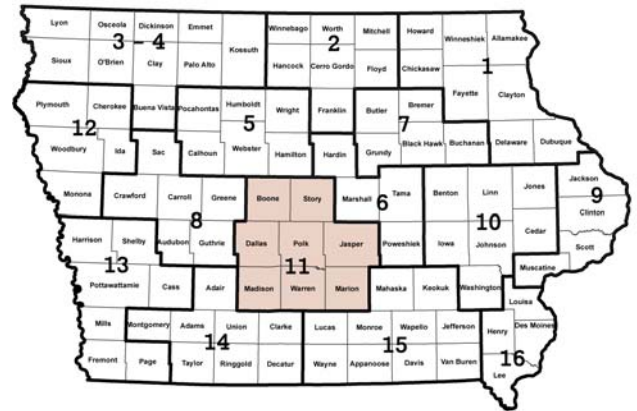
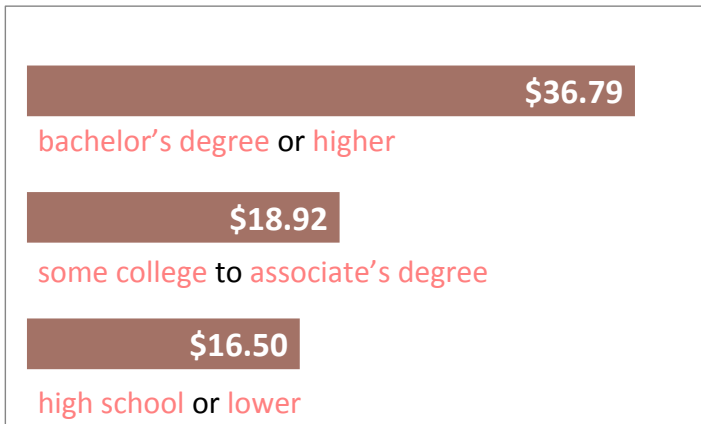


mean hourly wages by education level



fastest growing occupations

bachelor's degree or higher

| Occupational Title | Employment ^[1] | | | Annual Job Openings ^[2] | | | \$ ^[3] | | Career Preparation ^[4] | | | Top Skills ^[5] | | | | | | |
|-----------------------------------|---------------------------|----------------|------------------------|------------------------------------|---------|-------|-------------------|------------------|-----------------------------------|----------|--------------|--------------------------------|----|-----|-----|-----|-----|-----|
| | 2014 Estimated | 2024 Projected | Annual Growth Rate (%) | New | Replace | Total | 2016 Mean Wage | 2016 Mean Salary | Educ | Work Exp | Job Training | (L-R in order of significance) | | | | | | |
| Operations Research Analysts | 220 | 325 | 4.5 | 10 | 5 | 15 | 33.13 | 68,908 | BA | N | N | B3 | B5 | C1 | B7 | SY1 | SY2 | SY3 |
| Interpreters & Translators | 200 | 275 | 3.8 | 5 | 5 | 10 | 17.76 | 36,949 | BA | N | S | B7 | B9 | B2 | B6 | B10 | | |
| Actuaries | 280 | 365 | 3.0 | 10 | 10 | 15 | 47.26 | 98,303 | BA | N | L | B5 | B3 | SY1 | C1 | B7 | | |
| Software Developers, Applications | 2,905 | 3,775 | 3.0 | 85 | 40 | 130 | 41.75 | 86,850 | BA | N | N | C1 | T7 | SY2 | SY1 | SY3 | | |
| Computer Systems Analysts | 3,615 | 4,680 | 2.9 | 105 | 45 | 150 | 39.56 | 82,293 | BA | N | N | B3 | B2 | B7 | B9 | SY2 | | |
| Nurse Practitioners | 310 | 400 | 2.9 | 10 | 5 | 15 | 46.20 | 96,106 | MA | N | N | B2 | B7 | B8 | B9 | B3 | B6 | SO6 |
| Occupational Therapists | 330 | 425 | 2.9 | 10 | 5 | 15 | 36.32 | 75,547 | MA | N | N | B2 | B7 | B9 | B3 | SO5 | SO6 | |
| Personal Financial Advisors | 715 | 915 | 2.8 | 20 | 20 | 40 | 35.38 | 73,600 | BA | N | L | B3 | B9 | B7 | SY1 | B10 | | |
| Physician Assistants | 310 | 385 | 2.6 | 10 | 5 | 15 | 41.57 | 86,463 | MA | N | N | B2 | B3 | B9 | B7 | SY1 | B6 | SO6 |
| Physical Therapists | 490 | 615 | 2.6 | 10 | 15 | 25 | 37.99 | 79,025 | DP | N | N | B2 | B9 | B7 | B3 | SO6 | R4 | |

