree

**Average wage: \$60,943**

Women make about 83¢ on the dollar



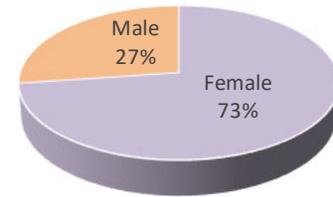
A master's degree typically requires an additional year or two of education beyond a bachelor's degree and is required for occupations such as statisticians, physician assistants, and various types of counselors.

Only about 2 percent of Alaska's occupations require a master's degree. Women held the large majority of these positions in 2017 and had the highest earnings ratio among educational categories. Only six occupations had a higher percentage of men than women, and only statistician stood out as being heavily male (80 percent).

Twelve occupations paid \$60,000 or more, and this was the only high-wage category among all educational levels where women were the majority (64 percent). However, men still earned an average of \$10,000 more.

While higher education requirements usually mean higher wages, that doesn't always hold true for master's degrees in Alaska.

**Total workers: 5,789**



|                                |           |
|--------------------------------|-----------|
| <b>Total occupations</b>       | <b>35</b> |
| High-wage occupations (\$60k+) | 12        |
| Number of high-wage women      | 1,177     |
| Number of high-wage men        | 648       |
| High-wage women's average      | \$85,741  |
| High-wage men's average        | \$96,160  |

This category's occupations pay an average of \$5,000 less than those requiring a bachelor's. The bachelor's category has a much higher share of high-paying occupations, and while there are high-paying occupations in the master's category as well, it includes a number of relatively low-paying jobs such as counselors and social workers.

## 10 Largest Occupations for Women That Require a Master's Degree, 2017

| Occupation                                    | Total Wages in Millions | Total Workers | Percent Women | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|---|-------------------------|---------------|---------------|------------------|----------------|----------------|-----------------|---------------|
| Mental health counselors                      | \$24.8                  | 550           | 75%           | \$44,051         | \$48,370       | 91%            | 44              | 47            |
| Educ, guidance, school, vocational counselors | \$28.4                  | 523           | 76%           | \$53,591         | \$56,830       | 94%            | 44              | 47            |
| Nurse practitioners                           | \$27.2                  | 327           | 92%           | \$83,468         | \$79,187       | 105%           | 48              | 48            |
| Physician assistants                          | \$45.7                  | 472           | 61%           | \$93,750         | \$101,541      | 92%            | 44              | 49            |
| Speech-language pathologists                  | \$16.8                  | 297           | 96%           | \$55,097         | \$86,128       | 64%            | 42              | 45            |
| Mental health/substance abuse social workers  | \$16.2                  | 395           | 282           | \$41,897         | \$39,010       | 107%           | 41              | 46            |
| Education administrators, elem/secondary      | \$49.7                  | 555           | 268           | \$86,648         | \$92,304       | 94%            | 50              | 49            |
| Instructional coordinators                    | \$16.6                  | 359           | 266           | \$45,396         | \$48,435       | 94%            | 45              | 46            |
| Librarians                                    | \$14.1                  | 282           | 254           | \$49,961         | \$50,845       | 98%            | 49              | 47            |
| Counselors, all other                         | \$12.8                  | 325           | 250           | \$37,261         | \$46,520       | 80%            | 44              | 48            |

## 10 Largest Occupations for Men That Require a Master's Degree, 2017

| Occupation                                    | Total Wages in Millions | Total Workers | Percent Men | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |
|---|-------------------------|---------------|-------------|------------------|----------------|----------------|-----------------|---------------|
| Education administrators, elem/secondary      | \$49.7                  | 555           | 287         | \$86,648         | \$92,304       | 94%            | 50              | 49            |
| Physician assistants                          | \$45.7                  | 472           | 184         | \$93,750         | \$101,541      | 92%            | 44              | 49            |
| Mental health counselors                      | \$24.8                  | 550           | 140         | \$44,051         | \$48,370       | 91%            | 44              | 47            |
| Educ, guidance, school, vocational counselors | \$28.4                  | 523           | 123         | \$53,591         | \$56,830       | 94%            | 44              | 47            |
| Mental health/substance abuse soc wkrs        | \$16.2                  | 395           | 113         | \$41,897         | \$39,010       | 107%           | 41              | 46            |
| Instructional coordinators                    | \$16.6                  | 359           | 93          | \$45,396         | \$48,435       | 94%            | 45              | 46            |
| Urban and regional planners                   | \$11.2                  | 189           | 85          | \$56,869         | \$61,894       | 92%            | 44              | 48            |
| Counselors, all other                         | \$12.8                  | 325           | 75          | \$37,261         | \$46,520       | 80%            | 44              | 48            |
| Education administrators, postsecondary       | \$14.1                  | 169           | 72          | \$72,588         | \$98,429       | 74%            | 52              | 54            |
| Rehabilitation counselors                     | \$6.1                   | 176           | 65          | \$34,568         | \$35,181       | 98%            | 41              | 42            |

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

# Occupations That Require a Doctoral or Professional Degree



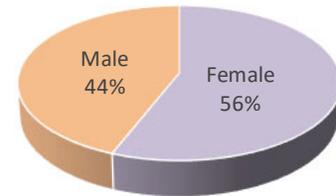
Doctorates (Ph.D.) and professional degrees usually require at least three years of full-time academic work beyond a bachelor's degree. Jobs requiring these advanced degrees include lawyers, physicists, and dentists.

