

THE GENDER GAP



Women earn an average of 68 percent of what men make in Alaska

By **KARINNE WIEBOLD**

The average woman who worked in Alaska in 2015 earned \$34,333, and there was nearly a 50 percent chance she worked in health care or in state or local government. She also made 68 percent of what the average Alaska man earned.

Men earn more in nearly 80 percent of Alaska's occupations and at every age and educational level, even though men and women participate in the workforce

In 2015, nearly 167,000 women worked in Alaska and earned \$5.7 billion.

at nearly equal rates and work the same number of quarters per year. Forty-eight percent of the state's workers were women in 2015, but they made 38 percent of total wages. (See Exhibit 1.)

Women's workforce presence and share of total wages have both increased slightly since the late 1980s, when women were 47 percent of workers and earned 35 percent of wages. But over the past decade, both percentages have stayed about the same, with wages hovering around 38 percent and the percent of total workers varying by just

1 Women's Wages and Historical Representation in the Workforce ALASKA, 1988 TO 2015

		1988	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2012	2014	2015
Workers	Women	47%	46%	46%	46%	47%	47%	47%	48%	48%	48%	48%	48%	48%	48%	48%
	Men	53%	54%	54%	54%	53%	53%	53%	52%	52%	52%	52%	52%	52%	52%	52%
Wages	Women	35%	35%	36%	36%	36%	37%	37%	38%	39%	38%	38%	38%	38%	38%	38%
	Men	65%	65%	64%	64%	64%	63%	63%	62%	61%	62%	62%	62%	62%	62%	62%
Avg wages	Women	\$14,962	\$16,710	\$18,256	\$18,838	\$18,578	\$19,498	\$20,582	\$22,040	\$23,439	\$25,230	\$27,265	\$29,099	\$30,843	\$32,836	\$34,333
	Men	\$24,232	\$26,867	\$28,064	\$28,707	\$28,477	\$29,909	\$31,243	\$32,545	\$34,412	\$37,616	\$41,585	\$43,088	\$45,776	\$48,894	\$50,548
Earnings ratio*		62%	62%	65%	66%	65%	65%	66%	68%	68%	67%	66%	68%	67%	67%	68%

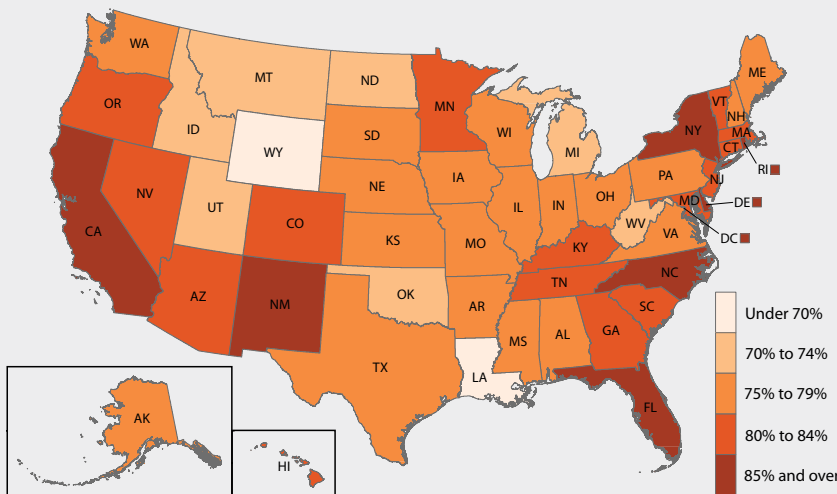
*What women earned on average that year as a percent of what men earned
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

How Alaska compares nationally

National data sources, such as the Bureau of Labor Statistics' Current Population Survey and the U.S. Census Bureau's American Community Survey, differ significantly from the rest of this article in that both are survey-based, use median wages instead of the average, and limit data to full-time workers.

While using different sources changes the size of the gap, they all tell the same story: that women earn significantly less than men and that Alaska ranks lower than the nation overall and lower than most states, even though Alaska has higher average wages for both men and women.

According to the ACS, Alaska ranks 33rd for wage parity, with women earning a median wage that's 78 percent of what men make: \$43,455 and \$55,752, respectively. New York and Delaware top the list with earnings ratios of 89 percent, and Wyoming comes in last at 64 percent. Nationwide, the earnings ratio is 80 percent, with \$39,940 in median earnings for women and \$49,938 for men.



Source: U.S. Census Bureau, American Community Survey 2015

half a percentage point.

The earnings ratio, or women's wages as a percent of men's, has grown somewhat over time. During the late 1980s, when Alaska was recovering from a significant recession, wage parity was at a low of 62 percent. That gap narrowed during the 1990s, to between 65 and 66 percent, and it continued to shrink into the 21st century.

It's important to note that this article's data can't measure the reasons for the gender wage gap. A variety of factors likely influence the disparity, including job experience, training, education, hours worked, choice of occupation or industry, and current and historical discrimination — but the degree to which those factors affect the gap is outside this article's scope. (See the sidebar on page 7.)

