

Occupational Title	Employment ^[1]			\$ ^[2]		Career Preparation ^[3]			Top Skills ^[4]											
	2016 Estimated	2026 Projected	Annual Growth Rate (%)	2019 Mean Wage	2019 Mean Salary	Educ	Work Exp	Job Training	(L-R in order of significance)											
Construction Laborers	195	220	1.3	N.A.	N.A.	<HS	N	S	B2	SO1	T5	B7	SO6	B9	C1	B3	T4	B6		
Bus & Truck Mechanics & Diesel Engine Specialists	95	105	1.1	17.45	36,304	HS	N	L	T9	T11	T4	T5	B3	T1	T8	T2	SY1	B9		
Heavy & Tractor-Trailer Truck Drivers	765	840	1.0	25.09	52,184	PS	N	S	T4	T5	R4	B3	B6	B7	B9	T11	B2	C1		
General & Operations Mgrs	255	275	1.0	31.75	66,047	BA	> 5	N	B2	SO1	B6	SO6	B9	B3	B7	R4	SO3	B1		
Maintenance & Repair Wkrs, General	355	385	0.8	16.17	33,642	HS	N	M	T1	T9	T11	B3	T2	B6	T4	T5	B1	C1		
Plumbers, Pipefitters, & Steamfitters	70	80	0.7	N.A.	N.A.	HS	N	A	B3	B2	SY1	C1	T5	T8	T9	B9	T11	B1		
Machinists	90	95	0.6	N.A.	N.A.	HS	N	L	T5	B3	T4	B2	SO1	B6	B7	C1	T2	SY1		
Automotive Service Technicians & Mechanics	125	130	0.4	N.A.	N.A.	PS	N	S	T9	T1	T5	T11	B3	T4	T8	T2	C1	B2		
Farmers, Ranchers, & Other Agricultural Mgrs	2,810	2,815	0.0	N.A.	N.A.	HS	> 5	N	B3	SY1	B9	SO1	B6	B2	R4	C1	T5	SO4		

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Refuse & Recyclable Material Collectors	90	105	1.7	N.A.	N.A.	< HS	N	S	T4	SO1	B3	T1	T5	B9	B2	SY1	B7	SO6
Bus & Truck Mechanics & Diesel Engine Specialists	215	250	1.6	19.30	40,139	HS	N	L	T9	T11	T4	T5	B3	T1	T8	T2	SY1	B9
Public Relations Specialists	75	80	1.3	23.23	48,316	BA	N	N	B2	SO1	B1	SO2	B4	SO5B9	B3	B6	SO6	
Plumbers, Pipefitters, & Steamfitters	245	275	1.2	24.07	50,073	HS	N	A	B3	B2	SY1	C1	T5	T8	T9	B9	T11	B1
Training & Development Specialists	100	110	1.0	18.65	38,785	BA	< 5	N	SO2B4	B2	B9	B6	B7	SO6B3	B10	SO1		
Shipping, Receiving, & Traffic Clerks	300	335	1.0	19.40	40,353	HS	N	S	B9	B2	B3	B7	SO1	SY1	B6	SO6	C1	R4
Automotive Service Technicians & Mechanics	275	300	0.9	19.23	39,988	PS	N	S	T9	T1	T5	T11	B3	T4	T8	T2	C1	B2
Heavy & Tractor-Trailer Truck Drivers	1,960	2,130	0.8	18.21	37,881	PS	N	S	T4	T5	R4	B3	B6	B7	B9	T11	B2	C1
General & Operations Mgrs	660	715	0.8	37.45	77,889	BA	> 5	N	B2	SO1	B6	SO6	B9	B3	B7	R4	SO3	B1
Construction Laborers	300	325	0.8	16.65	34,633	< HS	N	S	B2	SO1	T5	B7	SO6	B9	C1	B3	T4	B6
Maintenance & Repair Wkrs, General	675	720	0.7	18.96	39,445	HS	N	M	T1	T9	T11	B3	T2	B6	T4	T5	B1	C1
Machinists	265	280	0.6	18.03	37,509	HS	N	L	T5	B3	T4	B2	SO1	B6	B7	C1	T2	SY1
Sheet Metal Wkrs	105	110	0.5	N.A.	N.A.	HS	N	A	B3	SO1	SY1	B5	B6	B7	B9	R4	B2	C1
Inspectors, Testers, Sorters, Samplers, & Weighers	215	225	0.5	20.48	42,603	HS	N	M	T8	B2	B3	B6	B7	B9	SO1SY1	T5	B10	
Farmers, Ranchers, & Other Agricultural Mgrs	4,900	4,890	0.0	N.A.	N.A.	HS	> 5	N	B3	SY1	B9	SO1	B6	B2	R4	C1	T5	SO4

