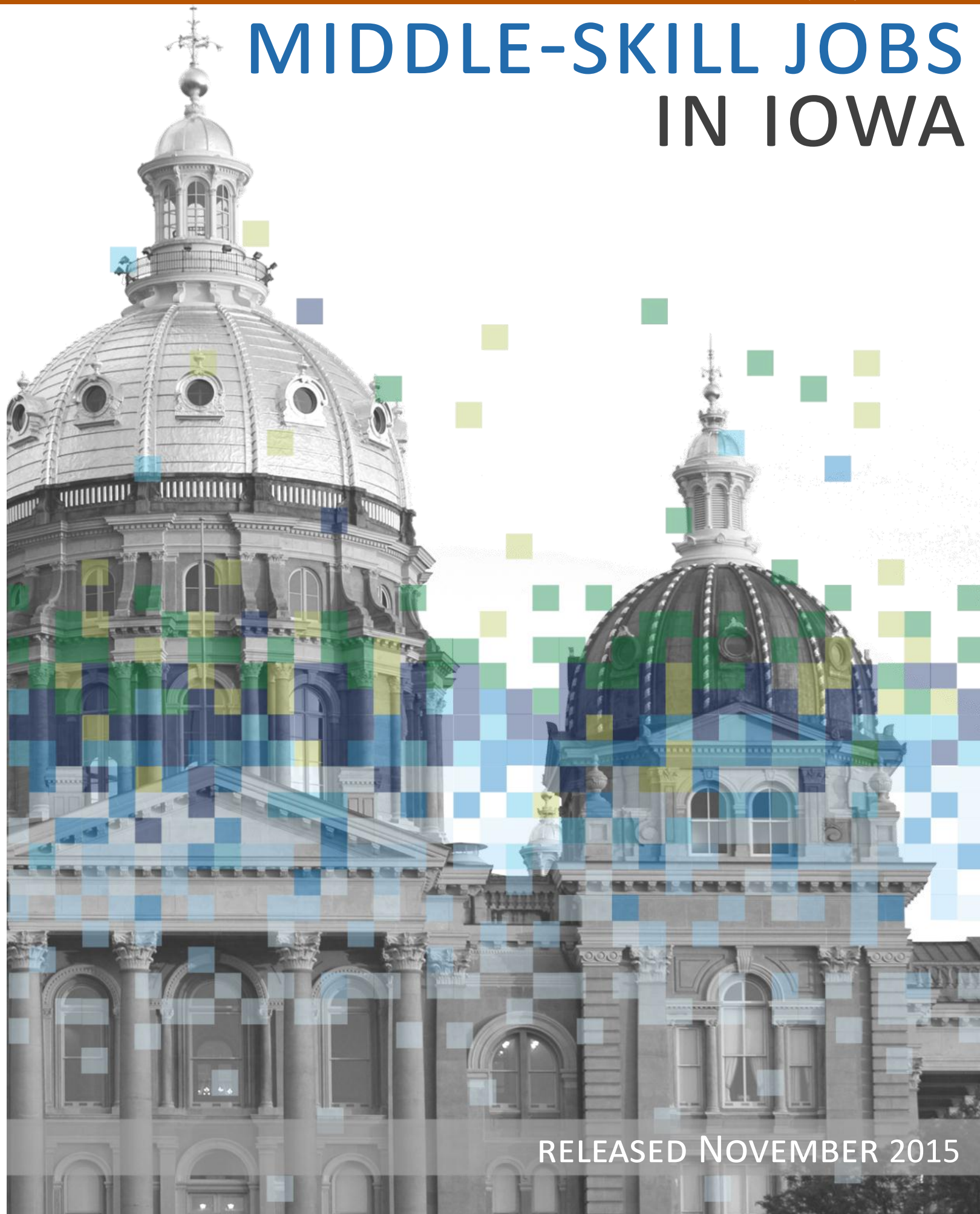


# MIDDLE-SKILL JOBS IN IOWA



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# **Middle Skill Jobs in Iowa**

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IWD Region 3-4 (counties: Buena Vista, Clay, Dickinson, Emmet, Kossuth, Lyon, O'Brien, Osceola, Palo Alto, Sioux)	
IWD Region 5 (counties: Calhoun, Hamilton, Humboldt, Pocahontas, Webster, Wright)	
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IWD Region 11 (counties: Boone, Dallas, Jasper, Madison, Marion, Polk, Story, Warren)	
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IWD Region 14 (counties: Adair, Adams, Clarke, Decatur, Montgomery, Ringgold, Taylor, Union)	
IWD Region 15 (counties: Lucas, Mahaska, Monroe, Van Buren, Wapello, Wayne)	
IWD Region 16 (counties: Des Moines, Henry, Lee, Louisa)	

## Introduction



Middle-skill jobs remain an important part of Iowa's expanding economy. This trend is expected to continue as more of the baby boomer generation retires and employers expect more from their employees in terms of higher education and skills. "Middle-skill" jobs account for over half of the Iowa economy. They generally require some education and training beyond high school, but less than a bachelor's degree.