Just 2 percent of Alaska's occupations are in this category, and while women are the majority, they earned 70 percent of what men earned in 2017.

Lawyer was the largest occupation for both men and women, and employment was fairly evenly split (51 percent women). Men earned considerably more, however, with an average annual wage nearly \$24,000 higher.

After lawyers, the largest numbers of women worked as physical therapists, family and general practitioners, and pharmacists. Women made up the majority of each of these categories, but the nearest their wages came to equal was pharmacists with an earnings ratio of 91 percent.

Total workers: 5,651



| Total occupations              | 62        |
|--------------------------------|-----------|
| High-wage occupations (\$75k+) | 27        |
| Number of high-wage women      | 1,693     |
| Number of high-wage men        | 1,614     |
| High-wage women's average      | \$106,415 |
| High-wage men's average        | \$147,526 |

Twenty-seven occupations in this category paid \$75,000 or more. Women made up just over half the workers but earned an average of \$41,000 less than the men, resulting in an earnings ratio of 72 percent: slightly more equitable than this educational category overall.

## 10 Largest Occupations for Women That Require a Doctoral or Professional Degree, 2017

| Occupation                                 | Total Wages in Millions | Total Workers | Percent Women | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |    |
|--|-------------------------|---------------|---------------|------------------|----------------|----------------|-----------------|---------------|----|
| Lawyers                                    | \$95.9                  | 1,034         | 51%           | \$81,143         | \$104,946      | 77%            | 42              | 45            |    |
| Physical therapists                        | \$31.6                  | 495           | 76%           | \$60,014         | \$76,239       | 79%            | 42              | 43            |    |
| Family and general practitioners           | \$53.2                  | 373           | 228           | 61%              | \$128,441      | \$164,688      | 78%             | 43            | 50 |
| Pharmacists                                | \$34.2                  | 347           | 210           | 61%              | \$94,815       | \$104,452      | 91%             | 41            | 44 |
| Postsecondary teachers, all other          | \$7.8                   | 293           | 178           | 61%              | \$25,276       | \$28,733       | 88%             | 52            | 53 |
| Physicians and surgeons, all other         | \$88.3                  | 351           | 133           | 38%              | \$204,104      | \$280,369      | 73%             | 46            | 50 |
| Clinical, counseling, school psychologists | \$9.2                   | 169           | 131           | 78%              | \$54,066       | \$55,991       | 97%             | 42            | 44 |
| Business teachers, postsecondary           | \$9.7                   | 235           | 113           | 48%              | \$31,681       | \$50,426       | 63%             | 51            | 55 |
| Veterinarians                              | \$11.9                  | 148           | 113           | 76%              | \$77,442       | \$88,731       | 87%             | 43            | 50 |
| Dentists, general                          | \$23.5                  | 209           | 96            | 46%              | \$89,555       | \$131,905      | 68%             | 36            | 49 |

## 10 Largest Occupations for Men That Require a Doctoral or Professional Degree, 2017

| Occupation                          | Total Wages in Millions | Total Workers | Percent Men | Women's Avg Wage | Men's Avg Wage | Earnings Ratio | Women's Avg Age | Men's Avg Age |    |
|-------------------------------------|-------------------------|---------------|-------------|------------------|----------------|----------------|-----------------|---------------|----|
| Lawyers                             | \$95.9                  | 1,034         | 503         | 49%              | \$81,143       | \$104,946      | 77%             | 42            | 45 |
| Physicians and surgeons, all other  | \$88.3                  | 351           | 218         | 62%              | \$204,104      | \$280,369      | 73%             | 46            | 50 |
| Family and general practitioners    | \$53.2                  | 373           | 145         | 39%              | \$128,441      | \$164,688      | 78%             | 43            | 50 |
| Pharmacists                         | \$34.2                  | 347           | 137         | 39%              | \$94,815       | \$104,452      | 91%             | 41            | 44 |
| Business teachers, postsecondary    | \$9.7                   | 235           | 122         | 52%              | \$31,681       | \$50,426       | 63%             | 51            | 55 |
| Physical therapists                 | \$31.6                  | 495           | 118         | 24%              | \$60,014       | \$76,239       | 79%             | 42            | 43 |
| Postsecondary teachers, all other   | \$7.8                   | 293           | 115         | 39%              | \$25,276       | \$28,733       | 88%             | 52            | 53 |
| Dentists, general                   | \$23.5                  | 209           | 113         | 54%              | \$89,555       | \$131,905      | 68%             | 36            | 49 |
| Engineering teachers, postsecondary | \$7.5                   | 82            | 66          | 80%              | \$87,555       | \$92,777       | 94%             | 46            | 53 |
| Internists, general                 | \$15.4                  | 105           | 52          | 50%              | \$131,911      | \$161,512      | 82%             | 45            | 51 |

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

# Anchorage's Recovery Behind Statewide Trend

Why Alaska job growth resumed in late 2018, but the city lags

By NEAL FRIED

**W**hile Alaska's job growth resumed in late 2018 after three years of loss, Anchorage is taking longer to shake the effects of the state recession. (See exhibits 1 through 3.)

