

ALASKA APPRENTICESHIPS



Training option has grown in popularity in the last 10 years

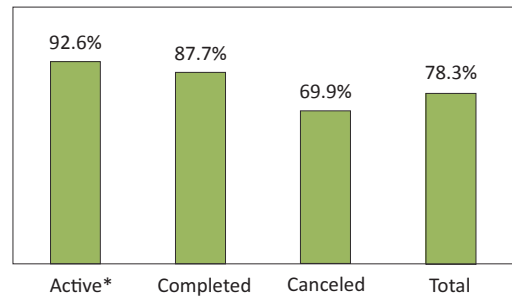
By **ROB KREIGER**

Registered apprenticeships have become an increasingly popular option for Alaskans who want to advance their education, especially after high school. Nearly 9,000 people participated in a registered apprenticeship program between 2004 and 2014, and new registrations were over 50 percent higher in 2014 than in 2004. (See Exhibit 1.)

A registered apprenticeship, recognized by the U.S. Department of Labor, usually consists of at least 2,000 hours of paid on-the-job training plus classroom technical instruction. As apprentices gain experience, their wages increase.

Those who completed their program earned about

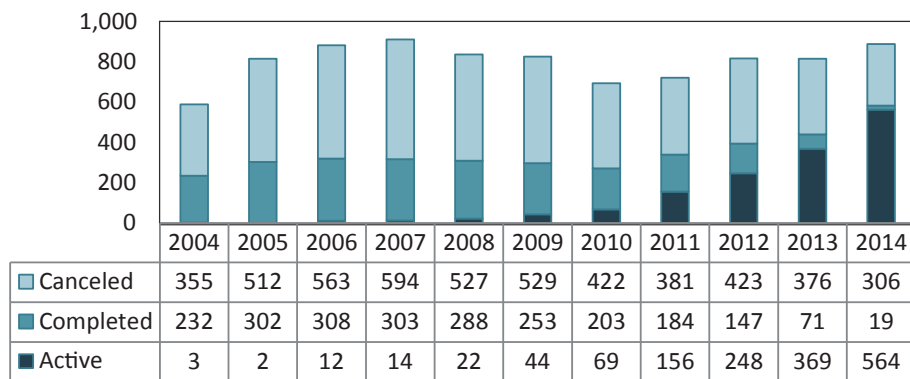
2 Percent Working in Alaska BY APPRENTICESHIP STATUS, 2014



*Active doesn't equal 100 percent because federal and self-employment are not included.
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

1 Jump in Apprenticeship Registrations

ALASKA, 2004 TO 2014



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

three times more on average in 2014 than they had the year before registering.

Employment, earnings, and residency

Between 2004 and 2014, 8,801 people participated in a registered apprenticeship program in Alaska. Nearly 80 percent of those were working in Alaska in 2014. Those who were still active in an apprenticeship had the highest employment rate at nearly 93 percent. (See Exhibit 2.)

Most were Alaska residents at the time of registration (meaning they applied for a Permanent Fund Dividend). In 2014, 88 percent of registrants were Alaska residents. (See Exhibit 3.)

The most common jobs for apprenticeship participants were in construction, at 39.6 percent, and natural resources and mining, at 10.7 percent. (See Exhibit 4.)

For the 6,930 participants who were employed in 2014, the average wage was \$52,818. Those who had completed their apprenticeship earned the most by far, at \$72,990. (See Exhibit 5.)

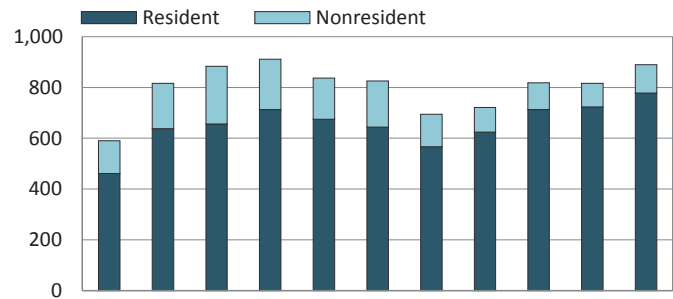
Still, regardless of the outcome, participating in an apprenticeship is linked to an increase in wages over time, provided the person stays in the labor force.

Apprenticeship participants who ended up working in construction earned the most, making 52 percent of all participant wages in 2014 for a total of \$191.4 million. Among all Alaska construction workers in 2014, almost 13 percent had registered for an apprenticeship program at some point since 2004.