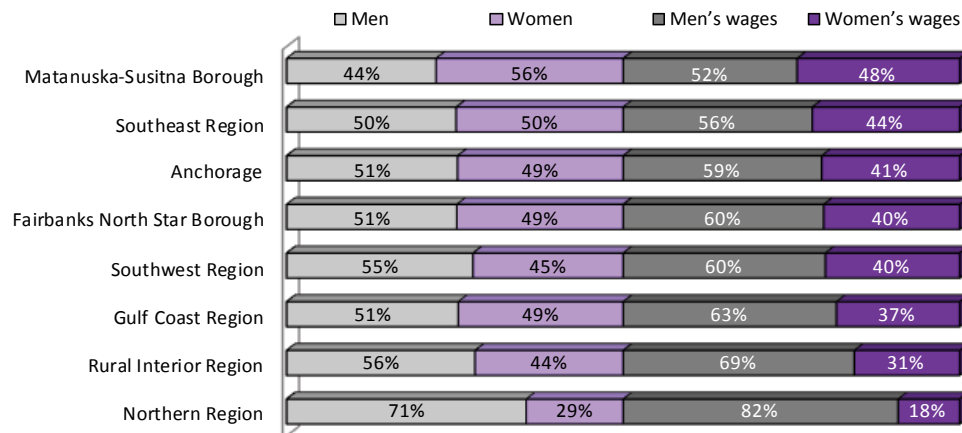
Gap smallest in urban areas

While women are 48 percent of the workforce statewide, the percentage varies considerably by region.

The percentages in some of the most populated and urban areas — Anchorage, Fairbanks, and the Gulf

2 Regional Workers and Wages by Gender

AS PERCENT OF THE AREA'S TOTAL, ALASKA, 2015



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

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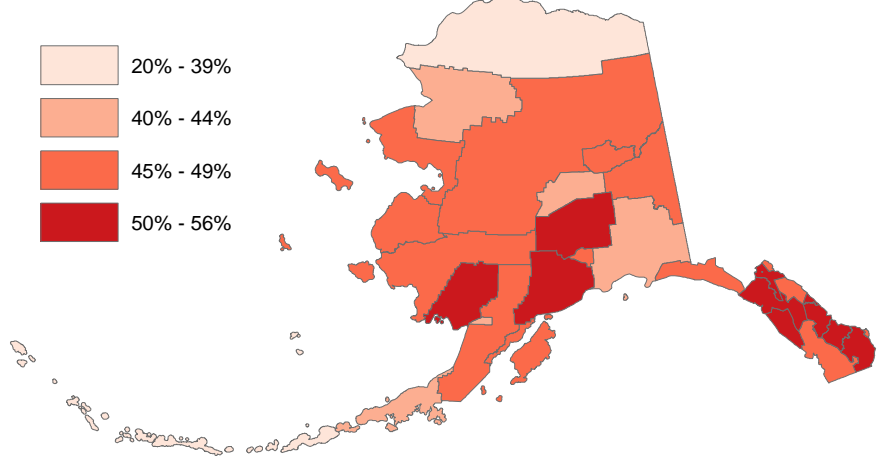
Where Women Work and How Their Pay Measures Up

ALASKA, 2015

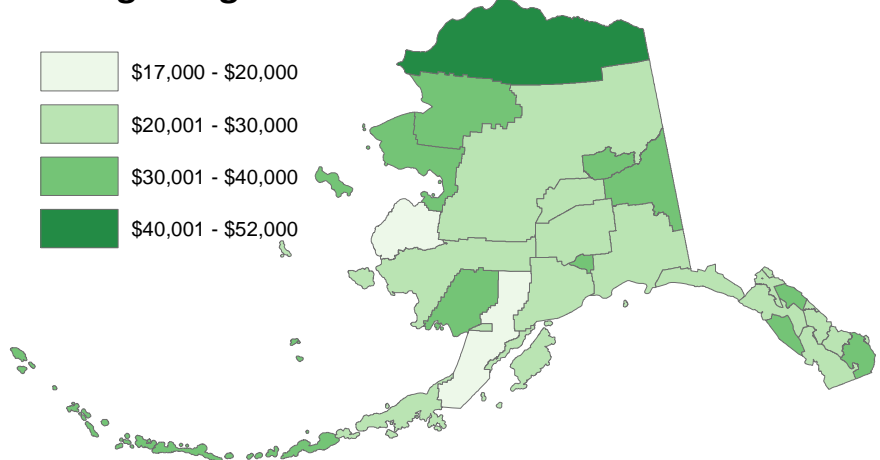
	Female workers	Women's avg wage	Earnings ratio
Anchorage/Mat-Su Region			
Anchorage	49%	\$38,856	72%
Mat-Su	45%	\$19,356	74%
Gulf Coast Region			
Kenai Pen	50%	\$28,210	58%
Kodiak Island	48%	\$28,791	72%
Valdez-Cordova	44%	\$28,294	57%
Interior Region			
Denali	40%	\$22,947	45%
Fairbanks N Star	49%	\$32,344	69%
SE Fairbanks	45%	\$31,814	56%
Yukon-Koyukuk	45%	\$20,016	77%
Northern Region			
Nome	47%	\$31,254	94%
North Slope	20%	\$51,083	59%
NW Arctic	43%	\$35,329	73%
Southeast Region			
Haines	53%	\$22,893	80%
Hoonah-Angoon	50%	\$20,241	91%
Juneau	49%	\$36,748	81%
Ketchikan	41%	\$24,385	75%
Petersburg	56%	\$27,485	74%
P of Wales-Hyder	47%	\$24,850	79%
Sitka	52%	\$31,421	84%
Skagway	47%	\$26,021	74%
Wrangell	54%	\$26,594	84%
Yakutat	45%	\$26,066	87%
Southwest Region			
Aleutians E	40%	\$26,130	71%
Aleutians W	35%	\$33,956	67%
Bethel	46%	\$29,092	94%
Bristol Bay	55%	\$26,519	76%
Dillingham	50%	\$30,939	100%
Kusilvak	47%	\$17,077	85%
Lake and Pen	50%	\$30,979	74%

