

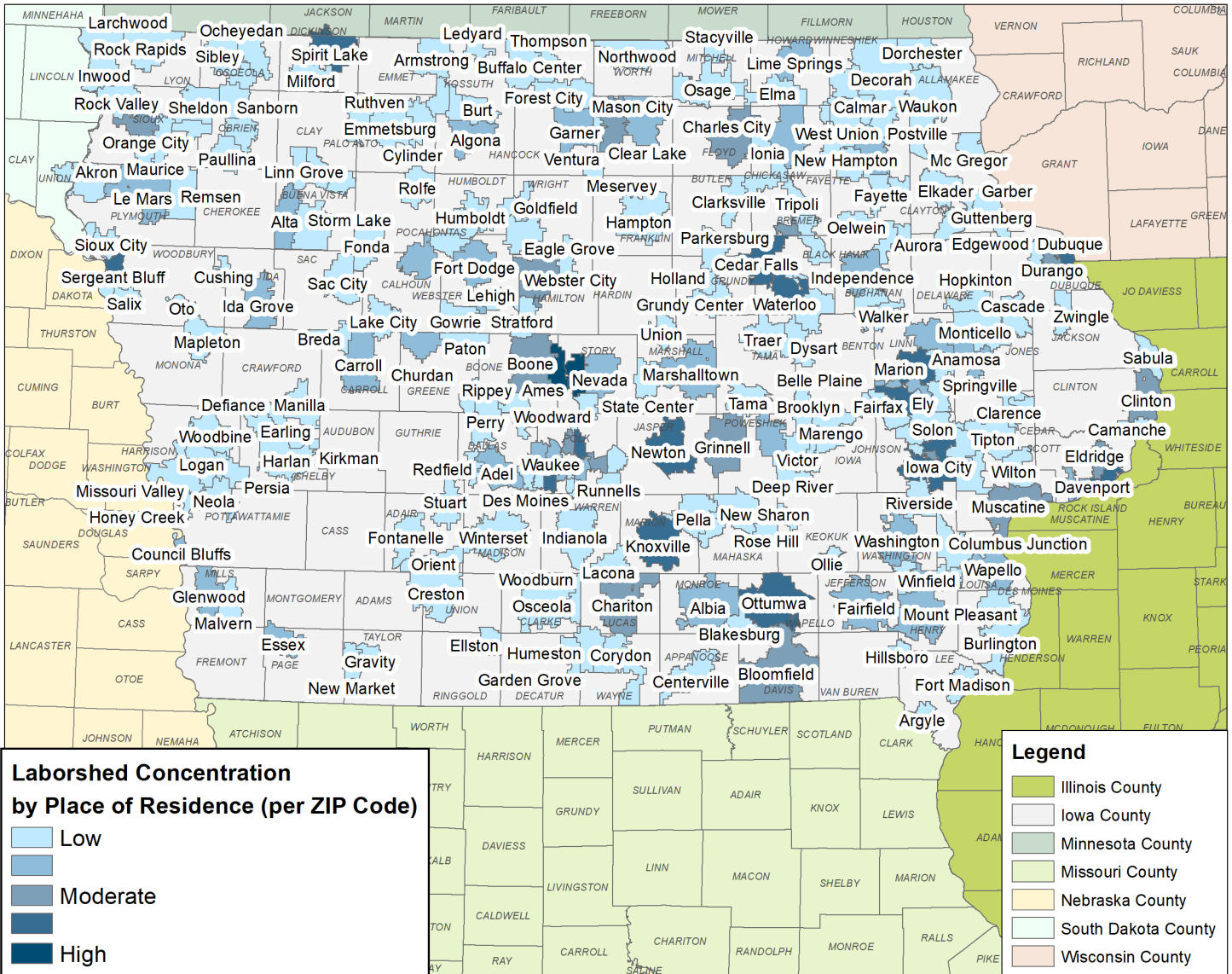
LABOR CHARACTERISTICS

BIOTECHNOLOGY



STATE OF IOWA LABORSHED

**CONCENTRATION OF RESPONDENTS WITHIN THE LABORSHED AREA
WITH TRANSFERABLE EXPERIENCE/SKILLS BY PLACE OF RESIDENCE**



Workers who have transferable experience/skills in the industry are currently commuting an average of 16 miles one way for work. Those who are likely to change/accept employment are willing to commute an average of 30 miles one way for the right employment opportunity.

