

The gender wage gap in 2019

After state recession, women made 72 cents on the dollar

By **KARINNE WIEBOLD**

In 2019, the average woman working in Alaska made \$38,000, with a roughly 50 percent chance she worked in health care or in state or local government. She was likely more educated than the average man, worked the same number of quarters, and earned 72 percent of what he did — an improvement by historical standards.

Although the genders participate in the workforce at nearly equal rates, men earn more in almost 80 percent of Alaska’s occupations and at every age and educational level. Women represented 49 percent of the state’s workers in 2019 but received 40 percent of total wages.

and took home 35 percent of the wages. Total wages paid to women reached a high of 41 percent in 2018, then dipped to 40 percent the following year.

Women’s wages as a percent of men’s, sometimes expressed as “earning 72 cents on the dollar,” is called the earnings ratio. That ratio hit a low of 62 percent in the late 1980s, when Alaska was emerging from a deep recession, then grew to between 65 and 66 percent during the 1990s.

The gap continued to shrink into the 21st century, with the earnings ratio bouncing between 65 percent and 68 percent, but it wasn’t until the pre-pandemic statewide recession that the ratio moved noticeably.

Picture better than the '80s, but little movement until recently

Women's wages and workforce presence have grown in recent decades, albeit slowly. In the late 1980s, women represented 47 percent of workers

Recent gains mainly from men's losses during state recession

Between 2014 — right before the recession — and 2016, women’s average earnings grew from 67 percent of men’s to 71 percent.

Women's wages and historical representation in the Alaska workplace

	1990	1992	1994	1996	1998	2000	2002	2004	2006	2008	2010	2012	2014	2016	2018	2019
Percent of workers																
Women	46%	46%	46%	47%	47%	47%	48%	48%	48%	48%	48%	48%	48%	48%	49%	49%
Men	54%	54%	54%	53%	53%	53%	52%	52%	52%	52%	52%	52%	52%	52%	51%	51%
Percent of wages																
Women	35%	36%	36%	36%	37%	37%	38%	38%	38%	37%	38%	38%	38%	39%	41%	40%
Men	65%	64%	64%	64%	63%	63%	62%	62%	62%	63%	62%	62%	62%	61%	59%	60%
Average annual wages																
Women	\$16,046	\$17,840	\$18,721	\$18,512	\$19,917	\$20,354	\$21,978	\$23,389	\$25,189	\$27,230	\$29,063	\$30,805	\$32,760	\$34,311	\$36,394	\$37,643
Men	\$26,084	\$27,550	\$28,461	\$28,353	\$30,303	\$30,803	\$32,756	\$34,552	\$37,807	\$41,823	\$43,317	\$45,962	\$49,010	\$48,571	\$50,498	\$52,477
Earnings ratio*																
	62%	65%	66%	65%	66%	66%	67%	68%	67%	65%	67%	67%	67%	71%	72%	72%

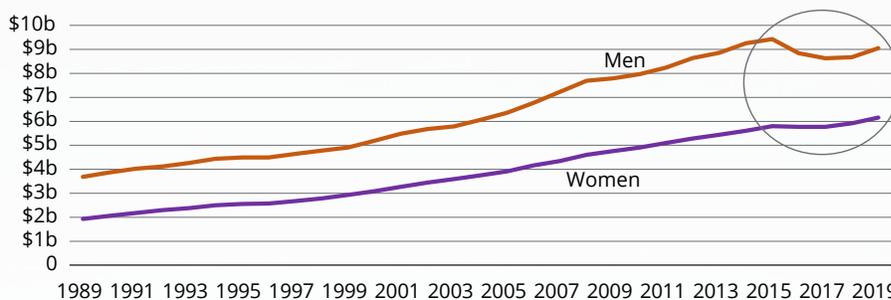
*What women earned on average that year as a percentage of what men earned

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

As the line graph at right shows, the gap narrowed because men's wages fell during the state recession, which largely spared women because of the jobs and industries hurt most.

Nearly 11,000 Alaskans lost a job between 2015 and 2018, and more than two-thirds of them were men. The jobs they lost also tended to be high-paying, taking an additional bite from men's total wages.

Men's wages dipped during 3-year state recession



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

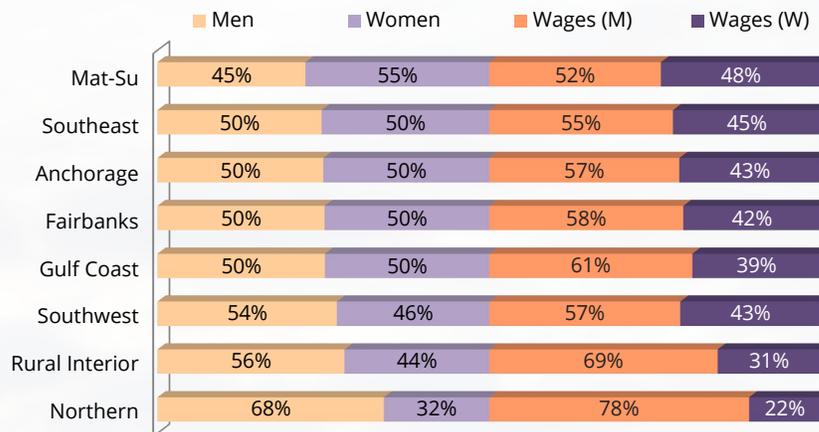
A note on COVID and this article's scope

When we wrote about men and the recent state recession in the [April issue of Trends](#), we included a preview of the pandemic's effects by gender, which suggested an opposite story was unfolding.

While the disparate hit men took during the downturn of the mid-to-late 2010s shrank the gender gap, preliminary data show the pandemic has hit women harder than men.