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

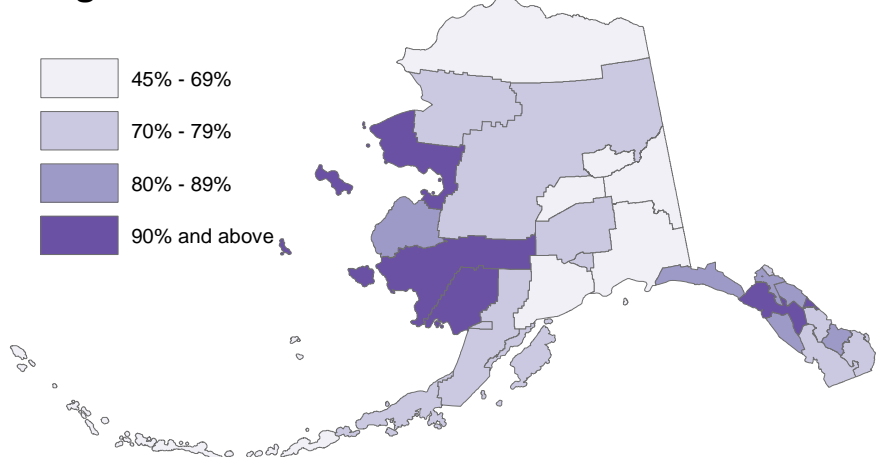
Percent Female Workers



Average Wage for Women



Wages as Percent of Men's



Coast — are around 49 percent.

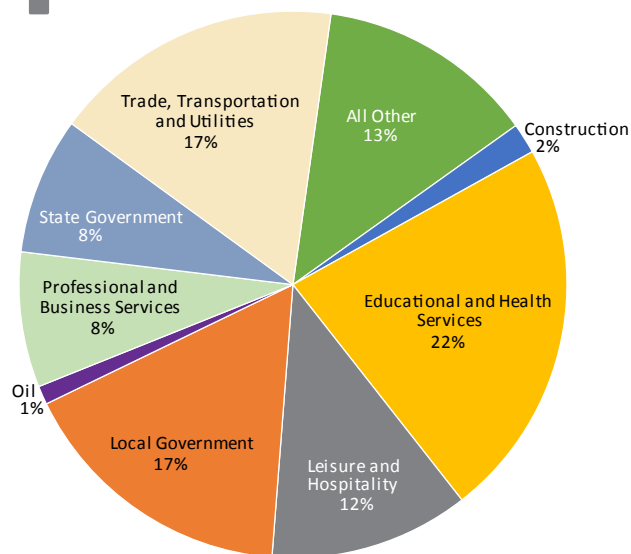
Women earn a slightly higher percentage of wages than the statewide 38 percent in the two most urban areas: Anchorage (41 percent) and Fairbanks (40 percent). Those cities have a significant number of high-paying private occupations as well as state and local government jobs, which have a smaller wage gap. (See exhibits 2 and 3.)

The Gulf Coast Region’s workforce is also 49 percent female, but women earn just 37 percent of total wages. The area is notable for its high-paying jobs in oil and gas, the industry in which women are least likely to work. (See the occupation and industry sections for more.)

Rural areas with remote work sites, such as the Northern and Rural Interior regions, have higher percentages of men. Mining, oil extraction, and oilfield services workers are predominantly men, and those jobs are also high-wage. For example, the North Slope Borough, where women earn 59 percent of what men make on average, has a workforce that’s just 20 percent women. Note, however, that the women who work in the North Slope Borough have the highest average wages in the state. (See Exhibit 3.)

Other rural areas where local government is a larger slice of the economy tend to have a smaller gap because men and women in these jobs make similar wages.

4 Where Women Work ALASKA, 2015



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

The Matanuska-Susitna Borough has the workforce with the highest percentage of women, at 56 percent. Unless otherwise noted, all numbers in this article are for the place where people work rather than where they live,

Continued on page 10

About the gender wage gap and limitations of the data

The difference between women’s and men’s wages is referred to as the gender wage gap, and it can be influenced by a number of factors, including experience, training, education, hours worked, job and industry choice, and discrimination. A wide variety of studies have attempted to measure and explain the reasons for the wage gap, but that type of analysis is outside the scope of this article.

For this article, we examined the total wages earned by each gender and the difference in their average annual wages. (Women’s average wages divided by men’s is also called the earnings ratio.)

We matched occupational data the Department of Labor and Workforce Development collects through the state’s unemployment insurance program with demographic data from Permanent Fund Dividend applications. These two sources allow a range of comparisons, but they have some major limitations.

The biggest drawback is they don’t allow us to differ-

entiate between full-time and part-time or seasonal workers, and including part-time and seasonal workers brings down the average for yearly wages.

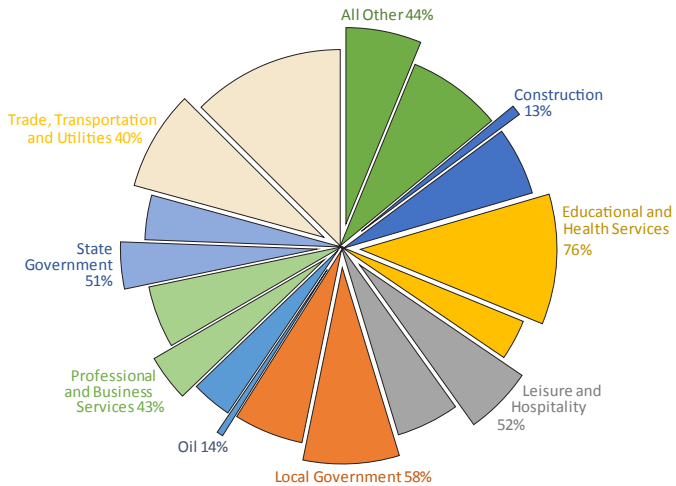
Second, because we included only those who were eligible for unemployment insurance and applied for a dividend, this analysis doesn’t cover nonresidents, who make up about 20 percent of the state’s annual workforce. It also excludes those who didn’t specify a gender, the self-employed, and federal civilian and military workers.