About 4 percent of all natural resources and mining

3 Most Are Alaska Residents

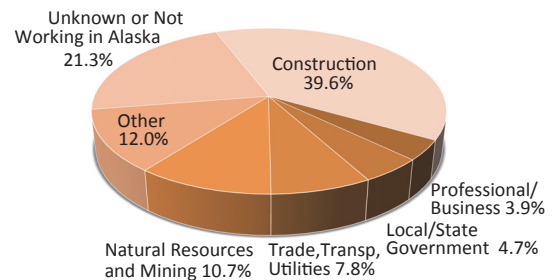
RESIDENCY AT TIME OF APPRENTICESHIP REGISTRATION



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

4 Industries for Apprentices

EMPLOYED IN ALASKA IN 2014

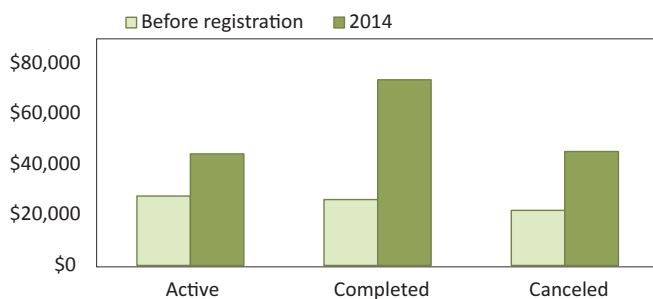


Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section

workers had participated in an apprenticeship program. This industry had the highest average yearly wage at \$77,252, mainly due to the higher pay for oil and gas jobs.

5 Apprenticeships and Higher Wages

ALASKA, BASED ON APPRENTICESHIP STATUS, 2014



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

Completions and cancellations

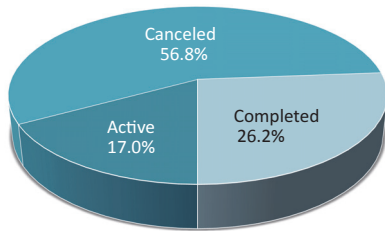
Of those who participated in an apprenticeship program between 2004 and 2014, about 26 percent successfully completed their program and 17 percent were still active as of 2014. Fifty-seven percent canceled or failed to complete their apprenticeship. (See Exhibit 6.)

Participants who cancel their apprenticeship typically do so within the first 12 months. (See Exhibit 7.) For many apprenticeship programs, completion requires three to five years — so if the program isn't a good fit for the trainee, that's often apparent early.

6

Most Recent Status

REGISTERED BETWEEN 2004 AND 2014



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

Among the apprenticeship programs by occupation with at least 100 participants over the 2004-2014 period, cancellation rates were highest for roofer programs at 95 percent, residential electrical wireman at 81 percent, and cement mason at 79 percent. Cancellation rates were lowest for line maintainer at 26 percent, maintenance mechanic at 35 percent, operating engineer at 37 percent, and pipe fitter at 38 percent. (See Exhibit 13.)

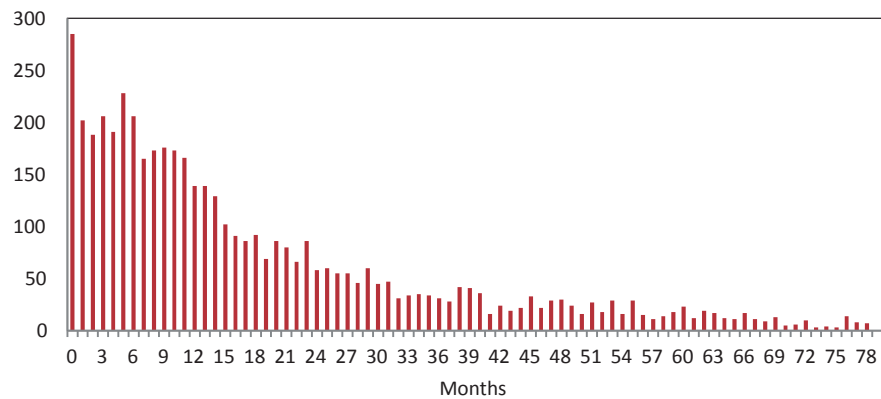
How apprentices stack up among all Alaska workers

Apprenticeship participants also tend to earn more than the average Alaska worker. In 2014, their average wage of \$52,818 was nearly 35 percent more than the average for all workers (\$38,995). (See Exhibit 8.)

7

Most Apprenticeship Cancellations Happen Early

NUMBER OF MONTHS INTO APPRENTICESHIP, 2014



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

8

How Apprentices Compare to Other Workers

THOSE WHO REGISTERED FOR ALASKA APPRENTICESHIPS BETWEEN 2004 AND 2014

| Industry | Apprentices | | All Workers | | Percent Apprentices | Apprentice Wages as % of Total Wages |
|--------------------------------------|-------------|---------------|-------------|------------------|---------------------|--------------------------------------|
| | Workers | Total Wages | Workers | Total Wages | | |
| Construction | 3,485 | \$191,443,889 | 27,763 | \$1,343,025,743 | 12.6% | 14.3% |
| Natural Resources and Mining | 945 | \$73,003,316 | 24,740 | \$2,417,728,937 | 3.8% | 3.0% |
| Trade, Transportation, and Utilities | 685 | \$32,001,914 | 84,241 | \$2,856,679,279 | 0.8% | 1.1% |
| Local and State Government | 412 | \$17,185,887 | 78,464 | \$3,165,838,552 | 0.5% | 0.5% |
| Professional and Business Svcs | 345 | \$16,833,698 | 39,040 | \$1,757,471,516 | 0.9% | 1.0% |
| All Other | 1,058 | \$35,560,339 | 168,268 | \$4,935,168,898 | 0.6% | 0.7% |
| Total | 6,930 | \$366,029,043 | 422,516 | \$16,475,912,924 | 1.6% | 2.2% |

