IOWA WORKFORCE DEVELOPMENT

IOWA'S

STEM JOBS

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STEM OCCUPATIONS BY GROUP

| | E | mployment ^{[1} | | \$ | \$ ^[2] | | Career Preparation[3] | | | | | | | | | | | |
|---|----------------|-------------------------|------------------|----------------|-------------------|----------|-----------------------|----------|-----------|------------|------------|-----------|-----------|----------|---------|-------|----|-------|
| Occupational Title | | | Annual Growth | 2014 | 2014 | | Work | Job | | | | | Тор | Skills | [4] | | | |
| Coolpanolia Inio | 2012 Est | 2022 Proj | Rate (%) | Mean Wage | Mean Salary | Educ | Ехр | Training | | | (L | R in | order | of sig | Inifica | ance) | | |
| Total, All Occupations | 1,758,205 | 1,955,480 | 1.1 | 19.35 | 40,241 | | | | | | | | | | | | | |
| Management Occupations | 161,915 | 160,970 | -0.1 | 41.59 | | | | | | | | | | | | | | |
| Computer & Information Systems Managers | 2,310 | 2,805 | 2.1 | | 111,404 | BA | > 5 | N | B7 | B2 | B3 | C1 | B6 | B10 | D40 | | | |
| Financial Managers | 5,540 | 6,430 | 1.6 | 51.28 38.87 | 106,656 80,844 | BA | > 5 > 5 | N | C1 SO1 | B3 I B2 | B2 B6 | B7 R3 | SY1 R4 | 1 B9 | B10 | | | |
| Industrial Production Managers Construction Managers | 2,205 3,300 | 2,300 4,010 | 0.4 2.2 | 35.55 | 73,944 | BA BA | > 5 N | N M | R4 | B2 | B3 | R3 | B9 | | | | | |
| Architectural & Engineering Managers | 1,300 | 1,395 | 0.7 | | 111,723 | BA | > 5 | N | B2 | B7 | B9 | B10 | | SO1 | R3 | В6 | Т6 | R4 |
| Business & Financial Operations Occupations | 76,000 | 87,095 | 1.5 | 28.79 | 59,882 | | | | 1 | | | | | | | | | |
| Compliance Officers | 1,935 | 2,155 | 1.1 | 29.26 | 60,863 | BA | N | M | B1 | В3 | B9 | C1 | B7 | | | | | |
| Cost Estimators | 2,085 | 2,505 | 2.0 | 27.55 | 57,300 | BA | N | N | B5 | B3 | B9 | B2 | SY1 | 1 | | | | |
| Logisticians | 560 | 700 | 2.6 | 30.08 | 62,570 | BA | N | N | B3 | B2 | C1 | B6 | B7 | | | | | |
| Accountants & Auditors | 13,325 | 15,540 | 1.7 | 29.90 | 62,184 | BA | N | N | B2 | B5 | B7 | B10 | | DO | | | | |
| Credit Analysts | 720 1,935 | 845 2,275 | 1.7 1.8 | 31.84 36.36 | 66,221 75,632 | BA BA | N N | N N | B3 B3 | B1 B7 | B2 B10 | SY1 B2 | B7 C1 | В9 | | | | |
| Financial Analysts Personal Financial Advisors | 1,605 | 2,273 | 3.3 | 37.47 | 77,937 | BA | N | N N | B3 | B9 | B7 | SY1 | |) | | | | |
| Insurance Underwriters | 1,815 | 1,875 | 0.3 | 29.28 | 60,896 | BA | N | M | B2 | SY1 | | B3 | B9 | , | | | | |
| Computer & Mathematical Occupations | 33,470 | 40,560 | 2.1 | 33.20 | 69,050 | 5,1 | | ••• | 1 | 0 | ٥. | | | | | | | |
| Computer Systems Analysts | 5,260 | 6,910 | 3.1 | 37.18 | 77,326 | BA | N | N | В3 | B2 | B7 | В9 | SY2 | 2 | | | | |
| Information Security Analysts | 1,945 | 2,800 | 4.4 | 34.32 | 71,377 | BA | < 5 | N | В7 | B3 | C1 | В9 | B2 | B10 | | | | |