For a more useful analysis in the occupation-specific section, we considered only the occupation in which a worker made the most money, which understates total wages for people who held more than one job. For example, if Mary worked as a teacher but also held a summer retail job, her occupation would be “school teacher” and only those wages would be considered. However, in this article’s broader analysis, such as for overall workers and wages, her retail wages would also be counted.

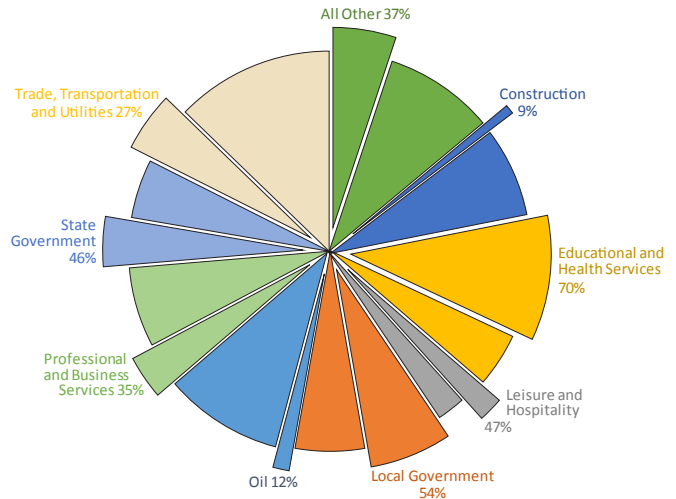
5 Women's Shares of Total Jobs and Earnings by Industry

ALASKA, 2015

Percent of Workers Who are Women



Percent of Wages Earned by Women



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

6 Workers and Wages by Select Industry

ALASKA, 2015

	Total		Women			
	Workers	Wages	Workers	Percent	Wages	Percent
Agriculture, Forestry, Fishing, and Hunting	1,284	\$31,119,344	390	30%	\$5,812,316	19%
Mining	16,398	\$1,870,475,695	2,195	13%	\$220,192,462	12%
Oil and Gas	3,822	\$784,619,460	806	21%	\$121,727,859	16%
Oilfield Services*	9,676	\$841,981,445	1,032	11%	\$75,067,716	9%
Utilities	2,509	\$196,854,707	711	28%	\$39,603,145	20%
Construction	22,557	\$1,189,904,844	2,963	13%	\$112,722,760	10%
Manufacturing	11,567	\$381,751,189	3,384	29%	\$78,948,734	21%
Seafood Processing	6,976	\$169,536,122	2,238	32%	\$45,107,466	27%
Wholesale Trade	6,826	\$342,556,261	1,739	26%	\$65,123,026	19%
Retail Trade	43,065	\$1,086,847,304	20,395	47%	\$410,110,160	38%
Transportation and Warehousing	20,000	\$997,058,522	5,856	29%	\$202,916,720	20%
Air Transportation	6,010	\$289,115,475	2,141	36%	\$72,112,435	25%
Information	7,013	\$401,529,052	2,863	41%	\$139,388,820	35%
Finance and Insurance	7,616	\$441,443,410	5,588	73%	\$265,481,991	60%
Real Estate and Rental and Leasing	6,489	\$208,711,890	2,646	41%	\$74,110,038	36%
Professional, Scientific, and Technical Services	14,633	\$844,739,264	6,784	46%	\$300,943,076	36%
Management of Companies and Enterprises	2,323	\$172,644,913	1,376	59%	\$88,016,223	51%
Admin Support/Waste Mgmt and Remediation	14,206	\$471,630,325	5,176	36%	\$139,250,516	30%
Educational Services	2,327	\$63,156,987	1,454	63%	\$34,876,921	55%
Health Care and Social Assistance	46,747	\$2,096,555,761	35,990	77%	\$1,475,967,836	70%
Arts, Entertainment, and Recreation	5,279	\$77,717,967	2,723	52%	\$37,933,253	49%
Accommodation and Food Services	32,373	\$559,552,993	16,876	52%	\$262,236,786	47%
Accommodation	7,310	\$150,614,843	4,169	57%	\$74,464,719	49%
Food Services and Drinking Places	24,722	\$405,530,757	12,484	51%	\$185,725,232	46%
Other Services	11,560	\$362,420,289	6,254	54%	\$169,618,090	47%
Other/Unknown	432	\$9,219,913	196	45%	\$3,474,727	38%
Local Government	47,553	\$1,824,088,150	27,581	58%	\$991,165,468	54%
State Government	26,258	\$1,310,514,020	13,463	51%	\$602,106,563	46%
Total	349,015	\$14,940,492,800	166,603	48%	\$5,719,999,630	38%

*This industry category includes support activities for oil and gas drilling and related operations.