Middle-skill jobs are important because they pay family-sustaining wages and provide pathways to advancement. Industry sectors such as construction, manufacturing, health care and transportation have large concentrations of these jobs. Examples of middle-skill jobs in each of these industries in the

order in which they appear are carpenter, machinist, surgical technologist and truck driver. These jobs pay approximately \$770 a week. There is a critical need for workers to fill these jobs, but there is a severe shortage of workers with the desired skills and training to fill them. In the past, employers provided the training for middle-skill jobs. It is increasingly up to individuals to search for the appropriate education and training in order to move into these careers.

The preparation for middle-skill jobs is diverse and covers a wide range of options, including certificate or degree programs from postsecondary education institutions, training through employer-provided programs like internships, registered apprenticeships and military training. Competencies for some middle-skill jobs can also be acquired through significant on-the-job training in lieu of a formal postsecondary degree or certificate. Two-year degree holders, especially in high-demand occupations, can earn salaries that surpass those of individuals who earn four-year college degrees. In fact, workers with two-year degrees in STEM subjects (Science, Technology, Engineering and Math) can have greater average lifetime earnings than four-year college graduates in many other non-STEM career areas.

The middle-skill worker shortage is common in many states due to the availability of more middle-skill jobs than middle-skill workers. Skill requirements for certain jobs are growing as businesses are becoming increasingly reluctant to hire young people who have only a high school degree. Advanced technology has led to an increase of non-routine tasks in the workplace. Consequently, employers are looking for individuals who possess more creative thinking, problem-solving and technical skills. In addition, hiring has picked up again as most of Iowa's industries have recovered from the 2008-2009 recession. Iowa's health care sector in particular has added over 14,000 jobs in the past five years, and many of these opportunities fall in the middle-skill category.

While middle-wage jobs sustained heavier losses during the recession than other wage groups, there are various fields and states where these positions are thriving. A new study by CareerBuilder and Economic Modeling Specialists International reveals that Iowa follows Wyoming in the percentage of middle-wage jobs added since 2010: Wyoming (45 percent), Iowa (37 percent), North Dakota (36 percent) and Michigan (35 percent).

Although Texas and California created the largest total number of new middle-wage jobs during the post-recession period, both states fell in the middle of the rankings based on proportion. The lowest performing state based on the creation of middle-wage jobs was Mississippi, where only 10 percent of new jobs since 2010 have been middle-income. Other states with very low percentages of job growth in this category were New York, New Hampshire, New Jersey and Virginia, all with 14 percent or less.

While the demand for middle-skill workers will continue to be strong in the next decade, supply may not be able to meet the demand. Even if more individuals are seeking a postsecondary education, the educational and labor opportunities may continue to be misaligned. *All too often, students do not pursue education in the fields that are most in demand.* This is where relevant and timely labor market information can help parents and students make informed career choices. This information points out the industries and occupations that drive the local economy, helping students choose programs that will have a higher return on investment.

One of the best ways to ensure that future workers will meet the new and evolving skill requirements for jobs is for employers to partner with postsecondary educational institutions. Connecting employers with educators will help target essential skills and best practices for educating and training students. The American education system also needs to create an awareness of all the postsecondary career options that are available rather than channeling everyone toward four years of college and graduate study. Countries like Denmark, Finland, Germany and Switzerland now outperform the United States on a variety of educational outcomes because they offer diverse pathways to careers and more practical-minded postsecondary education options.

One particularly effective way to build a skilled workforce is through a registered apprenticeship program. An apprentice is a paid employee who receives on-the-job training along with formal classroom instruction which leads to a nationally recognized credential. This option allows students to earn while they learn rather than accumulating significant student debt. It is also a worker-training model that has delivered results in terms of raising workers' wages and productivity. At the same time, apprenticeships provide employers with a steady pipeline of skilled workers. In May 2014, Governor Terry Branstad signed the Iowa Apprenticeship and Job Training Act into law, which will triple funding for apprenticeships in Iowa while reforming and improving the state's apprenticeship program.