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

9 How Apprentices Compare to Other Year-Round Workers

EMPLOYED IN ALASKA IN 2014

| Top Occupations | Total Workers | Average Wages of All Workers | Avg Wages of Yr-Rd Workers | Working Yr-Rd | Number of Apprentices | Apprentice Avg Wages | Avg Wages, Apprentices Working Yr-Rd | Avg Wages for Completers | Avg Wages, Completers Who Work Yr-Rd |
|--|---------------|------------------------------|----------------------------|---------------|-----------------------|----------------------|--------------------------------------|--------------------------|--------------------------------------|
| Electricians | 2,743 | \$63,905 | \$77,808 | 1,938 | 1,116 | \$56,289 | \$63,229 | \$69,515 | \$75,537 |
| Plumbers, Pipefitters, and Steamfitters | 2,078 | \$59,317 | \$72,996 | 1,411 | 676 | \$52,993 | \$60,074 | \$69,604 | \$73,301 |
| Construction Laborers | 7,340 | \$27,660 | \$45,567 | 2,944 | 498 | \$39,655 | \$47,898 | \$53,628 | \$60,504 |
| Carpenters | 4,064 | \$37,577 | \$56,786 | 2,058 | 355 | \$37,609 | \$46,371 | \$52,191 | \$60,186 |
| Oper Engineers and Other Const Equip Operators | 4,683 | \$55,360 | \$68,762 | 2,994 | 265 | \$53,499 | \$59,496 | \$64,800 | \$66,538 |
| Helpers: Electricians | 266 | \$44,778 | \$59,814 | 156 | 222 | \$38,572 | \$50,556 | \$71,879 | \$72,848 |
| Electrical Power-Line Installers and Repairers | 457 | \$88,397 | \$100,872 | 365 | 163 | \$78,879 | \$85,340 | \$98,831 | \$107,254 |
| Laborers and Freight, Stock, and Material Movers, Hand | 5,416 | \$20,058 | \$36,360 | 2,463 | 117 | \$37,177 | \$47,502 | \$47,620 | \$56,416 |
| Heavy and Tractor-Trailer Truck Drivers | 3,861 | \$48,078 | \$60,106 | 2,603 | 114 | \$48,922 | \$57,556 | \$58,743 | \$66,003 |
| Sheet Metal Workers | 439 | \$54,798 | \$65,619 | 333 | 106 | \$54,043 | \$58,300 | \$70,516 | \$72,474 |
| Maintenance and Repair Workers, General | 4,278 | \$35,812 | \$49,959 | 2,638 | 91 | \$37,716 | \$45,674 | \$41,965 | \$44,269 |
| Welders, Cutters, Solderers, and Brazers | 1,354 | \$47,975 | \$68,678 | 733 | 76 | \$39,385 | \$46,524 | \$46,819 | \$46,406 |

| Based on Age in 2014 | Total Workers | Average Wages of All Workers | Avg Wages of Yr-Rd Workers | Working Yr-Rd | Number of Apprentices | Apprentice Avg Wages | Avg Wages, Apprentices Working Yr-Rd | Avg Wages for Completers | Avg Wages, Completers Who Work Yr-Rd |
|----------------------|---------------|------------------------------|----------------------------|---------------|-----------------------|----------------------|--------------------------------------|--------------------------|--------------------------------------|
| 16 to 24 | 63,154 | \$15,390 | \$25,575 | 29,665 | 1,280 | \$40,313 | \$48,683 | \$67,014 | \$70,263 |
| 25 to 34 | 78,913 | \$38,072 | \$48,016 | 56,779 | 3,814 | \$56,012 | \$66,080 | \$76,132 | \$82,690 |
| 35 to 44 | 61,513 | \$51,109 | \$60,910 | 48,173 | 1,250 | \$55,371 | \$67,333 | \$70,129 | \$79,212 |
| 45 to 54 | 65,093 | \$55,169 | \$64,480 | 52,288 | 471 | \$55,084 | \$68,032 | \$68,037 | \$77,551 |
| 55 to 64 | 50,096 | \$54,314 | \$64,509 | 38,869 | 109 | \$50,624 | \$66,920 | \$54,389 | \$67,783 |
| 64 to 74 | 11,375 | \$39,055 | \$51,534 | 7,454 | 6 | \$20,646 | \$23,942 | \$23,942 | \$23,942 |

