



Alaska Health Care Workforce Analysis

November 2021

ASHNHA

ALASKA STATE **HOSPITAL &**
NURSING HOME ASSOCIATION



Prepared by
Rain Coast Data

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A photograph of a female doctor with glasses and a white lab coat examining a young child's arm. The doctor is wearing a stethoscope and has a name tag that reads "Dr. Edwards". The child is wearing a grey t-shirt and striped socks. The background shows a clinical setting with framed pictures on the wall. The entire image is overlaid with a blue tint.

Alaska Health Care Earnings

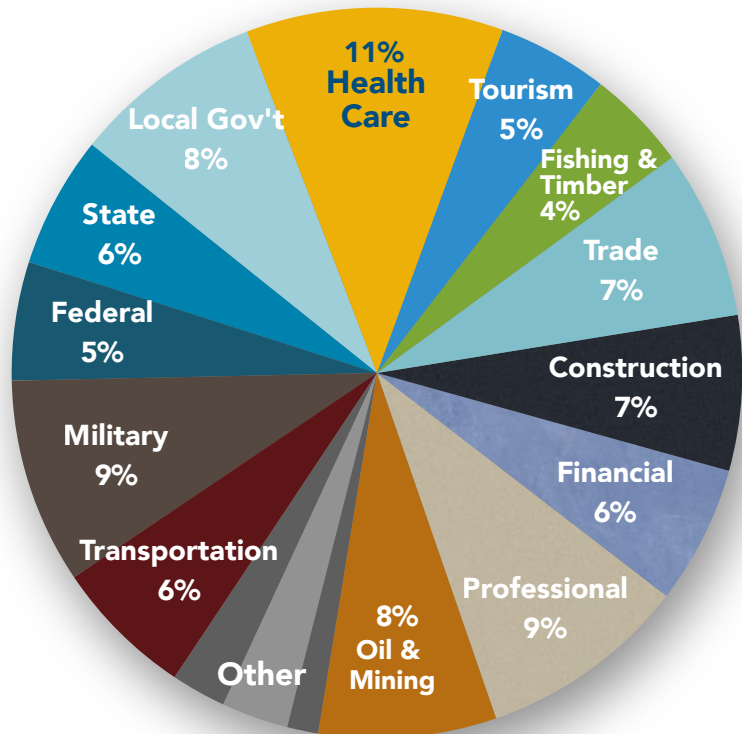
Alaska Health Care Earnings

Health care is the largest economic sector in the state of Alaska. Alaska's health care workers earned \$2.7 billion in 2019. The health care sector pays out more wages than any other industry in Alaska. Health care wages comprise 11% of all state wages, including health care wages from government facilities, and self-employed providers. The next two largest industries, professional & business services and the military both are responsible for 9% of all state-wide workforce earnings.

Alaska health care wages have increased considerably in recent years, growing by \$491 million, or 21%, from 2016 to 2020.

Alaska providers have repeatedly adjusted wages up to remain competitive in attracting workers, resulting in significant total wage increases. With the pressures on the US health care industry due to the pandemic, the aging of the American population, and a greater portion of the US populace accessing health care following passage of the Affordable Care Act, more health care workers are needed than at any other point in history. However, there are simply not enough entering the workforce. Medical and nursing schools still graduate a similar number of students as they did two decades ago, while baby boomers are leaving the work force. Rapid wage growth will slow only if overall pool of health care workers can be increased on a national basis.

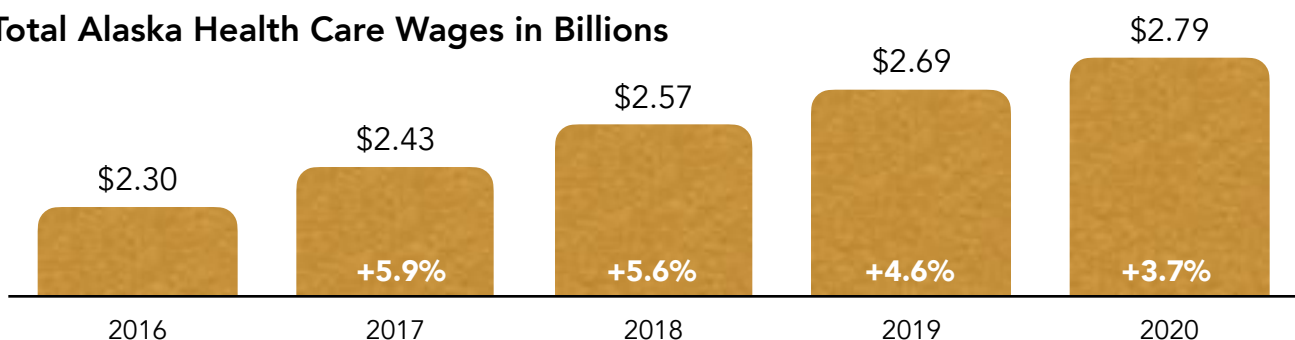
Alaska Workforce Earnings 2019



Note: While 2020 data is available, 2019 is used here, as it is better representative of the Alaska economy as a whole.

21%
wage growth
in 4 years

Total Alaska Health Care Wages in Billions



Source: Combination of Alaska Department of Labor Employment and Wage data; US Census Nonemployer (self-employment) Statistics; and US Bureau of Labor Statistics for military wages.

Alaska Health Care Jobs

In 2019, there were 42,990 annual average (year-round equivalent) health care jobs in Alaska, comprising 11% of the total Alaska workforce and 11% of all workforce earnings. The Alaska health care sector experienced significant growth over the past 30 years, and is projected to continue to add more jobs to the Alaska workforce over the next ten years than any other sector. From 2016 to 2019, total health care employment increased by 7.4%, for a gain of nearly 3,000 jobs. However, in 2020 jobs declined slightly in the wake of the pandemic. The overall jobs growth from 2016 to 2020 was 6%.

6%
job growth in
4 years

Note that “annualized jobs” are all jobs every month of a calendar year divided by 12, so that a better understanding of the total workforce can be developed, and so that jobs can be compared across industries.

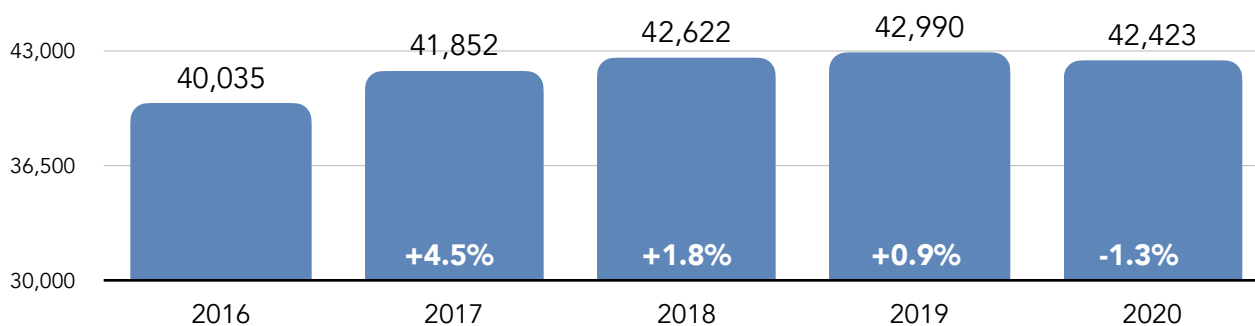
Five percent of health care jobs are government jobs, including municipal hospital staff and Alaska Pioneer home workers.

The total number of people working in the regional health care industry is much larger than the annual average job number. High worker replacement rates, partly due to the use of traveling health care workers, means that total workers significantly exceed total jobs.

Alaska Health Care Earnings and Annualized Jobs

Year	Wages	Annual Average Jobs
2016	\$2,297,364,484	40,035
2017	\$2,432,117,536	41,852
2018	\$2,569,401,303	42,622
2019	\$2,688,744,043	42,990
2020	\$2,789,077,302	42,423
Change 2016-2020	21%	6%
	+\$491 million in wages	+2,388 year-round equivalent jobs

Alaska Health Care Employment (Annualized Jobs)



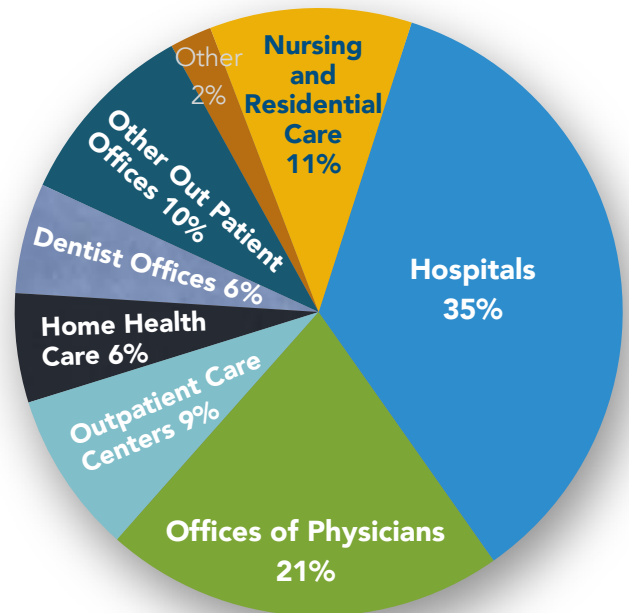
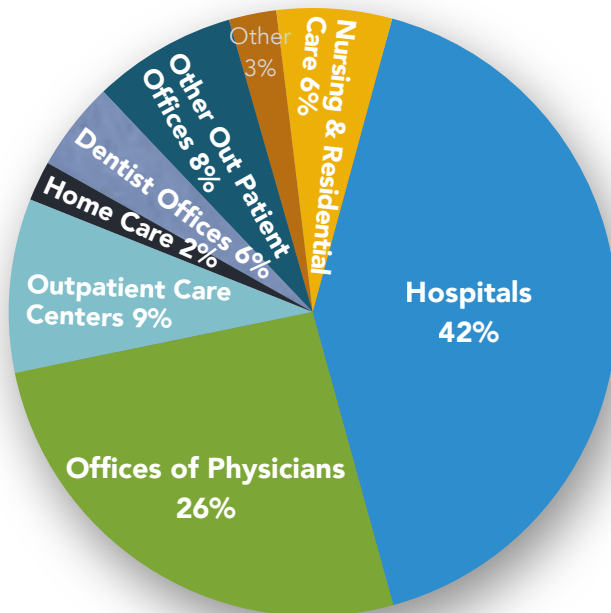
Source: Combination of Alaska Department of Labor Employment and Wage data and US Census Nonemployer (self-employment) Statistics

Health Care Sector Components

Hospitals are the largest health care employer in the state, making up just over a third (35%) of all health care workers and paying out 42% of all health care wages. Physician offices make up the next largest component, with 21% of all workers and 26% of all wages. Nursing and residential care facilities account for 11% of all annual equivalent workers, and 6% of total wages.