Alaska began to add jobs in the last quarter of 2018, then registered growth of 0.3 percent in the first quarter of 2019. Our employment estimates through July suggest these gains, though modest, have continued.

Anchorage, which is home to nearly half the state's jobs, sustained slightly larger employment losses during the recession and its decline has continued into 2019.

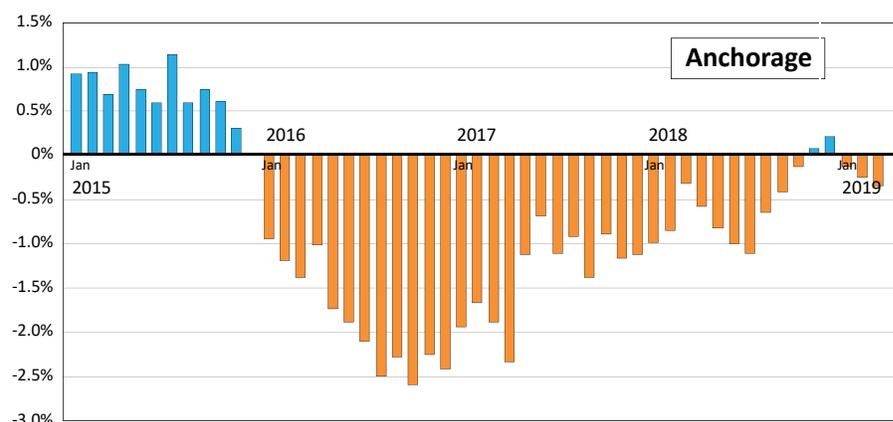
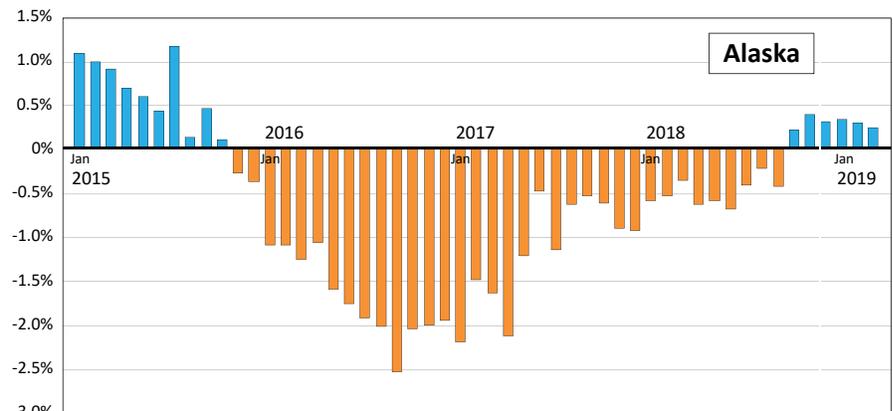
The city's employment was essentially flat in the last quarter of 2018 compared to the prior year, then down -0.3 percent in first quarter 2019. Estimates through July show employment has leveled or continued to decline slightly.