FOR MORE INFORMATION REGARDING THE STATE OF IOWA REGIONAL LABORSHED, CONTACT:



Iowa Workforce Development
 Labor Market Information Division
 1000 E. Grand Avenue, Des Moines, Iowa 50319
 Phone: (515) 281-3035 | Email: laborshed.studies@iwd.iowa.gov
<https://workforce.iowa.gov/laborshed>

LABOR CHARACTERISTICS

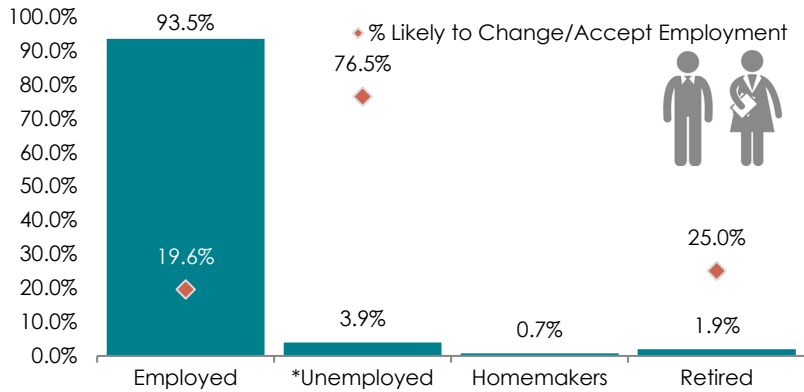


BIOTECHNOLOGY

ESTIMATED AVAILABLE LABOR PER OCCUPATIONAL CATEGORY:

- Agricultural and Food Science Technicians - 0.2%
- Agricultural Inspectors - 0.2%
- Agricultural Workers, All Other - 0.7%
- Architectural and Engineering Managers - 3.2%
- Biological Scientists, All Other - 0.7%
- Buyers and Purchasing Agents, Farm Products - 0.9%
- Chemical Engineers - 0.5%
- Chemical Equipment Operators and Tenders - 0.5%
- Chemical Plant and System Operators - 0.5%
- Chemical Technicians - 0.5%
- Chemists - 0.2%
- Conservation Scientists - 0.9%
- Dietetic Technicians - 1.9%
- Dietitians and Nutritionists - 1.9%
- Engineering Technicians, Except Drafters, All Other - 2.1%
- Engineers, All Other - 6%
- Environmental Engineering Technicians - 0.2%
- Environmental Scientists and Specialists, Including Health - 1.4%
- Farmers, Ranchers, and Other Agricultural Managers - 31.6%
- Farmworkers and Laborers, Crop, Nursery, and Greenhouse - 2.6%
- Farmworkers, Farm, Ranch, and Aquacultural Animals - 1.4%
- First-Line Supervisors of Production and Operating Workers - 9.5%
- Graders and Sorters, Agricultural Products - 0.2%
- Industrial Engineers - 3.2%
- Industrial Production Managers - 8.8%
- Inspectors, Testers, Sorters, Samplers, and Weighers - 5.1%
- Life, Physical, and Social Science Technicians, All Other - 2.1%
- Medical and Clinical Laboratory Technicians - 2.1%
- Medical and Clinical Laboratory Technologists - 1.2%
- Medical Scientists, Except Epidemiologists - 0.9%
- Microbiologists - 0.5%
- Natural Sciences Managers - 1.2%
- Petroleum Engineers - 0.2%
- Plant and System Operators, All Other - 0.7%
- Soil and Plant Scientists - 2.8%
- Veterinary Technologists and Technicians - 0.7%
- Water and Wastewater Treatment Plant and System Operators - 2.8%

ESTIMATED TOTAL BY EMPLOYMENT STATUS (PERCENTAGE):



*Employment status is self-identified by the survey respondent. The unemployment percentage does not reflect the unemployment rate published by the U.S. Bureau of Labor Statistics, which applies a stricter definition.

