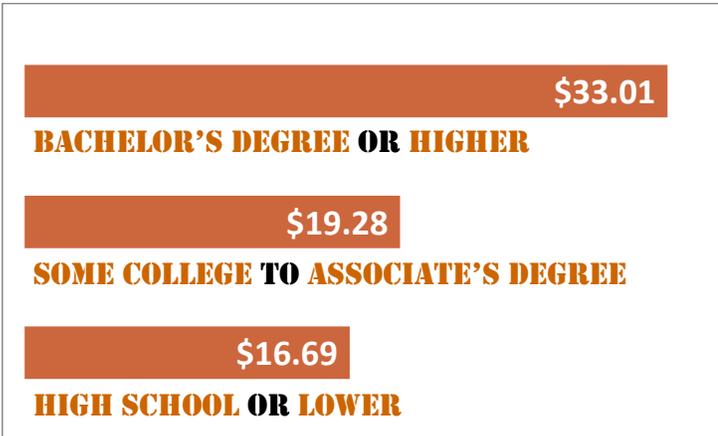


CAREER & EDUCATION OUTLOOK

MEAN HOURLY WAGES BY EDUCATION LEVEL



FASTEST GROWING OCCUPATIONS

BACHELOR'S DEGREE OR HIGHER

Occupational Title	Employment ⁽¹⁾			Ann Job Openings ⁽²⁾			\$ ⁽³⁾		Career Preparation ⁽⁴⁾					Top Skills ⁽⁵⁾							
	2012 Est	2022 Proj	Annual Growth Rate (%)	New	Replace	Total	2015 Mean Wage	2015 Mean Salary	Educ	Work Exp	Job Training	(L-R in order of significance)									
Interpreters & Translators	520	775	4.8	25	5	30	16.75	34,850	BA	N	S	B7	B9	B2	B6	B10					
Information Security Analysts	1,945	2,800	4.4	85	30	115	35.33	73,484	BA	< 5	N	B7	B3	C1	B9	B2	B10				
Meeting, Convention, & Event Planners	435	605	3.9	15	5	25	21.75	45,250	BA	N	N	B2	B9	B3	B7	R4					
Actuaries	540	750	3.9	20	15	35	45.44	94,517	BA	N	L	B5	B3	SY1	C1	B7					
Health Specialties Teachers, Postsecondary	1,825	2,480	3.6	65	30	95	65.87	137,010	DP	< 5	N	B7	B9	SO2	B3	B2	C1	B4	B10		
Nursing Instructors & Teachers, Postsecondary	790	1,070	3.5	30	10	40	30.61	63,659	MA	< 5	N	B9	B7	B1	B2	SO2					
Personal Financial Advisors	1,605	2,130	3.3	50	25	80	39.34	81,835	BA	N	N	B3	B9	B7	SY1	B10					
Physical Therapists	1,700	2,240	3.2	55	40	95	36.49	75,895	DP	N	N	B2	B9	B7	B3	SO6	R4				
Physician Assistants	725	955	3.2	25	15	35	44.23	92,003	MA	N	N	B2	B3	B9	B7	SY1	B6	SO6			
Market Research Analysts & Marketing Specialists	2,425	3,190	3.2	75	35	110	26.98	56,116	BA	N	N	B7	B2	C1	B3	SY1	B9	B10			

SOME COLLEGE TO ASSOCIATE'S DEGREE

Diagnostic Medical Sonographers	540	780	4.4	25	10	30	29.60	61,576	AS	N	N	B9	B2	B7	SO6	B3	B6	B8	R4		
Occupational Therapy Assistants	360	520	4.4	15	10	25	25.25	52,514	AS	N	N	B7	B2	SY1	SO6	B9	R4	B10			
Physical Therapist Assistants	800	1,105	3.8	30	20	50	22.66	47,141	AS	N	N	B9	B2	SO6	B6	SO1	B3	B7	B10		
Medical Equipment Repairers	480	645	3.4	15	15	30	22.32	46,422	AS	N	M	T1	T9	T11	T5	T8					
Veterinary Technologists & Technicians	640	825	2.8	20	5	25	14.77	30,723	AS	N	N	B3	B6	B2	B9	SO5					
Massage Therapists	850	1,080	2.7	25	10	30	19.51	40,580	PS	N	N	B2	B9	SO5	B3	SO6					
Dental Hygienists	2,035	2,575	2.7	55	50	105	32.36	67,317	AS	N	N	B2	B9	B3	B7	SO6					
Surgical Technologists	625	780	2.5	15	5	20	18.69	38,867	PS	N	N	B6	SO1	T5	B2	B1	B9				
Medical & Clinical Laboratory Technicians	1,460	1,820	2.5	35	40	75	19.43	40,423	AS	N	N	B2	B3	B7	B8	T5	B9				
Heating/AC/Refrigeration Mechanics/Installers	3,235	4,015	2.4	80	80	160	23.32	48,511	PS	N	L	T3	T11	T9	T1	T5					
Environmental Science & Protection Techs, Incl Health	440	550	2.4	10	15	30	20.33	42,290	AS	N	N	B7	B2	C1	B9	B10					