## Why the difference?

### Oil industry growth was mostly on the Slope

One factor that has pushed Alaska

## 1 Anchorage Slower to Resume Job Growth COMPARED TO STATEWIDE, QUARTERLY AVERAGE, 2015 TO 2019



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

# 2

## Job Growth or Loss by Industry

ALASKA AND ANCHORAGE, 4TH QUARTER 2018 AND 1ST QUARTER 2019

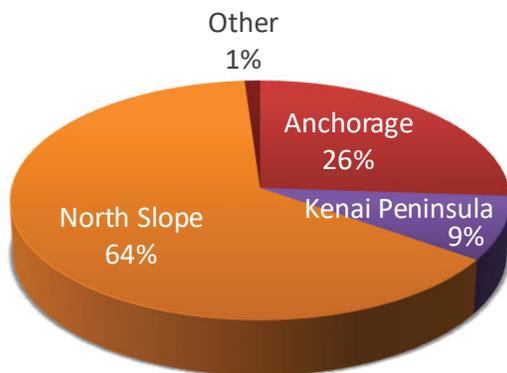
| Industry                                | Change in jobs from 4th quarter 2017 to 4th quarter 2018 |              | Change in jobs from 1st quarter 2018 to 1st quarter 2019 |              |
|---|--|--------------|--|--------------|
|   | Anchorage  | Alaska       | Anchorage  | Alaska       |
| <b>Total Wage and Salary Employment</b> | <b>60</b>  | <b>1,058</b> | <b>-376</b>  | <b>1,001</b> |
| Natural Resources                       | -36  | 348          | 16   | 530          |
| Oil and Gas                             | -77  | 199          | 2  | 456          |
| Construction                            | 595  | 1,324        | 441  | 801          |
| Manufacturing                           | 94   | -447         | 97   | -4           |
| Wholesale Trade                         | 43   | 9            | 43   | 54           |
| Retail Trade                            | -623   | -262         | -498   | -128         |
| Transportation and Warehousing          | 162  | 407          | -97  | 78           |
| Utilities                               | 55   | 62           | -14  | 2            |
| Information                             | -288   | -370         | -167   | -263         |
| Financial Activities                    | -189   | -304         | -90  | -186         |
| Professional and Business Services      | 160  | -208         | 28   | -121         |
| Educational and Health Care Services    | 354  | 746          | 185  | 158          |
| Health Care                             | 125  | 598          | -17  | 156          |
| Leisure and Hospitality                 | 223  | 443          | 217  | 475          |
| Accommodation                           | 49   | 59           | 70   | 185          |
| Eating and Drinking                     | 206  | 407          | 188  | 327          |
| Other Services                          | -132   | -21          | -260   | -133         |
| Government                              | -374   | -708         | -319   | -336         |
| Federal Government                      | -150   | -138         | -98  | -142         |
| State Government                        | 60   | 64           | 14   | 40           |
| Local Government                        | -283   | -633         | -236   | -234         |

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

# 3

## Where the Oil Jobs Are

ALASKA, 2018



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

back into job growth is improvement in the oil industry. After losing 6,000 jobs from 2014 to the summer of 2018, the industry began to recover by the end of 2018. During that last quarter, employment was up by nearly 200 from late 2017, and in the first quarter of 2019, jobs were up by more than 400. Nearly all of that job growth was on the North Slope.

In March 2019, the North Slope had 9,899 oil and gas jobs, and Anchorage had 2,531. (See Exhibit 3.) Anchorage is the state’s headquarters for the oil industry, and headquarters employment is far less volatile than Slope employment, during expansion as well as contraction.

That’s not to say Anchorage hasn’t benefited from that growth in ways these job numbers don’t reflect. Anchorage residents are one of the largest groups of Slope workers, and while their jobs are counted on the Slope, they spend much of their income at home.

*Much of the recent job growth has been on the North Slope, and Anchorage suffered unusually large retail losses over the past few years due to the closures of multiple big box stores.*

## **Anchorage had much bigger losses in retail trade**

Retail took a much bigger hit in Anchorage during the recession than it did statewide, as the city saw an unusually large number of store closures. Some of the larger closures included two Sam's Clubs, Toys R Us, and Bed Bath and Beyond.

During the first quarter of 2019, Anchorage's retail employment was down about 500 from the year before, while statewide retail was down just 128 jobs. In other words, removing Anchorage from the numbers puts retail trade jobs throughout the rest of the state up by nearly 400 in the first quarter of 2019.

## **Adding the Mat-Su Borough would change the story**

Many economists and residents see Anchorage and the Matanuska-Susitna Borough as a single economy, because there's so much interaction between the areas' businesses and workforces. If we include Mat-Su in this analysis, it changes the picture considerably.

The larger Anchorage/Mat-Su Region's pattern has followed the statewide pattern, with regional job growth resuming in the last quarter of 2018. That's because Mat-Su weathered the three-year recession with only one year of job loss (2017), and that loss was just 100 jobs, or -0.3 percent.

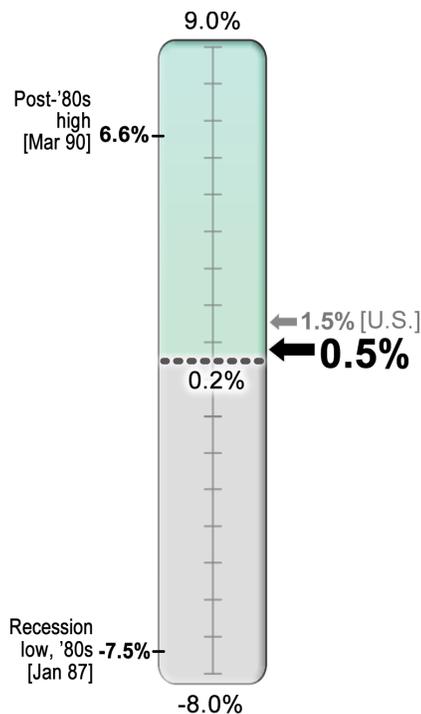
Neal Fried is an economist in Anchorage. Reach him at (907) 269-4861 or [neal.fried@alaska.gov](mailto:neal.fried@alaska.gov).