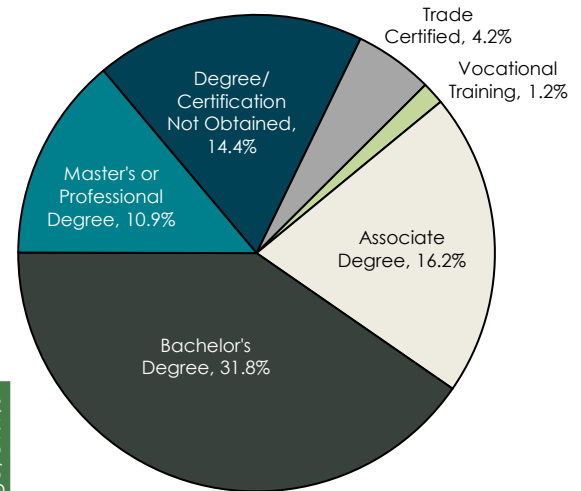
EMPLOYMENT STATS:

- 42.2% paid an annual salary
- 95.6% are/were employed full-time
- 4.4% are/were employed part-time
- 35.3% are/were self-employed
- 20.3% hold two or more jobs
- Currently working an average of 48 hours/week



EDUCATIONAL LEVEL:

(78.7% HAVE AN EDUCATION BEYOND HIGH SCHOOL)

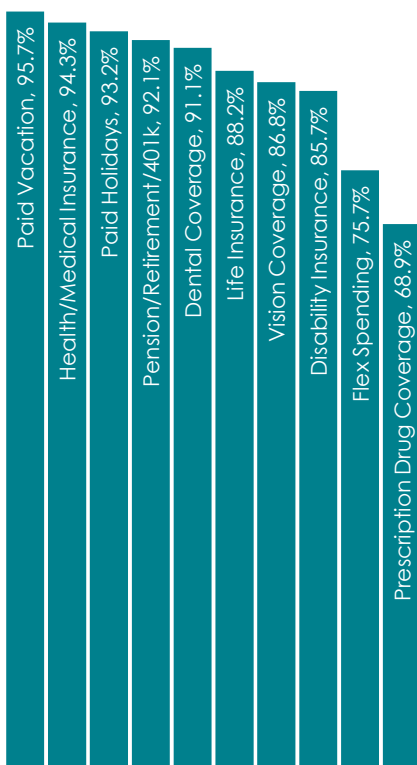


UNDEREMPLOYMENT (ESTIMATED):

- Low hours - 0.0%
- Mismatch of skills - 4.9%
- Low income - 0.0%
- Total - 4.9%

(Individuals counted only once when estimating Total Underemployment.)

CURRENT BENEFITS:



DESIRED BENEFITS:



TOP JOB SEARCH RESOURCES:

(For those seeking employment opportunities, by use.)

- Internet - 75.3%
 - www.indeed.com
 - www.linkedin.com
 - Company/Organization Websites
- Networking through friends, family or acquaintances - 50.1%
- Private Employment Services - 19.4%
- IowaWORKS Centers - 15.3%