| Computer Programmers | 3,910 | 4,465 | 1.4 | 31.03 | 64,548 | BA | N | N | T7 | B7 | C1 | В3 | B2 | T8 | | | | |
| Software Developers, Applications | 3,835 | 4,510 | 1.8 | 36.90 | 76,749 | BA | N | N | C1 | T7 | SY2 | | | 3 | | | | |
| Software Developers, Systems Software | 2,820 | 3,350 | 1.9 | 43.64 | 90,778 | BA | N | N | B3 | B2 | T7 | B7 | C1 | - | | | | |
| Web Developers | 860 | 1,005 | 1.7 | 28.86 | 60,028 | AS | N | N | T7 | B3 | T6 | B2 | C1 | B7 | | | | |
| Database Administrators | 735 | 860 | 1.7 | 35.19 | 73,192 | BA | < 5 | N | C1 | B3 | B6 | B1 | B2 | B7 | CV | , | | |
| Network & Computer Systems Administrators Computer Network Architects | 3,220 785 | 3,640 925 | 1.3 1.8 | 30.94 44.61 | 64,362 92,779 | BA BA | N > 5 | N N | B3 B2 | B7 T6 | SY2 SY2 | | SY1 | 1 B6 | SY3 | • | | |
| Computer User Support Specialists | 4,850 | 5,980 | 2.3 | 19.53 | 40,632 | SC | N | M | B2 | B9 | B7 | B3 | B10 |) | | | | |
| Computer Network Support Specialists | 1,595 | 1,690 | 0.6 | 24.85 | 51,696 | AS | N | N | N.A. | | | | | | | | | |
| Actuaries | 540 | 750 | 3.9 | 45.00 | 93,595 | BA | N | Ĺ | B5 | B3 | SY1 | | B7 | | | | | |
| Operations Research Analysts | 770 | 980 | 2.7 | 35.37 | 73,580 | BA | N | N | ВЗ | B5 | C1 | В7 | SY1 | 1 SY2 | SY3 | 3 | | |
| Architecture & Engineering Occupations | 18,715 | 20,165 | 0.8 | 31.38 | 65,262 | | | | • | | | | | | | | | |
| Architects, Ex Landscape & Naval | 935 | 1,140 | 2.1 | 33.02 | 68,690 | BA | N | ı | B2 | B3 | C1 | B9 | SY1 | | | | | |
| Civil Engineers | 1,690 | 2,025 | 2.0 | 37.53 | 78,053 | BA | N | N | C1 | В3 | SY1 | | T6 | В7 | | | | |
| Electrical Engineers | 1,335 | 1,400 | 0.5 | 35.75 | 74,367 | BA | N | N | B3 | B7 | B2 | C1 | B10 | | | | | |
| Industrial Engineers | 2,330 | 2,500 | 0.7 | 33.86 | 70,438 | BA | N | N | B7 | B2 | C1 | B3 | B10 | | | | | |
| Mechanical Engineers | 2,420 | 2,605 | 0.8 | 34.03 27.15 | 70,784 56,473 | BA AS | N N | N N | C1 C1 | B3 B7 | B2 R4 | SY1 B2 | B5 B3 | B7 B9 | | | | |
| Electrical & Electronics Engineering Technicians Industrial Engineering Technicians | 1,225 665 | 1,220 710 | 0.0 0.7 | 22.39 | 46,572 | AS | N | N | B3 | C1 | B6 | B2 | B7 | БЭ | | | | |
| Life, Physical, & Social Science Occupations | 12,490 | 13,850 | 1.1 | 26.96 | 56,083 | 7.5 | 14 | IN | lps | Ci | ь | DZ | D1 | | | | | |
| Soil & Plant Scientists | 1,495 | 1,745 | 1.7 | 33.75 | 70,191 | ВА | N | N | B8 | B2 | В3 | В9 | SY1 | 1 B7 | | | | |
| Medical Scientists, Ex Epidemiologists | 585 | 655 | 1.2 | 27.84 | 57,910 | DP | N | N | B8 | В3 | B7 | C1 | В9 | | | | | |
| Chemists | 475 | 540 | 1.4 | 32.11 | 66,799 | BA | N | N | В8 | B7 | B2 | В3 | C1 | B9 | | | | |
| Environmental Scientists & Specialists, Incl Health | 775 | 890 | 1.5 | 31.28 | 65,053 | BA | N | N | B8 | B3 | B7 | B9 | B2 | B10 | | | | |