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

7 How Women Fare in the State's Largest Occupations

ALASKA, 2015

Occupation	Total workers	Women	Men	Percent women	Women's avg wage	Men's avg wage	Earnings ratio*
Retail Salespersons	13,836	7,811	6,025	56%	\$13,232	\$19,817	67%
Cashiers	9,212	5,956	3,256	65%	\$13,015	\$16,248	80%
Office and Administrative Support Workers, All Other	7,079	5,433	1,646	77%	\$30,042	\$31,451	96%
Construction Laborers	6,293	619	5,674	10%	\$21,646	\$30,697	71%
Personal Care Aides	6,206	4,637	1,569	75%	\$16,476	\$16,221	102%
Office Clerks, General	5,981	4,650	1,331	78%	\$26,092	\$28,606	91%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	5,886	2,110	3,776	36%	\$15,804	\$19,366	82%
Combined Food Preparation and Serving Workers, Including Fast Food	5,389	3,133	2,256	58%	\$10,007	\$10,576	95%
Registered Nurses	5,304	4,713	591	89%	\$61,530	\$69,579	88%
Laborers and Freight, Stock, and Material Movers, Hand	5,018	745	4,273	15%	\$12,869	\$22,337	58%
Bookkeeping, Accounting, and Auditing Clerks	4,620	3,936	684	85%	\$33,254	\$35,837	93%
Waiters and Waitresses	4,596	3,273	1,323	71%	\$15,241	\$16,367	93%
Food Preparation Workers	4,324	2,135	2,189	49%	\$11,262	\$12,183	92%
General and Operations Managers	4,286	1,612	2,674	38%	\$61,075	\$95,014	64%
Seafood Processing Workers, Except Surimi and Fish Roe	4,087	1,408	2,679	34%	\$16,594	\$17,807	93%
Operating Engineers and Other Construction Equipment Operators	3,831	225	3,606	6%	\$40,664	\$60,098	68%
Maids and Housekeeping Cleaners	3,739	2,869	870	77%	\$15,116	\$18,136	83%
Teacher Assistants	3,647	2,904	743	80%	\$15,970	\$16,123	99%
Maintenance and Repair Workers, General	3,441	175	3,266	5%	\$25,110	\$42,569	59%
Heavy and Tractor-Trailer Truck Drivers	3,421	146	3,275	4%	\$40,281	\$51,075	79%
Executive Secretaries and Executive Administrative Assistants	3,372	2,958	414	88%	\$38,628	\$41,275	94%
Secretaries and Admin Assistants, Except Legal, Medical, and Executive	3,341	2,994	347	90%	\$29,372	\$28,628	103%
Carpenters	3,230	85	3,145	3%	\$19,591	\$41,224	48%
Stock Clerks and Order Fillers	3,120	794	2,326	25%	\$15,292	\$20,117	76%
Receptionists and Information Clerks	2,908	2,625	283	90%	\$23,382	\$19,291	121%
Elementary School Teachers, Except Special Education	2,699	2,142	557	79%	\$53,561	\$54,701	98%
Customer Service Representatives	2,638	1,885	753	71%	\$28,042	\$30,779	91%
Managers, All Other	2,571	1,150	1,421	45%	\$63,268	\$104,152	61%
Sales and Related Workers, All Other	2,557	1,127	1,430	44%	\$21,805	\$29,283	74%
Cooks, Restaurant	2,449	500	1,949	20%	\$12,751	\$16,750	76%
Security Guards	2,371	461	1,910	19%	\$22,238	\$32,028	69%
First-Line Supervisors of Retail Sales Workers	2,365	1,276	1,089	54%	\$31,603	\$41,966	75%
Electricians	2,199	70	2,129	3%	\$48,942	\$67,944	72%
Grade 9-12 Teachers, Except Special and Career/Technical Education	2,124	1,298	826	61%	\$55,522	\$60,239	92%
Teachers and Instructors, All Other	2,082	1,454	628	70%	\$36,687	\$45,162	81%
Nursing Assistants	2,074	1,820	254	88%	\$28,509	\$30,321	94%
Child Care Workers	2,041	1,809	232	89%	\$11,316	\$11,485	99%
First-Line Supervisors of Office and Administrative Support Workers	2,033	1,520	513	75%	\$46,271	\$55,237	84%
Food Preparation and Serving Related Workers, All Other	1,972	999	973	51%	\$12,199	\$15,189	80%
Substitutes, Teachers and Instructors, Multilevel except postsecondary.	1,941	1,467	474	76%	\$7,273	\$8,136	89%
Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	1,890	1,505	385	80%	\$8,776	\$8,751	100%
Accountants and Auditors	1,824	1,314	510	72%	\$59,509	\$73,761	81%
Automotive Service Technicians and Mechanics	1,808	52	1,756	3%	\$23,598	\$40,101	59%
Material Moving Workers, All Other	1,706	139	1,567	8%	\$26,657	\$39,249	68%
Plumbers, Pipefitters, and Steamfitters	1,691	43	1,648	3%	\$46,997	\$64,791	73%
Transportation Workers, All Other	1,673	431	1,242	26%	\$35,638	\$62,307	57%
Dishwashers	1,659	277	1,382	17%	\$7,865	\$9,066	87%
Business Operations Specialists, All Other	1,652	1,031	621	62%	\$55,445	\$75,691	73%
Special Education Teacher Assistants	1,643	1,415	228	86%	\$21,150	\$20,795	102%
Medical Assistants	1,606	1,436	170	89%	\$29,627	\$29,924	99%

*What women earned on average as a percent of what men earned in that occupation
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section