\$2.7 Billion Workforce Earnings

42,990 Annualized Jobs



Alaska Health Care Earnings and Annualized Jobs, 2019

NAICS Code	Category	Sub-type	Total Wages	Annualized Jobs
622	Hospitals		\$1,115,986,535	15,170
6221		General Medical and Surgical Hospitals	\$1,085,311,036	14,591
6222		Other Hospital	\$30,675,499	579
623	Nursing and Residential Care		\$164,652,688	4,621
6231		Nursing Care Facilities and other Residential Care	\$70,234,689	1,720
6232		Residential Intellectual and Developmental Disability, Mental Health, & Substance Abuse Facilities	\$52,472,121	1,432
6233		Elderly Community Care	\$41,945,878	1,469
621	Out Patient Health Care		\$1,408,104,819	23,199
6211		Offices of Physicians	\$700,818,649	9,160
6212		Offices of Dentists	\$127,841,517	2,523
6213		Other Health Practioners, Offices	\$205,743,592	4,340
6214		Outpatient Care Centers	\$248,633,057	3,717
6215		Medical, Diagnostic Laboratories	\$19,874,216	319
6216		Home Health Care Services	\$57,078,901	2,497
6219		Other Ambulatory Health Care	\$48,114,885	645
	Total Health Care Sector		\$2,688,744,043	42,990

Health Care Change over Time

Over time, the key components of the Alaska health care sector have not grown evenly. Outpatient health care grew the most, with wages up 26% between 2016 and 2020, and outpatient jobs up by 10%. Nursing and residential care employment decreased by 9% as the State cut Pioneer home staff and services as part of the budget process. Private nursing care facilities also reduced staffing levels during this period. Even so, total nursing and residential care wages remained relatively flat.

Alaska Health Care Earnings and Annualized Jobs, 2016 to 2020							
NAICS Code	Category	Total Wages 2016	Total Wages 2020	Change in wages	Total jobs 2016	Annualized Jobs 2020	Change in jobs
622	Hospitals	\$924,893,534	\$1,098,276,569	19%	13,784	14,471	5%
623	Nursing and Residential Care	\$165,670,304	\$170,371,807	3%	5,053	4,575	-9%
621	Outpatient Health Care	\$1,207,147,517	\$1,515,383,443	26%	21,198	23,377	10%

Health care employment does not have the significant seasonality of much of Alaska's workforce. In 2019, health care workers peaked in December with 43,396 workers, and reached its lowest level in January with 42,530. Average annual employment was 42,990.

Alaska's Health Care Employment by Month, 2019



Source: Combination of Alaska Department of Labor Employment and Wage data; US Census Nonemployer (self-employment) Statistics.

Health Care Workers By Quarter

The Alaska Department of Labor (ADOL) provides quarterly worker counts for the health care positions it tracks annually. This is a different count than the annualized job count presented on the previous pages, as it is a count of total workers hired to fill those positions over the year as they come and go. Below is a subset of the positions with higher employment levels. ADOL also tracks total earnings by occupational title.

Registered Nurses have the highest number of total workers in Alaska's health care sector, along with the highest level of total wages, \$487 million in 2020, which is about 18% of all health care wages.

Alaska Health Care Workers by Count and Total Pay							
SOC	Occupational Title	Q 1	Q 2	Q 3	Q 4	2020 Annual Count	2020 Total Wages
119111	Medical and Health Services Managers	1,120	1,141	1,149	1,148	1,402	\$111,671,568
131071	Human Resources Specialists	633	619	601	592	756	\$39,108,594
211014	Mental Health Counselors	567	609	589	603	779	\$32,458,337
211022	Health Care Social Workers	226	217	214	223	286	\$11,809,949
211023	Mental Health and Substance Abuse Social Workers	349	346	354	344	488	\$18,043,820
291021	Dentists, General	317	261	291	300	421	\$32,636,248
291051	Pharmacists	406	396	419	431	512	\$45,215,025
291071	Physician Assistants	572	545	552	567	731	\$63,003,281
291122	Occupational Therapists	283	286	301	293	372	\$17,831,492
291123	Physical Therapists	696	680	670	703	909	\$46,083,616
291141	Registered Nurses	6,771	6,659	6,804	6,989	8,494	\$487,080,081
291171	Nurse Practitioners	508	471	479	478	637	\$48,495,734
291215	Family Medicine Physicians	480	442	464	465	600	\$79,865,293
291229	Physicians, All Other	396	370	399	400	514	\$95,006,905
291292	Dental Hygienists	641	515	569	574	849	\$26,023,915
292011	Medical and Clinical Laboratory Technologists	302	280	318	336	396	\$21,774,884
292012	Medical and Clinical Laboratory Technicians	355	348	319	342	473	\$16,670,388
292034	Radiologic Technologists and Technicians	416	401	411	405	521	\$27,846,816
292042	Emergency Medical Technicians	313	310	305	324	469	\$15,628,700
292052	Pharmacy Technicians	509	492	493	498	616	\$18,393,241
292053	Psychiatric Technicians	342	330	314	295	437	\$11,406,583
292055	Surgical Technologists	260	247	255	264	325	\$13,028,244
292061	Licensed Practical and Licensed Vocational Nurses	424	400	394	364	519	\$22,080,541
292072	Medical Records Specialists	413	395	388	501	647	\$18,185,252
292099	Health Technologists and Technicians, All Other	274	271	299	303	408	\$14,279,780
299099	Healthcare Practitioners and Technical Workers, Other	246	262	289	244	415	\$13,994,019
311121	Home Health Aides	1,432	1,231	1,229	1,254	2,043	\$27,684,913
311122	Personal Care Aides	5,458	5,193	5,100	5,224	7,638	\$103,509,959
311131	Nursing Assistants	2,465	2,471	2,543	2,512	3,311	\$81,944,574
319091	Dental Assistants	1,309	1,132	1,256	1,248	1,855	\$39,037,004
319092	Medical Assistants	2,084	2,033	2,111	2,142	3,012	\$77,978,465
319099	Healthcare Support Workers, All Other	1,179	1,146	1,316	1,405	2,128	\$41,770,700

Source: Alaska Department of Labor 2020 Worker Counts by Occupation. See appendix for additional positions.

Health Care Multipliers Impact

Employment and income levels in the health sector have a significant impact on employment and income throughout other industries in Alaska, as is demonstrated when using the RIMS Type II multipliers. For example, the employment multiplier for the Hospital Sector in Alaska is 1.84. This indicates that for each job created in the Hospital Sector, another 0.84 jobs are created in other businesses and industries in Alaska. The direct impact of the 15,170 Hospital Sector jobs in Alaska results in an impact of 12,705 additional indirect and induced jobs throughout all businesses and industries in the state. Therefore in total Alaska's Hospital Sector has a total impact on employment of 27,875 jobs in Alaska.

75K
jobs
Total health
care jobs
impact

Likewise, the total impact of the \$1.1 billion payroll to the Hospital Sector employees can be estimated. The income multiplier for the Hospital Sector in Alaska is 1.5. The multiplier indicates that for each dollar's worth of income generated in the Hospital Sector, another \$0.50 is generated in other businesses and industries in Alaska. This means that the estimated total Hospital Sector impact on income throughout all businesses and industries in the Alaska is \$1.7 billion.

\$4
billion
Total health
care wages
impact

Expanding this analysis, the total impact of the 42,990 employees of Alaska's health care sector was 74,940 total jobs across the state's economy; and Alaska's health sector income of \$2.7 billion resulted in a total Alaska income impact of nearly \$4 billion in 2019.

Alaska Health Care Earnings and Jobs Multipliers

NAICS Code	Category	Sub-type	Annualized Jobs	Employment Multiplier	Total Employment Impact	Total Wages	Wages Multiplier	Total Wages Impact
622	Hospitals		15,170	1.84	27,875	\$1,115,986,535	1.50	\$1,677,774,157
623	Nursing and Residential Care		4,621	1.35	6,252	\$164,652,688	1.43	\$235,140,504
6231		Nursing Care Facilities and other Residential Care	1,720	1.37	2,352	\$70,234,689	1.47	\$102,978,101
6232		Residential Intellectual and Developmental Disability, Mental Health, & Substance Abuse Facilities	1,432	1.36	1,946	\$52,472,121	1.41	\$73,948,960
6233		Elderly Community Care	1,469	1.33	1,954	\$41,945,878	1.39	\$58,304,770
621	Out Patient Health Care		23,199		40,813	\$1,408,104,819		\$2,064,303,343
6211		Offices of Physicians	9,160	1.98	18,111	\$700,818,649	1.44	\$1,009,038,691
6212		Office of Dentists	2,523	1.67	4,225	\$127,841,517	1.46	\$186,469,637
6213		Other Health Practitioners, Offices	4,340	1.51	6,533	\$205,743,592	1.44	\$295,262,629
6214		Outpatient Care Centers	3,717	1.91	7,088	\$248,633,057	1.58	\$392,492,144
6215		Medical, Diagnostic Laboratories	319	1.76	562	\$19,874,216	1.46	\$29,002,443
6216		Home Health Care Services	2,497	1.30	3,252	\$57,078,901	1.41	\$80,389,924
6219		Other Ambulatory Health Care	645	1.62	1,043	\$48,114,885	1.49	\$71,647,875
	Total Health Care Sector		42,990		74,940	\$2,688,744,043		\$3,977,218,003

Wages by Position

Another way to understand earnings is through comparative hourly and annual pay. The State of Alaska provides wage data for health care positions in Alaska in the Occupational Employment Statistics (OES) reports. Among the health care positions listed in the OES report, physicians have the highest average wage, while home health aides are paid the least. Occupational Employment Statistics data set measures gross pay, cost-of-living allowances, incentive pay, bonuses, tips, and on-call pay. Private and public employers are represented in the data, although the self-employed workers are excluded. The table below presents a subset of key health positions in Alaska. The overall annual wage for all Alaska health care positions was \$65,744 in 2020.