HIGH SCHOOL OR LOWER

Insulation Wkrs, Mechanical	355	505	4.2	15	5	20	20.74	43,130	HS	N	A	SO1	B3	B2	B6	SO6	B9	R4			
Personal Care Aides	6,050	8,315	3.7	225	45	270	10.75	22,367	< HS	N	S	SO5	B2	SO6	B3	B9					
Home Health Aides	10,305	13,720	3.3	340	195	540	10.91	22,685	< HS	N	S	B2	SO5	B3	SO6	B6					
Brickmasons & Blockmasons	1,695	2,245	3.2	55	20	75	21.09	43,861	HS	N	A	B3	B6	SO1	T8	R4					
Painters, Construction & Maintenance	3,730	4,925	3.2	120	55	175	18.71	38,924	< HS	N	M	B2	B3	SO6	B7	R4					
Medical Secretaries	4,170	5,410	3.0	125	50	175	15.28	31,780	HS	N	M	B2	SO5	B9	B7	SO1	B10				
Carpenters	9,980	12,900	2.9	290	125	415	19.31	40,175	HS	N	A	B3	T2	T5	B2	SO1	SY1	B5	B6	T8	R4
Helpers--Electricians	705	910	2.9	20	10	30	13.99	29,094	HS	N	S	B2	SO1	T1	B9	T9					
Physical Therapist Aides	740	950	2.8	20	15	35	13.07	27,176	HS	N	S	B2	SO5	SO1	SO5	B9					
Cement Masons & Concrete Finishers	4,185	5,355	2.8	115	50	165	17.42	36,242	< HS	N	M	B6	B2	SO1	B3	SY1					

OCCUPATIONS WITH THE MOST OPENINGS

BACHELOR'S DEGREE OR HIGHER

Occupational Title	Employment ^[1]			Ann Job Openings ^[2]			\$ ^[3]		Career Preparation ^[4]			Top Skills ^[5]						
	2012 Est	2022 Proj	Annual Growth Rate (%)	New	Replace	Total	2015 Mean Wage	2015 Mean Salary	Educ	Work Exp	Job Trng	(L-R in order of significance)						
Elementary School Teachers, Ex Special Education	21,870	24,510	1.2	265	480	745	24.00	49,912	BA	N	I	SO2	B9	B4	B2	B1	B6	SO6
Accountants & Auditors	13,325	15,540	1.7	220	395	615	30.01	62,417	BA	N	N	B2	B5	B7	B10	B9		
Secondary School Teachers, Ex Special/Career/Tech Educ	14,090	14,830	0.5	75	385	455	23.69	49,285	BA	N	I	SO2	B4	B9	B2	SO1	B3	
Middle School Teachers, Ex Special & Career/Tech Educ	11,445	12,830	1.2	140	250	390	25.14	52,288	BA	N	I	SO2	B2	B7	B4	SO6	B10	
General & Operations Mgrs	10,360	11,470	1.1	110	195	305	43.55	90,580	BA	< 5	N	B2	B7	B9	B3	B6		
Computer Systems Analysts	5,260	6,910	3.1	165	85	250	37.27	77,529	BA	N	N	B3	B2	B7	B9	SY2		
Coaches & Scouts	5,290	6,170	1.7	90	155	245	13.14	27,334	BA	N	N	SO2	B9	R3	SY1	B6		
Management Analysts	5,365	6,650	2.4	130	85	210	38.75	80,591	BA	< 5	N	B2	B7	B9	B3	C1		
Medical & Health Services Mgrs	4,650	5,600	2.0	95	115	210	37.71	78,446	BA	N	N	B7	B9	B2	B3	SY1		
Loan Officers	5,190	6,230	2.0	105	95	200	31.44	65,388	BA	N	M	B9	B2	SY1	B7	B3		

