## AL Certifications and Licenses Data

Table 1. Certification and licensing status of the civilian noninstitutional population 16 years and over by employment status, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total | Without a certification or license |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| Civilian noninstitutional population | 3,935,581 | 85.3\% | -3,355,269 | 14.7\% | -580,313 | 1.20\% | -46,587 | 13.6\% | -533,726 |
| - Civilian labor force | 2,262,090 | 77.7\% | -1,756,709 | 22.3\% | -505,381 | 1.80\% | -41,486 | 20.5\% | -463,895 |
| -- Employed | 2,188,608 | 77.3\% | -1,692,670 | 22.7\% | -495,938 | 1.80\% | -38,826 | 20.9\% | -457,112 |
| --- Usually work full time | 1,897,908 | 76.3\% | -1,448,589 | 23.7\% | -449,319 | 1.90\% | -36,467 | 21.8\% | -412,852 |
| --- Usually work part time | 290,700 | 84.0\% | -244,081 | 16.0\% | -46,619 | 1.10\% | -3,247 | 14.9\% | -43,372 |
| -- Unemployed | 73,482 | 87.1\% | -64,039 | 12.9\% | -9,443 | 3.60\% | -2,661 | 9.2\% | -6,783 |
| - Not in the labor force | 1,673,491 | 95.5\% | -1,598,280 | 4.5\% | -75,212 | 0.40\% | -6,475 | 4.1\% | -68,737 |

AL Certifications and Licenses Data
Table 2. Employment status of the civilian noninstitutional population by certification and licensing status and selected characteristics, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Age, 16 years and over

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total | Without a certification or license |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| Total | 3,935,581 | 85.3\% | -3,355,269 | 14.7\% | -580,313 | 1.2\% | -46,587 | 13.60\% | -533,726 |
| -- Civilian labor force | 2,262,090 | 77.7\% | -1,756,709 | 22.3\% | -505,381 | 1.8\% | -41,486 | 20.50\% | -463,895 |
| --- Employed | 2,188,608 | 77.3\% | -1,692,670 | 22.7\% | -495,938 | 1.8\% | -38,826 | 20.90\% | -457,112 |
| --- Unemployed | 73,482 | 87.1\% | -64,039 | 12.9\% | -9,443 | 3.6\% | -2,661 | 9.20\% | -6,783 |
| -- Not in the labor force | 1,673,491 | 95.5\% | -1,598,280 | 4.5\% | -75,212 | 0.4\% | -6,475 | 4.10\% | -68,737 |
| 16 to 24 | 567,664 | 93.9\% | -533,130 | 6.1\% | -34,534 | 0.6\% | -3,669 | 5.40\% | -30,865 |
| -- Civilian labor force | 294,362 | 89.1\% | -262,151 | 10.9\% | -32,211 | 1.5\% | -4,294 | 9.50\% | -27,917 |
| --- Employed | 277,775 | 89.4\% | -248,237 | 10.6\% | -29,538 | 1.1\% | -3,177 | 9.50\% | -26,361 |
| --- Unemployed | 16,587 | 83.9\% | -13,914 | 16.1\% | -2,673 |  |  |  |  |
| -- Not in the labor force | 274,145 | 98.1\% | -268,882 | 1.9\% | -5,264 |  |  |  |  |
| 25 to 34 | 630,800 | 81.1\% | -511,772 | 18.9\% | -119,028 | 1.8\% | -11,178 | 17.10\% | -107,850 |
| -- Civilian labor force | 502,189 | 77.2\% | -387,936 | 22.8\% | -114,253 | 2.3\% | -11,746 | 20.40\% | -102,507 |
| --- Employed | 482,157 | 77.1\% | -371,918 | 22.9\% | -110,239 | 2.1\% | -10,229 | 20.70\% | -100,010 |
| --- Unemployed | 20,033 | 80.0\% | -16,018 | 20.0\% | -4,014 | * |  | * |  |
| -- Not in the labor force | 128,611 | 94.0\% | -120,891 | 6.0\% | -7,720 |  | * |  |  |
| 35 to 44 | 604,674 | 79.9\% | -483,389 | 20.1\% | -121,286 | 1.8\% | -10,821 | 18.30\% | -110,464 |
| -- Civilian labor force | 482,317 | 76.4\% | -368,417 | 23.6\% | -113,901 | 2.3\% | -11,012 | 21.30\% | -102,889 |
| --- Employed | 467,824 | 76.2\% | -356,690 | 23.8\% | -111,134 | 2.1\% | -9,927 | 21.60\% | -101,208 |
| --- Unemployed | 14,493 | 80.9\% | -11,727 | 19.1\% | -2,767 |  |  | * |  |
| -- Not in the labor force | 122,602 | 93.0\% | -114,047 | 7.0\% | -8,556 | * | * | * |  |
| 45 to 54 | 624,103 | 78.7\% | -491,473 | 21.3\% | -132,630 | 1.4\% | -8,793 | 19.80\% | -123,837 |
| -- Civilian labor force | 469,590 | 73.0\% | -342,705 | 27.0\% | -126,886 | 2.0\% | -9,591 | 25.00\% | -117,294 |
| --- Employed | 457,825 | 73.1\% | -334,510 | 26.9\% | -123,315 | 1.7\% | -7,803 | 25.20\% | -115,513 |
| --- Unemployed | 11,765 | 69.7\% | -8,195 | 30.3\% | -3,570 | * | * | * |  |
| -- Not in the labor force | 154,513 | 95.4\% | -147,355 | 4.6\% | -7,158 | * |  |  |  |
| 55 to 64 | 649,672 | 83.3\% | -541,371 | 16.7\% | -108,301 | 1.2\% | -7,857 | 15.50\% | -100,444 |
| -- Civilian labor force | 373,030 | 75.6\% | -282,098 | 24.4\% | -90,932 | 2.1\% | -7,745 | 22.30\% | -83,187 |
| --- Employed | 364,149 | 75.8\% | -275,850 | 24.2\% | -88,299 | 1.8\% | -6,663 | 22.40\% | -81,637 |
| --- Unemployed | 8,881 | * | * | * | * |  |  | * |  |
| -- Not in the labor force | 277,545 | 93.4\% | -259,136 | 6.6\% | -18,410 | 0.9\% | -2,392 | 5.80\% | -16,018 |
| 65 and older | 858,668 | 92.5\% | -794,135 | 7.5\% | -64,533 | 0.6\% | -5,124 | 6.90\% | -59,410 |
| -- Civilian labor force | 143,351 | 75.4\% | -108,156 | 24.6\% | -35,195 | 2.4\% | -3,459 | 22.10\% | -31,735 |
| --- Employed | 138,878 | 75.9\% | -105,467 | 24.1\% | -33,412 | 2.0\% | -2,722 | 22.10\% | -30,689 |
| --- Unemployed | * | * | * | * | * | * | * | * |  |
| -- Not in the labor force | 716,075 | 95.8\% | -685,705 | 4.2\% | -30,369 | 0.5\% | -3,463 | 3.80\% | -26,907 |

AL Certifications and Licenses Data
Table 2. Employment status of the civilian noninstitutional population by certification and licensing status and selected characteristics, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Sex, 16 years and older



## Race, 16 years and older

| Employment Status | Total | Without a certification or license |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| White | 2,767,472 | 83.8\% | -2,319,291 | 16.2\% | -448,181 | 1.4\% | -38,366 | 14.8\% | -409,815 |
| -- Civilian labor force | 1,594,295 | 75.5\% | -1,203,038 | 24.5\% | -391,257 | 2.2\% | -34,527 | 22.4\% | -356,730 |
| --- Employed | 1,551,412 | 75.2\% | -1,166,793 | 24.8\% | -384,619 | 2.1\% | -32,183 | 22.7\% | -352,436 |
| --- Unemployed | 42,883 | 84.5\% | -36,245 | 15.5\% | -6,638 | * | * | * |  |
| -- Not in the labor force | 1,173,177 | 95.1\% | -1,115,771 | 4.9\% | -57,406 | 0.5\% | -5,433 | 4.4\% | -51,973 |
| Black or African American | 1,022,907 | 89.3\% | -913,761 | 10.7\% | -109,146 | 0.7\% | -6,980 | 10.0\% | -102,167 |
| -- Civilian labor force | 581,551 | 83.5\% | -485,323 | 16.5\% | -96,228 | 1.3\% | -7,842 | 15.2\% | -88,387 |
| --- Employed | 552,933 | 83.5\% | -461,428 | 16.5\% | -91,505 | 1.1\% | -6,125 | 15.4\% | -85,380 |
| --- Unemployed | 28,619 | 83.5\% | -23,895 | 16.5\% | -4,724 | * | * | * |  |
| -- Not in the labor force | 441,355 | 96.6\% | -426,563 | 3.4\% | -14,792 | 0.5\% | -2,348 | 2.8\% | -12,444 |
| Asian | 54,043 | 87.0\% | -47,011 | 13.0\% | -7,032 | * | * | * | * |
| -- Civilian labor force | 35,165 | 77.2\% | -27,139 | 22.8\% | -8,026 | * | * | * | * |
| --- Employed | 32,751 | 78.9\% | -25,838 | 21.1\% | -6,913 | * | * | * | * |
| --- Unemployed | * | * | * | * | * | * | * | * | * |
| -- Not in the labor force | 20,678 | 90.0\% | -18,605 | 10.0\% | -2,074 | * | * | * | * |