some college to associate's degree

| | | | | | | | | | | | | | | | | | | |
|---|-------|-------|-----|----|----|----|-------|--------|----|---|---|----|-----|-----|-----|-----|----|-----|
| Occupational Therapy Assistants | 120 | 175 | 4.6 | 5 | 5 | 10 | 25.90 | 53,867 | AS | N | N | B7 | B2 | SY1 | SO6 | B9 | R4 | B10 |
| Physical Therapist Assistants | 195 | 280 | 4.4 | 10 | 5 | 15 | 22.61 | 47,029 | AS | N | N | B9 | B2 | SO6 | B6 | SO1 | B3 | B7 |
| Web Developers | 405 | 555 | 3.6 | 15 | 5 | 20 | 29.62 | 61,602 | AS | N | N | T7 | B3 | T6 | B2 | C1 | B7 | |
| Massage Therapists | 280 | 355 | 2.7 | 10 | * | 10 | 17.20 | 35,770 | PS | N | N | B2 | B9 | SO5 | B3 | SO6 | | |
| Heating, Air Conditioning, & Refrigeration Mechanics & Installers | 1,345 | 1,675 | 2.5 | 35 | 20 | 55 | 24.80 | 51,583 | PS | N | L | T3 | T11 | T9 | T1 | T5 | | |
| Diagnostic Medical Sonographers | 190 | 235 | 2.4 | 5 | 5 | 10 | 30.42 | 63,275 | AS | N | N | B9 | B2 | B7 | SO6 | B3 | B6 | B8 |
| Veterinary Technologists & Technicians | 265 | 325 | 2.3 | 5 | 5 | 10 | 17.03 | 35,413 | AS | N | N | B3 | B6 | B2 | B9 | SO5 | | |
| Computer User Support Specialists | 1,405 | 1,690 | 2.1 | 30 | 20 | 45 | 22.32 | 46,436 | SC | N | N | B2 | B9 | B7 | B3 | B10 | | |
| Medical Assistants | 1,230 | 1,455 | 1.8 | 20 | 25 | 50 | 17.78 | 36,993 | PS | N | N | B2 | B9 | SO6 | B6 | B7 | | |
| Medical & Clinical Laboratory Technicians | 345 | 400 | 1.6 | 5 | 10 | 15 | 19.66 | 40,888 | AS | N | N | B2 | B3 | B7 | B8 | T5 | B9 | |