# Gauging Alaska's Economy



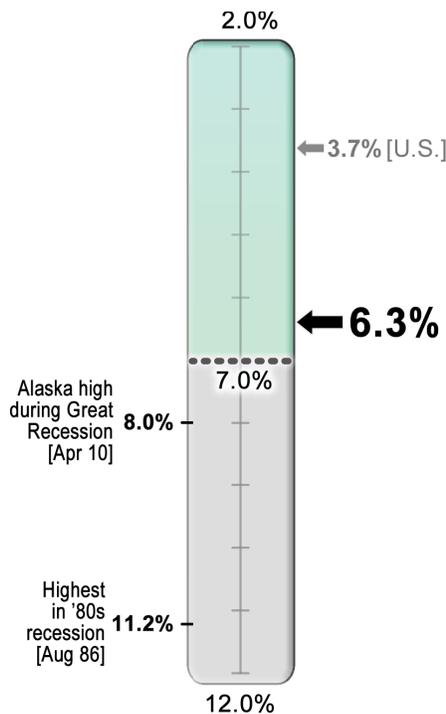
## Job Growth

July 2019  
Over-the-year percent change



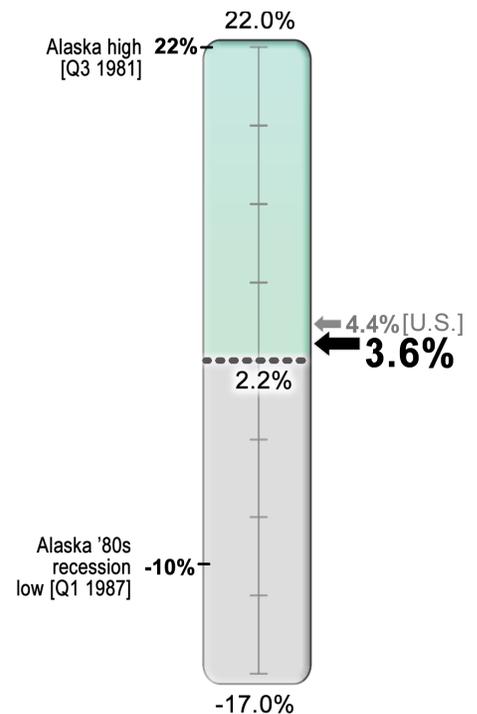
## Unemployment Rate

July 2019  
Seasonally adjusted



## Wage Growth

1st Quarter 2019  
Over-the-year percent change



- The state has registered over-the-year job gains for 10 straight months after losing jobs for the prior 36 months.
- The gains are small yet consistent, and signal the end of the state's recession.
- U.S. job growth remains strong and has been positive since 2010, with the strongest growth in 2015.

- Alaska's rate had been flat for 10 straight months at 6.5 percent before falling to 6.4 percent in May and 6.3 percent in July. The last time the rate was this low was 2007.
- Unemployment rates are complicated economic measures and generally less telling at the state level than job or wage growth as indicators of broad economic health.

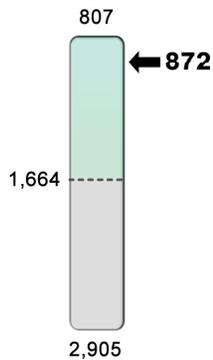
- Wages increased for the sixth straight quarter, and the strongest growth over that period was in 4th quarter 2018.
- Alaska's wage growth rate was slightly below the nation's, but both remained strong.

# Gauging Alaska's Economy



## Initial Claims

Unemployment, week ending August 3, 2019†

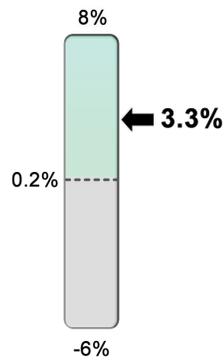


➤ For a variety of reasons, initial claims are well below the 10-year average despite job losses.

† Four-week moving average ending with the specified week

## GDP Growth

1st Quarter 2019  
Over-the-year percent change\*

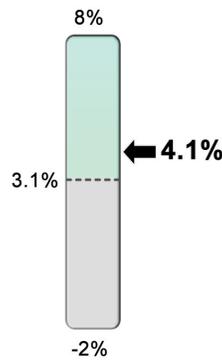


➤ Gross domestic product is the value of the goods and services a state produces. Alaska's GDP has grown for the last 10 quarters after declining for 15 out of the prior 16.

\*In current dollars

## Personal Income Growth

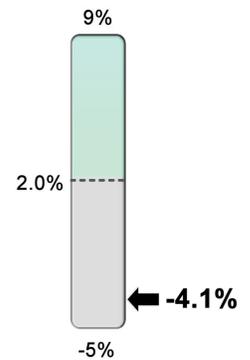
1st Quarter 2019  
Over-the-year percent change



➤ Personal income includes wages as well as transfer payments (such as Social Security, Medicaid, and the PFD) and investment income. Growth has resumed and is above the 10-year average, but down slightly from last quarter.

## Change in Home Prices

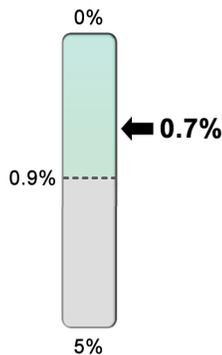
Single-family, 1st Qtr 2019  
Over-the-year percent change



➤ Home prices include only those for which a commercial loan was used. This indicator tends to be volatile from quarter to quarter.