AL Certifications and Licenses Data
Table 2. Employment status of the civilian noninstitutional population by certification and licensing status and selected characteristics, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Race, 16 years and older

|  |  | Without a certification or license |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total |  |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| Hispanic or Latino | 167,029 | 91.3\% | -152,438 | 8.7\% | -14,591 | 1.9\% | -3,198 | 6.8\% | -11,394 |
| -- Civilian labor force | 115,184 | 87.1\% | -100,369 | 12.9\% | -14,815 | 3.4\% | -3,973 | 9.4\% | -10,842 |
| --- Employed | 109,996 | 88.3\% | -97,105 | 11.7\% | -12,891 | 2.7\% | -2,940 | 9.0\% | -9,951 |
| --- Unemployed | * | * | * | * | * | * | * | * |  |
| -- Not in the labor force | 53,340 | 93.4\% | -49,801 | 6.6\% | -3,539 | * | * | * |  |
| Non-Hispanic | 3,768,552 | 85.0\% | -3,202,831 | 15.0\% | -565,721 | 1.2\% | -44,607 | 13.8\% | -521,114 |
| -- Civilian labor force | 2,148,401 | 77.1\% | -1,655,943 | 22.9\% | -492,457 | 1.8\% | -39,506 | 21.1\% | -452,951 |
| --- Employed | 2,078,612 | 76.7\% | -1,595,177 | 23.3\% | -483,434 | 1.8\% | -37,192 | 21.5\% | -446,243 |
| --- Unemployed | 69,789 | 87.1\% | -60,766 | 12.9\% | -9,023 | 3.3\% | -2,314 | 9.6\% | -6,709 |
| -- Not in the labor force | 1,620,152 | 95.5\% | -1,546,620 | 4.5\% | -73,532 | 0.4\% | -6,368 | 4.1\% | -67,163 |

Education, 25 years and older

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total | Without a certification or license |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| Total | 3,367,917 | 83.80\% | -2,822,139 | 16.20\% | -545,778 | 1.30\% | -43,311 | 14.90\% | -502,467 |
| -- Civilian labor force | 1,968,571 | 75.90\% | $-1,493,531$ | 24.10\% | -475,040 | 1.90\% | -37,595 | 22.20\% | -437,445 |
| --- Employed | 1,910,833 | 75.60\% | $-1,444,433$ | 24.40\% | -466,400 | 1.90\% | -36,288 | 22.50\% | -430,111 |
| --- Unemployed | 57,738 | 84.40\% | -48,707 | 15.60\% | -9,031 | 4.70\% | -2,699 | 11.00\% | -6,332 |
| -- Not in the labor | 1,399,346 | 94.90\% | -1,328,608 | 5.10\% | -70,738 | 0.40\% | -6,199 | 4.60\% | -64,539 |
| - Less than a high school diplon | 342,915 | 95.80\% | -328,474 | 4.20\% | -14,441 | 0.70\% | -2,569 | 3.50\% | 72 |
| --- Civilian labor force | 117,807 | 90.50\% | -106,639 | 9.50\% | -11,169 | 2.00\% | -2,305 | 7.50\% | 83 |
| ---- Employed | 112,190 | 90.30\% | -101,310 | 9.70\% | -10,880 | 2.00\% | -2,222 | 7.70\% | -8,658 |
| ---- Unemployed | * | * | * | * | * | * | * | * |  |
| --- Not in the labor force | 225,108 | 98.10\% | -220,889 | 1.90\% | -4,219 | * | * | * |  |
| - High school graduates, no col | 1,118,486 | 92.00\% | -1,028,511 | 8.00\% | -89,975 | 0.80\% | -9,177 | 7.20\% | -80,798 |
| --- Civilian labor force | 594,977 | 86.60\% | -515,224 | 13.40\% | -79,754 | 1.40\% | -8,226 | 12.00\% | -71,528 |
| ---- Employed | 571,349 | 86.30\% | -493,142 | 13.70\% | -78,207 | 1.40\% | -8,121 | 12.30\% | -70,086 |
| ---- Unemployed | 23,629 | 87.50\% | -20,681 | 12.50\% | -2,948 | * | * | * |  |
| --- Not in the labor force | 523,509 | 98.00\% | -513,288 | 2.00\% | -10,221 | 0.40\% | -2,237 | 1.50\% | -7,984 |
| - Some college, no degree | 530,721 | 87.20\% | -462,584 | 12.80\% | -68,137 | 1.60\% | -8,376 | 11.30\% | -59,760 |
| --- Civilian labor force | 316,538 | 81.20\% | -256,986 | 18.80\% | -59,552 | 2.30\% | -7,218 | 16.50\% | -52,334 |
| ---- Employed | 304,996 | 81.10\% | -247,248 | 18.90\% | -57,748 | 2.20\% | -6,715 | 16.70\% | -51,033 |
| ---- Unemployed | 12,160 | 76.20\% | -9,264 | 23.80\% | -2,896 | * | * | * |  |
| --- Not in the labor force | 214,183 | 95.90\% | -205,309 | 4.10\% | -8,874 | 1.00\% | -2,144 | 3.10\% | -6,729 |
| - Associate's degree | 366,039 | 72.90\% | -266,820 | 27.10\% | -99,219 | 1.90\% | -7,031 | 25.20\% | -92,188 |

AL Certifications and Licenses Data
Table 2. Employment status of the civilian noninstitutional population by certification and licensing status and selected characteristics, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education, 25 years and older

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total | Without a certification or license |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| --- Civilian labor force | 240,292 | 64.20\% | -154,257 | 35.80\% | -86,035 | 2.60\% | -6,348 | 33.20\% | -79,687 |
| ---- Employed | 235,582 | 64.20\% | -151,261 | 35.80\% | -84,321 | 2.60\% | -6,064 | 33.20\% | -78,256 |
| ---- Unemployed |  | * | * | * | * | * | * | * |  |
| --- Not in the labor force | 125,747 | 89.50\% | -112,563 | 10.50\% | -13,184 | 1.80\% | -2,249 | 8.70\% | -10,935 |
| - Bachelor's degree only | 628,661 | 78.70\% | -494,656 | 21.30\% | -134,005 | 1.60\% | -10,325 | 19.70\% | -123,680 |
| --- Civilian labor force | 436,399 | 72.90\% | -318,073 | 27.10\% | -118,326 | 2.20\% | -9,384 | 25.00\% | -108,942 |
| ---- Employed | 427,819 | 72.80\% | -311,246 | 27.20\% | -116,574 | 2.20\% | -9,252 | 25.10\% | -107,321 |
| ---- Unemployed | * | * | * | * | * | * | * | * |  |
| --- Not in the labor force | 192,263 | 91.80\% | -176,583 | 8.20\% | -15,679 | 1.10\% | -2,097 | 7.10\% | -13,583 |
| - Advanced degree | 381,095 | 63.30\% | -241,094 | 36.70\% | -140,001 | 2.30\% | -8,788 | 34.40\% | -131,212 |
| --- Civilian labor force | 262,557 | 54.20\% | -142,181 | 45.80\% | -120,376 | 3.00\% | -7,972 | 42.80\% | -112,404 |
| ---- Employed | 258,896 | 54.10\% | -140,059 | 45.90\% | -118,837 | 3.00\% | -7,771 | 42.90\% | -111,066 |
| ---- Unemployed | * | * | * | * | * | * | * | * | * |
| --- Not in the labor force | 118,537 | 83.40\% | -98,913 | 16.60\% | -19,625 | 2.10\% | -2,436 | 14.50\% | -17,189 |

AL Certifications and Licenses Data
Table 3. Certification and licensing status of employed persons 16 years and over by selected characteristics, 20192023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Age, 16 years and older