High-Paying Occupations With Large Numbers of Women

ALASKA, 2015

Occupations	Women	Men	Percent women	Women's total wages	Men's total wages	Percent women's wages	Average women's wages	Average men's wages	Earnings ratio*
Financial Managers	749	401	65%	\$62,402,916	\$47,812,890	57%	\$83,315	\$119,234	70%
Medical and Health Services Managers	700	219	76%	\$53,076,986	\$22,365,240	70%	\$75,824	\$102,124	74%
Chief Executives	639	947	40%	\$67,623,366	\$163,495,957	29%	\$105,827	\$172,646	61%
Lawyers	517	488	51%	\$45,788,079	\$53,727,775	46%	\$88,565	\$110,098	80%
Loan Officers	310	158	66%	\$22,359,180	\$16,681,724	57%	\$72,126	\$105,581	68%
Human Resources Managers	290	95	75%	\$21,510,212	\$9,026,184	70%	\$74,173	\$95,012	78%
Education Administrators, Elementary and Secondary School	281	280	50%	\$22,444,338	\$24,775,528	48%	\$79,873	\$88,484	90%
Nurse Practitioners	278	20	93%	\$23,397,664	\$2,104,456	92%	\$84,164	\$105,223	80%
Physician Assistants	267	164	62%	\$23,446,358	\$16,107,974	59%	\$87,814	\$98,219	89%
Family and General Practitioners	219	140	61%	\$26,183,767	\$20,087,482	57%	\$119,561	\$143,482	83%
Financial Analysts	213	126	63%	\$19,077,611	\$17,065,574	53%	\$89,566	\$135,441	66%
Engineers, All Other	212	903	19%	\$22,133,655	\$114,793,955	16%	\$104,404	\$127,125	82%
Pharmacists	202	145	58%	\$19,200,133	\$14,676,624	57%	\$95,050	\$101,218	94%
Civil Engineers	196	732	21%	\$13,851,183	\$64,603,072	18%	\$70,669	\$88,256	80%
Computer Systems Analysts	166	356	32%	\$11,636,791	\$28,015,705	29%	\$70,101	\$78,696	89%
Computer and Information Systems Mgrs	130	380	25%	\$11,188,906	\$34,841,283	24%	\$86,069	\$91,688	94%
Geoscientists, Except Hydrologists and Geographers	126	276	31%	\$15,469,343	\$50,972,451	23%	\$122,773	\$184,683	66%
Physicians and Surgeons, All Other	124	219	36%	\$25,870,807	\$71,026,452	27%	\$208,636	\$324,322	64%
Construction Managers	110	1,114	9%	\$8,984,823	\$119,843,463	7%	\$81,680	\$107,579	76%
Veterinarians	105	38	73%	\$7,707,147	\$3,070,449	72%	\$73,401	\$80,801	91%

*What women earned on average as a percent of what men earned in that occupation

Note: Includes select occupations where women earn an annual average of at least \$70,000, by the number of women.

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

and many Mat-Su residents work outside the borough. Nearly 13,000 work in Anchorage, where average wages are higher, and 62 percent of those commuters are men. Of the 3,449 Mat-Su residents who commute to the North Slope, 90 percent are men, as are 70 percent of the nearly 500 who commute to Kenai.

Concentrated in health care and local government

Women work in every industry but are concentrated in a few. Nearly one in four work in private educational and health services, which include health care workers but not public school teachers. (See Exhibit 4.) The second-largest industry groups for women are local government, which includes teachers; and the trade, transportation, and utilities group, which includes retail workers.

Oil and construction, industries with high average wages, have the smallest shares of women. Just 3 percent of female workers are in those industries.

Women make up more than half of workers in education and health services, leisure and hospitality, and state and local government. (See Exhibit 5.) They are the minority in construction; oil; professional and business services; and trade, transportation, and utilities.

In all major industry groups, women earn proportion-

ally less than men do. (See Exhibit 6.) Although women make up 77 percent of health care and social assistance, for example, they bring home 70 percent of the wages.

Gap smaller in occupations with more women

As with industries, women are much more likely to work in some occupations than in others. Women are the majority in 29 of the 50 largest occupations, ranging from a high of 90 percent in white-collar positions such as receptionists and information clerks, secretaries, and administrative assistants to a low of 3 percent in blue-collar occupations such as electricians, automotive service techs, mechanics, carpenters, plumbers, pipefitters, and steamfitters. (See Exhibit 7.)

Generally, the higher the percentage of women in an occupation, the smaller the wage gap. But while the wage gap is smaller in those occupations, the overall wages are lower, with registered nurses and school teachers being two exceptions.

More men work in high-wage jobs

Fewer women work in high-wage occupations, and those who do earn less than men in those jobs.

