



# enhanced skills occupations region 11

Occupational Title	Employment <sup>[1]</sup>			\$ <sup>[2]</sup>		Career Preparation <sup>[3]</sup>			Top Skills <sup>[4]</sup>															
	2016 Estimated	2026 Projected	Annual Growth Rate (%)	2018 Mean Wage	2018 Mean Salary	Educ	Work Exp	Job Training	(L-R in order of significance)															
Personal Financial Advisors	790	1,005	2.7	44.62	92,820	BA	N	LT	B2	B3	SY1	B7	B9	SO5	C1	B10	SO5	SO6	B7	B8	B9	B10	B11	B12
Heating, Air Conditioning, & Refrigeration Mechanics & Installers	1,430	1,765	2.3	24.96	51,909	PS	N	LT	T1	T3	T8	T11	T5	T9	B2	B3	T4	B7	B8	B9	B10	B11	B12	B13
Environmental Science & Protection Technicians, Incl Health	130	155	2.3	23.73	49,359	AS	N	N	B2	B3	B7	B9	B8	B10	C1	SY1	B6	SO6	B7	B8	B9	B10	B11	B12
Hazardous Materials Removal Wkrs	195	245	2.3	22.13	46,025	HS	N	M	B6	B3	T4	B2	T5	B7	B9	B1	C1	SO1	B7	B8	B9	B10	B11	B12
Financial Analysts	1,180	1,435	2.2	39.87	82,919	BA	N	N	B3	B7	B2	B5	B9	B10	SY1	B1	C1	B6	B7	B8	B9	B10	B11	B12
Mechanical Engineers	425	515	2.1	35.97	74,826	BA	N	N	B2	B3	B5	B7	B8	C1	SY1	T6	B1	SY3	B7	B8	B9	B10	B11	B12
Soil & Plant Scientists	1,195	1,435	2.0	41.31	85,933	BA	N	N	B7	B8	B1	C1	B3	B9	B2	SY1	B10	B6	B7	B8	B9	B10	B11	B12
Training & Development Specialists	1,090	1,295	1.9	29.86	62,109	BA	< 5	N	SO2	B4	B2	B9	B6	B7	SO6	B3	B10	SO1	B7	B8	B9	B10	B11	B12
Plumbers, Pipefitters, & Steamfitters	1,315	1,565	1.9	27.27	56,716	HS	N	A	B3	B2	SY1	C1	T5	T8	T9	B9	T11	B1	B7	B8	B9	B10	B11	B12
Sheet Metal Wkrs	535	630	1.8	25.55	53,144	HS	N	A	B3	SO1	SY1	B5	B6	B7	B9	B4	B2	C1	B7	B8	B9	B10	B11	B12
Electrical Engineers	145	170	1.7	40.30	83,818	BA	N	N	B2	C1	B3	B7	B10	B9	B1	B6	B5	T6	B7	B8	B9	B10	B11	B12
Roofers	360	415	1.7	19.13	39,783	< HS	N	M	SO1	B2	B3	B6	T4	T5	B9	R4	SY1	B7	B8	B9	B10	B11	B12	B13
Construction Laborers	3,190	3,690	1.6	18.49	38,466	< HS	N	S	B2	SO1	T5	B7	SO6	B9	C1	B3	T4	B6	B7	B8	B9	B10	B11	B12
Construction Mgrs	1,125	1,300	1.6	44.21	91,948	BA	N	M	B2	B3	B9	C1	SO1	R3	B7	R4	B1	B6	B7	B8	B9	B10	B11	B12
Architectural & Engineering Mgrs	390	450	1.5	67.74	140,905	BA	> 5	N	B7	B3	B2	C1	SO1	SY1	B9	R4	B5	B6	B7	B8	B9	B10	B11	B12
Landscape Architects	165	190	1.5	24.33	50,599	BA	N	I	B2	B7	SO1	B9	C1	B3	SY1	T6	R4	B10	B11	B12	B13	B14	B15	B16
Refuse & Recyclable Material Collectors	330	380	1.5	16.27	33,837	< HS	N	S	T4	SO1	B3	T1	T5	B9	B2	SY1	B7	SO6	B7	B8	B9	B10	B11	B12
Civil Engineers	930	1,065	1.5	41.30	85,909	BA	N	N	B3	B7	B2	C1	B5	T6	B9	SY2	R4	B8	B9	B10	B11	B12	B13	B14
Public Relations Specialists	1,120	1,270	1.3	29.97	62,330	BA	N	N	B2	B9	SO1	SO6	R4	B10	B3	B7	SO4	C1	B7	B8	B9	B10	B11	B12
Industrial Engineering Technicians	115	130	1.3	25.01	52,022	AS	N	N	B7	B2	B3	C1	B6	B9	SY2	B3	R4	SY1	B7	B8	B9	B10	B11	B12