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total |  | thout a ication or cense |  | otal |  | ith a ication, license | With <br> (may <br> a certi | a license also have ification) |
| Total | 2,188,608 | 77.3\% | -1,692,670 | 22.7\% | -495,938 | 1.8\% | -39,714 | 20.8\% | -456,224 |
| - 16 to 24 | 277,775 | 89.0\% | -247,251 | 11.0\% | -30,524 | 1.8\% | -5,087 | 9.2\% | -25,438 |
| - 25 to 34 | 482,157 | 77.1\% | -371,611 | 22.9\% | -110,546 | 2.4\% | -11,563 | 20.5\% | -98,983 |
| - 35 to 44 | 467,824 | 76.2\% | -356,582 | 23.8\% | -111,242 | 2.4\% | -11,446 | 21.3\% | -99,796 |
| - 45 to 54 | 457,825 | 73.0\% | -334,402 | 27.0\% | -123,423 | 2.1\% | -9,707 | 24.8\% | $-113,716$ |
| - 55 to 64 | 364,149 | 75.8\% | -275,850 | 24.2\% | -88,299 | 2.1\% | -7,733 | 22.1\% | -80,567 |
| - 65 and older | 138,878 | 75.9\% | -105,467 | 24.1\% | -33,412 | 3.0\% | -4,139 | 21.1\% | -29,273 |
| - Men | 1,156,179 | 79.3\% | -916,789 | 20.7\% | -239,390 | 2.1\% | $-24,344$ | 18.6\% | -215,046 |
| -- 16 to 24 | 141,727 | 89.9\% | -127,429 | 10.1\% | -14,298 | * | * | * |  |
| -- 25 to 34 | 253,227 | 80.7\% | -204,249 | 19.3\% | -48,978 | 2.6\% | -6,677 | 16.7\% | -42,301 |
| -- 35 to 44 | 246,396 | 78.5\% | -193,423 | 21.5\% | -52,973 | 2.8\% | -6,789 | 18.7\% | -46,184 |
| -- 45 to 54 | 239,536 | 74.1\% | -177,564 | 25.9\% | -61,972 | 2.9\% | -7,017 | 22.9\% | -54,955 |
| -- 55 to 64 | 198,823 | 75.8\% | -150,772 | 24.2\% | -48,050 | 2.5\% | -5,012 | 21.6\% | -43,038 |
| -- 65 and older | 77,147 | 74.7\% | -57,628 | 25.3\% | -19,519 | 4.5\% | -3,458 | 20.8\% | -16,061 |
| - Women | 1,032,429 | 75.2\% | -775,881 | 24.8\% | $-256,548$ | 1.6\% | -17,002 | 23.2\% | -239,546 |
| -- 16 to 24 | 136,049 | 86.5\% | -117,656 | 13.5\% | -18,392 | 3.4\% | -4,618 | 10.1\% | -13,774 |
| -- 25 to 34 | 229,142 | 72.2\% | -165,552 | 27.8\% | -63,590 | 2.6\% | -5,971 | 25.1\% | -57,620 |
| -- 35 to 44 | 221,756 | 73.3\% | -162,545 | 26.7\% | -59,212 | 3.2\% | -7,013 | 23.5\% | -52,199 |
| -- 45 to 54 | 218,424 | 71.4\% | -155,863 | 28.6\% | -62,561 | 2.4\% | -5,242 | 26.2\% | -57,319 |
| -- 55 to 64 | 165,326 | 75.4\% | -124,717 | 24.6\% | -40,610 | 3.1\% | -5,189 | 21.4\% | -35,421 |
| -- 65 and older | 61,731 | 76.5\% | -47,233 | 23.5\% | -14,498 | 5.0\% | -3,108 | 18.5\% | -11,390 |

## Race, 16 years and older

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total |  | thout a ication or cense |  | otal |  | ith a ication, license | With (may a certi | license <br> also have <br> fication) |
| White | 1,551,412 | 75.2\% | -1,166,793 | 24.8\% | -384,619 | 2.1\% | -33,220 | 22.7\% | -351,400 |
| -- Men | 863,873 | 77.6\% | -670,768 | 22.4\% | -193,105 | 2.4\% | -20,671 | 20.0\% | $-172,433$ |
| -- Women | 687,539 | 72.1\% | -495,882 | 27.9\% | -191,657 | 2.0\% | -14,069 | 25.8\% | -177,589 |
| Black or African American | 552,933 | 83.4\% | -460,910 | 16.6\% | -92,023 | 1.5\% | -8,171 | 15.2\% | -83,852 |
| -- Men | 246,839 | 84.1\% | -207,499 | 15.9\% | -39,341 | 2.6\% | -6,420 | 13.3\% | -32,921 |
| -- Women | 306,093 | 82.3\% | -251,942 | 17.7\% | -54,152 | 1.9\% | -5,901 | 15.8\% | -48,251 |

AL Certifications and Licenses Data
Table 3. Certification and licensing status of employed persons 16 years and over by selected characteristics, 20192023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.
Race, $\mathbf{1 6}$ years and older

## Education, 25 years and older

AL Certifications and Licenses Data
Table 4. Certification and licensing status of the employed population 16 years and over by industry and class of worker, 20192023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

Industry

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total | Without a certification or license |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| Total | 2,188,608 | 77.30\% | -1,692,670 | 22.70\% | -495,938 | 1.80\% | -38,826 | 20.90\% | -457,112 |
| - Agriculture and related industries | 26,101 | 86.70\% | -22,621 | 13.30\% | -3,481 | * | * | * | * |
| - Forestry, logging, fishing, hunting, \& trapping | * | * | * | * | * | * | * | * | * |
| - Mining | * | * | * | * | * | * | * | * | * |
| - Construction | 160,264 | 81.70\% | -130,972 | 18.30\% | -29,292 | 2.30\% | -3,720 | 16.00\% | -25,572 |
| - Manufacturing | 318,907 | 89.90\% | -286,782 | 10.10\% | -32,125 | 2.10\% | -6,608 | 8.00\% | -25,517 |
| - Wholesale trade | 46,079 | 86.10\% | -39,661 | 13.90\% | -6,418 | * | * | * | * |
| - Retail trade | 245,466 | 89.50\% | -219,585 | 10.50\% | -25,881 | 1.40\% | -3,426 | 9.10\% | -22,455 |
| - Transportation and utilities | 142,237 | 73.80\% | -104,958 | 26.20\% | -37,279 | 2.40\% | -3,481 | 23.80\% | -33,797 |
| - Information | 24,802 | 87.20\% | -21,617 | 12.80\% | -3,184 | * | * | * | * |
| - Financial activities | 126,010 | 69.20\% | -87,233 | 30.80\% | -38,777 | 2.70\% | -3,360 | 28.10\% | -35,417 |
| - Professional and business services | 87,121 | 85.50\% | -74,493 | 14.50\% | -12,629 | 3.20\% | -2,793 | 11.30\% | -9,836 |
| - Professional and technical services | 133,098 | 78.60\% | -104,602 | 21.40\% | -28,496 | 3.50\% | -4,683 | 17.90\% | -23,813 |
| - Education and health services | 436,247 | 53.20\% | -231,929 | 46.80\% | -204,318 | 2.00\% | -8,569 | 44.90\% | -195,749 |
| - Leisure and hospitality | 162,211 | 94.50\% | -153,356 | 5.50\% | -8,855 | * | * | * | * |
| - Other services | 113,444 | 74.50\% | -84,564 | 25.50\% | -28,880 | 3.50\% | -4,017 | 21.90\% | -24,862 |
| - Public administration | 121,543 | 74.00\% | -89,907 | 26.00\% | -31,635 | 2.70\% | -3,321 | 23.30\% | -28,315 |
| - Social assistance | 30,693 | 83.00\% | -25,467 | 17.00\% | -5,226 | * | * | * | * |

## Class of Worker

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total | Without a certification or license |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| Wage and salary workers | 2,188,608 | 77.30\% | -1,692,670 | 22.70\% | -495,938 | 1.80\% | -38,826 | 20.90\% | -457,112 |
| - Private industries | 1,749,272 | 80.20\% | -1,403,701 | 19.80\% | -345,571 | 1.90\% | -32,883 | 17.90\% | -312,688 |
| - Federal government | 76,331 | 78.30\% | -59,741 | 21.70\% | -16,590 | 3.30\% | -2,549 | 18.40\% | -14,041 |
| - State government | 104,948 | 62.00\% | -65,100 | 38.00\% | -39,848 | 3.10\% | -3,264 | 34.90\% | -36,584 |
| - Local government | 142,635 | 55.70\% | -79,397 | 44.30\% | -63,238 | 2.30\% | -3,332 | 42.00\% | -59,906 |
| Self-employed workers, unincorporated | 114,777 | 73.30\% | -84,128 | 26.70\% | -30,649 | 2.70\% | -3,078 | 24.00\% | -27,571 |

AL Certifications and Licenses Data
Table 5. Certification and licensing status of the employed population 16 years and over by occupation, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Occupation