| Based on Gender | Total Workers | Average Wages of All Workers | Avg Wages of Yr-Rd Workers | Working Yr-Rd | Number of Apprentices | Apprentice Avg Wages | Avg Wages, Apprentices Working Yr-Rd | Avg Wages for Completers | Avg Wages, Completers Who Work Yr-Rd |
|-----------------|---------------|------------------------------|----------------------------|---------------|-----------------------|----------------------|--------------------------------------|--------------------------|--------------------------------------|
| Female | 162,537 | \$33,411 | \$43,556 | 114,469 | 631 | \$38,304 | \$45,508 | \$49,133 | \$51,707 |
| Male | 172,068 | \$49,260 | \$64,494 | 119,667 | 6,299 | \$54,272 | \$64,980 | \$76,327 | \$83,990 |
| Total | 422,516 | \$38,995 | \$56,193 | 254,897 | 6,930 | \$52,818 | \$63,307 | \$72,990 | \$80,158 |

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

Among those employed during all four quarters of the year, apprenticeship participants earned about 13 percent more than average, and those who completed made 30 percent more. (See Exhibit 9.)

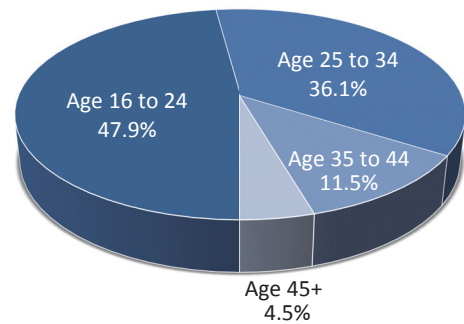
Who the participants are

As with most education and training programs, the majority of Alaska's registered apprentices are young — about 84 percent age 34 or younger. (See Exhibit 10.)

Completing the program resulted in markedly higher wages for younger workers, especially for those between 16 and 24. In that youngest age group, completers who worked year-round made an average of

10 Age at Registration

ALASKA, 2004 TO 2014

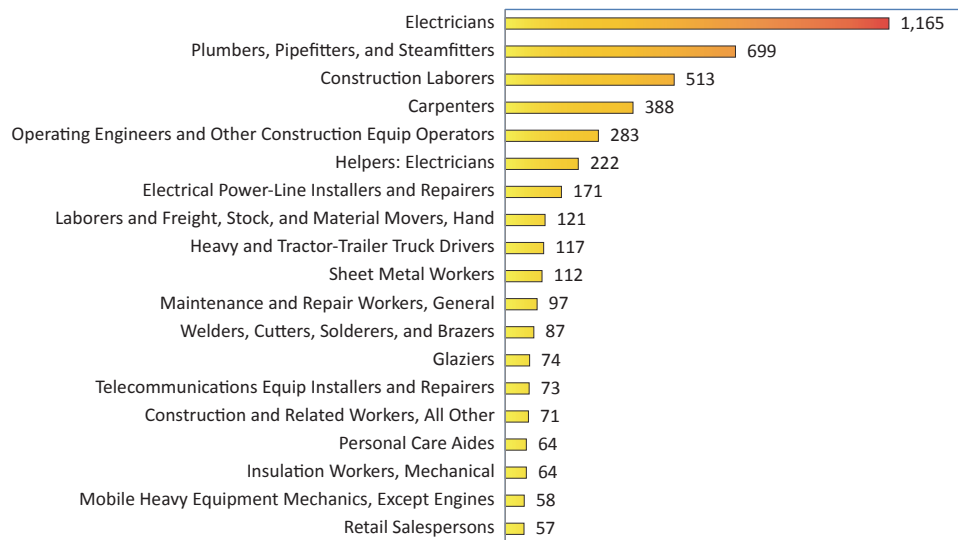


Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section

11

Top Occupations After Apprenticeships

THOSE WHO REGISTERED BETWEEN 2004 AND 2014



Note: These occupations are not necessarily the occupations for which participants registered as apprentices. See Exhibit 10 for the top occupations for apprenticeships.

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

\$70,263: nearly 2.75 times more than the average for all year-round workers. Completers in all age groups out-earned the average, though, with the exception of those between 64 and 74. (See Exhibit 9.)

Besides being young, apprentices were mostly male, at 91 percent, and white, at about 66 percent. Nineteen percent were Alaska Native or American Indian. The high percentage of men is due to the high shares of men working in construction, a common focus of Alaska apprenticeship programs. (See Exhibit 13 at the end of the article.)

Factors affecting apprenticeship participant wages include choice of apprenticeship, completion, level of experience afterward, and attachment to the Alaska labor force. Overall, men earned more on average than women in 2014, whites earned more than other minority groups, and those between 25 and 34 earned more than other age groups.

What occupations they tend to hold after participating

The top occupations for apprenticeship programs

between 2004 and 2014 were electrician, plumber, carpenter, construction craft laborer, pipefitter, line maintainer, building maintenance repairer, telephone maintenance mechanic, structural steel/iron worker, and sheet metal worker.