SOME COLLEGE TO ASSOCIATE'S DEGREE

Heavy & Tractor-Trailer Truck Drivers	42,685	50,715	1.9	805	685	1,485	19.93	41,451	PS	N	S	T4	T5	B6	B2	B3	T8	
Registered Nurses	32,490	38,125	1.7	565	630	1,195	25.97	54,022	AS	N	N	SO6	B2	SO1	B9	B3	B7	SO5
Nursing Assistants	22,635	25,695	1.4	305	430	735	12.15	25,266	PS	N	N	SO6	SO5	B2	B6	SO1		
Teacher Assistants	15,645	16,775	0.7	115	355	470	11.04	22,958	SC	N	N	B2	B9	SO1	B6	SO5	SO6	
Hairdressers, Hairstylists, & Cosmetologists	8,080	9,815	2.1	175	190	365	12.42	25,834	PS	N	N	B2	SO5	B3	B9	B1	SY1	SO6
Licensed Practical & Licensed Vocational Nurses	7,630	9,215	2.1	160	185	345	18.63	38,750	PS	N	N	B2	B9	B3	B7	SO1	SO5	
Computer User Support Specialists	4,850	5,980	2.3	115	75	190	20.73	43,119	SC	N	M	B2	B9	B7	B3	B10		
First-Line Supervisors of Production & Operating Wkrs	9,580	10,125	0.6	55	135	190	25.49	53,016	PS	< 5	N	B3	R4	B2	B9	SO1	R3	B9
Preschool Teachers, Ex Special Education	4,215	4,825	1.4	60	120	180	13.02	27,087	AS	N	N	B9	B4	SO2	B2	SO1	SO6	
Heating/AC/Refrigeration Mechanics/Installers	3,235	4,015	2.4	80	80	160	23.32	48,511	PS	N	L	T3	T11	T9	T1	T5		

HIGH SCHOOL OR LOWER

Cashiers	42,585	45,935	0.8	335	1,840	2,175	9.09	18,916	< HS	N	S	B2	SO5	B9	B5	SO6		
Retail Salespersons	47,025	51,685	1.0	465	1,610	2,075	12.34	25,668	< HS	N	S	B2	SO4	B9	SO6	SO3	SO6	
Combined Food Prep & Serving Wkrs, Incl Fast Food	32,200	37,220	1.6	500	1,230	1,730	8.72	18,129	< HS	N	S	B2	SO5	B9	SO1	B6	SO6	
Farmers, Ranchers, & Other Agricultural Mgrs	89,100	80,180	-1.0	0	1,440	1,440	35.45	73,745	HS	> 5	N	B3	B9	B2	SY1	B7	R4	
Waiters & Waitresses	24,700	26,430	0.7	175	1,190	1,360	9.00	18,723	< HS	N	S	B2	SO5	SO6	B9	SO1		
Laborers & Freight, Stock, & Material Movers, Hand	24,865	28,420	1.4	355	770	1,125	13.38	27,829	< HS	N	S	B2	B3	T5	SO1	B6	B7	B9
Customer Service Reps	24,670	28,855	1.7	420	670	1,090	15.27	31,764	HS	N	S	B2	B9	SO5	SO4	B7		
Office Clerks, General	34,740	37,430	0.8	270	730	1,000	15.02	31,246	HS	N	S	B2	B7	B9	SO6	R4	B10	
Childcare Wkrs	17,045	20,545	2.1	350	500	850	8.91	18,543	HS	N	S	B6	SO5	B9	B3	SO6		
Janitors & Cleaners, Ex Maids & Housekeeping Cleaners	26,870	30,225	1.2	335	505	840	12.18	25,329	< HS	N	S	B3	B2	SO1	SO6	B9	R4	

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; < 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.

[5] **Top Skills** refers to 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**: 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**: 2015 Iowa Wage Survey estimates (based on 2014 2nd quarter occupational wage data updated to 2015 2nd quarter using Employment Cost Index), Labor Market and Workforce Information Division, Iowa Workforce Development.

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