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Regional wages and workers by gender in 2019



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

About the gender wage gap and limitations of the data

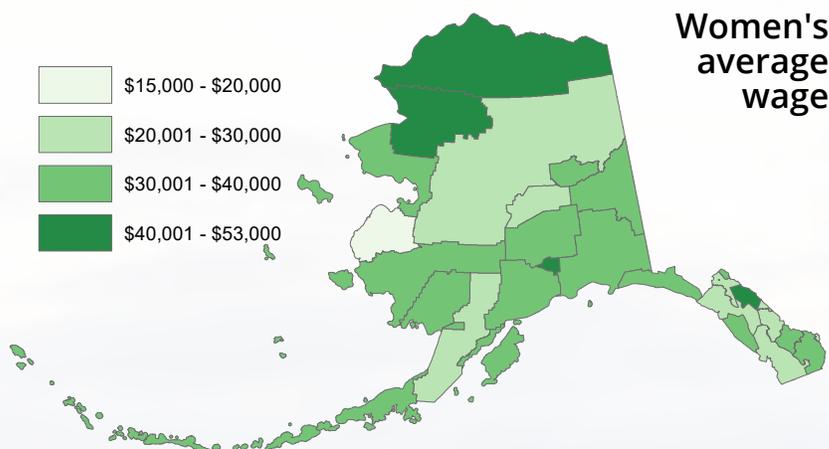
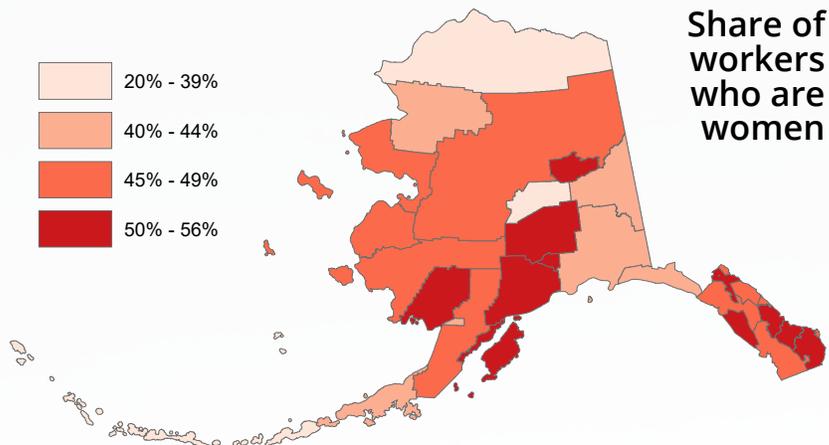
The difference between women's and men's wages is referred to as the gender wage gap, and it's influenced by many factors including experience, training, education, hours worked, job and industry choice, and discrimination. Many studies have attempted to measure and explain the reasons for the wage gap. While that type of analysis is mostly outside the scope of this article, the data shown here can suggest where further research would be most promising.

For this article, we examined the total wages earned by each gender and the differences 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 limitations. The biggest drawback is they don't allow us to differentiate 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 most 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.

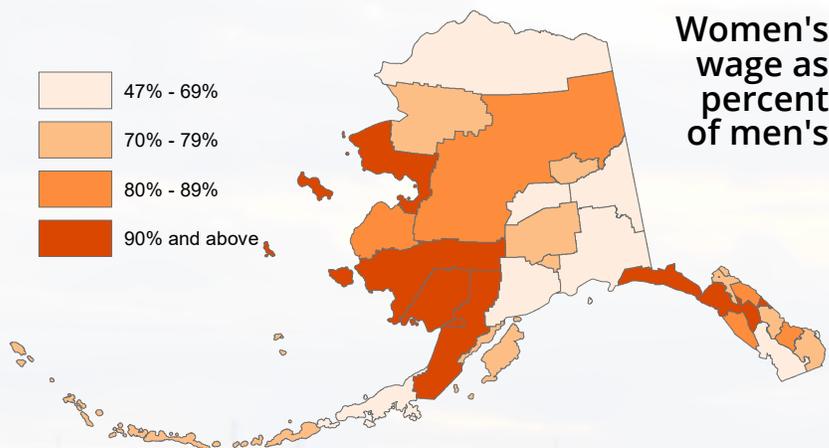
How women's shares of the workforce and wages varied by Alaska area in 2019

Borough or census area	Percent women	Women's avg wage	Earnings ratio*
Aleutians East	42%	\$30,889	69%
Aleutians West	38%	\$39,007	70%
Anchorage	50%	\$42,636	75%
Bethel	47%	\$30,496	98%
Bristol Bay	41%	\$30,488	97%
Denali	39%	\$28,868	47%
Dillingham	50%	\$33,770	104%
Fairbanks	50%	\$35,398	72%
Haines	52%	\$25,712	74%
Hoonah-Angoon	49%	\$21,445	94%
Juneau	49%	\$40,088	81%
Kenai Peninsula	51%	\$31,868	63%
Ketchikan	52%	\$34,471	76%
Kodiak	50%	\$32,457	76%
Kusilvak	48%	\$15,689	86%
Lake and Pen	45%	\$24,994	92%
Mat-Su	55%	\$30,288	75%
Nome	47%	\$37,593	100%
North Slope	22%	\$52,917	60%
NW Arctic	42%	\$40,366	73%
Petersburg	56%	\$28,213	76%
POW-Hyder	48%	\$27,447	69%
Sitka	53%	\$35,447	84%
Skagway	48%	\$30,576	72%
SE Fairbanks	42%	\$32,890	57%
Valdez-Cordova	43%	\$32,742	61%
Wrangell	54%	\$31,835	88%
Yakutat	43%	\$32,214	97%
Yukon-Koyukuk	48%	\$22,465	86%



*What women earned on average that year as a percentage of what men earned

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



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

However, we won't have reliable, comprehensive data on earnings by gender during COVID for a few more months.

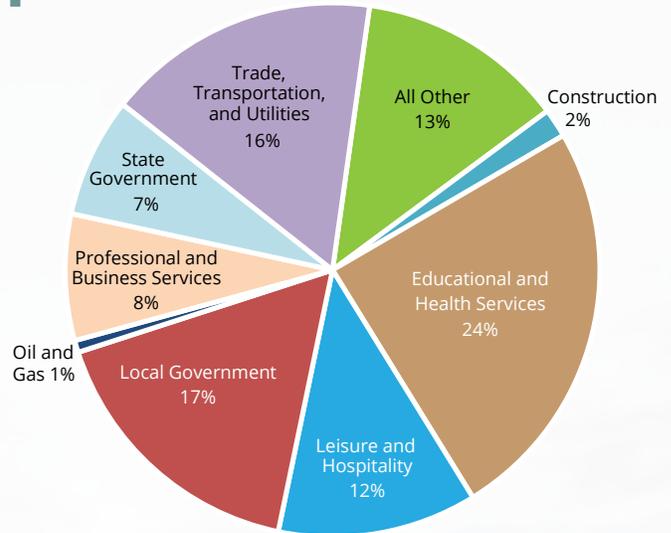
This article's gender analysis is based on 2019 data, which are the most recent complete numbers available. While they don't capture the pandemic's impacts, they provide a comprehensive snapshot of working women in the state right before the pandemic hit.