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Roofers	90	105	1.7	N.A.	N.A.	< HS	N	M	SO1B2	B3	B6	T4	T5	B9	R4	C1	SY1	
Plumbers, Pipefitters, & Steamfitters	300	340	1.3	25.64	53,336	HS	N	A	B3	B2	SY1	C1	T5	T8	T9	B9	T11	B1
Heavy & Tractor-Trailer Truck Drivers	1,850	2,090	1.3	19.76	41,092	PS	N	S	T4	T5	R4	B3	B6	B7	B9	T11	B2	C1
Construction Mgrs	125	140	1.2	44.01	91,548	BA	N	M	B2	B3	B9	C1	SO1	R3	B7	R4	B1	SO6
Training & Development Specialists	85	100	1.2	21.79	45,328	BA	< 5	N	SO2B4	B2	B9	B6	B7	SO6B3	B10	SO1		
Construction Laborers	465	515	1.1	16.28	33,872	< HS	N	S	B2	SO1	T5	B7	SO6	B9	C1	B3	T4	B6
Bus & Truck Mechanics & Diesel Engine Specialists	195	215	1.0	19.63	40,840	HS	N	L	T9	T11	T4	T5	B3	T1	T8	T2	SY1	B9
Heating, Air Conditioning, & Refrigeration Mechanics & Ins	105	115	1.0	25.07	52,138	PS	N	L	T1	T3	T8	T11	T5	T9	B2	B3	T4	B7
Automotive Service Technicians & Mechanics	245	265	0.8	15.34	31,906	PS	N	S	T9	T1	T5	T11	B3	T4	T8	T2	C1	B2
General & Operations Mgrs	495	530	0.7	44.63	92,841	BA	> 5	N	B2	SO1	B6	SO6	B9	B3	B7	R4	SO3	B1
Maintenance & Repair Wkrs, General	780	835	0.7	22.15	46,075	HS	N	M	T1	T9	T11	B3	T2	B6	T4	T5	B1	C1
Mechanical Engineers	150	165	0.7	38.82	80,737	BA	N	N	B2	B3	B5	B7	B8	C1	SY1	T6	B1	SY3
Shipping, Receiving, & Traffic Clerks	235	245	0.4	15.79	32,840	HS	N	S	B9	B2	SY1	B7	SO1	SY1	B6	SO6	C1	R4
Sheet Metal Wkrs	130	130	0.4	N.A.	N.A.	HS	N	A	B3	SO1	B3	B5	B6	B7	B9	R4	B2	C1
Farmers, Ranchers, & Other Agricultural Mgrs	3,175	3,170	0.0	40.55	84,341	HS	> 5	N	B3	SY1	B9	SO1	B6	B2	R4	C1	T5	SO4
Machinists	210	210	0.0	17.89	37,214	HS	N	L	T5	B3	T4	B2	SO1	B6	B7	C1	T2	SY1
Sales Reps, Wholesale & Mfg, Tech & Scientific Products	80	80	-0.6	N.A.	N.A.	BA	N	M	SO4B9	B2	SO3	SO6	B7	SO5SO1	B1	C1	SY1	
Inspectors, Testers, Sorters, Samplers, & Weighers	380	345	-0.8	18.15	37,758	HS	N	M	T8	B2	B3	B6	B7	B9	SO1SY1	T5	B10	

Legend/Methodology/Selection Criteria:

The basis for **Regional Green Jobs** comes from occupational effects orientative research (or the "greening" of occupations) conducted by O*NET, a primary occupational data source of the Employment and Training Administration, U.S. Department of Labor. As defined by O*NET, the "greening" of occupations "refers to the extent to which green economy activities and technologies increase the demand for existing occupations, shape the work and worker requirements needed for occupational performance, or generate unique work and worker requirements." This report focuses on growing occupations from two O*NET-identified occupational categories describing the effects of activities and technologies on occupational performance: **Green Increased Demand Occupations** (occupations impacted by green economy activities and technologies causing an increase in demand but no significant change to the occupation's tasks) and **Green Enhanced Skills Occupations** (occupations impacted by green economy activities and technologies with significant changes to the work and worker requirements but not necessarily an increase in demand). Residual or undefined occupations were not included in this report which may include "new and emerging" green jobs not representative enough in the general economy to warrant a separate and distinct classification of their own (Examples may include Geothermal Technicians, Recycling Coordinators, Sustainability Specialists, and Wind Turbine Service Technicians.). Additional information on "green occupations" can be viewed on the O*NET OnLine website at <http://online.onetcenter.org/>. [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. N.A. = Not Available. Due to occupational code realignment some occupations will have the same wage structure. These include: 13-1020 (13-1021, 13-1022, 13-1023), 15-2090 (15-2091, 15-2099), 21-1018 (21-1011, 21-1014), 29-2010 (29-2011, 29-2012), 39-1010 (39-1011, 39-1012), 39-7010 (39-7011, 39-7012), 47-4090 (47-4091, 47-4099), 51-2028 (51-2022, 51-2023), 51-2098 (51-2092, 51-2099), 53-1048 (53-1021, 53-1031).

[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 ten 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:** 2016-2026 Occupational Projections estimates based on 2016 annual industry employment data and 2017 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:** 2019 Iowa Wage Survey estimates (based on 2018 2nd quarter occupational wage data updated to 2019 2nd quarter using Employment Cost Index), Labor Market and Workforce Information Division, Iowa Workforce Development. This workforce product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration; **Logo:** Developed by Gary Anderson, nontrademarked recycled symbol used to bring awareness to sustainable and/or "green" economic activities. This workforce product was funded by a grant awarded by the U.S. Department of Labor. The product was created by the recipient and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. This product is copyrighted by the institution that created it. Internal use by an organization and/or personal use by an individual for non-commercial purposes is permissible. All other uses require the prior authorization of the copyright owner. This publication was produced by the Labor Market and Workforce Information Division of Iowa Workforce Development. Revisions and/or corrections made when necessary. Inquiries may be directed to Brent Paulson at 515.281.3439 or Brent.Paulson@iwd.iowa.gov. Visit www.iowalmi.gov to obtain the latest workforce data and trends including this document. Published 9/2019.