high school or lower

| | | | | | | | | | | | | | | | | | | |
|---|-------|-------|-----|-----|----|-----|-------|--------|----|----|---|-----|-----|-----|-----|-----|-----|-----|
| Home Health Aides | 1,395 | 1,975 | 4.2 | 60 | 30 | 90 | 12.14 | 25,253 | NE | N | S | B2 | SO5 | B3 | SO6 | B6 | | |
| Personal Care Aides | 3,235 | 4,250 | 3.1 | 100 | 25 | 125 | 11.28 | 23,454 | NE | N | S | SO5 | B2 | SO6 | B3 | B9 | | |
| Industrial Machinery Mechanics | 1,305 | 1,665 | 2.7 | 35 | 35 | 70 | 22.90 | 47,630 | HS | N | L | T9 | T1 | T5 | T11 | T8 | | |
| Helpers--Electricians | 320 | 395 | 2.3 | 5 | 5 | 10 | 15.79 | 32,846 | HS | N | S | B2 | T8 | B3 | T9 | B9 | T11 | |
| Insurance Sales Agents | 1,975 | 2,425 | 2.3 | 45 | 50 | 95 | 25.18 | 52,368 | HS | N | M | B2 | B7 | B9 | B10 | B3 | SO4 | R4 |
| Construction Laborers | 3,165 | 3,875 | 2.3 | 70 | 65 | 135 | 18.44 | 38,357 | NE | N | S | B9 | SO1 | B2 | B3 | T4 | T5 | SO6 |
| Electricians | 2,310 | 2,830 | 2.3 | 50 | 35 | 85 | 26.69 | 55,505 | HS | N | A | T11 | T9 | B2 | B3 | T5 | T8 | |
| Opticians, Dispensing | 315 | 380 | 2.2 | 5 | 10 | 15 | 15.99 | 33,259 | HS | N | L | B9 | B2 | B7 | B1 | B3 | SO5 | SO6 |
| Bus & Truck Mechanics & Diesel Engine Specialists | 995 | 1,210 | 2.1 | 20 | 15 | 40 | 22.35 | 46,489 | HS | N | L | T9 | T11 | T1 | T4 | T5 | | |
| Self-Enrichment Education Teachers | 645 | 775 | 2.0 | 15 | 10 | 25 | 18.67 | 38,837 | HS | <5 | N | B9 | B2 | SO2 | SO6 | B4 | B6 | B7 |
| Loan Interviewers & Clerks | 2,495 | 2,995 | 2.0 | 50 | 40 | 90 | N.A. | N.A. | HS | N | S | B2 | B9 | B7 | B3 | SO6 | B6 | SO5 |

occupations with the most openings

bachelor's degree or higher

| Occupational Title | Employment ^[1] | | | Annual Job Openings ^[2] | | | \$ ^[3] | | Career Preparation ^[4] | | | Top Skills ^[5] | | | | | | |
|---|---------------------------|----------------|------------------------|------------------------------------|---------|-------|-------------------|------------------|-----------------------------------|----------|--------------|--------------------------------|------|------|------|------|----|-----|
| | 2014 Estimated | 2024 Projected | Annual Growth Rate (%) | New | Replace | Total | 2016 Mean Wage | 2016 Mean Salary | Educ | Work Exp | Job Training | (L-R in order of significance) | | | | | | |
| Registered Nurses | 7,980 | 9,325 | 1.7 | 135 | 190 | 320 | 27.25 | 56,675 | BA | N | N | SO6 | B2 | SO1 | B9 | B3 | B7 | SO5 |
| General & Operations Managers | 5,675 | 6,295 | 1.1 | 60 | 145 | 205 | 51.13 | 106,358 | BA | >5 | N | B2 | B7 | B9 | B3 | B6 | | |
| Accountants & Auditors | 4,015 | 4,725 | 1.8 | 70 | 105 | 180 | 31.96 | 66,486 | BA | N | N | B2 | B5 | B7 | B10 | B9 | | |
| Computer Systems Analysts | 3,615 | 4,680 | 2.9 | 105 | 45 | 150 | 39.56 | 82,293 | BA | N | N | B3 | B2 | B7 | B9 | SY2 | | |
| Elementary School Teachers, Ex Special Education | 4,710 | 5,065 | 0.8 | 35 | 105 | 140 | 25.78 | 53,623 | BA | N | I | SO2 | B9 | B4 | B2 | B1 | B6 | SO6 |
| Software Developers, Applications | 2,905 | 3,775 | 3.0 | 85 | 40 | 130 | 41.75 | 86,850 | BA | N | N | C1 | T7 | SY2 | SY1 | SY3 | | |
| Financial Managers | 2,685 | 3,100 | 1.5 | 40 | 65 | 105 | 59.11 | 122,956 | BA | >5 | N | C1 | B3 | B2 | B7 | SY1 | B9 | B10 |
| Secondary School Teachers, Ex Special & Career/Technical Educ | 2,670 | 2,875 | 0.7 | 20 | 65 | 85 | 27.54 | 57,286 | BA | N | I | SO2 | B4 | B9 | B2 | SO1 | B3 | |
| Management Analysts | 2,205 | 2,670 | 2.1 | 45 | 30 | 80 | 39.49 | 82,147 | BA | <5 | N | B2 | B7 | B9 | B3 | C1 | | |
| Loan Officers | 1,950 | 2,285 | 1.7 | 35 | 30 | 65 | 30.28 | 62,986 | BA | N | M | B9 | B2 | SY1 | B7 | B3 | | |
| Soil & Plant Scientists | 1,425 | 1,580 | 1.1 | 15 | 50 | 65 | 35.61 | 74,072 | BA | N | N | B8 | B2 | B3 | B9 | SY1 | B7 | |
| Substitute Teachers | 2,385 | 2,595 | 0.9 | 20 | 45 | 65 | 14.03 | 29,178 | BA | N | I | N.A. | N.A. | N.A. | N.A. | N.A. | | |