The reasons for the gender wage gap, which are complex and not entirely known, are mostly outside the scope of this article. Relevant factors include job experience, training, education, hours worked, the choice of a job or industry, and current and historical discrimination. (See the sidebar on page 6 for more about the data.)

Gender gap smallest in Alaska's urban areas

While women are 49 percent of the workforce statewide, the percentage varies considerably by region. In the most populated areas — Anchorage, Fairbanks, and most of the Gulf Coast — they're

Where women worked in 2019



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

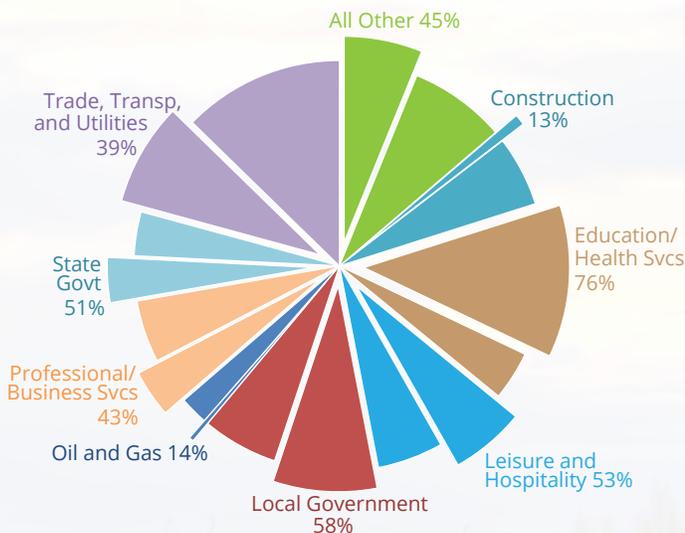
equally represented at 50 percent. In some places, their total wages aren't far behind.

Alaska's cities have a significant number of

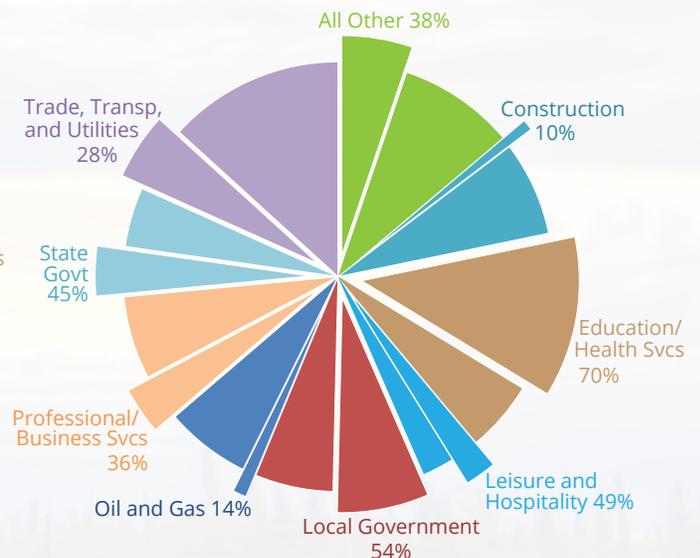
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Women's shares of total jobs and earnings by Alaska industry in 2019

Percent of workers who are women



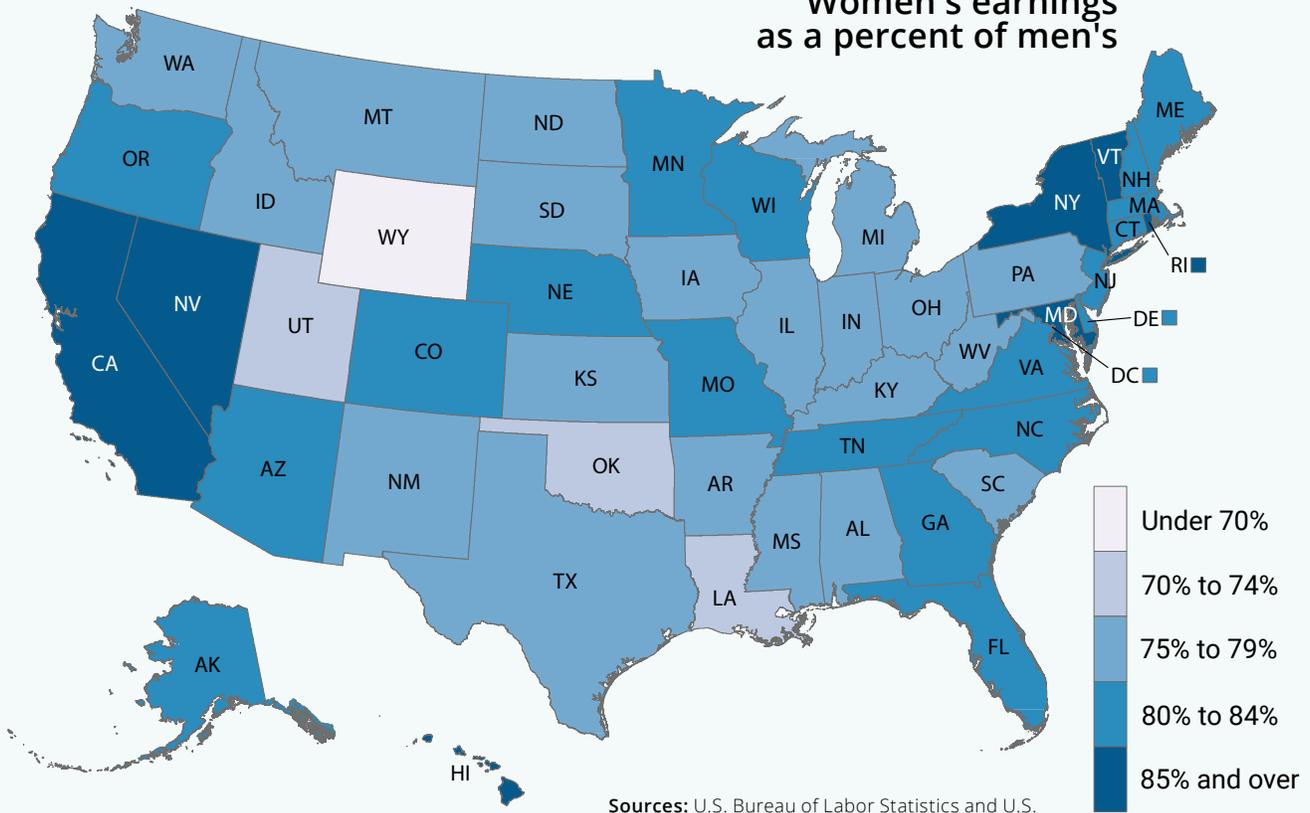
Percent of wages earned by women



Note: The size of each industry's colored slices reflects total workers or wages by industry, and the exploded slices show women's shares.