## Foreclosure Rate

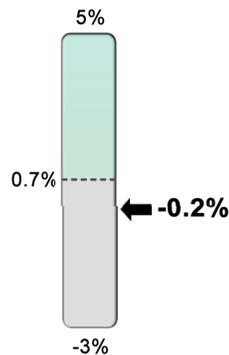
4th Quarter 2018



➤ Foreclosure rates remain very low, highlighting how different the state's recent recession was from the '80s recession when foreclosure rates exceeded 10 percent.

## Population Growth

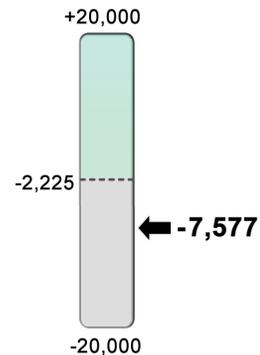
2017 to 2018



➤ The state's population has remained mostly stable during the state's recession, although 2018 was only the second year of population declines since 1988.

## Net Migration

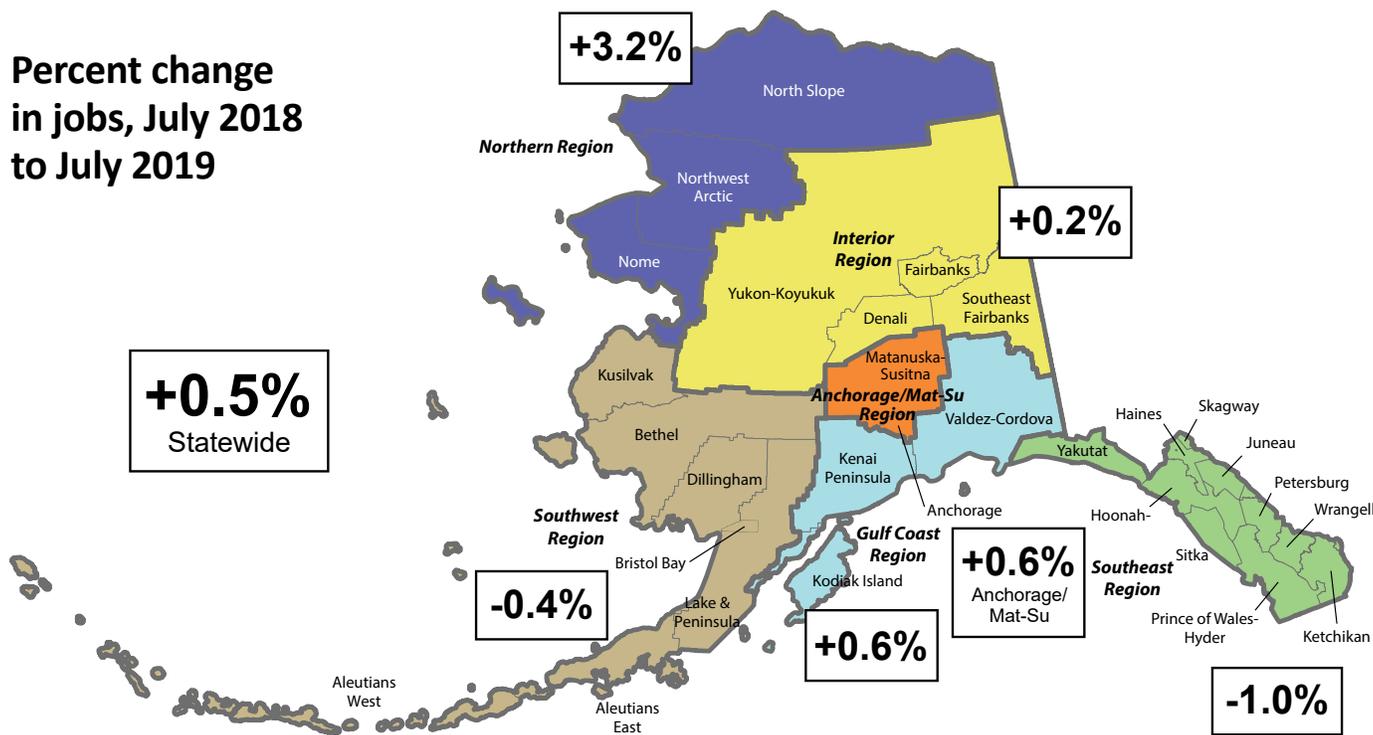
2017 to 2018



➤ The state had net migration losses for the sixth consecutive year in 2018. Net migration is the number who moved to Alaska minus the number who left.