some college to associate's degree

| | | | | | | | | | | | | | | | | | | | |
|---|-------|-------|------|-----|-----|-----|-------|--------|----|---|---|-----|-----|-----|----|-----|-----|-----|-----|
| Heavy & Tractor-Trailer Truck Drivers | 7,635 | 8,655 | 1.3 | 100 | 130 | 230 | 21.29 | 44,280 | PS | N | S | T4 | T5 | B6 | B2 | B3 | T8 | | |
| Nursing Assistants | 4,740 | 5,460 | 1.5 | 70 | 105 | 180 | 13.84 | 28,777 | PS | N | N | SO6 | SO5 | B2 | B6 | SO1 | | | |
| Teacher Assistants | 4,630 | 5,065 | 0.9 | 45 | 110 | 155 | 11.11 | 23,103 | SC | N | N | B2 | B9 | SO1 | B6 | SO5 | SO6 | | |
| Automotive Service Technicians & Mechanics | 2,585 | 2,825 | 0.9 | 25 | 70 | 95 | 20.16 | 41,937 | PS | N | S | T1 | T9 | T11 | T2 | T8 | | | |
| Hairdressers, Hairstylists, & Cosmetologists | 2,115 | 2,345 | 1.1 | 25 | 55 | 75 | 15.55 | 32,343 | PS | N | N | B2 | SO5 | B3 | B9 | B1 | SY1 | SO6 | |
| Heating, Air Conditioning, & Refrigeration Mechanics & Installers | 1,345 | 1,675 | 2.5 | 35 | 20 | 55 | 24.80 | 51,583 | PS | N | L | T3 | T11 | T9 | T1 | T5 | | | |
| Licensed Practical & Licensed Vocational Nurses | 1,270 | 1,465 | 1.5 | 20 | 35 | 55 | 19.88 | 41,349 | PS | N | N | B2 | B9 | B3 | B7 | SO1 | SO5 | | |
| Bookkeeping, Accounting, & Auditing Clerks | 5,605 | 5,405 | -0.3 | 0 | 55 | 55 | 17.71 | 36,835 | SC | N | M | B2 | B7 | B9 | B3 | B5 | B6 | R4 | B10 |
| Medical Assistants | 1,230 | 1,455 | 1.8 | 20 | 25 | 50 | 17.78 | 36,993 | PS | N | N | B2 | B9 | SO6 | B6 | B7 | | | |
| Preschool Teachers, Ex Special Education | 1,200 | 1,370 | 1.4 | 15 | 35 | 50 | 12.85 | 26,735 | AS | N | N | B9 | B4 | SO2 | B2 | SO1 | SO6 | | |