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

Women's earnings as a percent of men's



Sources: U.S. Bureau of Labor Statistics and U.S. Census Bureau, One-Year American Community Survey, 2019

How Alaska's gender wage gap measures up nationally

National data on the gender wage gap aren't comparable to the Alaska numbers in this article because the national data sources, such as the Bureau of Labor Statistics' Current Population Survey and the U.S. Census Bureau's American Community Survey, are survey-based, use median wages instead of average, and limit data to full-time workers.

The size of the gap varies by data source, but the same basic story emerges: that women earn significantly less than men.

Last time we wrote about this topic (in the [March 2017 issue](#), using 2015 data) Alaska's wage gap was bigger than the nation's and that of most states. However, by 2019, Alaska had jumped from 33rd place to 10th.

Alaska's 2015-2018 recession hurt male-dominated industries — oil and gas, construction, and professional and business services — far more than the industries that disproportionately employ women, such as health

care and local government. Much of Alaska's increase in the earnings ratio in recent years was caused by the hit men took over that period rather than a significant increase in women's earnings. (See the [April 2021 issue](#) for more.)

For median wages, U.S. data show Alaska women's earnings were among the nation's highest, coming in seventh among states. The American Community Survey put Alaska women's median wage at \$50,853, which was 83 percent of a man's median wage in 2019 (\$61,173).

Vermont topped the earnings ratio list at 91 percent — in other words, a Vermont woman earned 91 cents on a man's dollar — and Wyoming, another oil industry state, was last at 63 percent.

Nationwide, the earnings ratio was 81 percent, with \$43,394 in median wages for women and \$53,544 for men.

Alaska workers and wages by gender and select industries in 2019

	Total		Women			
	Workers	Wages	Workers	Percent	Wages	Percent
Agriculture, Forestry, Fishing and Hunting	1,828	\$46,603,309	653	36%	\$11,640,517	25%
Mining	11,603	\$1,388,758,033	1,577	14%	\$185,513,291	13%
Oil and Gas	3,133	\$662,710,780	675	22%	\$121,895,533	18%
Oilfield Services (drilling support svcs)	5,535	\$470,874,023	514	9%	\$35,719,718	8%
Utilities	2,600	\$214,746,204	692	27%	\$41,214,112	19%
Construction	21,410	\$1,206,507,883	2,856	13%	\$126,185,059	10%
Manufacturing	10,595	\$380,100,510	3,387	32%	\$88,983,732	23%
Seafood Processing	6,116	\$167,452,990	2,042	33%	\$46,633,197	28%
Wholesale Trade	6,949	\$375,447,165	1,714	25%	\$72,789,966	19%
Retail Trade	40,036	\$1,106,887,584	18,557	46%	\$423,056,687	38%
Transportation and Warehousing	20,205	\$1,082,819,799	6,153	30%	\$228,062,689	21%
Air Transportation	6,176	\$346,385,911	2,181	35%	\$82,431,268	24%
Information	5,676	\$346,254,067	2,105	37%	\$111,400,685	32%
Finance and Insurance	7,291	\$469,656,011	5,159	71%	\$281,192,706	60%
Real Estate and Rental and Leasing	6,356	\$230,191,673	2,685	42%	\$86,144,217	37%
Professional, Scientific and Tech Services	13,121	\$802,523,224	6,282	48%	\$297,026,821	37%
Management of Companies and Enterprises	2,241	\$194,683,540	1,342	60%	\$98,476,766	51%
Admin Support/Waste Mgmt, Remediation	13,562	\$492,465,727	4,888	36%	\$145,448,700	30%
Educational Services	2,499	\$78,202,161	1,548	62%	\$40,945,101	52%
Health Care and Social Assistance	50,701	\$2,532,386,487	38,715	76%	\$1,776,747,520	70%
Arts, Entertainment, and Recreation	5,227	\$84,800,873	2,729	52%	\$43,313,727	51%
Accommodation and Food Services	31,854	\$606,833,815	16,995	53%	\$298,440,489	49%
Accommodation	7,765	\$174,644,274	4,420	57%	\$87,786,663	50%
Food Services and Drinking Places	23,765	\$428,095,410	12,392	52%	\$208,401,902	49%
Other Services	10,787	\$359,503,235	5,988	56%	\$177,151,250	49%
Other/Unknown	687	\$16,886,229	297	43%	\$6,955,597	41%
Local Government	47,447	\$1,945,142,157	27,421	58%	\$1,049,837,597	54%
State Government	23,469	\$1,251,194,206	11,882	51%	\$568,831,962	45%
Total	336,144	\$15,212,593,890	163,625	49%	\$6,159,359,192	40%

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

high-paying jobs in the private sector as well as in state and local government, where the wage gap is smaller and where women are likely to work.

The Gulf Coast Region's workers are 50 percent women, but they bring in just 39 percent of the area's wages. The region's high-paying oil and gas industry is one of the industries in which women are least likely to work. (See the occupation and industry sections for more.)

In many smaller areas, women make up a larger percentage of the workforce because they're concentrated in local government — particularly public schools — and health care. But 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 predominately men, and those jobs also pay well.

For example, the North Slope Borough's workforce is just 22 percent women, and those women make 60 cents on a man's dollar. Women in the borough

tend to work in local government, and most men work in high-wage oil jobs on the Slope. The relatively small number of women who do work in the North Slope Borough make the highest wages in the state on average for women, however.