9

High-Paying Occupations With Large Numbers of Men

ALASKA, 2015

Occupations	Women	Men	Percent women	Women's total wages	Men's total wages	Percent women's wages	Average women's wages	Average men's wages	Earnings ratio*
General and Operations Managers	1,612	2,674	38%	\$98,452,579	\$254,068,166	28%	\$61,075	\$95,014	64%
Managers, All Other	1,150	1,421	45%	\$72,757,803	\$148,000,357	33%	\$63,268	\$104,152	61%
Police and Sheriff's Patrol Officers	166	1,201	12%	\$8,811,900	\$84,126,030	9%	\$53,084	\$70,047	76%
Construction Managers	110	1,114	9%	\$8,984,823	\$119,843,463	7%	\$81,680	\$107,579	76%
Svc Unit Operators, Oil, Gas, and Mining	69	1,090	6%	\$5,536,721	\$115,394,900	5%	\$80,242	\$105,867	76%
Production Workers, All Other	138	1,068	11%	\$7,151,655	\$107,492,555	6%	\$51,824	\$100,648	51%
Airline Pilots, Copilots, and Flight Egrs	84	1,034	8%	\$8,769,593	\$111,364,348	7%	\$104,400	\$107,702	97%
Chief Executives	639	947	40%	\$67,623,366	\$163,495,957	29%	\$105,827	\$172,646	61%
Engineers, All Other	212	903	19%	\$22,133,655	\$114,793,955	16%	\$104,404	\$127,125	82%
Supervisors of Construction and Extraction Workers	27	877	3%	\$1,726,646	\$93,305,370	2%	\$63,950	\$106,392	60%
Mobile Heavy Equipment Mechanics, Except Engines	7	753	1%	\$331,161	\$55,864,267	1%	\$47,309	\$74,189	64%
Civil Engineers	196	732	21%	\$13,851,183	\$64,603,072	18%	\$70,669	\$88,256	80%
Telecommunications Equipment Installers and Repairers, Except Line Installers	95	710	12%	\$6,424,151	\$50,713,650	11%	\$67,623	\$71,428	95%
Business Operations Specialists, All Other	1,031	621	62%	\$57,164,246	\$47,004,290	55%	\$55,445	\$75,691	73%
First-Line Supervisors of Mechanics, Installers, and Repairers	32	621	5%	\$1,584,386	\$46,231,962	3%	\$49,512	\$74,448	67%
Sales Managers	227	524	30%	\$13,761,093	\$44,623,001	24%	\$60,622	\$85,158	71%
Accountants and Auditors	1,314	510	72%	\$78,194,785	\$37,617,863	68%	\$59,509	\$73,761	81%
Lawyers	517	488	51%	\$45,788,079	\$53,727,775	46%	\$88,565	\$110,098	80%
Petroleum Pump System Operators, Refinery Operators, and Gaugers	16	449	3%	\$1,714,939	\$61,595,249	3%	\$107,184	\$137,183	78%
First-Line Supervisors of Production and Operating Workers	44	421	9%	\$2,934,118	\$44,165,691	6%	\$66,685	\$104,907	64%

*What women earned on average as a percent of what men earned in that occupation

Note: Includes select occupations where men earn an annual average of at least \$70,000, by the number of men.

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

Out of more than 700 occupations, 81 pay women an average of \$70,000 a year or more, while twice as many occupations pay men at least that much.

High-wage occupations for women employed 7,374 women in 2015. Men out-earned women in these jobs, making an average of \$120,000 versus \$93,000 for women. (See Exhibit 9.)

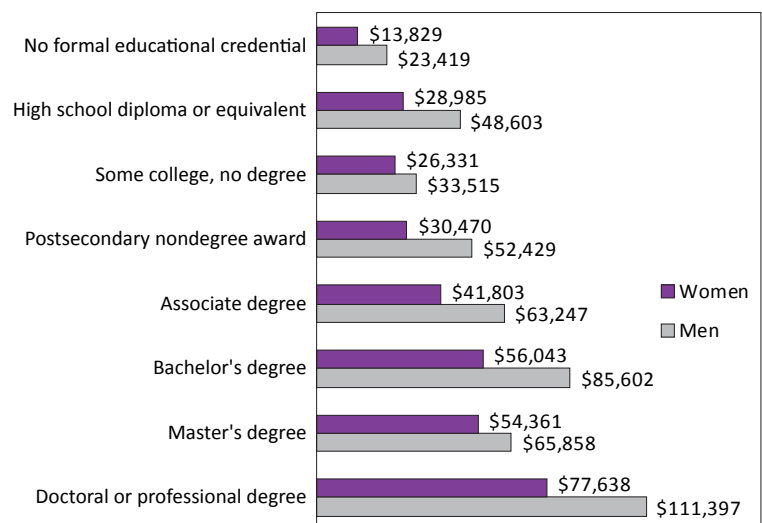
In the 168 occupations where men earned at least \$70,000, women made up just over a third of workers and earned an average of \$29,000 less.

Alaska women earn more than men in about 20 percent of 700 occupations, some of which include special education teachers and assistants, receptionists and information clerks, and personal care aides.

10

Men Earn More At All Education Levels

ALASKA, 2015



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

Men earn more at every education level

Men earn more at every level of education required for employment, and the percentage gap is largest in jobs with minimal education requirements (see Exhibit 10).

About two-thirds of Alaska's workers hold jobs that require a high school diploma or less. At the other end of the spectrum, about 20 percent have jobs that require a bachelor's degree, and less than 5 percent are in jobs requiring a master's or doctorate.

Jobs with no formal education requirement pay men an average of \$9,590 more per year than women — an earnings ratio of 59 percent.

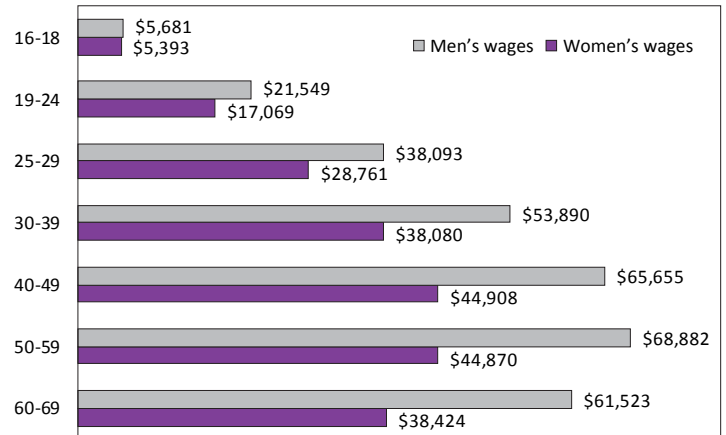
When a high school diploma or equivalent is required, women earn 60 percent of what men make, an average of nearly \$20,000 less.