Many go on to work in the same occupation for which they apprenticed, but not all. More than half of the participants employed in 2014 were in just 12 occupations. (See Exhibit 11.) In eight of those 12, participants working year-round made more than the average Alaska worker in those occupations.

Among the top 12 occupations, the highest average wages for those who completed their apprenticeship were as electrical power-line installers and repairers; electricians; and plumbers, pipefitters, and steamfitters.

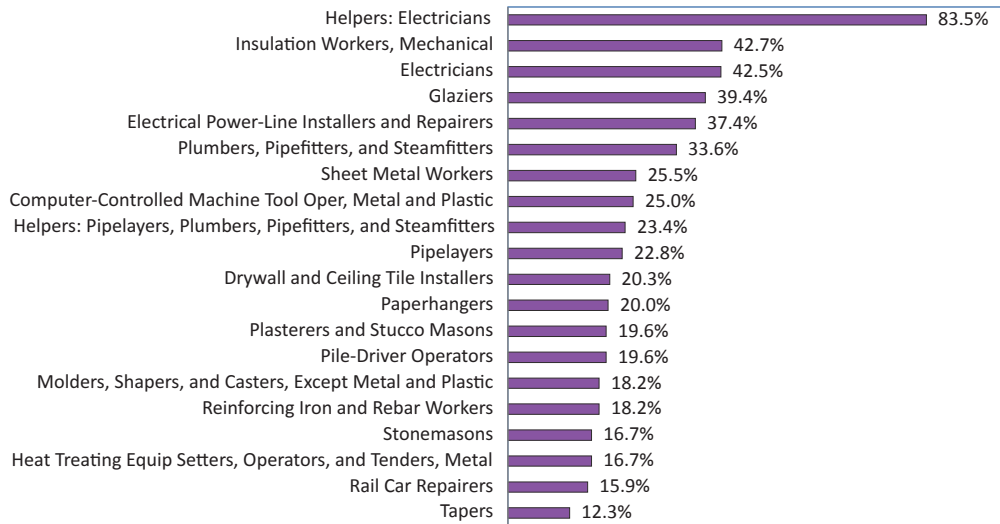
Among electrician helpers, 84 percent had participated in an apprenticeship. Mechanical insulation workers and electricians also had high shares of participants, each at about 43 percent. (See Exhibit 12.)

Rob Kreiger is an economist in Juneau. Reach him at (907) 465-6031 or rob.kreiger@alaska.gov.

12

Percent Who Held Apprenticeships, By Occupation

THOSE WHO REGISTERED BETWEEN 2004 AND 2014



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

13

Who the Apprentices Are

DEMOGRAPHICS OF THOSE WHO REGISTERED BETWEEN 2004 AND 2014

| | Total, Current and Former | Number Completed | Percent Completed | Number Canceled | Percent Canceled | Number Employed | Percent Employed | Total Wages | Average Wages | Residents | Work in Related Occ. |
|---------------------------------|---------------------------|------------------|-------------------|-----------------|------------------|-----------------|------------------|---------------|---------------|-----------|----------------------|
| Total | 8,801 | 2,310 | 26.2% | 4,988 | 56.7% | 6,930 | 78.7% | \$366,029,043 | \$52,818 | 7,607 | 3,463 |
| By Sex | | | | | | | | | | | |
| Female | 813 | 288 | 35.4% | 409 | 50.3% | 631 | 77.6% | \$24,169,781 | \$38,304 | 724 | 268 |
| Male | 7,988 | 2,022 | 25.3% | 4,579 | 57.3% | 6,299 | 78.9% | \$341,859,263 | \$54,272 | 6,883 | 3,195 |
| By Race or Ethnicity | | | | | | | | | | | |
| Asian/Islander | 153 | 44 | 28.8% | 82 | 53.6% | 131 | 85.6% | \$7,059,503 | \$53,889 | 139 | 70 |
| Unknown | 640 | 138 | 21.6% | 315 | 49.2% | 528 | 82.5% | \$20,432,795 | \$38,698 | 557 | 288 |
| Hispanic | 142 | 32 | 22.5% | 79 | 55.6% | 95 | 66.9% | \$4,136,577 | \$43,543 | 105 | 50 |
| White | 5,801 | 1,661 | 28.6% | 3,181 | 54.8% | 4,498 | 77.5% | \$258,752,978 | \$57,526 | 4,939 | 2,355 |
| Black | 415 | 85 | 20.5% | 267 | 64.3% | 315 | 75.9% | \$13,967,208 | \$44,340 | 347 | 136 |
| AK Native | 1,650 | 350 | 21.2% | 1,064 | 64.5% | 1,363 | 82.6% | \$61,679,982 | \$45,253 | 1,520 | 564 |
| By Age in 2014 | | | | | | | | | | | |
| 16 to 24 | 1,438 | 171 | 11.9% | 699 | 48.6% | 1,280 | 89.0% | \$51,600,167 | \$40,313 | 1,341 | 724 |
| 25 to 34 | 4,805 | 1,378 | 28.7% | 2,726 | 56.7% | 3,814 | 79.4% | \$213,628,049 | \$56,012 | 4,152 | 1,928 |
| 35 to 44 | 1,697 | 512 | 30.2% | 1,023 | 60.3% | 1,250 | 73.7% | \$69,214,196 | \$55,371 | 1,417 | 588 |
| 45 to 54 | 678 | 193 | 28.5% | 426 | 62.8% | 471 | 69.5% | \$25,944,751 | \$55,084 | 549 | 182 |
| 55 to 64 | 170 | 48 | 28.2% | 109 | 64.1% | 109 | 64.1% | \$5,518,007 | \$50,624 | 138 | 37 |
| 64 to 74 | 13 | 8 | 61.5% | 5 | 38.5% | 6 | 46.2% | \$123,874 | \$20,646 | 10 | 4 |
| By Place of Registration | | | | | | | | | | | |
| Unknown | 1,695 | 368 | 21.7% | 1,056 | 62.3% | 985 | 58.1% | \$51,491,405 | \$52,276 | 1,086 | 483 |
| Aleutians E | 10 | 0 | 0 | 9 | 90.0% | 8 | 80.0% | \$284,283 | \$35,535 | 9 | 1 |
| Aleutians W | 14 | 1 | 7.1% | 7 | 50.0% | 12 | 85.7% | \$835,636 | \$69,636 | 12 | 5 |
| Anchorage | 2,598 | 677 | 26.1% | 1,465 | 56.4% | 2,172 | 83.6% | \$107,640,807 | \$49,558 | 2,375 | 1,038 |
| Bethel | 116 | 16 | 13.8% | 85 | 73.3% | 104 | 89.7% | \$2,926,323 | \$28,138 | 112 | 28 |
| Bristol Bay | 2 | 0 | 0 | 2 | 100.0% | 0 | 0 | \$0 | \$0 | 1 | 0 |
| Denali | 26 | 11 | 42.3% | 11 | 42.3% | 24 | 92.3% | \$1,540,194 | \$64,175 | 24 | 11 |