Women in the Matanuska-Susitna Borough represent 55 percent of the workforce, which is among the highest in the state, and take in 48 percent of total wages. Petersburg, Wrangell, and the Matanuska-Susitna Borough top the state for the highest percentages of female workers, ranging from 54 to 56 percent.

Mat-Su's high percentage of women needs some context, however, as it's mostly because the borough exports working men. This article classifies people by where they work rather than where they live, and almost a third of Mat-Su residents commute. Nearly 12,000 work in Anchorage, where wages are higher, and 60 percent of them are men. More than 2,600 commute to the North Slope (91 percent are men) and more than 300 work in Kenai

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How women fared in the state's largest occupations in 2019

	Workers	Women	Men	Percent women	Women's avg wages	Men's avg wages	Earnings ratio*
Retail Salespersons	14,344	7,830	6,514	55%	\$18,964	\$25,524	74%
Fast Food and Counter Workers	8,118	5,062	3,056	62%	\$13,857	\$14,698	94%
Office and Administrative Support Workers, All Other	7,837	5,702	2,135	73%	\$32,420	\$29,880	109%
Cashiers	7,637	4,899	2,738	64%	\$16,670	\$20,483	81%
Registered Nurses	6,066	5,273	793	87%	\$69,977	\$80,716	87%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	5,590	2,013	3,577	36%	\$18,916	\$23,624	80%
Office Clerks, General	5,337	3,990	1,347	75%	\$31,131	\$30,482	102%
Construction Laborers	5,274	570	4,704	11%	\$27,334	\$36,067	76%
Laborers and Freight, Stock, and Material Movers, Hand	4,852	696	4,156	14%	\$17,268	\$29,390	59%
Personal Care Aides	4,414	3,442	972	78%	\$21,883	\$24,868	88%
Waiters and Waitresses	4,246	3,025	1,221	71%	\$21,463	\$24,426	96%
General and Operations Managers	4,032	1,573	2,459	39%	\$75,263	\$106,243	71%
Food Preparation Workers	4,008	2,054	1,954	51%	\$14,939	\$14,722	101%
Bookkeeping, Accounting, and Auditing Clerks	3,932	3,318	614	84%	\$39,454	\$42,406	93%
Meat, Poultry, and Fish Cutters and Trimmers	3,813	1,342	2,471	35%	\$18,549	\$19,254	96%
Operating Engineers and Other Construction Equipment Operators	3,649	231	3,418	6%	\$50,481	\$68,237	74%
Maids and Housekeeping Cleaners	3,537	2,721	816	77%	\$18,377	\$22,264	83%
Maintenance and Repair Workers, General	3,482	210	3,272	6%	\$30,979	\$50,089	62%
Secretaries and Admin Assistants, Except Legal, Medical, and Executive	3,472	3,114	358	90%	\$36,138	\$32,161	112%
Teachers and Instructors, All Other	3,397	2,466	931	73%	\$30,434	\$38,354	79%
Stockers and Order Fillers	2,970	867	2,103	29%	\$21,406	\$25,786	83%
Heavy and Tractor-Trailer Truck Drivers	2,891	175	2,716	6%	\$44,100	\$59,475	74%
Managers, All Other	2,871	1,440	1,431	50%	\$74,789	\$104,315	72%
Carpenters	2,868	73	2,795	3%	\$29,600	\$48,495	61%
Customer Service Representatives	2,851	1,905	946	67%	\$30,268	\$32,683	93%
Receptionists and Information Clerks	2,746	2,476	270	90%	\$28,734	\$24,868	116%
Executive Secretaries and Executive Administrative Assistants	2,590	2,215	375	86%	\$45,045	\$45,608	99%
Transportation Workers, All Other	2,585	716	1,869	28%	\$30,842	\$54,019	57%
Security Guards	2,541	522	2,019	21%	\$24,364	\$33,533	73%
Cooks, Restaurant	2,538	603	1,935	24%	\$17,648	\$21,646	82%
Elementary School Teachers, Except Special Education	2,502	2,017	485	81%	\$58,896	\$61,092	96%
Chief Executives	2,376	1,074	1,302	45%	\$87,074	\$150,350	58%
Sales and Related Workers, All Other	2,260	981	1,279	43%	\$22,518	\$33,986	66%
Nursing Assistants	2,192	1,889	303	86%	\$33,161	\$35,662	93%
First-Line Supervisors of Retail Sales Workers	2,175	1,160	1,015	53%	\$37,219	\$46,152	81%
Teaching Assts, Preschool, Elem, Middle, Secondary (exc Spec Ed)	2,100	1,746	354	83%	\$18,819	\$17,923	105%
Secondary School Teachers, Exc Special and Career/Tech Education	2,059	1,315	744	64%	\$60,229	\$66,237	91%
Medical Assistants	2,006	1,776	230	89%	\$37,078	\$37,362	99%
Accountants and Auditors	1,889	1,340	549	71%	\$66,030	\$76,548	86%
Food Preparation and Serving Related Workers, All Other	1,870	977	893	52%	\$15,544	\$20,220	77%
Child Care Workers	1,870	1,659	211	89%	\$15,493	\$11,722	132%
First-Line Supervisors of Office and Admin Support Workers	1,850	1,377	473	74%	\$49,252	\$52,371	94%
Electricians	1,849	68	1,781	4%	\$56,096	\$75,840	74%
Automotive Service Technicians and Mechanics	1,845	60	1,785	3%	\$35,666	\$45,143	79%
Dishwashers	1,603	273	1,330	17%	\$10,320	\$12,371	83%
Landscaping and Groundskeeping Workers	1,581	274	1,307	17%	\$12,794	\$17,955	71%
Teaching Assistants, Special Education	1,542	1,296	246	84%	\$22,455	\$23,884	94%
Material Moving Workers, All Other	1,503	112	1,391	7%	\$37,966	\$52,172	73%
Light Truck Drivers	1,483	137	1,346	9%	\$31,939	\$44,975	71%
Police and Sheriff's Patrol Officers	1,401	179	1,222	13%	\$65,579	\$82,368	80%

*The earnings ratio is women's average earnings as a percentage of what men earn.