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total | Without a certification or license |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| Total | 2,188,608 | 77.30\% | -1,692,670 | 22.70\% | -495,938 | 1.80\% | -38,826 | 20.90\% | -457,112 |
| - Management occupations | 224,030 | 81.70\% | -183,047 | 18.30\% | -40,983 | 2.40\% | -5,313 | 15.90\% | -35,670 |
| - Business and financial operations occupations | 91,339 | 83.50\% | -76,313 | 16.50\% | -15,026 | 3.10\% | -2,871 | 13.30\% | -12,155 |
| - Computer and mathematical science occupations | 56,330 | 83.00\% | -46,782 | 17.00\% | -9,548 | * | * | * | * |
| - Architecture and engineering occupations | 51,785 | 78.90\% | -40,882 | 21.10\% | -10,904 | 4.40\% | -2,283 | 16.60\% | -8,620 |
| - Life, physical, and social science occupations | 15,685 | 68.90\% | -10,802 | 31.10\% | -4,883 | * | * | * | * |
| - Community and social service occupations | 39,178 | 67.00\% | -26,239 | 33.00\% | -12,939 | 7.80\% | -3,047 | 25.20\% | -9,892 |
| - Legal occupations | 18,819 | 51.40\% | -9,665 | 48.60\% | -9,155 | 7.50\% | -1,421 | 41.10\% | -7,734 |
| - Education, training, and library occupations | 128,127 | 45.40\% | -58,182 | 54.60\% | -69,946 | 2.50\% | -3,202 | 52.10\% | -66,743 |
| - Arts, design, entertainment, sports, and media occupations | 26,383 | 86.60\% | -22,852 | 13.40\% | -3,531 | * | * | * | * |
| - Healthcare practitioner and technical occupations | 152,584 | 32.20\% | -49,192 | 67.80\% | -103,392 | 3.50\% | -5,315 | 64.30\% | -98,077 |
| - Healthcare support occupations | 51,444 | 67.00\% | -34,458 | 33.00\% | -16,986 | 4.20\% | -2,141 | 28.90\% | -14,845 |
| - Protective service occupations | 41,942 | 68.10\% | -28,554 | 31.90\% | -13,388 | 5.20\% | -2,187 | 26.70\% | -11,200 |
| - Food preparation and serving related occupations | 94,500 | 93.90\% | -88,778 | 6.10\% | -5,722 | * | * | * | * |
| - Building and grounds cleaning and maintenance occupations | 79,463 | 91.50\% | -72,742 | 8.50\% | -6,722 | * | * | * | * |
| - Personal care and service occupations | 54,739 | 67.20\% | -36,810 | 32.80\% | -17,930 | 4.00\% | -2,212 | 28.70\% | -15,718 |
| - Sales and related occupations | 231,909 | 84.00\% | -194,714 | 16.00\% | -37,195 | 1.80\% | -4,283 | 14.20\% | -32,913 |
| - Office and administrative support occupations | 229,774 | 91.40\% | -209,933 | 8.60\% | -19,841 | 1.50\% | -3,490 | 7.10\% | -16,351 |
| - Farming, fishing, and forestry occupations | 14,348 | 85.70\% | -12,303 | 14.30\% | -2,045 | * | * | * | * |
| - Construction and extraction occupations | 118,031 | 84.90\% | -100,159 | 15.10\% | -17,872 | 2.60\% | -3,122 | 12.50\% | -14,750 |

## AL Certifications and Licenses Data

Table 5. Certification and licensing status of the employed population 16 years and over by occupation, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Occupation

|  |  |  |  | With at least one certification or license |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Employment Status | Total | Without a certification or license |  | Total |  | With a certification, but no license |  | With a license (may also have a certification) |  |
| - Installation, maintenance, and repair occupations | 86,709 | 78.30\% | -67,883 | 21.70\% | -18,825 | 4.70\% | -4,114 | 17.00\% | -14,711 |
| - Production occupations | 203,114 | 90.30\% | -183,400 | 9.70\% | -19,714 | 2.20\% | -4,524 | 7.50\% | -15,190 |
| - Transportation and material moving occupations | 178,376 | 76.10\% | -135,795 | 23.90\% | -42,581 | 2.00\% | -3,565 | 21.90\% | -39,016 |

AL Certifications and Licenses Data
Table 6. Median weekly earnings of full-time wage and salary workers by certification and licensing status and selected characteristics, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Age, 16 years and older

|  | Full-time wage and salary workers |  |  | With at least one certification or license |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age, 16 years and older | Total Employment | Median Salary | Without a certification or license | Total | With a certification, but no license | With a license (may also have a certification) |
| Total | 1,897,908 | \$933 | \$894 | \$1,077 | \$1,192 | \$1,070 |
| - 16 to 24 | 182,506 | \$650 | \$630 | \$742 | * | \$742 |
| - 25 to 34 | 440,836 | \$875 | \$851 | \$997 | \$880 | \$980 |
| - 35 to 44 | 427,128 | \$1,050 | \$1,019 | \$1,148 | \$1,442 | \$1,116 |
| - 45 to 54 | 424,612 | \$1,019 | \$950 | \$1,145 | * | \$1,150 |
| - 55 to 64 | 324,506 | \$1,034 | \$1,000 | \$1,114 | * | \$1,114 |
| - 65 and older | 98,320 | \$944 | \$918 | \$1,069 | * | \$1,058 |
| - Men | 1,058,859 | \$1,058 | \$1,009 | \$1,215 | \$1,300 | \$1,197 |
| -- 16 to 24 | 102,836 | \$735 | \$711 | * | * | * |
| -- 25 to 34 | 240,673 | \$992 | \$942 | \$1,134 | * | \$1,154 |
| -- 35 to 44 | 236,712 | \$1,120 | \$1,082 | \$1,350 | * | \$1,320 |
| -- 45 to 54 | 231,557 | \$1,153 | \$1,086 | \$1,277 | * | \$1,290 |
| -- 55 to 64 | 188,203 | \$1,154 | \$1,164 | \$1,153 | * | \$1,150 |
| -- 65 and older | 58,879 | \$1,020 | \$1,000 | \$1,153 | * | \$1,058 |
| - Women | 839,049 | \$830 | \$789 | \$962 | \$1,000 | \$961 |
| -- 16 to 24 | 79,670 | \$583 | \$581 | \$692 | * | \$692 |
| -- 25 to 34 | 200,163 | \$805 | \$751 | \$920 | * | \$919 |
| -- 35 to 44 | 190,416 | \$924 | \$900 | \$1,038 | * | \$1,010 |
| -- 45 to 54 | 193,056 | \$876 | \$808 | \$1,033 | * | \$1,038 |
| -- 55 to 64 | 136,303 | \$940 | \$892 | \$1,077 | * | \$1,077 |
| -- 65 and older | 39,441 | \$850 | \$780 | \$1,080 | * | \$1,069 |

Race, 16 years and older

|  | Full-time wage and salary workers |  |  | With at least one certification or license |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Race, 16 years and older | Total Employment | Median Salary | Without a certification or license | Total | With a certification, but no license | With a license (may also have a certification) |
| White | 1,343,172 | \$998 | \$960 | \$1,120 | \$1,192 | \$1,114 |
| -- Men | 795,964 | \$1,111 | \$1,078 | \$1,269 | \$1,321 | \$1,246 |
| -- Women | 547,208 | \$885 | \$846 | \$1,013 | \$1,057 | \$1,010 |
| Black or African American | 483,026 | \$806 | \$782 | \$950 | * | \$950 |
| -- Men | 222,118 | \$880 | \$861 | \$1,120 | * | \$1,080 |
| -- Women | 260,908 | \$750 | \$738 | \$885 | * | \$885 |
| Asian | 29,298 | \$1,173 | \$1,187 | * | * | * |
| -- Men | 18,011 | \$1,300 | \$1,300 | * | * | * |
| -- Women | 11,287 | * | * | * | * | * |

AL Certifications and Licenses Data
Table 6. Median weekly earnings of full-time wage and salary workers by certification and licensing status and selected characteristics, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

Race, 16 years and older

|  | Full-time wage and salary workers |  |  | With at least one certification or license |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Race, 16 years and older | Total Employment | Median Salary | Without a certification or license | Total | With a certification, but no license | With a license (may also have a certification) |
| Hispanic or Latino | 97,985 | \$825 | \$803 | \$1,000 | * | \$1,000 |
| -- Men | 63,354 | \$825 | \$800 | * | * | * |
| -- Women | 34,631 | \$798 | \$769 | * | * | * |
| Non-Hispanic | 1,799,922 | \$937 | \$900 | \$1,078 | \$1,170 | \$1,075 |
| -- Men | 995,505 | \$1,063 | \$1,019 | \$1,215 | \$1,300 | \$1,197 |
| -- Women | 804,418 | \$830 | \$789 | \$969 | \$962 | \$962 |

Education, 25 years and older

|  | Full-time wage and salary workers |  |  | With at least one certification or license |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education, 25 years and older | Total Employment | Median Salary | Without a certification or license | Total | With a certification, but no license | With a license (may also have a certification) |
| -- Less than a high school diploma | 97,066 | \$700 | \$692 | \$830 | * | * |
| -- High school graduates, no college | 514,231 | \$884 | \$870 | \$1,003 | * | \$1,000 |
| -- Some college, no degree | 267,623 | \$875 | \$865 | \$950 | * | \$962 |
| -- Associate's degree | 211,396 | \$923 | \$906 | \$923 | * | \$908 |
| -- Bachelor's degree only | 390,940 | \$1,124 | \$1,104 | \$1,192 | * | \$1,188 |
| -- Advanced degree | 234,146 | \$1,308 | \$1,320 | \$1,307 | * | \$1,306 |
| - Men | 956,023 | \$1,094 | \$1,058 | \$1,238 | \$1,321 | \$1,211 |
| --- Less than a high school diploma | 69,491 | \$800 | \$770 | * | * | * |
| --- High school graduates, no college | 322,632 | \$990 | \$962 | \$1,070 | * | \$1,080 |
| --- Some college, no degree | 145,630 | \$1,020 | \$985 | \$1,136 | * | \$1,136 |
| --- Associate's degree | 103,360 | \$1,120 | \$1,093 | \$1,058 | * | \$1,040 |
| --- Bachelor's degree only | 201,884 | \$1,288 | \$1,231 | \$1,352 | * | \$1,346 |
| --- Advanced degree | 113,026 | \$1,461 | \$1,442 | \$1,500 | * | \$1,491 |
| - Women | 759,379 | \$865 | \$817 | \$997 | \$1,000 | \$988 |
| --- Less than a high school diploma | 27,575 | \$500 | \$485 | * | * | * |
| --- High school graduates, no college | 191,599 | \$742 | \$730 | \$750 | * | \$760 |
| --- Some college, no degree | 121,994 | \$760 | \$760 | \$769 | * | \$750 |
| --- Associate's degree | 108,036 | \$780 | \$760 | \$800 | * | \$807 |
| --- Bachelor's degree only | 189,056 | \$1,058 | \$1,019 | \$1,115 | * | \$1,100 |
| --- Advanced degree | 121,120 | \$1,187 | \$1,153 | \$1,188 | * | \$1,188 |