Continued on the next page

13

Who the Apprentices Are, continued

DEMOGRAPHICS OF THOSE WHO REGISTERED BETWEEN 2004 AND 2014

| | Total, Current and Former | Number Completed | Percent Completed | Number Canceled | Percent Canceled | Number Employed | Percent Employed | Total Wages | Average Wages | Residents | Work in Related Occ. |
|--|---------------------------------|---------------------|----------------------|--------------------|---------------------|--------------------|---------------------|--------------|------------------|-----------|----------------------------|
| By Place of Registration, continued | | | | | | | | | | | |
| Dillingham | 34 | 5 | 14.7% | 22 | 64.7% | 29 | 85.3% | \$1,365,983 | \$47,103 | 32 | 10 |
| Fairbanks NS | 1,501 | 473 | 31.5% | 769 | 51.2% | 1,260 | 83.9% | \$70,681,690 | \$56,097 | 1,365 | 693 |
| Haines | 10 | 3 | 30.0% | 3 | 30.0% | 10 | 100.0% | \$533,749 | \$53,375 | 10 | 7 |
| Hoonah- Angoon | 19 | 7 | 36.8% | 9 | 47.4% | 17 | 89.5% | \$920,785 | \$54,164 | 19 | 6 |
| Juneau | 250 | 75 | 30.0% | 129 | 51.6% | 212 | 84.8% | \$11,787,382 | \$55,601 | 229 | 115 |
| Kenai Peninsula | 568 | 179 | 31.5% | 294 | 51.8% | 463 | 81.5% | \$27,145,139 | \$58,629 | 520 | 250 |
| Ketchikan Gateway | 97 | 33 | 34.0% | 47 | 48.5% | 84 | 86.6% | \$4,189,312 | \$49,873 | 93 | 42 |
| Kodiak Island | 78 | 16 | 20.5% | 44 | 56.4% | 63 | 80.8% | \$3,449,163 | \$54,749 | 73 | 31 |
| Kusilvak | 57 | 7 | 12.3% | 47 | 82.5% | 46 | 80.7% | \$1,240,221 | \$26,961 | 52 | 17 |
| Lake and Peninsula | 15 | 3 | 20.0% | 10 | 66.7% | 13 | 86.7% | \$626,659 | \$48,205 | 15 | 4 |
| Mat-Su | 1,168 | 270 | 23.1% | 677 | 58.0% | 959 | 82.1% | \$52,956,011 | \$55,220 | 1,070 | 505 |
| Nome | 46 | 8 | 17.4% | 30 | 65.2% | 39 | 84.8% | \$1,674,160 | \$42,927 | 41 | 11 |
| North Slope | 32 | 5 | 15.6% | 22 | 68.8% | 29 | 90.6% | \$1,608,847 | \$55,477 | 30 | 10 |
| Northwest Arctic | 61 | 22 | 36.1% | 29 | 47.5% | 53 | 86.9% | \$3,721,159 | \$70,211 | 60 | 26 |
| Petersburg | 16 | 6 | 37.5% | 5 | 31.3% | 16 | 100.0% | \$807,514 | \$50,470 | 16 | 9 |
| POW-Hyder | 20 | 5 | 25.0% | 13 | 65.0% | 17 | 85.0% | \$779,997 | \$45,882 | 18 | 10 |
| Sitka | 59 | 12 | 20.3% | 37 | 62.7% | 52 | 88.1% | \$3,101,428 | \$59,643 | 55 | 30 |
| Skagway | 6 | 2 | 33.3% | 3 | 50.0% | 6 | 100.0% | \$477,027 | \$79,505 | 6 | 3 |
| SE Fairbanks | 94 | 35 | 37.2% | 45 | 47.9% | 74 | 78.7% | \$4,039,750 | \$54,591 | 84 | 41 |
| Valdez- Cordova | 121 | 47 | 38.8% | 62 | 51.2% | 106 | 87.6% | \$6,050,981 | \$57,085 | 117 | 42 |
| Wrangell | 9 | 2 | 22.2% | 5 | 55.6% | 5 | 55.6% | \$222,544 | \$44,509 | 6 | 2 |
| Yakutat | 2 | 1 | 50.0% | 1 | 50.0% | 1 | 50.0% | ND | ND | 1 | 0 |
| Yukon- Koyukuk | 77 | 21 | 27.3% | 50 | 64.9% | 71 | 92.2% | \$3,846,708 | \$54,179 | 76 | 33 |