LABOR CHARACTERISTICS



BIOTECHNOLOGY

OCCUPATION	OCCUPATIONAL CODE	MEAN WAGE	ENTRY WAGE	EXPERIENCED WAGE	MEDIAN WAGE	MEAN ANNUAL SALARY
Agricultural Engineers	17-2021	\$59.61	\$34.44	\$72.20	\$73.78	\$123,991
Agricultural Inspectors	45-2011	\$24.47	\$18.51	\$27.45	\$23.66	\$50,898
Animal Breeders	45-2021	\$20.60	\$16.56	\$22.62	\$21.79	\$42,842
Animal Scientists	19-1011	\$40.55	\$25.13	\$48.26	\$37.88	\$84,347
Architectural and Engineering Managers	11-9041	\$66.76	\$48.04	\$76.12	\$63.45	\$138,864
Biological Scientists, All Other	19-1029	\$35.57	\$25.93	\$40.39	\$33.10	\$73,992
Biological Technicians	19-4021	\$24.94	\$18.05	\$28.38	\$23.31	\$51,870
Chemical Engineers	17-2041	\$49.94	\$35.63	\$57.09	\$47.33	\$103,874
Chemical Equipment Operators and Tenders	51-9011	\$25.45	\$18.95	\$28.71	\$22.99	\$52,946
Chemical Plant and System Operators	51-8091	\$28.02	\$23.02	\$30.52	\$28.05	\$58,286
Chemical Technicians	19-4031	\$21.26	\$15.67	\$24.06	\$22.41	\$44,219
Chemists	19-2031	\$38.90	\$26.42	\$45.14	\$36.94	\$80,921
Conservation Scientists	19-1031	\$29.19	\$21.67	\$32.96	\$27.60	\$60,725
Cooling and Freezing Equipment Operators and Tenders	51-9193	\$20.26	\$17.92	\$21.44	\$19.70	\$42,145
Dietetic Technicians	29-2051	\$15.45	\$13.45	\$16.45	\$14.37	\$32,130
Dietitians and Nutritionists	29-1031	\$29.43	\$22.48	\$32.90	\$29.50	\$61,215
Engineers, All Other	17-2199	\$44.68	\$32.90	\$50.57	\$44.99	\$92,928
Environmental Engineers	17-2081	\$45.95	\$34.10	\$51.88	\$45.92	\$95,580
Environmental Scientists and Specialists, Including Health	19-2041	\$33.55	\$23.32	\$38.67	\$33.70	\$69,793
Farmers, Ranchers, and Other Agricultural Managers	11-9013	\$47.84	\$21.15	\$61.18	\$43.02	\$99,506
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	45-2092	\$15.19	\$11.34	\$17.12	\$14.50	\$31,603
Farmworkers, Farm, Ranch, and Aquacultural Animals	45-2093	\$16.52	\$12.92	\$18.33	\$14.93	\$34,369
First-Line Supervisors of Farming, Fishing, and Forestry Workers	45-1011	\$29.83	\$18.79	\$35.36	\$30.99	\$62,053
First-Line Supervisors of Production and Operating Workers	51-1011	\$31.10	\$21.51	\$35.89	\$29.85	\$64,682
Food Scientists and Technologists	19-1012	\$36.67	\$26.52	\$41.74	\$32.02	\$76,265
Graders and Sorters, Agricultural Products	45-2041	\$20.27	\$18.40	\$21.21	\$19.34	\$42,163
Industrial Engineers	17-2112	\$43.98	\$33.30	\$49.32	\$42.78	\$91,474
Industrial Production Managers	11-3051	\$50.93	\$34.09	\$59.34	\$47.78	\$105,930
Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061	\$21.83	\$16.76	\$24.36	\$21.00	\$45,399
Life Scientists, All Other	19-1099	\$35.67	\$27.10	\$39.95	\$31.06	\$74,190
Life, Physical, and Social Science Technicians, All Other	19-4099	\$23.44	\$15.86	\$27.23	\$22.15	\$48,753
Medical Scientists, Except Epidemiologists	19-1042	\$37.84	\$28.60	\$42.46	\$38.15	\$78,709
Microbiologists	19-1022	\$45.02	\$27.57	\$53.75	\$36.92	\$93,643
Natural Sciences Managers	11-9121	\$47.91	\$31.39	\$56.16	\$41.86	\$99,645
Plant and System Operators, All Other	51-8099	\$25.75	\$22.30	\$27.48	\$22.92	\$53,569
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	51-9012	\$23.10	\$17.83	\$25.74	\$23.59	\$48,058
Soil and Plant Scientists	19-1013	\$39.87	\$24.18	\$47.72	\$36.13	\$82,938
Veterinary Technologists and Technicians	29-2056	\$18.34	\$14.88	\$20.07	\$17.69	\$38,152
Water and Wastewater Treatment Plant and System Operators	51-8031	\$25.97	\$20.43	\$28.74	\$26.30	\$54,020

The 2023 statewide wage data was produced by the Labor Force & Occupational Analysis Bureau. The source of the wage and employment data is based on the May 2022 OEWS estimates. Additional occupational wage and employment data can be found at <https://workforce.iowa.gov/iawr>.

Balance of data compiled by Iowa Workforce Development using Laborshed data collected in 2023.