\$65,744

Average annual
Alaska health
care wage
2020

Alaska Health Care Wages, by Selected Position 2020

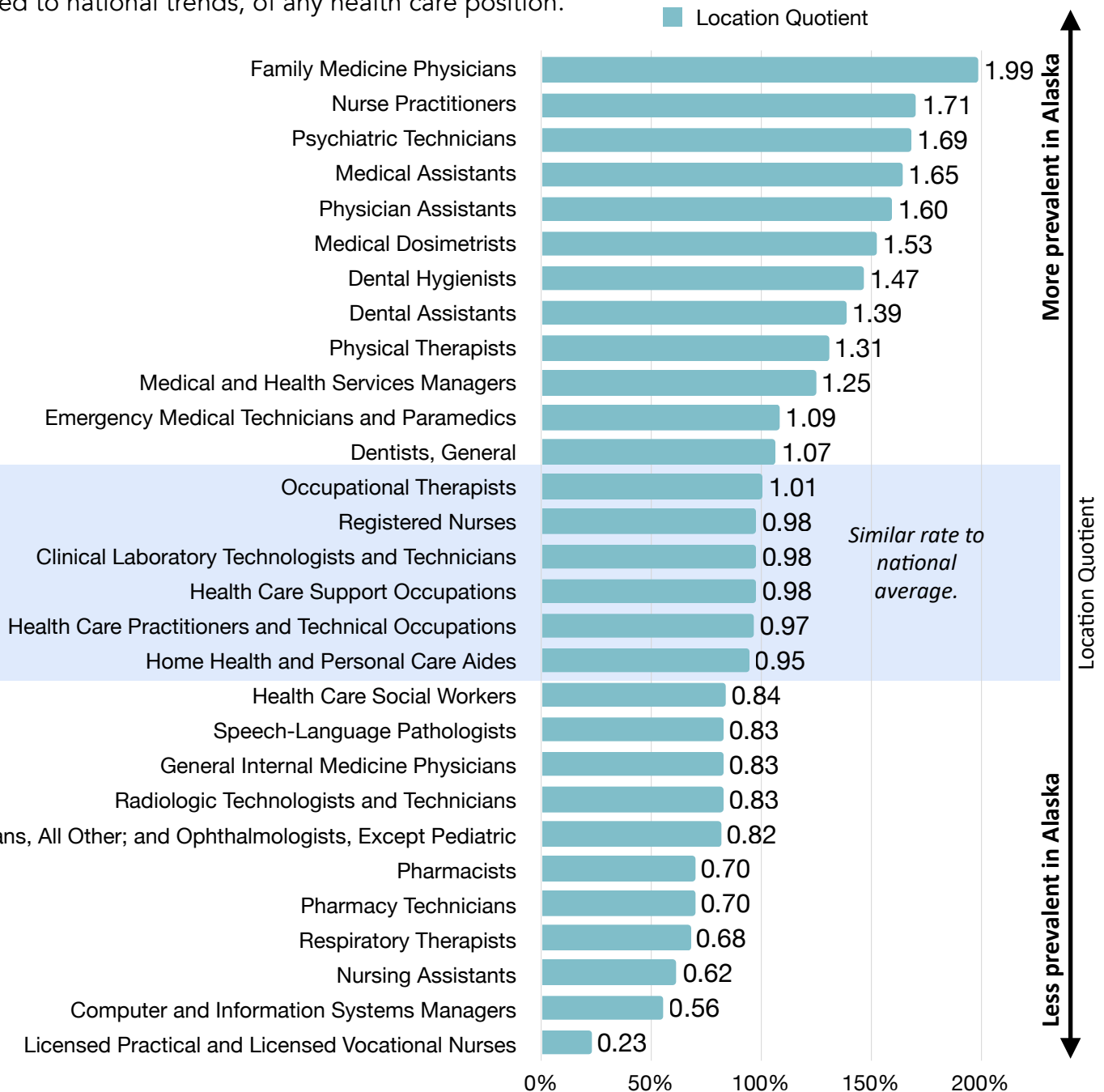
SOC Code	Occupation Title	Average Hourly Wage	Average Annual Wage	Location Quotient
11-1011	Chief Executives	\$79.98	\$166,360	2.52
11-3021	Computer and Information Systems Managers	\$57.07	\$118,710	0.56
11-9111	Medical and Health Services Managers	\$58.86	\$122,430	1.25
29-0000	Healthcare Practitioners and Technical Occupations	\$50.00	\$104,000	0.97
29-1021	Dentists, General	\$116.75	\$242,850	1.07
29-1051	Pharmacists	\$70.69	\$147,040	0.70
29-1071	Physician Assistants	\$72.32	\$150,430	1.60
29-1122	Occupational Therapists	\$45.18	\$93,980	1.01
29-1123	Physical Therapists	\$48.65	\$101,190	1.31
29-1126	Respiratory Therapists	\$35.76	\$74,390	0.68
29-1141	Registered Nurses	\$45.81	\$95,270	0.98
29-1171	Nurse Practitioners	\$53.01	\$110,270	1.71
29-1215	Family Medicine Physicians	\$126.93	\$264,010	1.99
29-1216	General Internal Medicine Physicians	\$135.93	\$282,730	0.83
29-1228	Physicians, All Other; and Ophthalmologists, Except Pediatric	\$127.98	\$266,200	0.82
29-1292	Dental Hygienists	\$55.31	\$115,050	1.47
29-2010	Clinical Laboratory Technologists and Technicians	\$33.36	\$69,390	0.98
29-2034	Radiologic Technologists and Technicians	\$38.14	\$79,330	0.83
29-2040	Emergency Medical Technicians and Paramedics	\$24.05	\$50,030	1.09
29-2052	Pharmacy Technicians	\$22.32	\$46,430	0.70
29-2053	Psychiatric Technicians	\$20.35	\$42,320	1.69
29-2061	Licensed Practical and Licensed Vocational Nurses	\$32.51	\$67,620	0.23
29-2098	Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	\$28.18	\$58,620	1.53
31-0000	Healthcare Support Occupations	\$20.23	\$42,080	0.98
31-1120	Home Health and Personal Care Aides	\$17.00	\$35,360	0.95
31-1131	Nursing Assistants	\$20.43	\$42,500	0.62
31-9091	Dental Assistants	\$24.63	\$51,230	1.39
31-9092	Medical Assistants	\$22.41	\$46,610	1.65
21-1022	Healthcare Social Workers	\$30.00	\$62,390	0.84

Source: Alaska Department of Labor 2020 Occupational Employment Statistics. See appendix for additional positions.

Location Quotient

A location quotient, or economic concentration ratio, is a ratio that compares the concentration of health care employment in Alaska to that of the nation as a whole. A location quotient greater than one (the national average) shows that Alaska has a higher number of a particular health care position than the nation as a whole, while a location quotient of less than one shows that the position is under-represented in Alaska. According to this analysis, there are twice as many family medicine physicians in Alaska as would be expected by national trends, and nearly twice as many nurse practitioners. Registered nurses have the same prevalence in the Alaska workforce as they do in the US workforce. Licensed practical and vocational nurses have the lowest prevalence in Alaska, compared to national trends, of any health care position.

■ Location Quotient



A photograph of a female doctor with glasses and a white lab coat examining a young child's arm. The doctor is wearing a stethoscope and has a name tag that reads "Dr. Edwards". The child is wearing a grey t-shirt and striped socks. The background shows a clinical setting with framed pictures on the wall. The entire image is overlaid with a blue tint.

Alaska Health Care Growth Projections

Growth Outlook: 10 Years

Occupational estimates and projections for Alaska are developed by the State of Alaska every other year. Projections, which currently cover the 2018-2028 period, are a fantastic tool for understanding long-range trends in occupational employment. In the next ten years home health aides are projected to grow the most, by 23.1%, followed by “other” health care support workers, at 10.3%. Psychiatric aides and pharmacy technicians are projected to grow the least, but growth is projected among every single health care portion in Alaska. Overall, health care jobs as a whole are expected to grow by 7.6% over the next 10 years. Despite a lower than average projected growth of 6.9%, registered nurses are expected to have the greatest increase in position count, due to the high number of registered nurses in Alaska. Altogether, more than 5,000 new health care jobs are expected to be added to the Alaska workforce over the next 10 years.



Annual New Hires By Position

Job counts and workers count are different. To understand total workforce needs, it is important to understand total jobs, total workers in each job per quarter, worker exits, and overall growth, by position. Based on all of these combined measures, approximately 6,300 new health care workers must be hired across Alaska **every year** to keep up with the resulting need for additional workforce. The below table breaks out 5,400 of these needed annual hires. Registered nurses is by far the top category, with more than 1,400 new recruits needed annually. The top three categories — medical assistants, nursing assistants, and home health aides — account for half of all required annual new workers.