| Clinical, Counseling, & School Psychologists | 1,370 | 1,505 | 0.9 | 35.31 | 73,445 | DP | N | - 1 | B2 | B7 | SO | | B10 | | | | | |
| Agricultural & Food Science Technicians | 1,075 | 1,175 | 0.9 | 15.94 | 33,146 | AS | N | М | B7 | B3 | B10 | | C1 | SO1 | B9 | | | |
| Biological Technicians | 740 | 775 | 0.5 | 19.32 | 40,183 | BA | N | N | B7 | B2 | B3 | B8 | C1 | | | | | |
| Chemical Technicians Environmental Science/Protection Techs, Incl Health | 585 440 | 635 | 0.9 | 20.66 19.50 | 42,971 40,565 | AS AS | N N | M N | B8 B7 | B7 B2 | B3 C1 | B6 B9 | B10 | | | | | |
| Forest & Conservation Technicians | 535 | 550 545 | 2.4 0.3 | 20.12 | 41,842 | AS | N N | N N | B3 | B2 B2 | B7 | SY1 | | , | | | | |
| Construction & Extraction Occupations | 75,710 | 93,145 | 2.3 | 19.83 | 41,243 | 7.0 | 14 | 14 | 155 | عد | יכ | 511 | ور | | | | | |
| Electricians | 7,350 | 8,830 | 2.0 | 22.55 | 46,897 | HS | N | Α | T11 | Т9 | B2 | В3 | T5 | Т8 | | | | |
| Plumbers, Pipefitters, & Steamfitters | 6,290 | 7,745 | 2.3 | 22.51 | 46,826 | HS | N | | SO1 | | В3 | T5 | B2 | | В6 | В9 | | |
| Installation, Maintenance, & Repair Occupations | 68,585 | 76,810 | 1.2 | 20.01 | 41,631 | 1 | | | | | | | | | | | | |
| Computer, Automated Teller, & Office Machine Repairers | 1,805 | 1,980 | 1.0 | 17.60 | 36,609 | SC | N | N | T5 | В3 | T4 | T8 | B2 | | | | | |
| Telecom Equip Installers/Repairers, Ex Line Installers | 2,355 | 2,405 | 0.2 | 25.83 | 53,737 | PS | N | M | T5 | T8 | T11 | | C1 | B3 | T1 | Т9 | | |
| Automotive Service Technicians & Mechanics | 9,795 | 10,875 | 1.1 | 18.11 | 37,670 | | N | L. | T1 | T9 | T11 | T2 | T8 | | | | | |
| Farm Equipment Mechanics & Service Technicians | 1,965 | 2,100 | 0.7 | 17.73 | 36,885 | HS | N | L | T9 | T1 | T11 | | B3 | T4 | T5 | Б. | | |
| Control & Valve Installers & Repairers, Ex Mechanical Door | 565 | 580 | 0.3 | 24.52 | | HS | N | М | B3 | T5 | T4 | B2 | C1 | T1 | SY1 | В6 | | |
| Heating, A C, & Refrigeration Mechanics & Installers Electrical Power-Line Installers & Repairers | 3,235 1,620 | 4,015 1,730 | 2.4 0.7 | 22.29 27.65 | 46,366 57,504 | PS HS | N N | L L | T3 B2 | T11 B6 | T9 B3 | T1 T11 | T5 B1 | C1 | QV1 | T4 | TE | T8 T9 |
| Telecommunications Line Installers & Repairers Telecommunications Line Installers & Repairers | 1,180 | 1,730 | 1.4 | 20.61 | 42,870 | HS | N N | | B2 | B3 | T4 | T5 | T11 | | JII | 14 | 13 | 10 18 |
| Installation, Maintenance, & Repair Wkrs, All Other | 2,375 | 2,510 | 0.6 | 17.60 | 36,611 | HS | N | M | ٦ | 20 | | | | | | | | |
| Production Occupations | 161,460 | 173,485 | 0.7 | 16.07 | | | ., | | • | | | | | | | | | |
| Computer-Controlled Machine Tool Operators, Metal/Plastic | 2,780 | 3,335 | 2.0 | 18.00 | 37,449 | HS | N | М | В6 | T5 | ВЗ | T8 | T4 | | | | | |