AL Certifications and Licenses Data
Table 7. Median weekly earnings of full-time wage and salary workers by certification and licensing status and occupation, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Occupation

|  | Full-time wage and salary workers |  |  | With at least one certification or license |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Occupation | Total <br> Employment | Median Salary | Without a certification or license | Total | With a certification, but no license | With a license (may also have a certification) |
| Total | 1,897,908 | \$933 | \$894 | \$1,077 | \$1,192 | \$1,070 |
| - Management occupations | 208,010 | \$1,291 | \$1,239 | \$1,442 | * | \$1,400 |
| - Business and financial operations occupations | 84,978 | \$1,050 | \$1,037 | \$1,304 | * | \$1,288 |
| - Computer and mathematical science occupations | 54,991 | \$1,346 | \$1,326 | \$1,500 | * |  |
| - Architecture and engineering occupations | 50,571 | \$1,471 | \$1,420 | \$1,630 | * |  |
| - Life, physical, and social science occupations | 14,730 | \$1,192 | \$1,125 | * | * |  |
| - Community and social service occupations | 33,775 | \$1,000 | \$942 | \$1,115 | * | \$1,096 |
| - Legal occupations | 17,597 | \$1,230 | * | * | * |  |
| - Education, training, and library occupations | 114,760 | \$1,120 | \$1,057 | \$1,120 | * | \$1,125 |
| - Arts, design, entertainment, sports, and media occupations | 19,888 | \$1,040 | \$1,040 | * | * |  |
| - Healthcare practitioner and technical occupations | 136,078 | \$1,033 | \$931 | \$1,058 | * | \$1,057 |
| - Healthcare support occupations | 41,013 | \$600 | \$590 | \$600 | * | \$625 |
| - Protective service occupations | 38,941 | \$865 | \$792 | \$961 | * | \$961 |
| - Food preparation and serving related occupations | 56,937 | \$569 | \$558 | * | * |  |
| - Building and grounds cleaning and maintenance occupations | 60,703 | \$634 | \$624 | * | * |  |
| - Personal care and service occupations | 37,999 | \$673 | \$672 | * | * | * |
| - Sales and related occupations | 181,783 | \$788 | \$787 | \$933 | * | \$923 |
| - Office and administrative support occupations | 193,962 | \$800 | \$790 | \$860 | * | \$924 |
| - Farming, fishing, and forestry occupations | 12,434 | \$712 | \$708 | * | * |  |
| - Construction and extraction occupations | 110,310 | \$1,040 | \$1,000 | \$1,154 | * | \$1,120 |
| - Installation, maintenance, and repair occupations | 83,034 | \$1,060 | \$1,040 | \$1,166 | * | \$1,200 |

AL Certifications and Licenses Data
Table 7. Median weekly earnings of full-time wage and salary workers by certification and licensing status and occupation, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

Occupation

|  | Full-time wage and salary workers |  |  | With at least one certification or license |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Occupation | Total Employment | Median Salary | Without a certification or license | Total | With a certification, but no license | With a license (may also have a certification) |
| - Production occupations | 193,683 | \$880 | \$884 | \$880 | * | \$806 |
| - Transportation and material moving occupations | 151,942 | \$854 | \$825 | \$980 | * | \$1,000 |

AL Certifications and Licenses Data
Table 8. Median weekly earnings of full-time wage and salary workers by certification and licensing status and major industry, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

Industry

|  | Full-time wage and salary workers |  |  | With at least one certification or license |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Industry | Total Employment | Median Salary | Without a certification or license | Total | With a certification, but no license | With a license (may also have a certification) |
| Total | 1,897,908 | \$933 | \$894 | \$1,077 | \$1,192 | \$1,070 |
| - Agriculture and related industries | 20,655 | \$800 | \$800 | * | * |  |
| - Forestry, logging, fishing, hunting, and trapping | * | * | * | * | * |  |
| - Mining | * | * | * | * | * | * |
| - Construction | 148,990 | \$1,115 | \$1,040 | \$1,200 | * | \$1,166 |
| - Manufacturing | 309,845 | \$980 | \$971 | \$1,058 | * | \$1,038 |
| - Wholesale trade | 42,805 | \$997 | \$962 | * | * | * |
| - Retail trade | 188,017 | \$788 | \$769 | \$924 | * | \$933 |
| - Transportation and utilities | 131,324 | \$990 | \$962 | \$1,200 | * | \$1,154 |
| - Information | 21,404 | \$980 | \$962 | * | * | * |
| - Financial activities | 115,915 | \$924 | \$904 | \$1,057 | * | \$1,057 |
| - Professional and business services | 71,661 | \$780 | \$720 | \$1,136 | * | \$1,154 |
| - Professional and technical services | 121,259 | \$1,220 | \$1,211 | \$1,442 | * | \$1,400 |
| - Education and health services | 382,341 | \$940 | \$860 | \$1,038 | \$1,077 | \$1,038 |
| - Leisure and hospitality | 103,056 | \$678 | \$673 | * | * | * |
| - Other services | 88,260 | \$877 | \$890 | \$865 | * | \$865 |
| - Public administration | 116,405 | \$1,096 | \$1,038 | \$1,269 | * | \$1,269 |
| - Social assistance | 22,937 | \$769 | \$769 | * | * | * |

AL Certifications and Licenses Data
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Occupation

|  | Number of Persons in the Civilian Labor Force |  |  | Unemployment Rate |  |  | Median Weekly Earnings, Full-Time Employed Wage and Salary Workers Only |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Occupation | Total | Without License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification | Total | Without <br> License or Certification | With License or Certification |
| Total | 1,968,571 | 1,493,531 | 475,040 | 2.90\% | 3.30\% | 1.90\% | \$900 | \$856 | \$1,031 |
| -- Less than a high school diploma | 117,807 | 106,639 | 11,169 | * | * | * | \$700 | \$692 | \$830 |
| -- High school graduates, no college | 594,977 | 515,224 | 79,754 | 4.00\% | 4.30\% | * | \$884 | \$870 | \$1,003 |
| -- Some college, no degree | 316,538 | 256,986 | 59,552 | 3.80\% | 4.10\% | * | \$875 | \$865 | \$950 |
| -- Associate's degree | 240,292 | 154,257 | 86,035 | * | * | * | \$923 | \$906 | \$923 |
| -- Bachelor's degree only | 436,399 | 318,073 | 118,326 | * | * | * | \$1,124 | \$1,104 | \$1,192 |
| -- Advanced degree | 262,557 | 142,181 | 120,376 | * | * | * | \$1,308 | \$1,320 | \$1,307 |
| - Management occupations | 217,156 | 176,206 | 40,950 | * | * | * | \$1,280 | \$1,231 | \$1,442 |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | 47,651 | 40,869 | 6,782 | * | * | * | \$1,096 | \$1,093 | * |
| --- Some college, no degree | 31,364 | 24,811 | 6,554 | * | * | * | \$1,125 | \$1,120 |  |
| --- Associate's degree | 21,114 | 16,024 | 5,090 | * | * | * | \$1,058 | \$1,057 | * |
| --- Bachelor's degree only | 70,150 | 58,547 | 11,602 | * | * | * | \$1,423 | \$1,404 | \$1,538 |
| --- Advanced degree | 41,988 | 29,806 | 12,182 | * | * | * | \$1,442 | \$1,403 | \$1,620 |
| - Business and financial operations occupations | 88,161 | 73,208 | 14,953 | * | * | * | \$1,038 | \$1,019 | \$1,288 |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | 10,546 | 8,459 | 2,087 | * | * | * | \$890 | \$825 | * |
| --- Some college, no degree | 12,758 | 10,367 | 2,391 | * | * | * | \$950 | * | * |
| --- Associate's degree | 9,619 | 7,277 | 2,342 | * | * | * | \$962 | \$968 | * |
| --- Bachelor's degree only | 38,454 | 31,305 | 7,149 | * | * | * | \$1,153 | \$1,153 | * |