6,300

New Alaska health care workers are needed annually (growth + replacement)

New Workers Needed Annually Based on Turnover & Growth

Occupational Title	Annual new workers needed to account for growth and replacement	Annual average worker "churn"	10 year projected growth	2019 average quarterly worker count	2018 annual average job count
Registered Nurses	1,439	20%	6.9%	6,882	5,856
Medical Assistants	584	27%	8.6%	2,073	1,742
Nursing Assistants	543	23%	8.3%	2,258	2,109
Home Health Aides	499	33%	23.1%	1,420	1,093
Dental Assistants	410	30%	9.0%	1,341	1,213
Healthcare Support Workers, All Other	348	28%	10.3%	1,211	1,220
Massage Therapists	197	27%	8.1%	699	518
Physical Therapists	160	22%	8.0%	695	525
Physician Assistants	123	21%	8.2%	560	437
Licensed Practical and Licensed	111	22%	9.8%	482	522
Pharmacy Technicians	109	20%	1.6%	532	490
Radiologic Technologists and Technicians	100	21%	7.8%	454	464
Emergency Medical Technicians	99	30%	6.8%	323	370
Nurse Practitioners	97	20%	8.6%	455	348
Pharmacists	81	19%	4.0%	421	346
Dentists, General	80	25%	9.7%	309	226
Psychiatric Technicians	79	22%	8.8%	348	307
Speech-Language Pathologists	65	19%	5.9%	331	256
Surgical Technologists	60	22%	7.3%	261	219
Phlebotomists	60	25%	7.7%	230	130
Occupational Therapists	59	20%	7.1%	279	224
Healthcare Social Workers	53	22%	7.8%	231	206
Respiratory Therapists	44	21%	6.0%	201	166

Notes: Worker churn is like turnover, but measured quarterly rather than monthly. It is the annual worker count *minus* peak quarterly workers *divided* by total annual workers, using Alaska Department of Labor Occupational Employment Statistics. Worker churn percentages are based on 3-year averages (2018-2020) to minimize any outlier disruptions. 10-year projected growth comes from ADOL Alaska Occupational Forecast 2018 to 2028. To understand annual health care worker needs, the ten year forecast estimates are annualized and applied to worker counts (rather than job counts). "Annual new workers needed" is "churn" multiplied by 2019 quarterly worker count added to "10-year projected growth" multiplied by the 2019 average quarterly count, divided by 10. See appendix for additional positions/details.

Health Care Workforce Development Needs

The bubble chart on the following page cross-tabulates new workers needed on an annual basis by count, location quotient, and annual salary data, and charts them into a single picture of the state's future health care workforce needs. It provides a visual blueprint as to where the most resources should be focused when attracting workers to Alaska, or for growing our own workforce.

Registered nurses have the highest workforce development need of all health care position categories. There are more registered nurses than any other health position category. While the position is not growing as fast as others — the projected growth for this position is 6.9% in ten years — combined growth and turnover rates mean that an additional 1,439 registered nurses will be needed annually over the next ten years. This includes 40 new registered nurse positions annually.

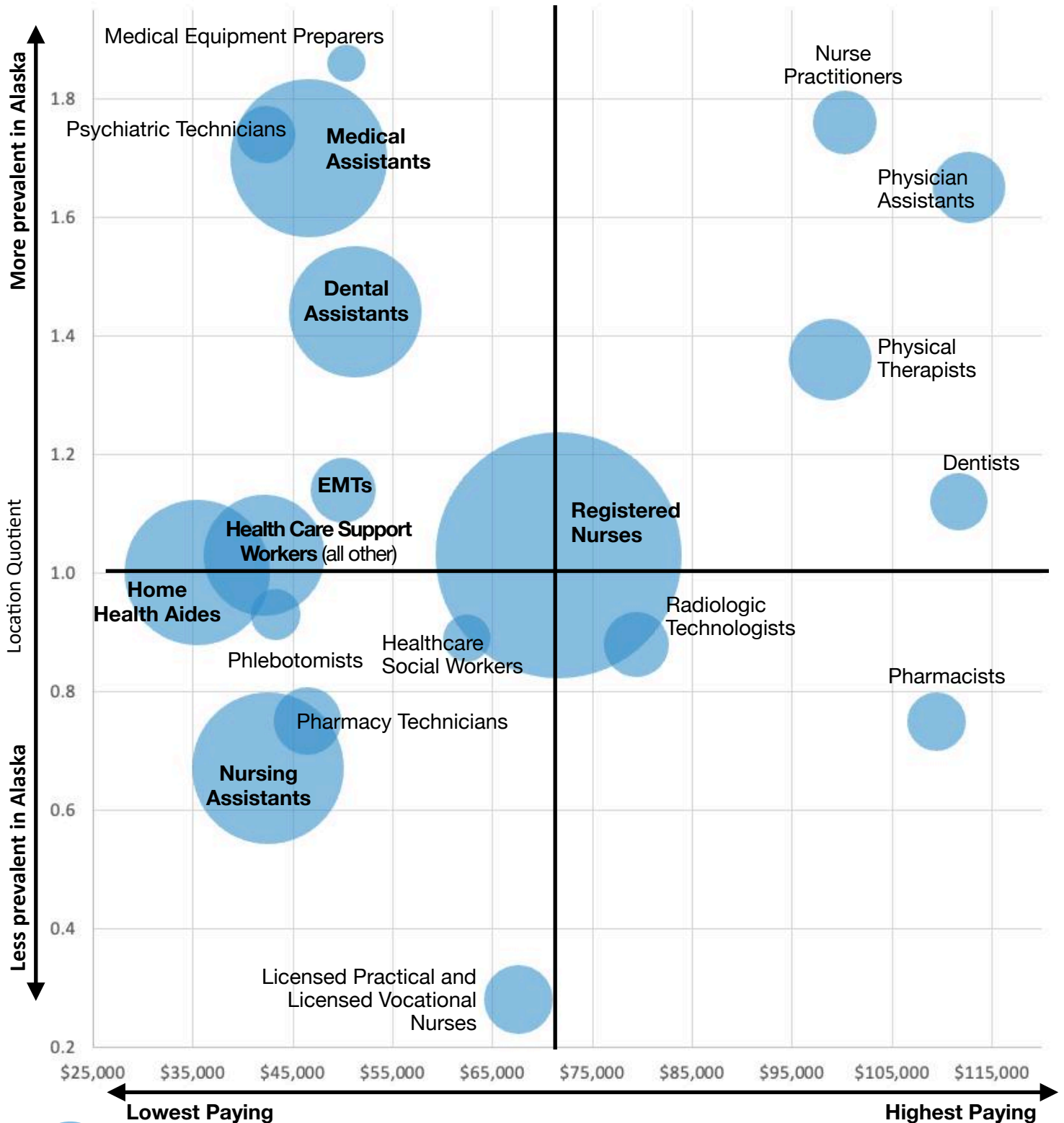
Medical assistants are also in high demand, with 584 new positions in need of filling annually. However, these positions have lower comparative pay, and the position is much more common in Alaska than in the US as a whole.

Pharmacists have the lowest annual churn rate of any of the top health care positions, so fewer replacement pharmacists are needed on an annual basis.

Worker churn (similar to turnover, but based on different data points) is the highest for home health aides (23%), physical therapist aides (31%), EMTs, dental assistants, and behavioral health aides (all 30%). The lowest worker churn is seen among physicians (5%), orthodontists (6%), and pediatric surgeons (7%). Worker churn is measured by using total workers for a position in a year, subtracting peak quarterly workers for the same position, and dividing by total workers. For the purposes of this analysis, worker churn for 2018, 2019, and 2020 were averaged.

See chart on the following page.

Graphic of Annual Health Care Workforce Development Needs



Size of bubble = total new workers needed annually to account for turnover and job growth

A photograph of a female doctor with glasses and a white lab coat examining a young child's arm. The doctor is wearing a stethoscope and has a name tag that reads "Dr. Edwards". The child is wearing a grey t-shirt and striped socks. The background shows a clinical setting with framed pictures on the wall. The entire image is overlaid with a blue tint.

Alaska Health Care Nonresident Workforce

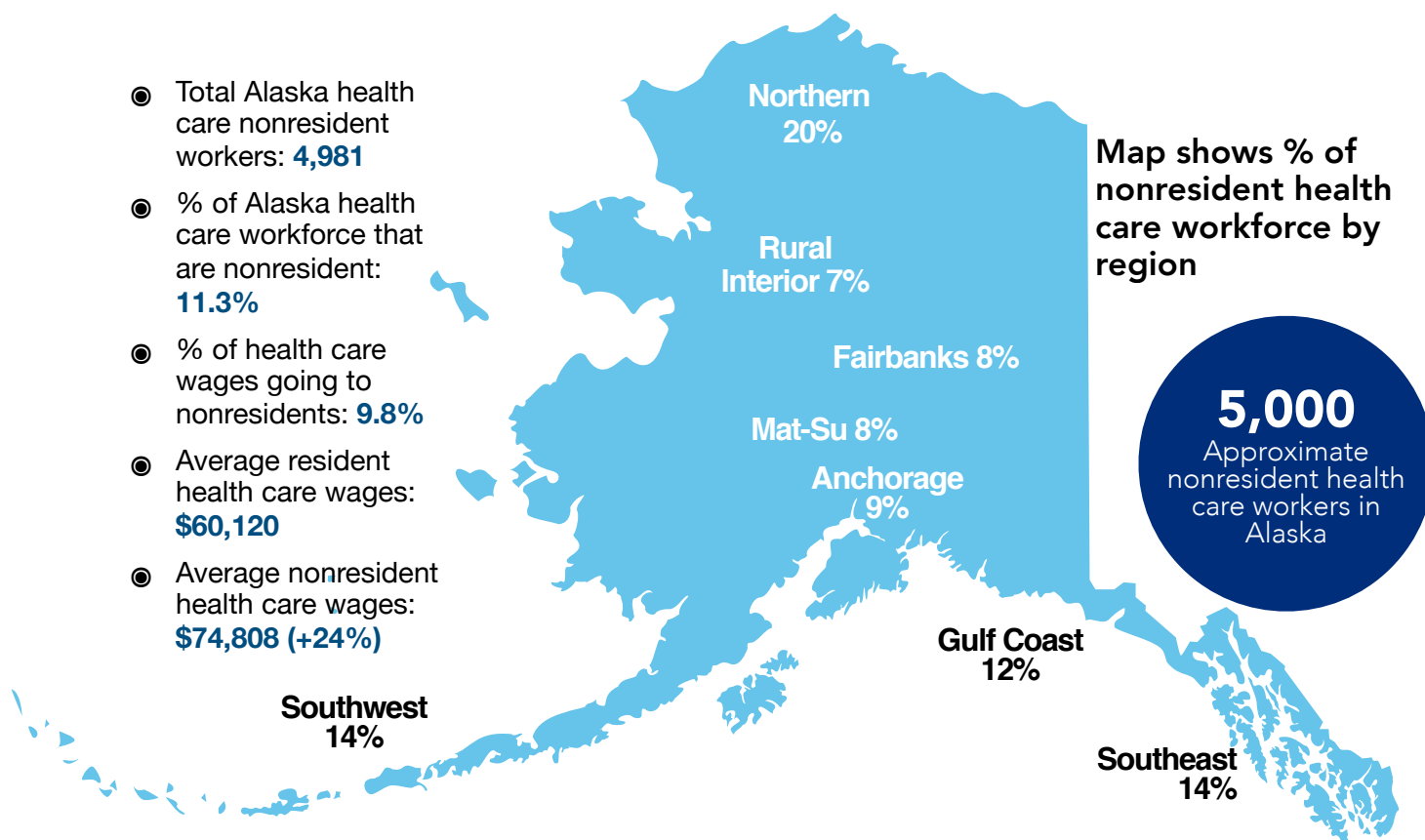
Nonresident Health Care Workers

Non-Alaska residents made up 11.3% of the total Alaska health care workforce in 2019. While this percentage is lower than the Alaska average of 21%, the sheer size of the Alaska health care sector means that there are nearly 5,000 nonresident health care workers. Health care workers who applied for an Alaska Permanent Fund Dividend in 2019 or 2020 are counted as residents for 2019. Statistics show that 24% of health care nonresidents go on to attain residency.