By Industry

| | | | | | | | | | | | |
|-------------------------------|-------|-------|-------|-------|-------|-------|--------|---------------|----------|-------|-------|
| Construction | 3,485 | 1,225 | 35.2% | 1,342 | 38.5% | 3,485 | 100.0% | \$191,443,889 | \$54,934 | 3,485 | 2,493 |
| Educational and Health | 336 | 136 | 40.5% | 165 | 49.1% | 336 | 100.0% | \$11,908,108 | \$35,441 | 336 | 109 |
| Financial Activities | 13 | 2 | 15.4% | 11 | 84.6% | 13 | 100.0% | \$324,020 | \$24,925 | 13 | 0 |
| Information | 77 | 24 | 31.2% | 36 | 46.8% | 77 | 100.0% | \$4,540,995 | \$58,974 | 77 | 22 |
| Leisure and Hospitality | 217 | 18 | 8.3% | 181 | 83.4% | 217 | 100.0% | \$3,983,773 | \$18,358 | 217 | 7 |
| Local Gov | 300 | 77 | 25.7% | 193 | 64.3% | 300 | 100.0% | \$12,357,010 | \$41,190 | 300 | 69 |
| Manufacturing | 177 | 22 | 12.4% | 120 | 67.8% | 177 | 100.0% | \$7,308,894 | \$41,293 | 177 | 18 |
| Resources and Mining | 945 | 284 | 30.1% | 463 | 49.0% | 945 | 100.0% | \$73,003,316 | \$77,252 | 945 | 542 |
| Other Svcs | 113 | 15 | 13.3% | 81 | 71.7% | 113 | 100.0% | \$3,562,185 | \$31,524 | 113 | 25 |
| Professional and Bus | 470 | 84 | 17.9% | 326 | 69.4% | 470 | 100.0% | \$20,766,063 | \$44,183 | 470 | 69 |
| State Gov | 112 | 22 | 19.6% | 86 | 76.8% | 112 | 100.0% | \$4,828,877 | \$43,115 | 112 | 14 |
| Trade, Trans and Utilities | 685 | 120 | 17.5% | 513 | 74.9% | 685 | 100.0% | \$32,001,914 | \$46,718 | 685 | 95 |
| Unknown/Not Working | 1,871 | 281 | 15.0% | 1,471 | 78.6% | 0 | 0 | \$0 | \$0 | 677 | 0 |

By Employment Status

| | | | | | | | | | | | |
|------------------|-------|-------|-------|-------|-------|-------|--------|---------------|----------|-------|-------|
| In related job | 3,463 | 1,410 | 40.7% | 1,091 | 31.5% | 3,463 | 100.0% | \$204,649,618 | \$59,096 | 3,463 | 3,463 |
| Not working | 1,871 | 281 | 15.0% | 1,471 | 78.6% | 0 | 0 | \$0 | \$0 | 677 | 0 |
| In unrelated job | 3,467 | 619 | 17.9% | 2,426 | 70.0% | 3,467 | 100.0% | \$161,379,425 | \$46,547 | 3,467 | 0 |

By Apprenticeship Occupation

| | | | | | | | | | | | |
|-------------|-------|-----|-------|-------|-------|-------|-------|---------------|----------|-------|-------|
| Electrician | 2,517 | 522 | 20.7% | 1,448 | 57.5% | 2,008 | 79.8% | \$117,938,020 | \$58,734 | 2,177 | 1,186 |
| Plumber | 977 | 154 | 15.8% | 641 | 65.6% | 772 | 79.0% | \$39,071,657 | \$50,611 | 863 | 444 |