| Welders, Cutters, Solderers, & Brazers | 8,330 | 9,010 | 0.8 | 16.85 | | HS | N | | B3 | B2 | B6 | SY1 | | T5 | | | | |
| Welding/Soldering/Brazing Machine Setters/Operators | 1,595 | 2,005 | 2.6 | 17.72 | | HS | | M | T5 | B2 | В3 | В6 | T4 | В9 | | | | |
| Power Plant Operators | 665 | 620 | -0.7 | 31.19 | | HS | | | T5 | B2 | В3 | В9 | T4 | T8 | | | | |
| Water & Wastewater Treatment Plant & System Operators | 1,970 | 2,130 | 0.8 | 19.76 | 41,103 | HS | | L | T4 | T5 | B6 | T8 | B2 | T1 | B7 | T11 | | |
| Chemical Plant & System Operators | 910 | 970 | 0.6 | 23.09 | 48,025 | HS | | L | T5 | T4 | B6 | T8 | В3 | | | | | |
| Chemical Equipment Operators & Tenders | 695 | 745 | 0.7 | 20.54 | 42,729 | HS | N | M | T5 | T4 | B6 | B2 | В3 | SY1 | В7 | | | |

STEM OCCUPATIONS BY GROUP

| |] | \$ | [2] | Care | | | | | | | | | | | | | | |
|---|-------------------------|-------------------------|---------------------------------|-----------------------|-------------------------|--------------|-------------|-----------------|-----------------|---|-----------|--------------|----------|------------|------------|-----|----|-----|
| Occupational Title | 2012 Est | 2022 Proj | Annual Growth Rate (%) | 2014 Mean Wage | 2014 Mean Salary | Educ | Work Exp | Job Training | | Top Skills ^[4] (L-R in order of significance) | | | | | | | | |
| Healthcare Practitioners & Technical Occupations | 84,995 | 100,885 | 1.9 | 31.97 | 66,503 | | | | | | | | | | | | | |
| Chiropractors | 985 | 1,145 | 1.6 | 37.08 | 77,117 | DP | N | N | B2 | B7 | B3 | B9 | C1 | R4 | | | | |
| Dentists, General | 1,495 | 1,725 | 1.5 | 82.50 | 171,607 | DP | N | N | B3 | SY1 | B2 | B6 | SO6 | B9 | | | | |
| Dietitians & Nutritionists | 745 | 895 | 2.0 | 25.27 | 52,570 | BA | N | 1 | B2 | B9 | B10 | B3 | SO1 | B7 | SO6 | | | |
| Optometrists | 555 | 665 | 2.1 | 61.51 | 127,947 | DP | N | N | B8 | B2 | B3 | B9 | SO1 | B7 | SO5 | | | |
| Pharmacists | 3,160 | 3,615 | 1.4 | 49.21 | 102,350 | DP | N | N | B2 | B7 | B1 | B3 | B9 | | | | | |
| Family & General Practitioners | 2,275 | 2,560 | 1.3 | 102.19 | 212,549 | DP | N | 1 | B2 | B3 | B9 | B8 | SO6 | | | | | |
| Physician Assistants | 725 | 955 | 3.2 | 43.31 | 90,094 | MA | N | N | B2 | В3 | B9 | B7 | SY1 | B6 | SO6 | | | |
| Occupational Therapists | 855 | 1,120 | 3.1 | 35.29 | 73,404 | MA | N | N | B2 | B7 | B9 | B3 | SO5 | SO6 | | | | |
| Physical Therapists | 1,700 | 2,240 | 3.2 | 38.88 | 80,875 | DP | N | N | B2 | B9 | B7 | B3 | SO6 | R4 | | | | |
| Respiratory Therapists | 920 | 1,065 | 1.6 | 24.57 | 51,113 | AS | N | N | B2 | В3 | B6 | B9 | B1 | SO5 | SO6 | | | |
| Speech-Language Pathologists | 1,055 | 1,255 | 1.9 | 32.26 | 67,098 | MA | N | N | B2 | SO6 | B9 | B3 | B7 | B10 | | | | |
| Veterinarians | 1,520 | 1,700 | 1.2 | 38.81 | 80,719 | DP | N | N | B8 | B2 | ВЗ | В9 | SY1 | В7 | | | | |