Much of the discrepancy is due to the jobs they hold. Most men whose jobs require a diploma or less hold low-paying positions such as retail salespeople (\$20,000), construction laborers (\$31,000), hand laborers (\$22,000), and janitors and cleaners (\$19,000). However, a significant number earn high wages in oil field and construction occupations such as petroleum pump systems operators (\$137,000), service unit operators in oil, gas, and mining (\$106,000), production workers (\$101,000), and first line supervisors of construction

11

Men Earn More In All Age Groups

ALASKA, 2015



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

trades and extraction workers (\$106,000), which increases their average.

Women in jobs with minimal education requirements work almost entirely in the lower-paying occupations. The data show 3,956 men in jobs that require minimal education and average more than \$100,000, but only 26 women. The largest numbers of women were retail salespeople (\$13,000), cashiers (\$13,000), office and administrative support (\$30,000), office clerks (\$26,000), and personal care aides (\$16,000).

At the upper end of the education spectrum, jobs requiring a doctoral or professional degree pay the highest wages to both men and women but there's an earnings ratio of 70 percent, which is a larger gap than for master's degrees but smaller than for bachelor's degrees.

The largest numbers of women with doctoral or professional degrees work as lawyers (\$89,000), physical therapists (\$62,000), family and general practitioners (\$120,000), pharmacists (\$95,000), and postsecondary teachers (\$26,000).

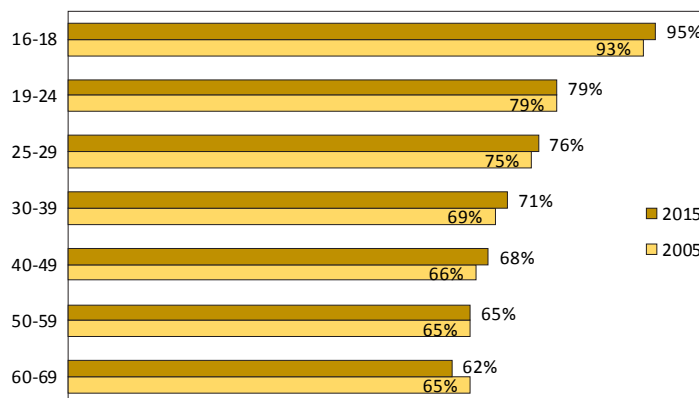
The top occupations for highly educated men include lawyers (\$110,000), physicians and surgeons (\$324,000), postsecondary teachers (\$23,000), postsecondary business

Continued on page 21

12

Wage Gap Narrowed For Most Ages

WOMEN'S WAGES AS PERCENT OF MEN'S, 2005 AND 2015



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

means the year before the decennial census was listed.

Median personal incomes grew significantly for all educational levels for both genders between statehood and the new oil economy of the 1970s and 1980s. This was especially true for college-educated men, whose median incomes grew by more than \$30,000 between 1959 and 1989.

Although Alaska's personal income is still higher than the nation overall, inflation-adjusted income has dropped for all education levels since then. Declines began earlier for men with lower levels of education, and women's incomes have declined across the board more recently.

College-educated men and women have had the highest median personal incomes throughout the entire study period, but the gap among those with lower levels of education has widened recently because those without a degree have sustained larger drops in income. In 1969, median income for Alaska men with a diploma was around 85 percent of what men with

a college degree earned, which fell to about 56 percent by 2014. For men who didn't graduate from high school, median incomes fell from around 54 percent of college-educated men's income to 30 percent.

Women's incomes didn't grow as much during the oil boom, nor did they fall as much as men's in subsequent years, but the income-by-education gap among women has grown larger than among men. Women with high school diplomas make around 45 percent of what college-educated women make, down from 63 percent in 1979.

The gender gap has closed some over time, but more recently it has been through income decline among men rather than growth for women. In recent decades, women with higher levels of education have still made less than less-educated men.

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GENDER GAP

Continued from page 12

teachers (\$42,000), and pharmacists (\$101,000).

Age matters for wage parity

Men also out-earn women at every age, and the wage gap increases by age group. (See Exhibit 11.) For teenagers between 16 and 18, the earnings ratio is 95 percent, although wages are low for both genders. At these ages, workers are mostly limited to low-paying summer jobs, largely in food preparation and serving or sales. It's also the only age group with more female workers than males. Among older workers, men are generally 52 to 53 percent of workers.

For older workers, the wage gap increases with shifts in their hours, education, and occupational choices. Women's earnings peak and then plateau between the ages of 40 and 50, while men's peak between 50 and 60.

While the wage gap shrunk or held steady for most age groups over the past decade (see Exhibit 12 on page 12), it increased by 3 percentage points in the 60-to-69 group, where the gap is also largest. That age group is also the fastest growing. The number of older workers more than doubled between 2005 and 2015, from 14,887 to 30,812.

Older men tend to work in construction and extraction (\$59,000), management (\$115,000), and transportation and material moving occupations (\$50,000). Older women work largely in office and administrative support (\$35,000) and educational instruction and library occupations (\$33,000).

Older workers have maintained similar occupation concentrations as in the past, but for some of the occupations — such as those in construction and extraction, educational instruction and libraries, and office support — older men's average wages increased more than women's.

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