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

Alaska occupations with high percentages of women or men in 2019

At least 70 percent women	Percent women		Men	Women's avg annual wages	Men's avg annual wages	Earnings ratio
	Women	Men				
Preschool Teachers, Except Special Education	94%	844	55	\$24,325	\$36,483	67%
Dental Assistants	92%	1,112	100	\$34,391	\$40,268	85%
Receptionists and Information Clerks	90%	2,476	270	\$28,734	\$24,868	116%
Secretaries and Admin Assts, Exc Legal, Medical, Executive	90%	3,114	358	\$36,138	\$32,161	112%
Child Care Workers	89%	1,659	211	\$15,493	\$11,722	132%
Medical Assistants	89%	1,776	230	\$37,078	\$37,362	99%
Billing and Posting Clerks	88%	1,156	154	\$42,141	\$42,846	98%
Registered Nurses	87%	5,273	793	\$69,977	\$80,716	87%
Nursing Assistants	86%	1,889	303	\$33,161	\$35,662	93%
Executive Secretaries and Executive Administrative Assistants	86%	2,215	375	\$45,045	\$45,608	99%
Bookkeeping, Accounting, and Auditing Clerks	84%	3,318	614	\$39,454	\$42,406	93%
Teaching Assistants, Special Education	84%	1,296	246	\$22,455	\$23,884	94%
Teaching Assistants, All Other	84%	971	189	\$19,777	\$18,303	108%
Teaching Assts, Preschool, Elemetry, Middle, Secondary, exc Spec Ed	83%	1,746	354	\$18,819	\$17,923	105%
Home Health Aides	81%	908	218	\$22,355	\$26,311	85%
Elementary School Teachers, Except Special Education	81%	2,017	485	\$58,896	\$61,092	96%
Reservation and Transp Ticket Agents and Travel Clerks	80%	908	224	\$31,570	\$28,864	109%
Health Care Support Workers, All Other	80%	893	225	\$35,497	\$37,668	94%
Hosts/Hostesses, Restaurant, Lounge, and Coffee Shop	79%	806	211	\$13,332	\$13,223	101%
Tellers	79%	848	232	\$30,030	\$31,031	97%
Personal Care Aides	78%	3,442	972	\$21,883	\$24,868	88%
Maids and Housekeeping Cleaners	77%	2,721	816	\$18,377	\$22,264	83%
Office Clerks, General	75%	3,990	1,347	\$31,131	\$30,482	102%
First-Line Supervisors of Office and Admin Support Wkrs	74%	1,377	473	\$49,252	\$52,371	94%
Hotel, Motel, and Resort Desk Clerks	74%	791	275	\$17,301	\$20,456	85%
Administrative Services Managers	74%	967	347	\$54,361	\$64,315	85%
Office and Administrative Support Workers, All Other	73%	5,702	2,135	\$32,420	\$29,880	109%
Teachers and Instructors, All Other	73%	2,466	931	\$30,434	\$38,354	79%
Waiters and Waitresses	71%	3,025	1,221	\$21,463	\$22,426	96%
Accountants and Auditors	71%	1,340	549	\$66,030	\$76,548	86%

At least 70 percent men

Plumbers, Pipefitters, and Steamfitters	2%	33	1,324	\$40,723	\$72,076	56%
Carpenters	3%	73	2,795	\$29,600	\$48,495	61%
Automotive Service Technicians and Mechanics	3%	60	1,785	\$35,666	\$45,143	79%
1st-Line Supervisors of Construction Trades and Extraction Wkrs	4%	35	925	\$61,975	\$104,819	59%
Electricians	4%	68	1,781	\$56,096	\$75,840	74%
Aircraft Mechanics and Service Technicians	5%	69	1,203	\$53,217	\$65,892	81%
Maintenance and Repair Workers, General	6%	210	3,272	\$30,979	\$50,089	62%
Heavy and Tractor-Trailer Truck Drivers	6%	175	2,716	\$44,100	\$59,475	74%
Operating Engineers and Other Construction Equip Operators	6%	231	3,418	\$50,481	\$68,237	74%
Construction and Related Workers, All Other	7%	81	1,104	\$40,341	\$48,373	83%
Installation, Maintenance, and Repair Workers, All Other	7%	90	1,161	\$52,736	\$63,464	83%
Material Moving Workers, All Other	7%	112	1,391	\$37,966	\$52,172	73%
Airline Pilots, Copilots, and Flight Engineers	8%	100	1,150	\$135,239	\$138,820	97%
Light Truck Drivers	9%	137	1,346	\$31,939	\$44,975	71%
Construction Managers	11%	124	1,033	\$85,641	\$106,881	80%
Construction Laborers	11%	570	4,704	\$27,334	\$36,067	76%
Police and Sheriff's Patrol Officers	13%	179	1,222	\$65,579	\$82,368	80%
Firefighters	13%	126	810	\$37,349	\$82,820	45%
Laborers and Freight, Stock, and Material Movers, Hand	14%	696	4,156	\$17,268	\$29,390	59%
Grounds Maintenance Workers, All Other	17%	218	1,102	\$13,584	\$21,903	62%
Dishwashers	17%	273	1,330	\$10,320	\$12,371	83%
Landscaping and Groundskeeping Workers	17%	274	1,307	\$12,794	\$17,955	71%
Engineers, All Other	19%	200	864	\$103,849	\$128,500	81%
Correctional Officers and Jailers	20%	264	1,039	\$55,022	\$61,035	90%
Security Guards	21%	522	2,019	\$24,364	\$33,533	73%
Driver/Sales Workers	23%	307	1,038	\$17,137	\$27,055	63%
Cooks, Restaurant	24%	603	1,935	\$17,648	\$21,646	82%
Civil Engineers	25%	278	836	\$75,364	\$92,978	81%
Transportation Workers, All Other	28%	716	1,869	\$30,842	\$54,019	57%
Stockers and Order Fillers	29%	867	2,103	\$21,406	\$25,786	83%

Notes: The earnings ratio is women's average earnings as a percentage of what men earn. Shows only occupations with at least 100 workers.