# Employment by Region

Percent change in jobs, July 2018 to July 2019



## Unemployment Rates

Seasonally adjusted

Not seasonally adjusted

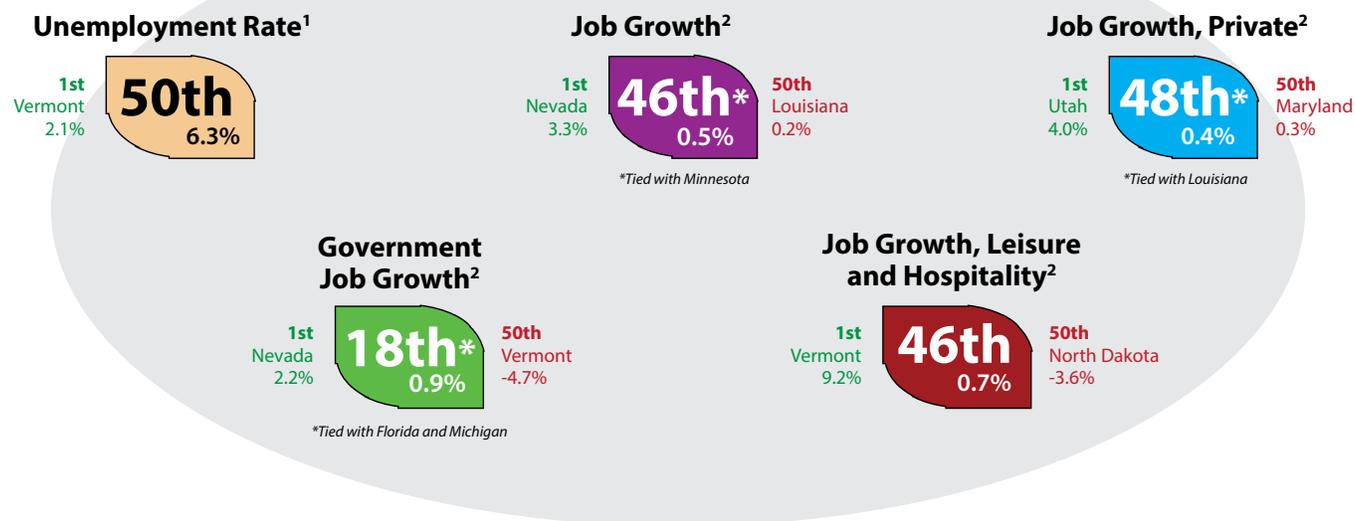
|               | Prelim. Revised |       |       |
|---------------|-----------------|-------|-------|
|               | 07/19           | 06/19 | 07/18 |
| United States | 3.7             | 3.7   | 3.9   |
| Alaska        | 6.3             | 6.4   | 6.6   |

|               | Prelim. Revised |       |       |
|---------------|-----------------|-------|-------|
|               | 07/19           | 06/19 | 07/18 |
| United States | 4.0             | 3.8   | 4.1   |
| Alaska        | 5.5             | 6.2   | 6.0   |

## Regional, not seasonally adjusted

|                                 | Prelim. Revised |             |             |                            | Prelim. Revised |             |            |                                   | Prelim. Revised |            |            |
|---------------------------------|-----------------|-------------|-------------|----------------------------|-----------------|-------------|------------|-----------------------------------|-----------------|------------|------------|
|                                 | 07/19           | 06/19       | 07/18       |                            | 07/19           | 06/19       | 07/18      |                                   | 07/19           | 06/19      | 07/18      |
| <b>Interior Region</b>          | <b>5.4</b>      | <b>6.1</b>  | <b>5.9</b>  | <b>Southwest Region</b>    | <b>9.0</b>      | <b>11.0</b> | <b>9.2</b> | <b>Southeast Region</b>           | <b>4.7</b>      | <b>5.3</b> | <b>4.6</b> |
| Denali Borough                  | 3.6             | 3.9         | 3.3         | Aleutians East Borough     | 2.0             | 3.1         | 2.0        | Haines Borough                    | 4.8             | 5.9        | 5.7        |
| Fairbanks N Star Borough        | 4.8             | 5.4         | 5.3         | Aleutians West Census Area | 2.7             | 3.7         | 2.7        | Hoonah-Angoon Census Area         | 6.9             | 8.0        | 7.6        |
| Southeast Fairbanks Census Area | 8.0             | 8.7         | 8.8         | Bethel Census Area         | 13.5            | 14.1        | 14.1       | Juneau, City and Borough          | 3.9             | 4.3        | 3.8        |
| Yukon-Koyukuk Census Area       | 14.2            | 14.8        | 15.1        | Bristol Bay Borough        | 1.6             | 3.0         | 1.6        | Ketchikan Gateway Borough         | 4.8             | 5.6        | 4.4        |
| <b>Northern Region</b>          | <b>11.3</b>     | <b>12.2</b> | <b>11.6</b> | Dillingham Census Area     | 6.0             | 7.3         | 5.8        | Petersburg Borough                | 6.4             | 8.3        | 6.3        |
| Nome Census Area                | 11.9            | 12.6        | 12.1        | Kusilvak Census Area       | 22.9            | 23.1        | 23.1       | Prince of Wales-Hyder Census Area | 9.4             | 9.3        | 9.3        |
| North Slope Borough             | 7.1             | 7.3         | 7.6         | Lake and Peninsula Borough | 7.5             | 9.3         | 8.7        | Sitka, City and Borough           | 3.5             | 4.1        | 3.4        |
| Northwest Arctic Borough        | 15.4            | 17.3        | 15.5        | <b>Gulf Coast Region</b>   | <b>5.1</b>      | <b>5.8</b>  | <b>5.9</b> | Skagway, Municipality             | 2.7             | 3.3        | 2.9        |
| <b>Anchorage/Mat-Su Region</b>  | <b>5.1</b>      | <b>5.7</b>  | <b>5.7</b>  | Kenai Peninsula Borough    | 5.4             | 6.0         | 6.3        | Wrangell, City and Borough        | 6.1             | 7.5        | 5.4        |
| Anchorage, Municipality         | 4.7             | 5.2         | 5.2         | Kodiak Island Borough      | 4.2             | 5.0         | 5.7        | Yakutat, City and Borough         | 5.4             | 5.7        | 7.7        |
| Mat-Su Borough                  | 6.5             | 7.3         | 7.1         | Valdez-Cordova Census Area | 4.5             | 6.0         | 4.3        |                                   |                 |            |            |