While use of nonresident health care workers can be an important tool to recruit staff and expand capacity, nonresident health care workers are more expensive. Nonresident health care staff are paid 24% more than resident workers, and if they have been recruited as a traveling worker, housing and travel expenses are often covered by the employer, increasing the costs even more. According to a 2019 survey of Southeast Alaska health care institutions, it costs 64% more on average to engage a traveling health care worker than it would to hire a permanent employee.

Rural Interior Alaska is the least likely to employ nonresident health care staff, while Alaska's Northern Region has the highest percentage of nonresident staffers. Half of all Alaska health care workers are located in Anchorage.

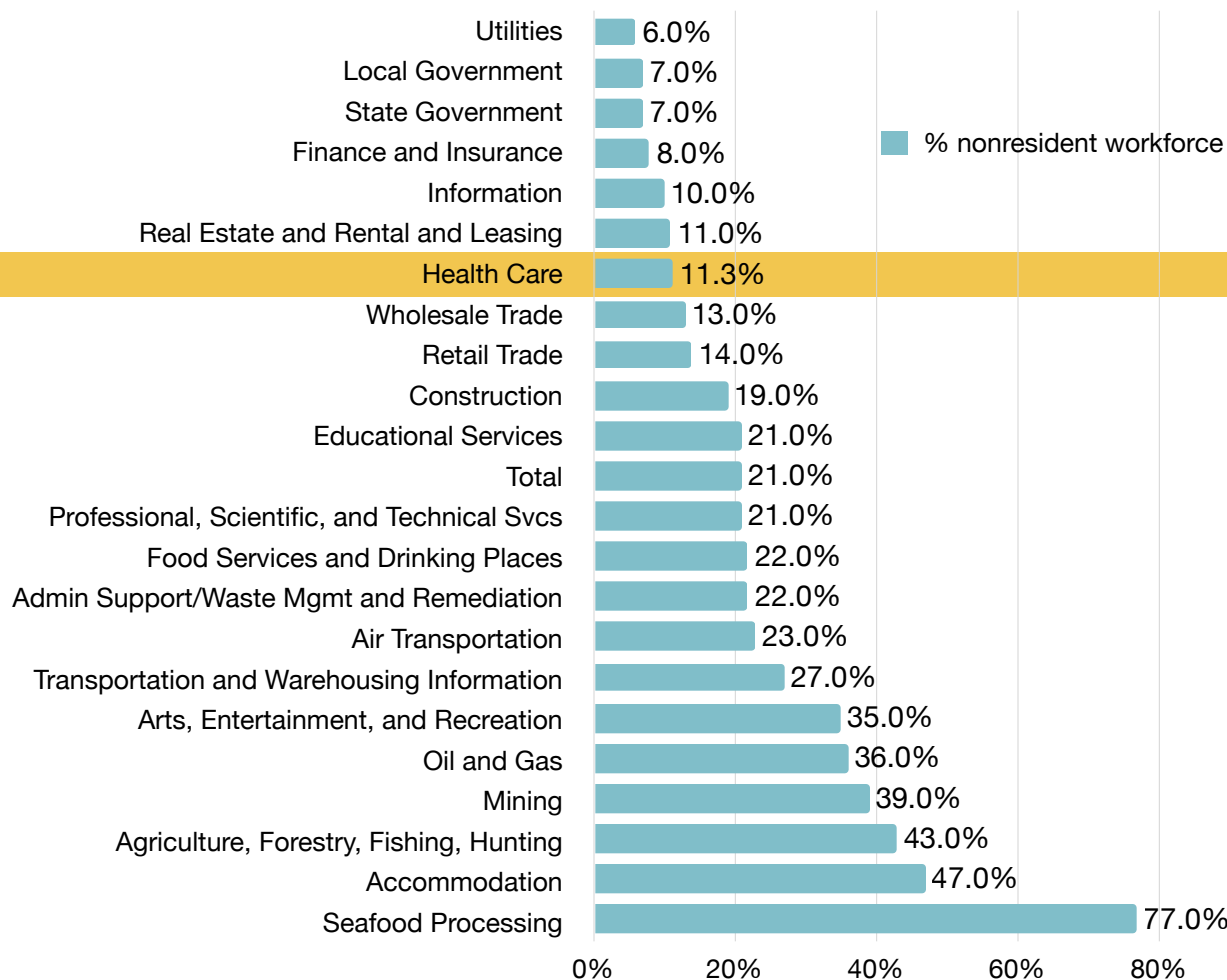
Alaska Health Care Nonresident Workforce Statistics



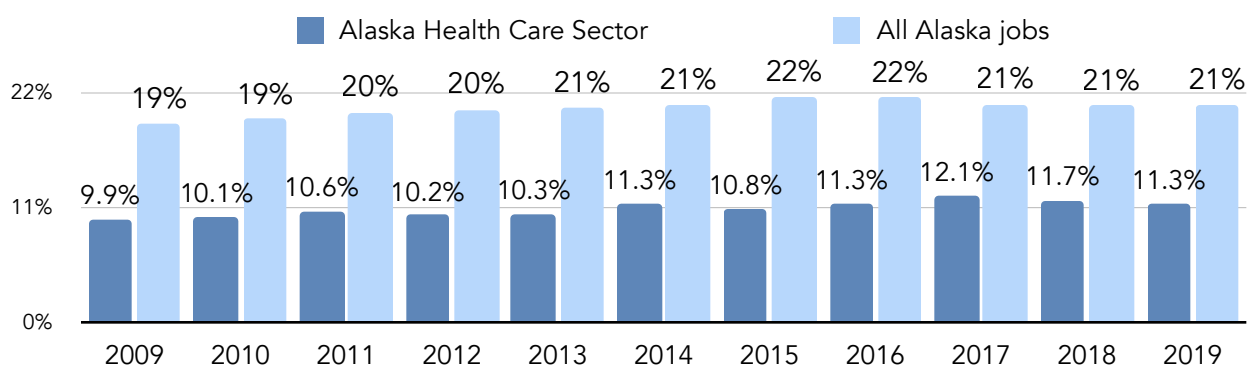
Source: Alaska Department of Labor. Nonresidents Working in Alaska 2019. Published in 2021.

Nonresident Workers by Industry

The Alaska health care sector has one of the lowest percentages of nonresidents of any sector of the Alaska economy. Across all of Alaska, 21% of all workers were nonresident in 2019. In the combined Health Care sector it is 11.3%



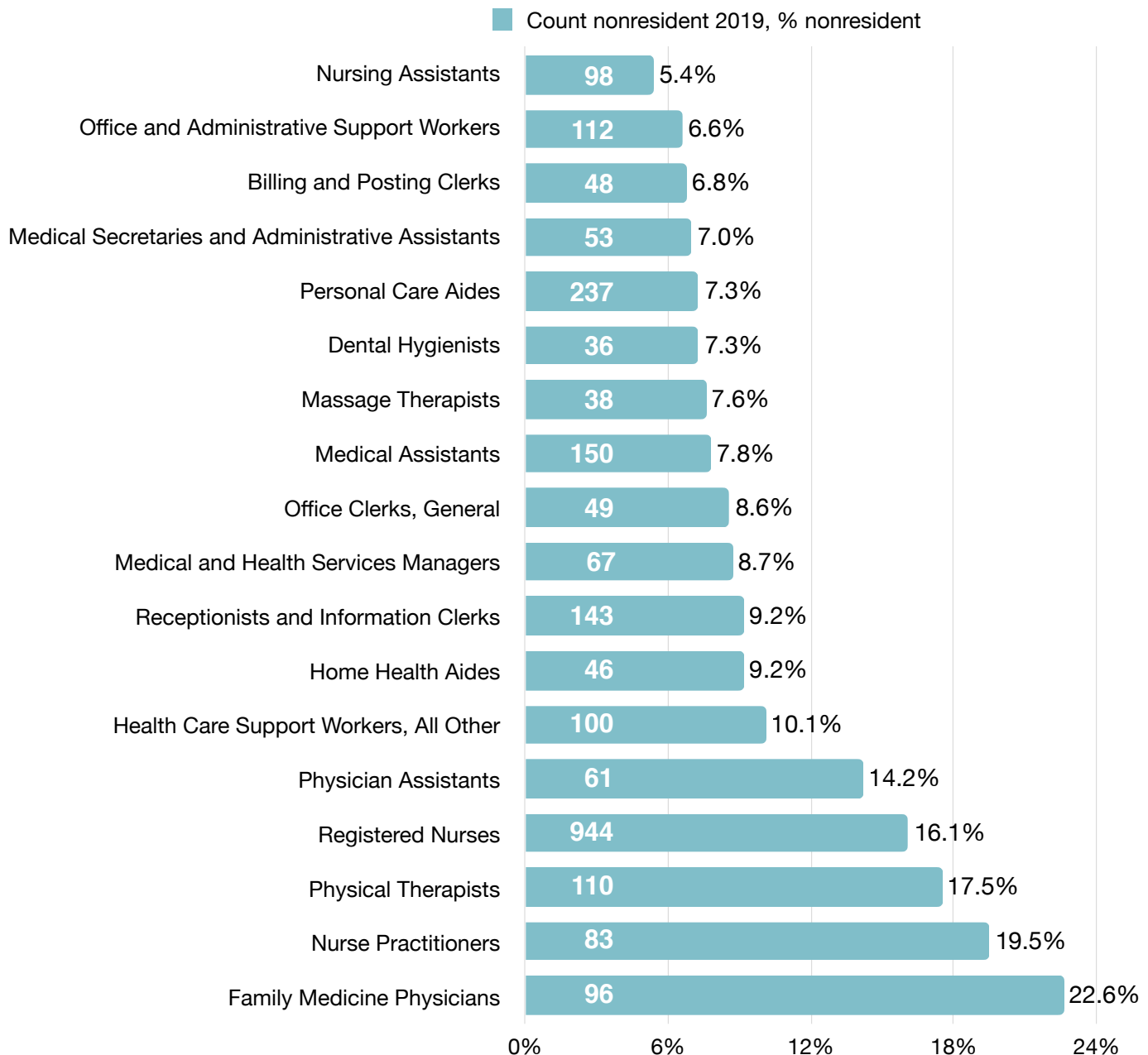
The health care sector has consistently ranked well below the state average of nonresidential workforce participation. Over the last decade the share of nonresidents in health care positions ranged from a low of 9.9% in 2009, to a high of 12.1% in 2017, with a decade-long average of 10.8%



Source: Alaska Department of Labor. Nonresidents Working in Alaska 2019. Published in 2021.