General & Operations Mgrs	5,735	6,475	1.3	52.26	108,699	BA	> 5	N	B2	SO1	B6	SO6	B9	B3	B7	R4	SO3	B1	B7	B8	B9	B10	B11	B12
Maintenance & Repair Wkrs, General	3,340	3,765	1.3	19.34	40,236	HS	N	M	T1	T9	T11	B3	T2	B6	T4	T5	B1	C1	B7	B8	B9	B10	B11	B12
Heavy & Tractor-Trailer Truck Drivers	8,145	9,135	1.2	22.39	46,569	PS	N	S	T4	T5	R4	B3	B6	B7	B9	T11	B2	C1	B7	B8	B9	B10	B11	B12
Bus & Truck Mechanics & Diesel Engine Specialists	955	1,070	1.2	22.89	47,605	HS	N	LT	T9	T11	T4	T5	B3	T1	T8	T2	SY1	B9	B7	B8	B9	B10	B11	B12
Transportation, Storage, & Distribution Mgrs	375	420	1.2	42.52	88,440	HS	> 5	N	B7	B9	B2	B3	B6	SO1	B10	C1	SY1	R4	B7	B8	B9	B10	B11	B12
Automotive Service Technicians & Mechanics	2,685	2,980	1.1	20.75	43,160	PS	N	S	T9	T1	T5	T11	B3	T4	T8	T2	C1	B2	B7	B8	B9	B10	B11	B12
Construction & Building Inspectors	210	230	1.0	32.45	67,491	HS	> 5	M	B2	B7	B3	B9	C1	SY1	T8	B10	B1	B6	B7	B8	B9	B10	B11	B12
Architects, Ex Landscape & Naval	335	365	0.9	45.38	94,382	BA	N	I	B3	B9	B2	C1	SY1	T6	B7	SO1	B6	B10	B11	B12	B13	B14	B15	B16
Sales Reps, Wholesale & Mfg, Tech & Scientific Products	1,040	1,130	0.9	41.41	86,134	BA	N	M	SO4	B9	B2	SO3	SO6	B7	SO5	SO1	B1	C1	B7	B8	B9	B10	B11	B12
Machinists	810	880	0.9	17.98	37,401	HS	N	LT	T5	B3	T4	B2	SO1	B6	B7	C1	T2	SY1	B7	B8	B9	B10	B11	B12
Electrical & Electronics Engineering Technicians	205	220	0.7	30.62	63,691	AS	N	N	B7	C1	B3	B2	B6	B9	T11	B1	T5	T9	B7	B8	B9	B10	B11	B12
Agricultural & Food Science Technicians	555	590	0.6	26.27	54,636	AS	N	M	B7	B2	C1	B3	B10	B5	B6	B1	SO1	SO2	B7	B8	B9	B10	B11	B12
Environmental Engineers	120	130	0.4	37.58	78,169	BA	N	N	B7	B3	B1	B2	C1	SY1	B6	B9	B10	R4	B7	B8	B9	B10	B11	B12
Shipping, Receiving, & Traffic Clerks	1,220	1,260	0.3	17.54	36,489	HS	N	S	B9	B2	B3	B7	SO1	SY1	B6	SO6	C1	R4	B7	B8	B9	B10	B11	B12
Farmers, Ranchers, & Other Agricultural Mgrs	10,970	10,925	0.0	N.A.	N.A.	HS	> 5	N	B3	SY1	B9	SO1	B6	B2	R4	C1	T5	SO4	B7	B8	B9	B10	B11	B12
Inspectors, Testers, Sorters, Samplers, & Weighers	1,165	1,130	-0.3	19.31	40,174	HS	N	M	T8	B2	B3	B6	B7	B9	SO1	SY1	T5	B10	B7	B8	B9	B10	B11	B12
Wholesale & Retail Buyers, Ex Farm Products	255	245	-0.4	N.A.	N.A.	BA	N	M	SO3	B2	B3	SO4	B9	B1	SY1	C1	R1	B7	B8	B9	B10	B11	B12	B13
Reporters & Correspondents	255	220	-1.4	27.23	56,644	BA	N	N	B2	B7	B10	B9	B3	SO6	B1	R4	C1	B6	B7	B8	B9	B10	B11	B12

### 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. **[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 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 2<sup>nd</sup> 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:** 2018 Iowa Wage Survey estimates (based on 2017 2<sup>nd</sup> quarter occupational wage data updated to 2017 2<sup>nd</sup> 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](http://www.iowalmi.gov) to obtain the latest workforce data and trends including this document. Published 11/2018.