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

High-paying occupations with large numbers of women in 2019

	Women	Men	Percent Women	Total wages paid to women	Total wages paid to men	Percent women's wages	Women's avg annual wages	Men's avg annual wages	Earnings ratio
General/Operations Managers	1,573	2,459	39%	\$118,389,435	\$261,250,377	31%	\$75,263	\$106,243	71%
Chief Executives	1,074	1,302	45%	\$93,517,323	\$195,755,822	32%	\$87,074	\$150,350	58%
Medical/Health Svcs Managers	782	241	76%	\$67,508,862	\$26,249,670	72%	\$86,328	\$108,920	79%
Financial Managers	707	355	67%	\$65,079,465	\$48,604,554	57%	\$92,050	\$136,914	67%
Lawyers	510	469	52%	\$51,158,626	\$56,009,521	48%	\$100,311	\$119,423	84%
Nurse Practitioners	360	37	91%	\$33,612,683	\$4,107,851	89%	\$93,369	\$111,023	84%
Loan Officers	340	152	69%	\$26,612,359	\$15,837,507	63%	\$78,272	\$104,194	75%
Physician Assistants	305	183	63%	\$32,782,237	\$22,179,626	60%	\$107,483	\$121,200	89%
Human Resources Managers	295	98	75%	\$27,735,304	\$10,503,788	73%	\$94,018	\$107,182	88%
Education Administrators, K-12	278	282	50%	\$25,785,614	\$27,437,446	48%	\$92,754	\$97,296	95%
Civil Engineers	278	836	25%	\$20,921,119	\$77,729,555	21%	\$75,364	\$92,978	81%
Family Medicine Physicians	237	153	61%	\$35,672,160	\$30,419,849	54%	\$150,515	\$198,823	76%
Pharmacists	212	147	59%	\$21,745,223	\$16,298,792	57%	\$102,572	\$110,876	93%
Engineers, All Other	200	864	19%	\$20,769,817	\$111,024,400	16%	\$103,849	\$128,500	81%
Computer Systems Analysts	166	354	32%	\$12,772,823	\$30,288,201	30%	\$76,945	\$85,560	90%
Veterinarians	144	38	79%	\$11,205,893	\$3,958,063	74%	\$77,819	\$104,160	75%
Physicians, All Other	139	193	42%	\$28,766,291	\$49,060,512	37%	\$206,952	\$254,200	81%
Dentists, General	138	133	51%	\$12,929,774	\$20,469,471	39%	\$93,694	\$153,906	61%
Financial and Investment Analysts	130	108	55%	\$13,685,889	\$13,956,008	50%	\$105,276	\$129,222	81%
Construction Managers	124	1,033	11%	\$10,619,455	\$110,407,564	9%	\$85,641	\$106,881	80%

Notes: These occupations pay at least \$75,000 a year. The earnings ratio is women's average earnings as a percentage of what men earn.
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

High-paying occupations with large numbers of men in 2019

	Women	Men	Percent Women	Total wages paid to women	Total wages paid to men	Percent women's wages	Women's avg annual wages	Men's avg annual wages	Earnings ratio
General/Operations Managers	1,573	2,459	39%	\$118,389,435	\$261,250,377	31%	\$75,263	\$106,243	71%
Electricians	68	1,781	4%	\$3,814,549	\$135,071,334	3%	\$56,096	\$75,840	74%
Managers, All Other	1,440	1,431	50%	\$107,696,220	\$149,274,553	42%	\$74,789	\$104,315	72%
Chief Executives	1,074	1,302	45%	\$93,517,323	\$195,755,822	32%	\$87,074	\$150,350	58%
Police/ Sheriff's Patrol Officers	179	1,222	13%	\$11,738,699	\$100,653,156	10%	\$65,579	\$82,368	80%
Pilots, Copilots, Flight Egrs	100	1,150	8%	\$13,523,942	\$159,642,552	8%	\$135,239	\$138,820	97%
Construction Managers	124	1,033	11%	\$10,619,455	\$110,407,564	9%	\$85,641	\$106,881	80%
Supervisors of Const/Extraction	35	925	4%	\$2,169,111	\$96,957,227	2%	\$61,975	\$104,819	59%
Engineers, All Other	200	864	19%	\$20,769,817	\$111,024,400	16%	\$103,849	\$128,500	81%
Civil Engineers	278	836	25%	\$20,921,119	\$77,729,555	21%	\$75,364	\$92,978	81%
Firefighters	126	810	13%	\$4,706,014	\$67,084,213	7%	\$37,349	\$82,820	45%
Registered Nurses	5,273	793	87%	\$368,987,491	\$64,007,779	85%	\$69,977	\$80,716	87%
Mobile Heavy Equip Mechanics	8	726	1%	\$576,924	\$62,329,805	1%	\$72,116	\$85,854	84%
Production Workers, All Other	88	721	11%	\$7,039,502	\$93,950,776	7%	\$79,994	\$130,306	61%
Telecomm Installers/Repairers	81	642	11%	\$6,103,482	\$54,249,416	10%	\$75,352	\$84,501	89%
Business Operations Specialists	761	581	57%	\$47,896,197	\$50,077,054	49%	\$62,938	\$86,191	73%
Service Unit Operators, Oil and Gas	34	580	6%	\$4,127,589	\$73,330,207	5%	\$121,400	\$126,431	96%
Supervisors of Mechanics/Installers	33	552	6%	\$2,035,208	\$46,330,550	4%	\$61,673	\$83,932	73%
Underground Mining Mach Oper	53	551	9%	\$3,664,195	\$47,755,595	7%	\$69,136	\$86,671	80%
Accountants and Auditors	1,340	549	71%	\$88,480,307	\$42,024,667	68%	\$66,030	\$76,548	86%

Notes: These occupations pay at least \$75,000 a year. The earnings ratio is women's average earnings as a percentage of what men earn.
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

(72 percent men).

Those shares used to be even higher. The state recession's outsized bite from oil and gas, construction, and professional and business services reduced the number of Mat-Su commuters.

Women concentrated in a handful of industries

Women work in every industry but are concentrated in a few. Nearly one in four works in health care and social assistance.