Nonresident Workers by Position

Among the top health care positions, nursing assistants are most likely to be residents, followed by office admin support (of various types) and personal care aides. At the other end of the spectrum, family medicine physicians and nurse practitioners are most likely to be nonresident. Due to the sheer number of registered nurses needed to operate health care facilities across Alaska, they are the position with the highest number of nonresidents, at 944 in 2019, even though the nonresident percentage for registered nurses of 16% is well below the Alaska average for all jobs.

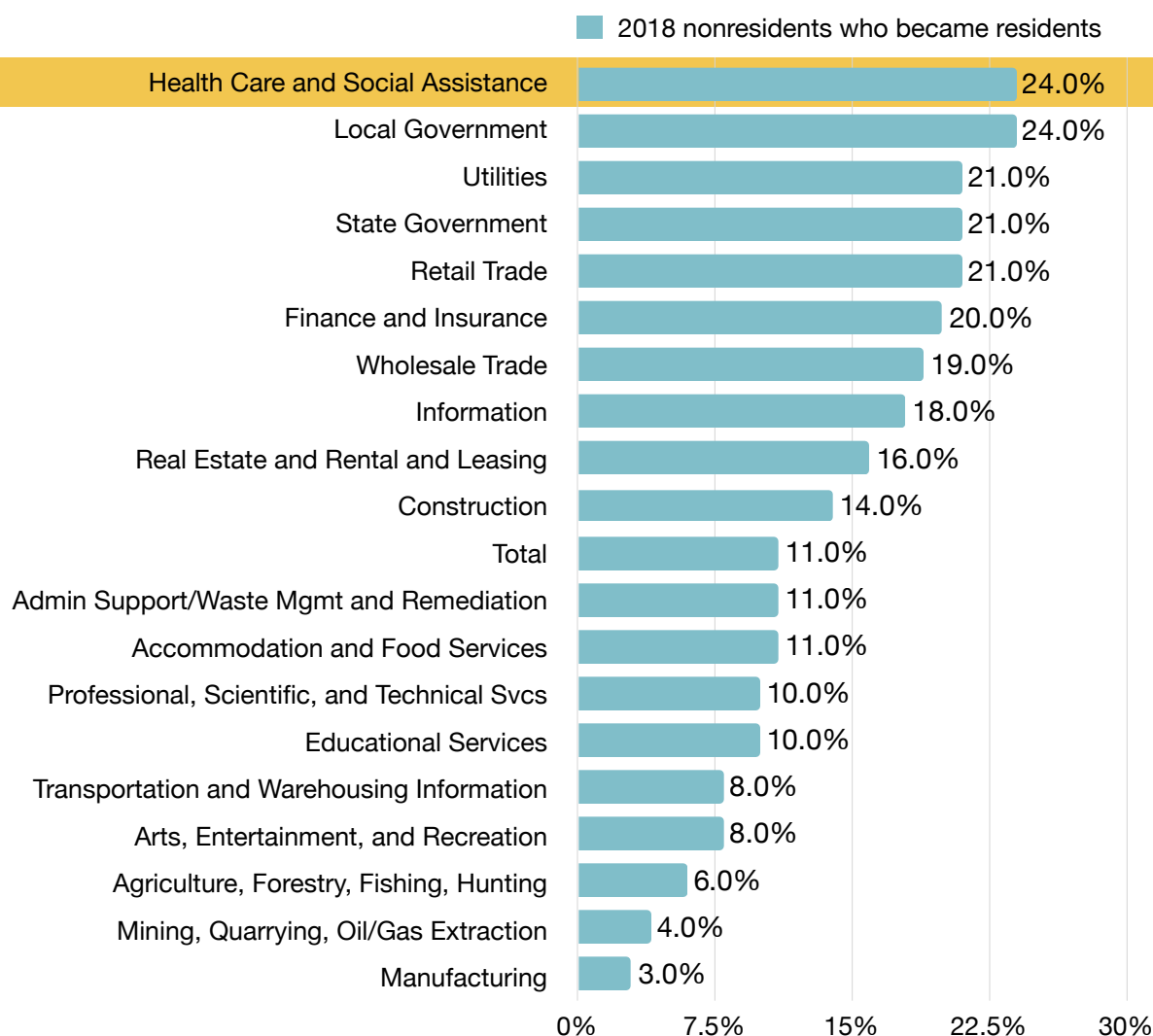


Source: Alaska Department of Labor. Nonresidents Working in Alaska 2019. Published in 2021.


Nonresident Conversion

The combined health care and social services sector is the most likely to convert nonresidents into permanent residents. In 2019, nearly a quarter (24.4%) of health care workers designated as nonresident in 2018 had become eligible to receive a PFD, which is how residency is measured for this analysis. This is more than double the normal nonresident-to-resident conversion rate. In 2019, 11.4% of the nonresidents from 2018 had become residents.

In other words, the health care sector of Alaska is very good at retaining its nonresident workers.



Source: Alaska Department of Labor. Nonresidents Working in Alaska 2019. Published in 2021.

A photograph of a female doctor with glasses and a white lab coat examining a young child's arm. The doctor is wearing a stethoscope and has a name tag that reads "Katherine Edwards, MD" and "Family Medicine". The child is wearing a grey t-shirt and striped socks. The background shows a clinical setting with framed pictures on the wall. The entire image is overlaid with a blue tint.

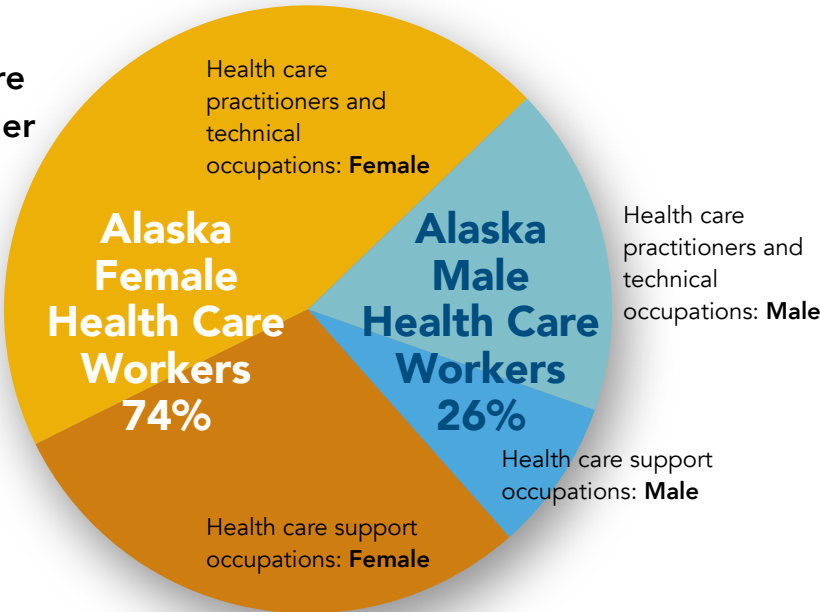
Alaska Health Care Workforce Demographics

Health Care Worker Demographics

The Alaska health care sector is incredibly female dominant. According to the U.S. Census Bureau, 2019 American Community Survey, nearly three-quarters (74%) of all Alaska health care workers are women, versus just 26% men. Women are even more prevalent in health care support positions, where men comprise just 22% of all jobs. While these differences are dramatic, they are not unique to Alaska, as this closely mirrors national trends. Wages for men are 9% higher for jobs in Alaska’s “health care practitioner and technical” categories, and 2% lower among health care support jobs.

Statewide, 69% of all jobs are held by white workers. The Alaska health care sector follows this trend overall, with 69% of all workers identifying as “white only.” However, in the practitioner and technical positions, the percentage of white workers increases to 78%, and among support workers, white workers fall to just over half (54%) of all Alaska health care staff.