| Registered Nurses | 32,490 | 38,125 | 1.7 | 25.73 | 53,524 | AS | N | N | SO6 | | SO1 | В9 | ВЗ | B7 | SO5 | | | |
| Nurse Practitioners | 720 | 920 | 2.8 | 41.00 | 85,289 | MA | N | N | B2 | B7 | B8 | В9 | В3 | B6 | SO6 | | | |
| Medical & Clinical Laboratory Technologists | 1,650 | 1,820 | 1.0 | 26.10 | 54.295 | BA | N | N | B2 | B8 | В3 | B7 | SY1 | B6 | B9 | | | |
| Medical & Clinical Laboratory Technicians | 1,460 | 1,820 | 2.5 | 19.54 | 40,637 | AS | N | N | B2 | В3 | В7 | B8 | T5 | В9 | | | | |
| Dental Hygienists | 2,035 | 2,575 | 2.7 | 32.31 | 67,195 | AS | N | N | B2 | В9 | ВЗ | В7 | SO6 | | | | | |
| Diagnostic Medical Sonographers | 540 | 780 | 4.4 | 28.45 | 59,167 | AS | N | N | B9 | B2 | B7 | SO6 | B3 | B6 | B8 | R4 | | |
| Radiologic Technologists | 2,590 | 3,030 | 1.7 | 23.13 | 48,113 | AS | N | N | B9 | B2 | T4 | | SO1 | | T5 | SO6 | | |
| Emergency Medical Technicians & Paramedics | 2,245 | 2,605 | 1.6 | 15.89 | 33,044 | PS | N | N | B3 | SO5 | | | B9 | | | 000 | | |
| Pharmacy Technicians | 3.665 | 4,415 | 2.0 | 13.93 | 28,964 | HS | N | M | B2 | B7 | B9 | B3 | SO5 | SO6 | | | | |
| Surgical Technologists | 625 | 780 | 2.5 | 18.38 | 38,236 | PS | N | N | B6 | SO1 | T5 | B2 | B1 | B9 | | | | |
| Veterinary Technologists & Technicians | 640 | 825 | 2.8 | 14.97 | 31,137 | AS | N | N | B3 | B6 | B2 | B9 | SO5 | | | | | |
| Licensed Practical & Licensed Vocational Nurses | 7.630 | 9.215 | 2.1 | 18.38 | 38,224 | PS | N | N | B2 | B9 | B3 | B7 | SO1 | | | | | |
| Medical Records & Health Information Technicians | 2.050 | 2,410 | 1.8 | 16.56 | 34.436 | PS | N | N | B2 | B7 | B9 | B3 | B6 | R4 | | | | |
| Opticians, Dispensing | 945 | 1,145 | 2.1 | 14.07 | 29,264 | HS | N | ï | B9 | B2 | B7 | B1 | B3 | | SO6 | | | |
| Occupational Health & Safety Specialists | 475 | 520 | 0.9 | 29.97 | 62,343 | BA | N | S | B2 | B9 | B3 | C1 | | SO6 | | | | |
| Healthcare Support Occupations | 49.160 | 58.595 | 1.9 | 13.19 | 27,425 | | | J | 102 | Do | DO | 01 | 011 | 000 | DIO | | | |
| Occupational Therapy Assistants | 360 | 520 | 4.4 | 24.84 | 51,659 | AS | N | N | B7 | B2 | SV1 | SO6 | . Ra | R4 | B10 | | | |
| Physical Therapist Assistants | 800 | 1,105 | 3.8 | 22.76 | 47,339 | AS | N | N | B9 | B2 | SO6 | | SO1 | | B7 | B10 | | |
| Physical Therapist Assistants Physical Therapist Aides | 740 | 950 | 2.8 | 12.73 | 26,481 | HS | N | S | B2 | SO5 | | , DO SO5 | | Б | D1 | DIO | | |
| Massage Therapists | 850 | 1,080 | 2.7 | 16.13 | 33.555 | PS | N | N | B2 | B9 | | 5 B3 | SO6 | | | | | |
| Dental Assistants | 2,800 | 3,325 | 1.9 | 17.12 | 35,615 | PS | N | N | B9 | B2 | B7 | , 505 SO5 | | | | | | |
| Medical Assistants | 3,600 | 4,440 | 2.3 | 14.72 | 30,612 | PS | N | N | B2 | B9 | | B6 | B7 | | | | | |