AL Certifications and Licenses Data
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Occupation

|  | Number | of Persons in Labor Forc | the Civilian |  | Unemployme | Rate | Median Employe | Weekly Earn ed Wage and Only | ngs, Full-Time Salary Workers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Occupation | Total | Without License or Certification | With License or Certification | Total | Without <br> License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification |
| --- Advanced degree | 16,374 | 11,949 | 4,425 | * | * | * | \$1,190 | \$1,150 | * |
| - Computer and mathematical science occupations | 54,241 | 44,698 | 9,542 | * | * | * | \$1,400 | \$1,327 | \$1,500 |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | * | * | * | * | * | * | * | * | * |
| --- Some college, no degree | * | * | * | * | * | * | * | * | * |
| --- Associate's degree | * | * | * | * | * | * | * | * | * |
| --- Bachelor's degree only | 24,559 | 19,865 | 4,694 | * | * | * | \$1,538 | \$1,519 | * |
| --- Advanced degree | 12,349 | 9,663 | 2,686 | * | * | * | \$1,615 | \$1,634 | * |
| - Architecture and engineering occupations | 49,066 | 38,017 | 11,049 | * | * | * | \$1,450 | \$1,389 | \$1,630 |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | * | * | * | * | * | * | * | * | * |
| --- Some college, no degree | * | * | * | * | * | * | * | * | * |
| --- Associate's degree | * | * | * | * | * | * | * | * | * |
| --- Bachelor's degree only | 24,977 | 18,239 | 6,737 | * | * | * | \$1,635 | \$1,615 | * |
| --- Advanced degree | 10,315 | 7,124 | 3,191 | * | * | * | \$1,596 | * | * |
| - Life, physical, and social science occupations | 15,122 | 10,467 | 4,655 | * | * | * | \$1,187 | \$1,115 | * |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | * | * | * | * | * | * | * | * | * |
| --- Some college, no degree | * | * | * | * | * | * | * | * | * |

AL Certifications and Licenses Data
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Occupation

|  | Number | of Persons in Labor Forc | the Civilian |  | Unemployme | Rate | Median <br> Employe | Weekly Earn d Wage and Only | ngs, Full-Time Salary Workers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Occupation | Total | Without License or Certification | With License or Certification | Total | Without <br> License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification |
| --- Associate's degree | * | * | * | * | * | * | * | * | * |
| --- Bachelor's degree only | * | * | * | * | * | * | * | * | * |
| --- Advanced degree | * | * | * | * | * | * | * | * | * |
| - Community and social service occupations | 37,543 | 24,907 | 12,636 | * | * | * | \$946 | \$923 | \$1,000 |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | * | * | * | * | * | * | * | * | * |
| --- Some college, no degree | * | * | * | * | * | * | * | * | * |
| --- Associate's degree | * | * | * | * | * | * | * | * | * |
| --- Bachelor's degree only | 12,736 | 8,645 | 4,091 | * | * | * | \$901 | \$920 | * |
| --- Advanced degree | 16,737 | * | * | * | * | * | \$1,096 | \$962 | * |
| - Legal occupations | 18,860 | 9,619 | 9,241 | * | * | * | \$1,154 | * | * |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | * | * | * | * | * | * | * | * | * |
| --- Some college, no degree | * | * | * | * | * | * | * | * | * |
| --- Associate's degree | * | * | * | * | * | * | * | * | * |
| --- Bachelor's degree only | * | * | * | * | * | * | * | * | * |
| --- Advanced degree | 12,035 | * | * | * | * | * | * | * | * |
| - Education, training, and library occupations | 122,962 | 54,293 | 68,670 | * | * | * | \$1,096 | \$992 | \$1,115 |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | 8,033 | * | * | * | * | * | \$673 | * | * |

AL Certifications and Licenses Data
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Occupation



AL Certifications and Licenses Data
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Occupation

|  | Number | of Persons in Labor Forc | the Civilian |  | Unemployme | Rate | Median Employe | Weekly Earn ed Wage and Only | ngs, Full-Time Salary Workers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Occupation | Total | Without License or Certification | With License or Certification | Total | Without <br> License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification |
| - Healthcare support occupations | 45,795 | 30,202 | 15,593 | * | * | * | \$570 | \$563 | \$570 |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | 14,594 | * | * | * | * | * | \$577 | * | * |
| --- Some college, no degree | 14,203 | 8,917 | 5,287 | * | * | * | \$560 | * | * |
| --- Associate's degree | * | * | * | * | * | * | * | * | * |
| --- Bachelor's degree only | * | * | * | * | * | * | * | * | * |
| --- Advanced degree | * | * | * | * | * | * | * | * | * |
| - Protective service occupations | 38,123 | 25,762 | 12,361 | * | * | * | \$867 | \$808 | \$961 |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | 12,155 | 7,486 | 4,668 | * | * | * | \$780 | \$760 | * |
| --- Some college, no degree | 10,701 | * | * | * | * | * | * | * | * |
| --- Associate's degree | * | * | * | * | * | * | * | * | * |
| --- Bachelor's degree only | * | * | * | * | * | * | * | * | * |
| --- Advanced degree | * | * | * | * | * | * | * | * | * |
| - Food preparation and serving related occupations | 60,311 | 55,496 | 4,814 | * | * | * | \$513 | \$510 | * |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | 30,285 | 27,252 | 3,033 | * | * | * | \$500 | \$500 | * |
| --- Some college, no degree | 11,574 | 8,590 | 2,984 | * | * | * | \$481 | \$485 | * |
| --- Associate's degree | * | * | * | * | * | * | * | * | * |

AL Certifications and Licenses Data
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Occupation



AL Certifications and Licenses Data
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Occupation



AL Certifications and Licenses Data
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Occupation

|  | Number | of Persons in Labor Forc | the Civilian |  | Unemployme | Rate | Median Employed | Weekly Earn ed Wage and Only | ngs, Full-Time Salary Workers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Occupation | Total | Without License or Certification | With License or Certification | Total | Without <br> License or Certification | With License or Certification | Total | Without <br> License or Certification | With License or Certification |
| --- High school graduates, no college | 48,899 | 42,162 | 6,738 | * | * | * | \$1,080 | \$1,057 | * |
| --- Some college, no degree | 15,569 | 10,786 | 4,783 | * | * | * | \$1,083 | * | * |
| --- Associate's degree | * | * | * | * | * | * | * | * | * |
| --- Bachelor's degree only | * | * | * | * | * | * | * | * | * |
| --- Advanced degree | * | * | * | * | * | * | * | * | * |
| - Installation, maintenance, and repair occupations | 77,645 | 59,940 | 17,705 | * | * | * | \$1,080 | \$1,051 | \$1,161 |
| --- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| --- High school graduates, no college | 35,059 | 26,925 | 8,134 | * | * | * | \$1,057 | \$1,051 | * |
| --- Some college, no degree | 16,538 | 12,674 | 3,864 | * | * | * | \$1,050 | \$962 | * |
| --- Associate's degree | 14,139 | 8,888 | 5,250 | * | * | * | \$1,040 | \$992 | * |
| --- Bachelor's degree only | * | * | * | * | * | * | * | * | * |
| --- Advanced degree | * | * | * | * | * | * | * | * | * |
| - Production occupations | 183,169 | 165,168 | 18,001 | * | * | * | \$892 | \$901 | \$900 |
| --- Less than a high school diploma | 16,133 | 13,431 | 2,702 | * | * | * | \$630 | \$635 | * |
| --- High school graduates, no college | 99,173 | 91,556 | 7,617 | * | * | * | \$840 | \$840 | * |
| --- Some college, no degree | 32,684 | 27,676 | 5,008 | * | * | * | \$938 | \$936 | * |
| --- Associate's degree | 20,073 | 15,117 | 4,956 | * | * | * | \$940 | \$1,001 | * |
| --- Bachelor's degree only | 12,423 | 10,567 | 1,857 | * | * | * | \$1,150 | \$1,120 | * |
| --- Advanced degree | * | * | * | * | * | * | * | * | * |

AL Certifications and Licenses Data
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status, 2019-2023 fiveyear average
Cells with an asterisk * indicate suppressed/undisclosed values.

Education by Occupation

|  | Number of Persons in the Civilian Labor Force |  |  | Unemployment Rate |  |  | Median Weekly Earnings, Full-Time Employed Wage and Salary Workers Only |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Occupation | Total | Without License or Certification | With License or Certification | Total | Without <br> License or Certification | With License or Certification | Total | Without <br> License or Certification | With License <br> or Certification |
| - Transportation and material moving occupations | 158,963 | 117,307 | 41,656 | * | * | * | \$785 | \$766 | \$904 |
| --- Less than a high school diploma | 14,944 | 10,441 | 4,503 | * | * | * | \$700 | \$680 | * |
| --- High school graduates, no college | 83,768 | 64,298 | 19,470 | * | * | * | \$805 | \$780 | \$1,050 |
| --- Some college, no degree | 26,765 | 19,647 | 7,119 | * | * | * | \$750 | \$713 | * |
| --- Associate's degree | 15,278 | * | * | * | * | * | \$780 | * | * |
| --- Bachelor's degree only | 14,380 | * | * | * | * | * | \$770 | * | * |
| --- Advanced degree | * | * | * | * | * | * | * | * | * |

AL Certifications and Licenses Data
Table 10. Unemployment Rates and Median Weekly Earnings by Age Group, Educational Attainment and Certification and Licensing Status, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