Alaska Health Care Workers by Gender



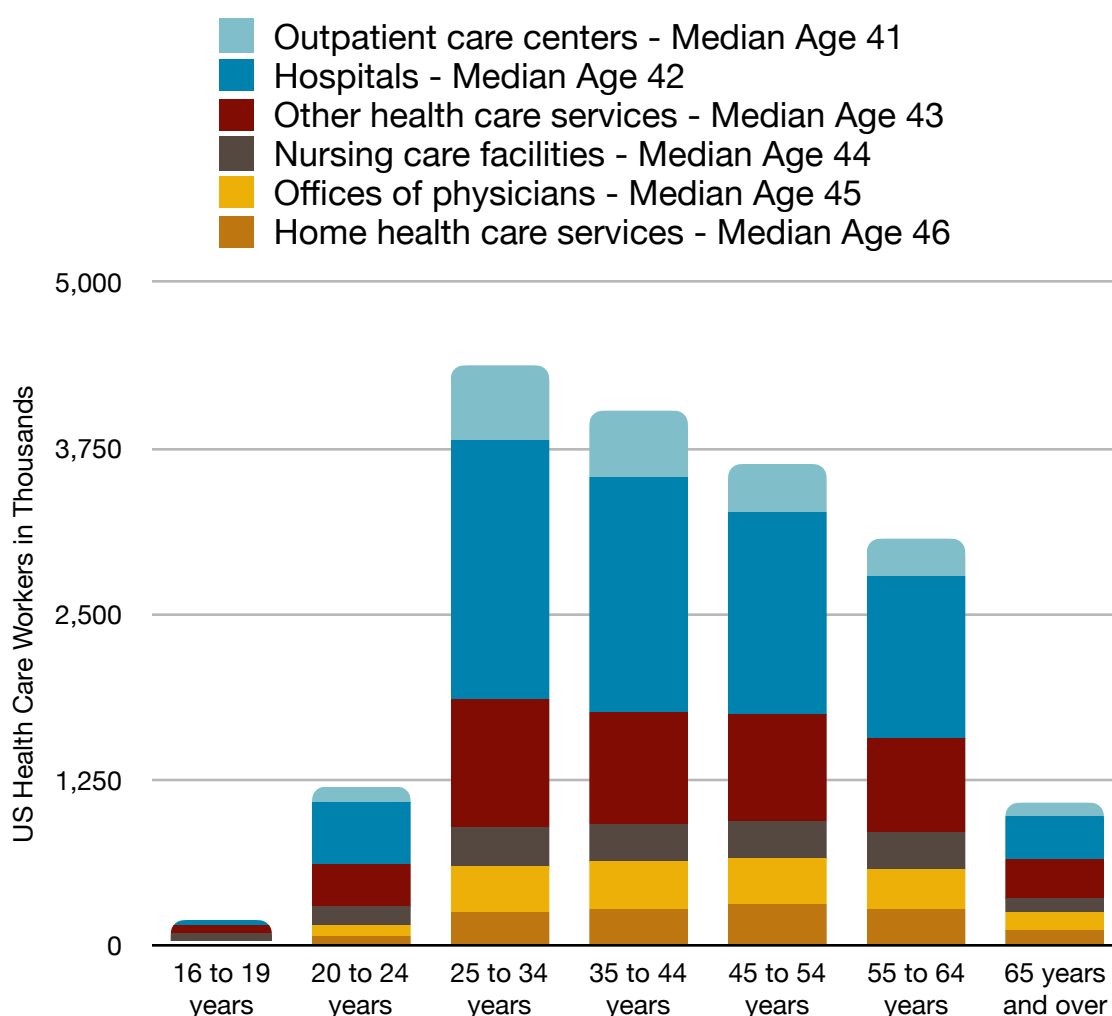
Alaska Health Care Demographics			
SOC Code	Male	Female	White
Health care practitioners and technical occupations	28%	72%	78%
Health care practitioners and technical occupations: Median Wages	\$87,813	\$80,216	NA
Health care support occupations	22%	78%	54%
Health care support occupations: Median Wages	\$35,084	\$35,817	NA
Total Alaska health care occupations	26%	74%	69%
Total all Alaska jobs	54%	46%	69%

Source: U.S. Census Bureau, 2019 American Community Survey

National Health Care Worker Age

While no Alaska-specific breakdowns of health care worker by age are readily available, national data is maintained. The overall median age of the US health care worker is 43, as is the median age of the US worker for all jobs. Outpatient care center workers have the lowest median age of all health care professions, while home health care service providers have the highest. Health care workers are most likely to be in their mid-20's to mid-30's.

US Health Care Workers by Age 2020



Source: U.S. Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey 2020

A photograph of a female doctor with glasses and a white lab coat examining a young child's arm. The doctor is wearing a stethoscope and has a name tag that reads "Dr. Edwards". The child is wearing a grey t-shirt and striped socks. The background shows a clinical setting with framed pictures on the wall. The entire image is overlaid with a blue tint.

Alaska Health Care Licensing

Alaska Health Care Licensing

As of August 2021, more than 36,000 health care professional licenses were held in the state of Alaska in top health care categories. Of these, nearly 23,000 were for nursing or physician assistant related licenses. The most common license is a professional license to provide services as a registered nurse, with more than 16,000 active licenses.

Alaska Health Care Related Active Professional Licenses, 2021	
Alaska Professional License Category	Count
Nursing/Physician Assistant	22,608
Registered Nurse	16,432
Certified Nurse Aide	3,074
Advanced Practice Registered Nurse	1,522
Physician Assistant	704
Practical Nurse	700
Advanced Practice Registered Nurse Preceptorship	71
Nursing Home Administrator	46
Registered Nurse Temporary Permit	35
Certified Nurse Aide Temporary Permit	11
Advanced Nurse Practitioner Preceptorship	6
Physician Assistant Temporary Permit	4
Advanced Practice Registered Nurse Temporary Permit	1
Authorized Advanced Nurse Practitioner	1
Nursing Home Administrator Provisional License	1
Pharmacy	4,827
Dental	3,070
Physical and Occupational Therapy	1,948
Telemedicine Business Registry	1,402
Speech-Language Pathology	682
Chiropractic	315
Dietitians	308
Psychology	294
Optometry	213
Dispensing Opticians	208
Audiologists and Hearing Aid Dealers	128
Behavior Analysts	75
Total	36,078

Source: Alaska Division of Corporations, Business and Professional Licensing, Professional Licensing database download August 31st, 2021.

A photograph of a female doctor with short brown hair and glasses, wearing a white lab coat and a stethoscope. She is smiling and examining the arm of a young child with short dark hair. The child is wearing a grey t-shirt and striped socks. The background shows a clinical setting with framed pictures on the wall. The entire image is overlaid with a semi-transparent blue filter.

Appendix

Alaska Health Care Wages, Jobs, Location Quotient, 2020

Projected Growth by Position

SOC Code	Occupation Title	Annual Average Jobs	Location Quotient	Average Hourly Wage	Average Annual Wage	10 year projected growth
11-9111	Medical and Health Services Managers	1,070	1.25	\$58.86	\$122,430	8%
29-0000	Healthcare Practitioners and Technical Occupations	17,730	0.97	\$50.00	\$104,000	8%
29-1011	Chiropractors	130	1.79	\$43.42	\$90,320	9%
29-1021	Dentists, General	220	1.07	\$116.75	\$242,850	10%
29-1031	Dietitians and Nutritionists	130	0.89	\$37.67	\$78,350	5%
29-1041	Optometrists	120	1.55	\$70.52	\$146,680	8%
29-1051	Pharmacists	470	0.70	\$70.69	\$147,040	4%
29-1071	Physician Assistants	430	1.60	\$72.32	\$150,430	8%
29-1122	Occupational Therapists	270	1.01	\$45.18	\$93,980	7%
29-1123	Physical Therapists	610	1.31	\$48.65	\$101,190	8%
29-1126	Respiratory Therapists	190	0.68	\$35.76	\$74,390	6%
29-1127	Speech-Language Pathologists	260	0.83	\$41.95	\$87,250	6%
29-1129	Therapists, All Other	**	**	\$25.58	\$53,210	8%
29-1131	Veterinarians	240	1.55	\$48.08	\$100,000	24%
29-1141	Registered Nurses	6,240	0.98	\$45.81	\$95,270	7%
29-1161	Nurse Midwives	50	3.01	\$44.75	\$93,080	10%
29-1171	Nurse Practitioners	770	1.71	\$53.01	\$110,270	9%
29-1181	Audiologists	40	1.24	\$40.58	\$84,410	7%
29-1292	Dental Hygienists	610	1.47	\$55.31	\$115,050	9%
29-2010	Clinical Laboratory Technologists and Technicians	680	0.98	\$33.36	\$69,390	8%
29-2031	Cardiovascular Technologists and Technicians	**	**	\$30.40	\$63,240	8%
29-2032	Diagnostic Medical Sonographers	160	1.02	\$46.15	\$95,990	8%
29-2034	Radiologic Technologists and Technicians	370	0.83	\$38.14	\$79,330	8%
29-2035	Magnetic Resonance Imaging Technologists	70	0.88	\$43.92	\$91,360	8%
29-2040	Emergency Medical Technicians and Paramedics	600	1.09	\$24.05	\$50,030	7%
29-2051	Dietetic Technicians	40	0.64	\$20.12	\$41,860	9%
29-2052	Pharmacy Technicians	610	0.70	\$22.32	\$46,430	2%
29-2053	Psychiatric Technicians	310	1.69	\$20.35	\$42,320	9%
29-2055	Surgical Technologists	230	1.02	\$32.27	\$67,120	7%
29-2056	Veterinary Technologists and Technicians	220	0.95	\$20.35	\$42,330	27%
29-2057	Ophthalmic Medical Technicians	**	**	\$24.46	\$50,880	8%
29-2061	Licensed Practical and Licensed Vocational Nurses	330	0.23	\$32.51	\$67,620	10%
29-2081	Opticians, Dispensing	90	0.63	\$27.64	\$57,480	5%
31-0000	Healthcare Support Occupations	13,490	0.98	\$20.23	\$42,080	11%
31-1120	Home Health and Personal Care Aides	6,480	0.95	\$17.00	\$35,360	23%
31-1131	Nursing Assistants	1,800	0.62	\$20.43	\$42,500	8%
31-1132	Orderlies	70	0.76	\$18.50	\$38,480	7%
31-1133	Psychiatric Aides	150	1.36	\$20.13	\$41,880	1%
31-2021	Physical Therapist Assistants	120	0.62	\$28.48	\$59,230	8%
31-2022	Physical Therapist Aides	30	0.31	\$17.91	\$37,260	9%
31-9011	Massage Therapists	510	2.83	\$37.88	\$78,790	8%
31-9091	Dental Assistants	920	1.39	\$24.63	\$51,230	9%
31-9092	Medical Assistants	2,500	1.65	\$22.41	\$46,610	9%
31-9093	Medical Equipment Preparers	220	1.81	\$24.21	\$50,350	5%
31-9094	Medical Transcriptionists	110	1.01	\$17.56	\$36,520	9%
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	140	0.66	\$16.21	\$33,720	26%
31-9097	Phlebotomists	240	0.88	\$20.80	\$43,270	8%
31-9099	Healthcare Support Workers, All Other	140	0.66	\$25.05	\$52,100	10%
21-1022	Healthcare Social Workers	310	0.84	\$30.00	\$62,390	8%

Source: Alaska Department of Labor 2020 Occupational Employment Statistics.