Fifteen states ended their 2014 legislative sessions by enacting new legislation to close the middle-skill gap. These states increased access to career pathways, invested in job-driven training and sector partnerships and set policies to coordinate activities and collect outcome data across education, workforce and other programs. Recent key legislative actions that were taken in Iowa to close the skills gap include:

- Iowa Senate Bill 2347 provides \$5 million to support the state's Pathways for Academic Career and Employment (PACE) Fund. Started in 2013, PACE funds sector-specific career pathway projects provided through partnerships between community colleges, industry and nonprofits.
- Iowa Senate Bill 2347 appropriates \$200,000 in fiscal year 2014-2015 to the Department of Education to support a reporting system on the educational and employment outcomes of workforce preparation programs.
- Iowa House File 2460 creates an Apprenticeship Training Program Fund and allocates a \$3 million appropriation to it annually, starting on July 1, 2014.

Contrary to the popular view that we are developing a labor market with a shrinking middle and an expanding top and bottom, most research points to a robust demand for middle-skill workers. Both federal and state governments need to implement policies that will encourage development of the skills needed to earn a postsecondary credential that will help them succeed in the workplace. This is necessary as work and career paths are not "one size fits all."

## Iowa's Jobs and Workers by Skill Level

Figure 2, reflects the skill levels of detailed jobs (e.g. teacher assistants, firefighters, legal secretaries, welders, electricians, etc.) from the Bureau of Labor Statistics (BLS), Occupational Employment Statistics (OES) program. Iowa created occupational employment and wage estimates from the OES program for 740 occupations, each of which were assigned one of eight BLS typical education levels required by most workers to enter the job. The BLS education levels were aggregated into three skill levels: low-skill jobs that need less than a high school education or equivalent; middle-skill jobs that require an education beyond high school or its equivalent, but less than a four-year degree; and high-skill jobs which call for a four-year degree or above. This resulted in 87 (12%) low-skill jobs, 411 (55%) middle-skill jobs and 242 (33%) high-skill jobs.

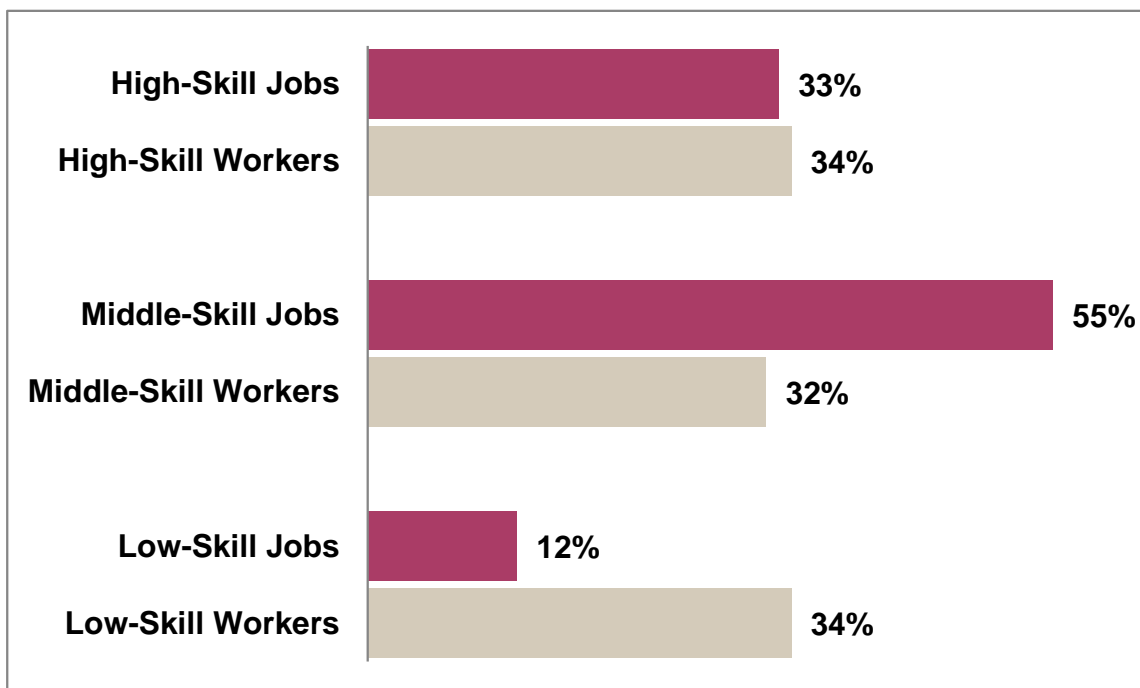
The worker data was derived from the 2013 Current Population Survey (CPS) for the population 25 years of age and over in the civilian labor force. The CPS data was displayed by four educational attainment levels for the civilian labor force which were then grouped into low-skill, middle-skill and high-skill. The outcome for workers was 482,000 (34%) were low-skill, 453,000 (32%) were middle-skill and 479,000 (34%) were high-skill.