| Medical Transcriptionists | 2,025 | 2,065 | 0.2 | 15.97 | 33,220 | PS | N | N | B2 | B7 | B10 | | R4 | | | | | |
| | 810 | 2,065 855 | 0.2 | 10.16 | 21.125 | HS | N | S | B2 | B6 | B3 | B7 | | SO6 | | | | |
| Veterinary Assistants & Laboratory Animal Caretakers Protective Service Occupations | 22,335 | 24,270 | 0.6 0.9 | 10.16 19.95 | 21,125 41,489 | ПЭ | IN | 5 | ID2 | DO | DJ | D/ | 305 | 306 | | | | |
| • | | | | | 37,457 | DC | K.I | | Ipa | SO4 | DЭ | TE | В6 | T4 | SO- | | | |
| Firefighters Food Preparation & Serving Related Occupations | 1,695 132,020 | 1,805 146,170 | 0.6 1.1 | 18.01 9.53 | 37,457 19,821 | PS | N | L | B2 | SO1 | В3 | T5 | ВО | 14 | SO5 | | | |
| First-Line Supervisors of Food Preparation & Serving Wkrs | 8,415 | | | | 19,821 28.781 | HS | | N | В9 | DΩ | 004 | COF | D2 | В6 | | | | |
| | -, | 9,670 | 1.5 | 13.84 | | HS < HS | < 5 N | N S | R4 | B2 B2 | SO1 B3 | SO5 B6 | R3 B7 | SO5 | | | | |
| Cooks, Institution & Cafeteria | 8,400 | 9,440 | 1.2 | 11.05 | 22,989 | < 115 | N | 5 | I ^{R4} | DZ | DJ | DO | D/ | 305 | | | | |
| Farming, Fishing, & Forestry Occupations | 15,395 | 16,015 | 0.4 | 15.28 | 31,780 | l | | N | Ina | 004 | Da | DO | D4 | | | | | |
| First-Line Supervisors of Farming, Fishing, & Forestry Wkrs | 1,185 | 1,230 | 0.4 | 24.57 | 51,114 | HS | < 5 | N | B2 | SO1 | B3 | B9 | R4 | 0)// | T - | D-7 | Б0 | D.4 |
| Animal Breeders | 535 | 560 | 0.5 | 16.15 | 33,595 | HS | < 5 | S | B6 | B8 | В3 | B2 | C1 | SY1 | 15 | B7 | В9 | K4 |
| Educ, Training, & Library Occupations | 115,965 | 127,835 | 1.0 | 22.12 | 46,008 | | | | In- | D - | | | | D - | . . | | | |
| Business Teachers, Postsecondary | 1,075 | 1,230 | 1.4 | 41.09 | 85,468 | DP | N | N | B9 | B7 | B10 | | | B3 | B4 | | | |
| Biological Science Teachers, Postsecondary | 755 | 890 | 1.9 | 39.52 | 82,205 | DP | N | N | B9 | B4 | B7 | B10 | | SO2 | B8 | | | |
| Nursing Instructors & Teachers, Postsecondary | 790 | 1,070 | 3.5 | 30.71 | 63,875 | MA | < 5 | N | B9 | B7 | B1 | B2 | SO2 | | | | | |
| Arts, Design, Entertainment, Sports, & Media Occs | 26,560 | 29,770 | 1.2 | 18.39 | 38,261 | l | | | | | | | | | | | | |
| Graphic Designers | 2,730 | 3,085 | 1.3 | 18.51 | 38,503 | BA | N | N | B2 | T6 | B9 | B10 | В3 | B7 | | | | |

Legend/Methodology/Selection Criteria:

The acronym **STEM**, as used in this publication, is a combined *occupational group* made up of occupations (residual or undefined occupations were not included) from existing and/or established occupational groups adopted from the Office of Management and Budget's (OMB) Standard Occupational Classification (SOC) Manual. The Occupational Information Network (O*NET) and Iowa Workforce Development determined those occupations having a preponderance of tools and skills from **S**cience, **Technology**, **Engineering**, and/or **M**athematics.