Education by Age

|  | Number of Persons in the Civilian Labor Force |  |  | Unemployment Rate |  |  | Median Weekly Earnings, Full-Time Employed Wage and Salary Workers Only |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Age | Total | Without License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification | Total | Without <br> License or Certification | With License or Certification |
| Total | 1,968,571 | 1,493,531 | 475,040 | 2.90\% | 3.30\% | 1.90\% | \$900 | \$856 | \$1,031 |
| -- Less than a high school diploma | 117,807 | 106,639 | 11,169 | * | * | * | \$700 | \$692 | \$830 |
| -- High school graduates, no college | 594,977 | 515,224 | 79,754 | 4.00\% | 4.30\% | * | \$884 | \$870 | \$1,003 |
| -- Some college, no degree | 316,538 | 256,986 | 59,552 | 3.80\% | 4.10\% | * | \$875 | \$865 | \$950 |
| -- Associate's degree | 240,292 | 154,257 | 86,035 | * | * | * | \$923 | \$906 | \$923 |
| -- Bachelor's degree only | 436,399 | 318,073 | 118,326 | * | * | * | \$1,124 | \$1,104 | \$1,192 |
| -- Advanced degree | 262,557 | 142,181 | 120,376 | * | * | * | \$1,308 | \$1,320 | \$1,307 |
| 25 to 34 | 502,189 | 389,889 | 112,300 | 4.00\% | 4.60\% | * | \$830 | \$800 | \$925 |
| -- Less than a high school diploma | 24,625 | 21,138 | 3,487 | * | * | * | \$598 | \$595 | * |
| -- High school graduates, no college | 158,176 | 140,780 | 17,396 | 6.10\% | * | * | \$760 | \$741 | \$886 |
| -- Some college, no degree | 86,939 | 71,605 | 15,334 | * | * | * | \$750 | \$731 | \$830 |
| -- Associate's degree | 58,951 | 36,945 | 22,006 | * | * | * | \$769 | \$739 | \$790 |
| -- Bachelor's degree only | 124,555 | 92,925 | 31,630 | * | * | * | \$1,000 | \$962 | \$1,058 |
| -- Advanced degree | 48,943 | 24,436 | 24,507 | * | * | * | \$1,084 | \$1,096 | \$1,038 |
| 35 to 44 | 482,072 | 369,207 | 112,865 | 3.00\% | 3.40\% | * | \$968 | \$945 | \$1,077 |
| -- Less than a high school diploma | 39,015 | 36,050 | 2,965 | * | * | * | \$600 | \$590 | * |
| -- High school graduates, no college | 135,559 | 116,528 | 19,031 | * | * | * | \$865 | \$850 | \$1,200 |
| -- Some college, no degree | 72,022 | 59,266 | 12,756 | * | * | * | \$822 | \$820 | \$865 |
| -- Associate's degree | 52,085 | 32,263 | 19,822 | * | * | * | \$908 | \$931 | \$846 |
| -- Bachelor's degree only | 109,069 | 81,830 | 27,240 | * | * | * | \$1,115 | \$1,104 | \$1,100 |
| -- Advanced degree | 74,321 | 41,516 | 32,804 | * | * | * | \$1,364 | \$1,346 | \$1,374 |

AL Certifications and Licenses Data
Table 10. Unemployment Rates and Median Weekly Earnings by Age Group, Educational Attainment and Certification and Licensing Status, 2019-2023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

Education by Age

|  | Number of Persons in the Civilian Labor Force |  |  | Unemployment Rate |  |  | Median Weekly Earnings, Full-Time Employed Wage and Salary Workers Only |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Age | Total | Without License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification |
| 45 to 54 | 469,590 | 343,771 | 125,820 | 2.50\% | 2.70\% | * | \$950 | \$901 | \$1,058 |
| -- Less than a high school diploma | 26,212 | 21,593 | 4,620 | * | * | * | \$570 | \$500 | * |
| -- High school graduates, no college | 142,719 | 122,172 | 20,547 | * | * | * | \$860 | \$832 | \$962 |
| -- Some college, no degree | 73,373 | 57,744 | 15,629 | * | * | * | \$865 | \$841 | \$901 |
| -- Associate's degree | 60,848 | 38,325 | 22,523 | * | * | * | \$860 | \$831 | \$962 |
| -- Bachelor's degree only | 99,561 | 69,495 | 30,066 | * | * | * | \$1,192 | \$1,124 | \$1,250 |
| -- Advanced degree | 66,876 | 34,047 | 32,828 | * | * | * | \$1,250 | \$1,212 | \$1,250 |
| 55 to 64 | 372,127 | 282,235 | 89,892 | 2.40\% | * | * | \$942 | \$912 | \$1,032 |
| -- Less than a high school diploma | 19,076 | 15,208 | 3,869 | * | * | * | \$620 | \$615 | * |
| -- High school graduates, no college | 121,707 | 102,903 | 18,805 | * | * | * | \$867 | \$850 | \$988 |
| -- Some college, no degree | 59,423 | 47,876 | 11,547 | * | * | * | \$910 | \$920 | \$1,019 |
| -- Associate's degree | 53,386 | 37,087 | 16,299 | * | * | * | \$892 | \$876 | \$961 |
| -- Bachelor's degree only | 73,947 | 52,234 | 21,713 | * | * | * | \$1,160 | \$1,160 | \$1,160 |
| -- Advanced degree | 44,587 | 25,943 | 18,645 | * | * | * | \$1,269 | \$1,280 | \$1,250 |
| 65 and older | 142,593 | 108,429 | 34,164 | * | * | * | \$716 | \$673 | \$962 |
| -- Less than a high school diploma | 9,190 | 7,152 | 2,038 | * | * | * | \$577 | \$550 | * |
| -- High school graduates, no college | 36,816 | 32,652 | 4,163 | * | * | * | \$541 | \$540 | * |
| -- Some college, no degree | 24,780 | 20,004 | 4,775 | * | * | * | \$650 | \$640 | * |
| -- Associate's degree | 15,022 | 9,327 | 5,695 | * | * | * | \$750 | \$694 | \$807 |
| -- Bachelor's degree only | 29,266 | 21,491 | 7,775 | * | * | * | \$865 | \$920 | \$923 |
| -- Advanced degree | 27,831 | 16,123 | 11,708 | * | * | * | \$1,040 | \$962 | \$1,384 |

AL Certifications and Licenses Data
Table 11. Unemployment Rates and Median Weekly Earnings by Race and Hispanic Origin, Educational Attainment and Certification and Licensing Status, 20192023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Race

|  | Number of Persons in the Civilian Labor Force |  |  | Unemployment Rate |  |  | Median Weekly Earnings, Full-Time Employed Wage and Salary Workers Only |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Race | Total | Without License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification |
| White | 1,399,789 | 1,031,951 | 367,838 | 2.50\% | 2.80\% | * | \$960 | \$915 | \$1,068 |
| -- Less than a high school diploma | 87,067 | 77,370 | 9,698 | * | * | * | \$665 | \$640 | * |
| -- High school graduates, no college | 387,699 | 330,005 | 57,694 | 3.30\% | 3.60\% | * | \$885 | \$865 | \$1,010 |
| -- Some college, no degree | 217,494 | 176,049 | 41,445 | 3.80\% | * | * | \$846 | \$830 | \$920 |
| -- Associate's degree | 166,258 | 103,014 | 63,243 | * | * | * | \$860 | \$865 | \$846 |
| -- Bachelor's degree only | 338,070 | 239,528 | 98,542 | * | * | * | \$1,097 | \$1,080 | \$1,154 |
| -- Advanced degree | 203,201 | 105,839 | 97,362 | * | * | * | \$1,212 | \$1,200 | \$1,269 |
| Black or African American | 496,651 | 408,515 | 88,136 | 4.30\% | 4.60\% | * | \$773 | \$761 | \$933 |
| -- Less than a high school diploma | 25,286 | 21,998 | 3,288 | * | * | * | \$500 | \$480 | * |
| -- High school graduates, no college | 192,651 | 173,846 | 18,805 | 5.40\% | * | * | \$720 | \$709 | \$796 |
| -- Some college, no degree | 90,445 | 74,305 | 16,140 | * | * | * | \$740 | \$720 | \$825 |
| -- Associate's degree | 65,559 | 46,757 | 18,802 | * | * | * | \$769 | \$760 | \$807 |
| -- Bachelor's degree only | 78,747 | 63,486 | 15,261 | * | * | * | \$948 | \$937 | \$1,057 |
| -- Advanced degree | 43,963 | 25,996 | 17,968 | * | * | * | \$1,154 | \$1,210 | \$1,150 |
| Asian | 30,431 | 23,597 | 6,834 | * | * | * | \$1,153 | \$1,154 | \$1,000 |
| -- Less than a high school diploma | * | * | * | * | * | * | * | * | * |
| -- High school graduates, no college | * | * | * | * | * | * | * | * | * |
| -- Some college, no degree | * | * | * | * | * | * | * | * | * |
| -- Associate's degree | * | * | * | * | * | * | * | * | * |
| -- Bachelor's degree only | 10,201 | 8,097 | 2,103 | * | * | * | \$1,269 | * | * |
| -- Advanced degree | 10,451 | * | * | * | * | * | * | * | * |