New Workers Needed Annually Based on Turnover & Growth

SOC	Occupational Title	2020 avg wage	3 year average worker churn	2019 Average Quarterly worker count	Annual new workers needed to account for churn	Annual new workers needed to account for growth	Annual new workers needed
119111	Medical and Health Services Managers	\$98,000	21%	1,071	224	8	233
211022	Healthcare Social Workers	\$53,682	22%	231	51	2	53
291011	Chiropractors	\$95,333	25%	121	30	1	31
291021	Dentists, General	\$111,672	25%	309	77	3	80
291031	Dietitians and Nutritionists	\$50,824	20%	146	28	1	29
291041	Optometrists	\$134,340	15%	65	10	1	10
291051	Pharmacists	\$109,479	19%	421	79	2	81
291071	Physician Assistants	\$112,707	21%	560	118	5	123
291122	Occupational Therapists	\$61,329	20%	279	57	2	59
291123	Physical Therapists	\$67,055	22%	695	155	6	160
291126	Respiratory Therapists	\$71,168	21%	201	43	1	44
291127	Speech-Language Pathologists	\$62,881	19%	331	63	2	65
291129	Therapists, All Other	\$51,342	24%	198	48	2	50
291131	Veterinarians	\$87,809	20%	208	42	5	47
291141	Registered Nurses	\$71,569	20%	6,882	1,392	47	1,439
291161	Nurse Midwives	na	12%	116	14	1	15
291171	Nurse Practitioners	\$100,198	20%	455	93	4	97
291181	Audiologists	\$81,458	9%	35	3	0	3
291292	Dental Hygienists	\$45,279	29%	699	205	7	212
292031	Cardiovascular Technologists and Technicians	\$75,509	24%	84	20	1	21
292032	Diagnostic Medical Sonographers	\$73,506	24%	131	31	1	32
292034	Radiologic Technologists and Technicians	\$68,210	21%	454	96	4	100
292035	Magnetic Resonance Imaging Technologists	\$70,826	21%	65	14	0	14
292042	Emergency Medical Technicians	\$49,932	30%	323	97	2	99
292051	Dietetic Technicians	na	12%	40	5	0	5
292052	Pharmacy Technicians	\$36,934	20%	532	108	1	109
292053	Psychiatric Technicians	\$35,618	22%	348	76	3	79
292055	Surgical Technologists	\$50,792	22%	261	58	2	60
292056	Veterinary Technologists and Technicians	\$31,493	24%	264	63	7	70
292057	Ophthalmic Medical Technicians	\$37,535	22%	105	23	1	24
292061	Licensed Practical and Licensed Vocational Nurses	\$55,829	22%	482	107	5	111
292081	Opticians, Dispensing	\$37,856	24%	170	40	1	41
311121	Home Health Aides	\$21,520	33%	1,420	466	33	499
311131	Nursing Assistants	\$32,807	23%	2,258	524	19	543
311132	Orderlies	na	23%	67	15	0	16
311133	Psychiatric Aides	\$33,491	22%	181	41	0	41
312021	Physical Therapist Assistants	\$40,710	25%	108	27	1	28
312022	Physical Therapist Aides	\$27,960	31%	97	30	1	31
319011	Massage Therapists	\$26,095	27%	699	191	6	197
319091	Dental Assistants	\$31,577	30%	1,341	398	12	410
319092	Medical Assistants	\$37,266	27%	2,073	566	18	584
319093	Medical Equipment Preparers	\$47,207	23%	140	33	1	33
319094	Medical Transcriptionists	\$24,955	24%	156	38	1	39
319096	Veterinary Assistants and Laboratory Animal Caretakers	\$25,108	29%	296	86	8	94
319097	Phlebotomists	\$30,704	25%	230	58	2	60
319099	Healthcare Support Workers, All Other	\$33,112	28%	1,211	336	12	348

Source: Alaska Department of Labor 2020 Occupational Employment Statistics. Analysis by Rain Coast Data.

Alaska Workers by Quarterly Count and Total Pay

SOC	Occupational Title	Quarter 1	Quarter 2	Quarter 3	Quarter 4	Annual Count	(\$ Total Wages*
119111	Medical and Health Services Managers	1,120	1,141	1,149	1,148	1,402	111,671,568
211014	Mental Health Counselors	567	609	589	603	779	32,458,337
211014.51	Behavioral Health Aides (BHA) including Village Counselors	130	114	105	123	192	4,271,952
211022	Healthcare Social Workers	226	217	214	223	286	11,809,949
211022.51	Behavioral Health Case Managers and Care Coordinators	122	135	144	139	166	7,012,725
211023	Mental Health and Substance Abuse Social Workers	349	346	354	344	488	18,043,820
291011	Chiropractors	106	104	99	103	136	9,819,287
291021	Dentists, General	317	261	291	300	421	32,636,248
291023	Orthodontists	6	6	6	10	12	1,273,078
291029	Dentists, All Other Specialists	57	52	51	44	80	4,655,954
291031	Dietitians and Nutritionists	144	134	137	138	172	7,026,474
291041	Optometrists	72	70	71	71	90	9,538,159
291051	Pharmacists	406	396	419	431	512	45,215,025
291071	Physician Assistants	572	545	552	567	731	63,003,281
291081	Podiatrists	14	13	16	13	17	2,248,947
291122	Occupational Therapists	283	286	301	293	372	17,831,492
291123	Physical Therapists	696	680	670	703	909	46,083,616
291124	Radiation Therapists	41	40	43	37	49	3,073,382
291126	Respiratory Therapists	197	189	195	215	257	14,162,478
291127	Speech-Language Pathologists	323	319	318	320	398	20,122,026
291128	Exercise Physiologists	19	19	20	21	21	880,295
291129	Therapists, All Other	197	197	220	208	291	10,550,719
291131	Veterinarians	206	202	200	196	257	17,649,610
291141	Registered Nurses	6,771	6,659	6,804	6,989	8,494	487,080,081
291151	Nurse Anesthetists	77	87	90	102	123	13,971,235
291171	Nurse Practitioners	508	471	479	478	637	48,495,734
291181	Audiologists	37	43	41	41	48	3,299,062
291211	Anesthesiologists	44	52	48	53	66	17,576,103
291212	Cardiologists	21	15	23	18	27	6,951,163
291214	Emergency Medicine Physicians	75	71	77	79	95	19,981,536
291215	Family Medicine Physicians	480	442	464	465	600	79,865,293
291216	General Internal Medicine Physicians	110	105	112	117	158	20,720,932
291217	Neurologists	10	13	13	12	16	2,301,627
291218	Obstetricians and Gynecologists	46	42	47	56	66	11,277,991
291221	Pediatricians, General	60	48	57	53	70	9,564,376
291222	Physicians, Pathologists	13	12	12	12	14	3,140,875
291223	Psychiatrists	72	62	71	66	83	12,500,866
291224	Radiologists	25	27	32	31	36	10,724,555
291229	Physicians, All Other	396	370	399	400	514	95,006,905
291249	Surgeons, All Other	43	35	38	38	52	18,606,475
291291	Acupuncturists	14	18	14	11	18	756,505
291292	Dental Hygienists	641	515	569	574	849	26,023,915
291299	Healthcare Diagnosing or Treating Practitioners, All Other	61	61	62	59	76	5,653,781
291299.53	Community Health Aide/Practitioners (CHA, CHA/P)	83	119	123	126	148	6,758,574
292011	Medical and Clinical Laboratory Technologists	302	280	318	336	396	21,774,884
292012	Medical and Clinical Laboratory Technicians	355	348	319	342	473	16,670,388
292031	Cardiovascular Technologists and Technicians	81	81	83	80	110	6,135,119
292032	Diagnostic Medical Sonographers	137	126	132	139	170	9,813,027
292033	Nuclear Medicine Technologists	36	33	34	33	40	2,995,456
292034	Radiologic Technologists and Technicians	416	401	411	405	521	27,846,816
292035	Magnetic Resonance Imaging Technologists	68	66	81	80	95	5,223,420
292042	Emergency Medical Technicians	313	310	305	324	469	15,628,700
292043	Paramedics	144	136	124	128	169	10,495,411
292052	Pharmacy Technicians	509	492	493	498	616	18,393,241
292053	Psychiatric Technicians	342	330	314	295	437	11,406,583
292055	Surgical Technologists	260	247	255	264	325	13,028,244
292056	Veterinary Technologists and Technicians	256	246	258	259	344	8,022,815
292057	Ophthalmic Medical Technicians	99	93	87	92	126	3,481,351
292061	Licensed Practical and Licensed Vocational Nurses	424	400	394	364	519	22,080,541
292072	Medical Records Specialists	413	395	388	501	647	18,185,252
292081	Opticians, Dispensing	151	149	149	146	209	5,631,028
292099	Health Technologists and Technicians, All Other	274	271	299	303	408	14,279,780
299021	Health Information Technologists and Medical Registrars	84	80	87	86	113	3,704,432
299091	Athletic Trainers	36	35	35	56	67	1,536,151
299099	Healthcare Practitioners and Technical Workers, All Other	246	262	289	244	415	13,994,019
311121	Home Health Aides	1,432	1,231	1,229	1,254	2,043	27,684,913
311122	Personal Care Aides	5,458	5,193	5,100	5,224	7,638	103,509,959
311131	Nursing Assistants	2,465	2,471	2,543	2,512	3,311	81,944,574
311133	Psychiatric Aides	202	210	221	234	306	7,259,088
312011	Occupational Therapy Assistants	30	49	55	35	71	1,248,171
312021	Physical Therapist Assistants	97	92	106	100	134	4,020,075
312022	Physical Therapist Aides	82	81	86	86	129	2,341,618
319011	Massage Therapists	671	534	518	516	866	14,606,895
319091	Dental Assistants	1,309	1,132	1,256	1,248	1,855	39,037,004
319092	Medical Assistants	2,084	2,033	2,111	2,142	3,012	77,978,465
319093	Medical Equipment Preparers	127	130	135	136	158	6,231,287
319094	Medical Transcriptionists	141	120	101	87	168	2,801,160
319095	Pharmacy Aides	66	65	66	76	94	2,632,780
319097	Phlebotomists	251	242	191	199	324	6,777,798
319099	Healthcare Support Workers, All Other	1,179	1,146	1,316	1,405	2,128	41,770,700

Source: Alaska Department of Labor 2020 Occupational Employment Statistics.