Continued on the next page

13

Who the Apprentices Are, continued

DEMOGRAPHICS OF THOSE WHO REGISTERED BETWEEN 2004 AND 2014

| | Total, Current and Former | Number Completed | Percent Completed | Number Canceled | Percent Canceled | Number Employed | Percent Employed | Total Wages | Average Wages | Residents | Work in Related Occ. |
|--|---------------------------------|---------------------|----------------------|--------------------|---------------------|--------------------|---------------------|--------------|------------------|-----------|----------------------------|
| By Apprenticeship Occupation, continued | | | | | | | | | | | |
| Carpenter | 733 | 178 | 24.3% | 474 | 64.7% | 559 | 76.3% | \$24,479,824 | \$43,792 | 621 | 292 |
| Construction Craft Laborer | 633 | 267 | 42.2% | 363 | 57.3% | 511 | 80.7% | \$25,109,116 | \$49,137 | 546 | 207 |
| Pipe Fitter (Const) | 310 | 118 | 38.1% | 119 | 38.4% | 269 | 86.8% | \$17,705,544 | \$65,820 | 285 | 187 |
| Line Maintainer | 224 | 110 | 49.1% | 58 | 25.9% | 200 | 89.3% | \$17,167,590 | \$85,838 | 207 | 124 |
| Residential Elec Wireman | 198 | 14 | 7.1% | 160 | 80.8% | 141 | 71.2% | \$5,912,498 | \$41,933 | 167 | 78 |
| Maintenance Mech (Tele) | 192 | 74 | 38.5% | 66 | 34.4% | 173 | 90.1% | \$10,022,436 | \$57,933 | 179 | 45 |
| Sheet Metal Worker | 188 | 54 | 28.7% | 92 | 48.9% | 144 | 76.6% | \$7,597,754 | \$52,762 | 159 | 87 |
| Structural Steel/ Iron Worker | 188 | 59 | 31.4% | 110 | 58.5% | 146 | 77.7% | \$7,415,890 | \$50,794 | 163 | 44 |
| Maintenance Repair, Build | 183 | 38 | 20.8% | 110 | 60.1% | 128 | 69.9% | \$4,241,609 | \$33,138 | 156 | 13 |
| Operating Engr (Hy) | 163 | 44 | 27.0% | 40 | 24.5% | 154 | 94.5% | \$7,994,581 | \$51,913 | 158 | 106 |
| Operating Engineer | 142 | 89 | 62.7% | 52 | 36.6% | 112 | 78.9% | \$8,127,271 | \$72,565 | 123 | 77 |
| Construction Driver | 138 | 56 | 40.6% | 75 | 54.3% | 115 | 83.3% | \$6,071,111 | \$52,792 | 124 | 49 |
| Construction Craft Labor(Hy) | 135 | 4 | 3.0% | 75 | 55.6% | 124 | 91.9% | \$3,905,415 | \$31,495 | 129 | 70 |
| Insulation Worker | 128 | 19 | 14.8% | 90 | 70.3% | 94 | 73.4% | \$4,013,434 | \$42,696 | 103 | 48 |
| Painter (Const) | 128 | 18 | 14.1% | 106 | 82.8% | 82 | 64.1% | \$2,725,303 | \$33,235 | 92 | 26 |
| Carpenter, Piledriver | 127 | 45 | 35.4% | 73 | 57.5% | 93 | 73.2% | \$6,028,489 | \$64,822 | 108 | 35 |
| Glazier | 110 | 27 | 24.5% | 64 | 58.2% | 80 | 72.7% | \$3,701,227 | \$46,265 | 88 | 53 |
| Maint Mech (Const,Petrol) | 106 | 61 | 57.5% | 42 | 39.6% | 85 | 80.2% | \$6,976,727 | \$82,079 | 94 | 5 |
| Roofer | 105 | 3 | 2.9% | 100 | 95.2% | 61 | 58.1% | \$1,894,675 | \$31,060 | 74 | 10 |
| Cement Mason | 100 | 18 | 18.0% | 79 | 79.0% | 65 | 65.0% | \$2,595,400 | \$39,929 | 74 | 12 |

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

About the data

The Research and Analysis Section identified people who participated in a registered apprenticeship program between 2004 and 2014 using data from the U.S. Department of Labor's Employment and Training Administration, Office of Apprenticeships, as well as our own administrative records. For this article, all references to apprentices refer to anyone who participated in an apprenticeship program during that decade.

For the 10-year period, we looked at participation status (complete, active, and canceled), wages before and after registration, employment status, industry representation, occupations, and demographic characteristics such as age, sex, and race.

During that period, 9,051 records were found in the US-DOL apprenticeship data, which we narrowed to 8,801 after getting rid of incomplete records and duplicates and matching the remainder with administrative data.