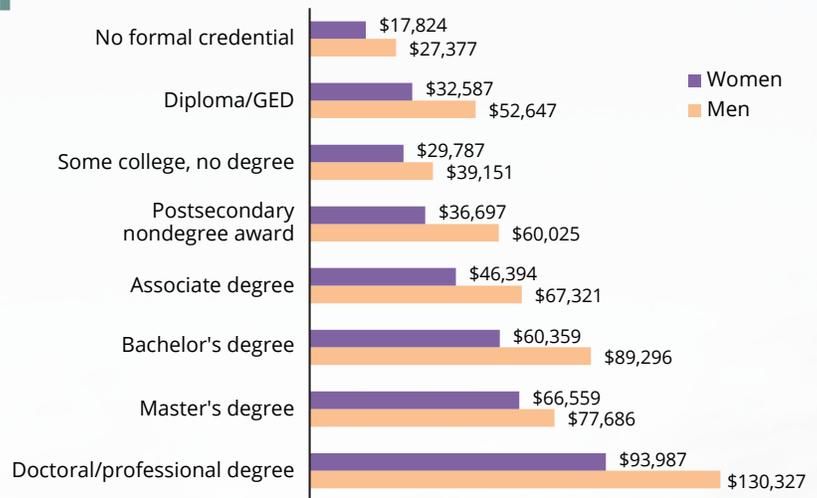
The next-largest industry groups for women are local government — which includes public school teachers — and retail trade.

Oil and gas and construction, industries with high average wages, employ just 2.5 percent of working women.

Women make up more than half of workers in health care and social assistance, leisure and hospitality, and state and local government. They are the minority in construction; oil and gas; professional and business services; and trade, transportation, and utilities.

In all major industry groups, women earn

Men earned more at all education levels, 2019



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

proportionally less than men. Although women make up 76 percent of health care and social assistance, for example, they bring home 70 percent of the wages.

When women are majority, gap is smaller but wages often lower

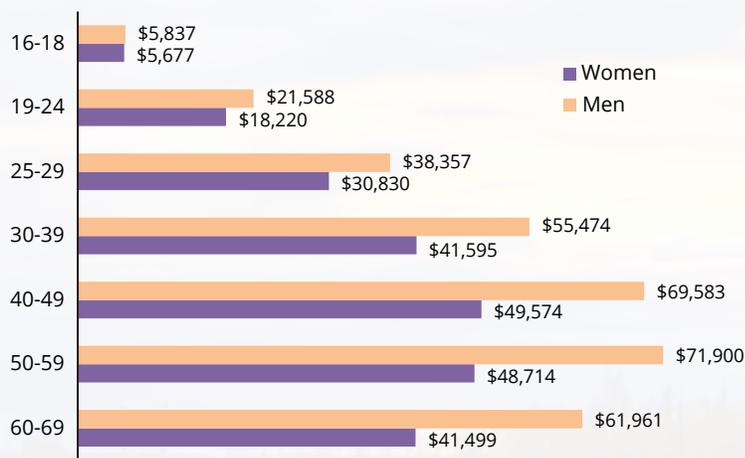
Women are the majority in 28 of the 50 largest occupations, ranging from a high of 90 percent in positions such as receptionists and information clerks, secretaries, and administrative assistants to less than 5 percent in occupations such as electricians (4 percent), automotive service techs and mechanics (3 percent), and carpenters (3 percent).

Generally, the higher the percentage of women in an occupation, the smaller the wage gap. While wages are closer to equal, though, overall wages are lower in most of these jobs.

Registered nurses, accountants and auditors, and teachers are exceptions. But while 87 percent of registered nurses are women, their male counterparts outearn them by an average of \$11,000 a year.

Women earn more than men in about 20 percent of occupations. Examples

Men earned more in all age groups, 2019



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

include office and administrative support such as office clerks, receptionists, and secretaries; and service workers such as food preparation workers, teaching assistants, and child care workers.

Alaska's high-wage jobs are mainly held by men

Fewer women work in high-wage occupations (those paying \$75,000 or more), and those who do earn less than the men. In 2019, 10,365 women held high-wage jobs in Alaska. They made \$95,000 on average while men made \$111,000.

Of Alaska's 800-plus occupations, 111 pay women \$75,000 or more a year. Nearly twice as many occupations pay men at least that much.

In the 195 occupations where men earned at least \$75,000 a year, women represented four out of every 10 workers and earned \$26,000 less on average than the men.

Men earn more at every level of education required

Men earn more at every level of education required for employment, and the gap is largest in jobs with minimal requirements. Two-thirds of Alaska's workers hold jobs that require a high school diploma or less. At the other end of the spectrum, it's 20 percent for bachelor's degrees and only 3 percent for graduate degrees.

Jobs requiring no formal education pay men an average of \$10,000 more per year than women — an earnings ratio of 65 percent. When a high school diploma is required, women earn 62 percent, which is an average of \$20,000 less.

Much of the discrepancy is due to the jobs they hold. Most men whose jobs require a high school diploma or less hold low-paying positions such as retail salespeople (\$26,000), construction laborers (\$36,000), hand laborers (\$29,000), and janitors and cleaners (\$24,000). However, many hold high-wage positions in oilfield and construction, such as petroleum pump systems operators (\$141,000); production workers (\$130,000); service unit operators in oil, gas, and mining (\$126,000); and first-line supervisors of construction trades and extraction workers (\$105,000). These jobs increase men's

average wage considerably.

The vast majority of women in jobs with minimal education requirements work in the lower-paying occupations. The data show 3,628 men but only 68 women in jobs that require minimal education but average more than \$100,000. Women were mainly retail salespeople (\$19,000), office and administrative support (\$32,000), fast food and counter workers (\$14,000), cashiers (\$17,000), and home health and personal care aides (\$22,000).

At the upper end of the education spectrum, while the top occupations for highly educated men and women are similar (legal and health care professionals), men outearn them by an average of \$36,000.

Jobs requiring a doctoral or professional degree pay the highest wages to both men and women but at an earnings ratio of 72 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 (\$100,000), physical therapists (\$68,000), family medicine physicians (\$151,000), pharmacists (\$103,000), and other physicians (\$206,000).

The top jobs for highly educated men include lawyers (\$119,000), other physicians (\$266,000), physical therapists (\$84,000), family medicine physicians (\$199,000), and pharmacists (\$111,000).

Gender wage gap widens with age

Wage parity changes considerably by age group, with the genders making almost the same on average among the youngest workers to an earnings ratio of just 67 percent among the oldest workers. Still, men outearn women at every age.

For teens between 16 and 18, the ratio is 97 percent, although wages are low for both and the work is limited mainly to low-paying summer jobs in food preparation and serving or sales. It's also the only age group with more females.

Women in their 50s make 68 cents on the dollar. For women, earnings peak in their 40s and fall slightly in their 50s, while men's earnings peak a decade later.

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