# How Alaska Ranks



Note: Government employment includes federal, state, and local government plus public schools and universities.

<sup>1</sup>July seasonally adjusted unemployment rates

<sup>2</sup>July employment, over-the-year percent change

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

## Other Economic Indicators

|  | Current    |               | Year ago   | Change  |
|--|------------|---------------|------------|---------|
| <b>Urban Alaska Consumer Price Index</b> (CPI-U, base yr 1982=100) | 228.858    | 1st half 2019 | 223.099    | +2.6%   |
| <b>Commodity prices</b>  |            |               |            |         |
| Crude oil, Alaska North Slope,* per barrel                         | \$65.99    | July 2019     | \$76.19    | -13.39% |
| Natural gas, residential, per thousand cubic feet                  | \$11.59    | May 2019      | \$11.85    | -2.19%  |
| Gold, per oz. COMEX  | \$1,540.70 | 8/26/2019     | \$1,216.00 | +26.70% |
| Silver, per oz. COMEX  | \$17.72    | 8/26/2019     | \$14.97    | +18.37% |
| Copper, per lb. COMEX  | \$2.54     | 8/26/2019     | \$2.73     | -7.05%  |
| Zinc, per MT   | \$2,254.00 | 8/23/2019     | \$2,540.00 | -11.26% |
| Lead, per lb.  | \$0.94     | 8/26/2019     | \$0.94     | 0%      |
| <b>Bankruptcies</b>  |            |               |            |         |
|  | 106        | Q2 2019       | 105        | +0.95%  |
| Business   | 9          | Q2 2019       | 6          | +50%    |
| Personal   | 97         | Q2 2019       | 99         | -2.02%  |
| <b>Unemployment insurance claims</b>                               |            |               |            |         |
| Initial filings  | 3,149      | July 2019     | 3,702      | -14.94% |
| Continued filings  | 22,810     | July 2019     | 29,411     | -22.44% |
| Claimant count   | 5,375      | July 2019     | 6,454      | -16.72% |

\*Department of Revenue estimate

Sources for this page and the preceding three pages include Alaska Department of Labor and Workforce Development, Research and Analysis Section; U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; Kitco; U.S. Census Bureau; COMEX; Bloomberg; Infomine; Alaska Department of Revenue; and U.S. Courts, 9th Circuit

# EMPLOYER RESOURCES

## **Free fidelity bonds an opportunity for employers, at-risk workers**

Fidelity bonding is a proven and effective job placement tool that helps concerned employers and at-risk job seekers.

The Alaska Fidelity Bonding Program offers no-cost, no-deductible bonds to employers who hire at-risk employees such as ex-offenders, people recovering from substance abuse, those with poor work or credit histories, and workers who are not otherwise bondable.

Bonds insure employers against any job-related theft, forgery, larceny, or embezzlement by an employee, on or off the work site. The opportunity to obtain a free fidelity bond allows the employer to focus on a worker's skills and productivity without taking on added risk of worker dishonesty. It is the only program that bonds ex-offenders.

Nationwide, 99 percent of bonded at-risk workers have proven to be honest employees.

Employers can bond any full- or part-time, permanent or temporary, new or returning employee who meets the state's legal age requirement to work. Under some circumstances, no-cost bonds may also be

available for employers wanting to promote or retain at-risk workers. The self-employed are not eligible.

Bonds may be issued without the need to sign forms. It takes just a few minutes for Alaska Job Center staff to take down information about the employer, employee, and the hire date for the bond to take effect.

The basic bond is \$5,000 and is effective for six months. Larger amounts and renewals are available in some circumstances, and the employer may also continue coverage directly with the underwriter if there have been no claims in the first six months.

For more information about Alaska's Fidelity Bonding Program, visit [labor.alaska.gov/bonding](http://labor.alaska.gov/bonding), contact the Alaska Job Center at [jobs.alaska.gov/offices](http://jobs.alaska.gov/offices), or contact the Fidelity Bonding Coordinator at [dol.fidelitybondingprogram@alaska.gov](mailto:dol.fidelitybondingprogram@alaska.gov) or (907) 465-5952 or (800) 770-8973 (Alaska Relay).

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