AL Certifications and Licenses Data
Table 11. Unemployment Rates and Median Weekly Earnings by Race and Hispanic Origin, Educational Attainment and Certification and Licensing Status, 20192023 five-year average
Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Race

|  | Number of Persons in the Civilian Labor Force |  |  | Unemployment Rate |  |  | Median Weekly Earnings, Full-Time Employed Wage and Salary Workers Only |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Race | Total | Without License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification |
| Hispanic or Latino | 93,519 | 81,424 | 12,095 | * | * | * | \$803 | \$770 | \$923 |
| -- Less than a high school diploma | 27,284 | 24,974 | 2,309 | * | * | * | \$595 | \$600 |  |
| -- High school graduates, no college | 26,843 | 23,455 | 3,388 | * | * | * | \$770 | \$769 |  |
| -- Some college, no degree | * | * | * | * | * | * | * | * | * |
| -- Associate's degree | * | * | * | * | * | * | * | * |  |
| -- Bachelor's degree only | 15,291 | 11,362 | 3,929 | * | * | * | \$962 | \$960 |  |
| -- Advanced degree | * | * | - | * | * | * | * | * | * |
| Non-Hispanic | 1,875,052 | 1,411,928 | 463,124 | 2.90\% | 3.30\% | 1.90\% | \$901 | \$861 | \$1,035 |
| -- Less than a high school diploma | 90,524 | 79,995 | 10,529 | * | * | * | \$640 | \$625 | \$830 |
| -- High school graduates, no college | 568,134 | 490,103 | 78,032 | 4.00\% | 4.30\% | * | \$810 | \$793 | \$960 |
| -- Some college, no degree | 308,398 | 250,701 | 57,697 | 3.70\% | 4.10\% | * | \$810 | \$789 | \$875 |
| -- Associate's degree | 233,566 | 149,646 | 83,919 | * | * | * | \$846 | \$830 | \$840 |
| -- Bachelor's degree only | 421,108 | 305,567 | 115,540 | * | * | * | \$1,084 | \$1,058 | \$1,136 |
| -- Advanced degree | 253,323 | 135,758 | 117,565 | * | * | * | \$1,210 | \$1,188 | \$1,248 |

AL Certifications and Licenses Data
Table 12. Unemployment Rates and Median Weekly Earnings by Sex and Educational Attainment, 2019-2023 five-year average Cells with an asterisk * indicate suppressed/undisclosed values.

## Education by Sex

|  | Number of Persons in the Civilian Labor Force |  |  | Unemployment Rate |  |  | Median Weekly Earnings, Full-Time Employed Wage and Salary Workers Only |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Education by Sex | Total | Without License or Certification | With License or Certification | Total | Without <br> License or Certification | With License or Certification | Total | Without License or Certification | With License or Certification |
| Total | 1,968,571 | 1,493,531 | 475,040 | 2.90\% | 3.30\% | 1.90\% | \$900 | \$856 | \$1,031 |
| -- Less than a high school diploma | 117,807 | 106,639 | 11,169 | * | * | * | \$700 | \$692 | \$830 |
| -- High school graduates, no college | 594,977 | 515,224 | 79,754 | 4.00\% | 4.30\% | * | \$884 | \$870 | \$1,003 |
| -- Some college, no degree | 316,538 | 256,986 | 59,552 | 3.80\% | 4.10\% | * | \$875 | \$865 | \$950 |
| -- Associate's degree | 240,292 | 154,257 | 86,035 | * | * | * | \$923 | \$906 | \$923 |
| -- Bachelor's degree only | 436,399 | 318,073 | 118,326 | * | * | * | \$1,124 | \$1,104 | \$1,192 |
| -- Advanced degree | 262,557 | 142,181 | 120,376 | * | * | * | \$1,308 | \$1,320 | \$1,307 |
| - Men | 1,043,193 | 812,623 | 230,570 | 2.80\% | 3.10\% | * | \$1,094 | \$1,058 | \$1,238 |
| --- Less than a high school diploma | 79,091 | 70,126 | 8,964 | * | * | * | \$800 | \$770 | \$880 |
| --- High school graduates, no college | 352,803 | 294,636 | 58,166 | 3.50\% | 3.90\% | * | \$990 | \$962 | \$1,070 |
| --- Some college, no degree | 161,817 | 129,958 | 31,859 | * | * | * | \$1,020 | \$985 | \$1,136 |
| --- Associate's degree | 111,244 | 76,853 | 34,391 | * | * | * | \$1,120 | \$1,093 | \$1,058 |
| --- Bachelor's degree only | 215,799 | 166,596 | 49,203 | * | * | * | \$1,288 | \$1,231 | \$1,352 |
| --- Advanced degree | 122,441 | 74,182 | 48,258 | * | * | * | \$1,461 | \$1,442 | \$1,500 |
| - Women | 925,378 | 680,908 | 244,470 | 3.10\% | 3.50\% | * | \$865 | \$817 | \$997 |
| --- Less than a high school diploma | 38,717 | 35,690 | 3,027 | * | * | * | \$500 | \$485 | * |
| --- High school graduates, no college | 242,174 | 220,587 | 21,587 | 4.70\% | 4.90\% | * | \$742 | \$730 | \$750 |
| --- Some college, no degree | 154,721 | 127,028 | 27,693 | * | * | * | \$760 | \$760 | \$769 |
| --- Associate's degree | 129,048 | 77,404 | 51,644 | * | * | * | \$780 | \$760 | \$800 |
| --- Bachelor's degree only | 220,600 | 151,477 | 69,123 | * | * | * | \$1,058 | \$1,019 | \$1,115 |
| --- Advanced degree | 140,117 | 67,999 | 72,118 | * | * | * | \$1,187 | \$1,153 | \$1,188 |

## STATE CERTIFICATIONS AND LICENSES, 2019-2023

## Why do certifications and licenses matter?

Non-degree credentials offer a lot of promise for helping jobseekers adapt to rapid technological change and companies hire workers with up-to-date skills. They are often less expensive and quicker to obtain than a degree, and can impart specific, in-demand skill sets.

The State Certifications and Licenses Data were developed to provide a baseline for understanding the impact that certifications and licenses have on employment and earnings across occupations, industries, and demographics. With this data, local and state practitioners in economic development, workforce development, and education can understand existing labor market conditions, helping them development effective policies and programs to meet the employment and education needs of their constituents.

## What are the State Certifications and Licenses Data?

The Labor Market Information (LMI) Institute produces the State Certifications and Licenses Data based on questions included in the Current Population Survey (CPS) that measure the prevalence of certifications and licenses. The Bureau of Labor Statistics (BLS) publishes seven tables reflecting national level data (https://www.bls.gov/cps/certifications-andlicenses.htm) every April. The State Certifications and Licenses Data capture the prevalence of certifications and licenses in each state and the nation. They include twelve tables - state level replicas of the seven tables BLS produces at the national level and five bonus tables with additional breakdowns by occupation, industry, education, race, and sex. The data provide insights about the relationship between the attainment of credentials, median weekly earnings, and the probability of employment.

## Methodology

The State Certifications and Licenses Data Tables measure the prevalence of certifications and licenses in each state. The data allows analysts to examine the relationship between certifications/licenses and various demographic, occupational, industrial, wage, and labor force outcomes. To produce state estimates, the LMI Institute combines CPS microdata associated with certifications, licenses, and other relevant variables for five years (2016 through 2020). Combining five years provides a sample of a sufficient size to estimate the prevalence of certifications and licensures for each state.

To generate estimates on certification and licensure status, we make use of two key CPS questions. The first asks if a respondent currently holds a professional certification or state or industry license (not including business licenses like liquor licenses). This first question allows us to segment the population into people with at least a certification or a license and people with neither a certification nor a license. The second question is asked only to respondents who answered positively to the first and asks if any of their certifications or licenses were issued by a federal, state, or local government. This question serves as a proxy for licensure status and allows us to further split the population into people with no license but a certification, and people with at least one license and possibly one or more certifications. Because there is no question isolating licensure status from certification status, we cannot say for certain how many people hold only a license, but we are able to say how many people hold only a certificate.

## The State Certifications and Licenses Data Tables

The LMI Institute produces twelve tables. The first seven tables are state-level versions of the seven tables produced by the BLS, while the additional five tables were created by the LMI Institute:

Table 1. Certification and licensing status of the civilian noninstitutional population 16 years and over by employment status.

Table 2. Employment status of the civilian non-institutional population by certification and licensing status and selected characteristics.

Table 3. Certification and licensing status of employed persons 16 years and over by selected characteristics.
Table 4. Certification and licensing status of the employed by industry and class of worker.
Table 5. Certification and licensing status of the employed by occupation.
Table 6. Median weekly earnings of full-time wage and salary workers by certification and licensing status and selected characteristics.

Table 7. Median weekly earnings of full-time wage and salary workers by certification and licensing status and occupation.

Table 8. Median weekly earnings of full-time wage and salary workers by certification and licensing status and major industry.
Table 9. Unemployment Rates and Median Weekly Earnings by Occupational Groups, Educational Attainment and Certification and Licensing Status.

Table 10. Unemployment Rates and Median Weekly Earnings by Age Group, Educational Attainment and Certification and Licensing Status.

Table 11. Unemployment Rates and Median Weekly Earnings by Race and Hispanic Origin, Educational Attainment and Certification and Licensing Status.

Table 12. Unemployment Rates and Median Weekly Earnings by Sex and Educational Attainment.

## Preferred Citation

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## DATA REQUESTS and OTHER QUESTIONS

Please use our website or direct requests for data to the LMI Institute at 703-522-4983 or https://www.Imiontheweb.org/state-certifications-and-licenses-data/.

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