- [1] Employment includes: Estimated = Estimation of labor force by occupation (rounded); **Projected** = Projection of future labor force by occupation (rounded); and **Annual Growth Rate (%)** = Ten year growth rate (not shown) divided by ten.
- [2] Mean (Average) Wage & Salary (\$) = dividing the estimated total pay for an occupation by its weighted employment. Pay provided in wage (hourly) and salary (annual) formats; Missing pay data may be derived from calculation or proration of reported wage/salary data if available (i.e., legislator pay based on 4-months service, education and coaching pay based on 12-months service); Occupations with limited or no compensation data (which inhibits either wage or salary calculated derivations) are subsequently omitted from any methodological calculations.
- [3] Career Preparation determined by the U.S. Department of Labor's Bureau of Labor Statistics (BLS). Alternative employment pathways may exist as well as differing educational, training, or licensing requirements per state. Iowa requirements are used in this publication when available. Career Preparation areas/levels include: Education (typical education level needed to enter an occupation): DP = Doctoral or Professional degree; MA = Master's degree; BA = Bachelor's degree; AS = Associate's degree; PS = Postsecondary non-degree award; SC = Some college, no degree; HS = High school diploma or equivalent; < HS = Less than high school; Work Experience (typical work experience level commonly considered necessary for entry into an occupation, or substitutable for formal types of training): > 5 = 5 years or more; < 5 = Less than 5 years; N = None; and Job Training (typical on-the-job training) level needed to attain occupational competency): I = Internship/residency; A = Apprenticeship; L = Long-term on-the-job training; M = Moderate-term on-the-job training; S = Short-term on-the-job training; None = N.
- [4] Top Skills refers to the the top five (or more if tied) most important skills for a particular occupation as identified by sampled workers' questionaire responses conducted by occupational analysts of the U.S. Department of Labor's Occupational Information Network (O*NET). These include: Basic Skills: B1 = Active Learning; B2 = Active Listening; B3 = Critical Thinking; B4 = Learning Strategies; B5 = Mathematics; B6 = Monitoring; B7 = Reading Comprehension; B8 = Science; B9 = Speaking; B10 = Writing; Complex Problem Solving Skills: C1 = Complex Problem Solving; Resource Management Skills: R1 = Management of Financial Resources; R2 = Management of Personnel Resources; R4 = Time Management; Social Skills: S01 = Coordination; S02 = Instructing; S03 = Negotiation; S04 = Persuasion; S05 = Service Orientation; S06 = Social Perceptiveness; Systems Skills: SY1 = Judgment and Decision Making; SY2 = Systems Analysis; SY3 = Systems Evaluation; and Technical Skills: T1 = Equipment Maintenance; T2 = Equipment Selection; T3 = Installation; T4 = Operation and Control; T5 = Operation Monitoring; T6 = Operations Analysis; T7 = Programming; T8 = Quality Control Analysis; T9 = Repairing; T10 = Technology Design; T11 = Troubleshooting. N.A. = Not Available.

Sources

Education/Work Experience/Job Training: Bureau of Labor Statistics, U.S. Department of Labor; Employment: 2012-2022 Occupational Projections estimates based on 2012 annual industry employment data and 2013 2nd quarter occupational staffing pattern data, Labor Market and Workforce Information Division, Iowa Workforce Development; Skills: Occupational Information Network (O*NET), Employment and Training Administration, U.S. Department of Labor; Wages: 2014 Iowa Wage Survey estimates (based on 2013 2nd quarter occupational wage data updated from 2014 2nd quarter using Employment Cost Index), Labor Market and Workforce Information Division, Iowa Workforce Development.

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