high school or lower

| | | | | | | | | | | | | | | | | | | |
|---|--------|--------|-----|-----|-----|-----|-------|--------|----|---|---|----|-----|-----|-----|-----|-----|----|
| Retail Salespersons | 13,310 | 14,575 | 0.9 | 125 | 460 | 585 | 13.32 | 27,702 | NE | N | S | B2 | SO4 | B9 | SO6 | SO3 | SO6 | |
| Cashiers | 9,135 | 9,660 | 0.6 | 55 | 390 | 440 | 9.69 | 20,155 | NE | N | S | B2 | SO5 | B9 | B5 | SO6 | | |
| Combined Food Preparation & Serving Wkrs, Incl Fast Food | 9,395 | 10,710 | 1.4 | 130 | 305 | 435 | 9.00 | 18,723 | NE | N | S | B2 | SO5 | B9 | SO1 | B6 | SO6 | |
| Customer Service Reps | 10,310 | 12,075 | 1.7 | 175 | 255 | 430 | 17.08 | 35,534 | HS | N | S | B2 | B9 | SO5 | SO4 | B7 | | |
| Waiters & Waitresses | 7,585 | 7,980 | 0.5 | 40 | 365 | 405 | 9.18 | 19,095 | NE | N | S | B2 | SO5 | SO6 | B9 | SO1 | | |
| Office Clerks, General | 9,540 | 10,425 | 0.9 | 90 | 205 | 295 | 16.47 | 34,259 | HS | N | S | B2 | B7 | B9 | SO6 | R4 | B10 | |
| Laborers & Freight, Stock, & Material Movers, Hand | 6,855 | 7,625 | 1.1 | 75 | 205 | 280 | 13.40 | 27,882 | NE | N | S | B2 | B3 | T5 | SO1 | B6 | B7 | B9 |
| Janitors & Cleaners, Ex Maids & Housekeeping Cleaners | 7,105 | 7,855 | 1.1 | 75 | 140 | 215 | 11.95 | 24,864 | NE | N | S | B3 | B2 | SO1 | SO6 | B9 | R4 | |
| Stock Clerks & Order Fillers | 4,965 | 5,440 | 1.0 | 50 | 160 | 205 | 12.99 | 27,025 | NE | N | S | B9 | B2 | SO5 | SO6 | SO1 | R4 | |
| Sales Reps, Wholesale & Mfg, Ex Technical & Scientific Products | 5,335 | 5,980 | 1.2 | 65 | 110 | 175 | 33.81 | 70,329 | HS | N | M | B9 | B2 | SO4 | SO6 | B3 | SO3 | |

Legend:

Occupations were selected based on their education level, annual growth rate, total annual openings, and wages (residual or undefined occupations were not included).

[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] Annual Job Openings** include: **New Jobs/Replacements** = Ten year projection (not shown) divided by ten (rounded) and **Total Openings** = Annual New Jobs plus Annual Replacements (rounded). * = Employment data suppression (Occupational employment data may not add up or equal occupational group totals due to rounding and/or suppression of occupations with less than twenty rounded total annual openings.). **[3] 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. **[4] 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; NE = No formal Education credential; **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. **[5] Top Skills** refers to the the top five (or more if tied) most important skills for a particular occupation as identified by sampled workers' questionnaire 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 Material Resources; R3 = Management of Personnel Resources; R4 = Time Management; **Social Skills**: SO1 = Coordination; SO2 = Instructing; SO3 = Negotiation; SO4 = Persuasion; SO5 = Service Orientation; SO6 = 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**: 2014-2024 Occupational Projections estimates based on 2014 annual industry employment data and 2015 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**: 2016 Iowa Wage Survey estimates (based on 2015 2nd quarter occupational wage data updated to 2016 2nd quarter using Employment Cost Index), Labor Market and Workforce Information Division, Iowa Workforce Development.

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