The bars represent the percent of Iowa workers or jobs for each skill level, and indicates where gaps are present. Iowa's best skill match is between workers and occupations at the high-skill level. Thirty-three percent of jobs require high-skills, while 34 percent of the workers possess high-skill. This could indicate the correct alignment of workers and jobs and/or a willingness of high-skill workers to postpone retirement and remain employed for a longer period of time.

An inconsistency exists in the largest segment, middle-skill. Fifty-five percent of Iowa's jobs require middle-skills, whereas only 32 percent of the workers possess the skills. This clearly demonstrates the need for more middle-skill workers to meet employers' demands.

Iowa has nearly triple the percent of low-skill workers as there are low-skill jobs. Low-skill workers can be upskilled by various means such as classroom training, on-the-job training, or apprenticeships. Upskilling can create a pipeline of qualified workers to replace those who retire or plan on leaving the labor force.

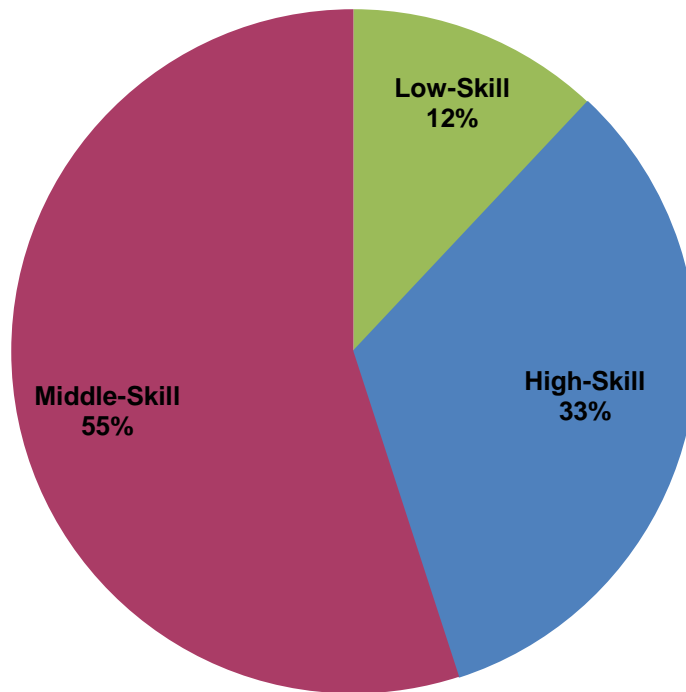
**Figure 2. Iowa's Jobs and Workers by Skill Level, 2013/2014**



Sources: 2014 Occupational Employment Statistics, Labor Market Information Division, Iowa Workforce Development. 2013 Current Population Survey, U.S. Census Bureau.

## Iowa's Jobs by Skill Level

Figure 3. Iowa's Jobs by Skill Level, 2014



Source: 2014 Occupational Employment Statistics, Labor Market Information Division, Iowa Workforce Development.

Data on Iowa's occupations confirm the reality that Iowa possesses a robust demand for skilled workers. Middle-skill jobs remain a fundamental element of Iowa's current and future economy. Over half of Iowa's jobs are middle-skill, the majority of which have a mean annual wage between \$30,000 and \$60,000. Occupations at the higher-end of the pay range can be found in business and financial operations; healthcare; construction and extraction; and installation, maintenance and repair.

During 2012, it was estimated that nearly 926,000 middle-skill jobs were in Iowa and the number is projected to increase to more than 1,000,000 by the year 2022. Many of the occupations will require the postsecondary and technical training afforded by our vast array of public and private educational institutions.

### 2012-2022 Occupational Projections

- In 2012, 56 percent of employment in Iowa was in middle-skill jobs.
- It is projected that in 2022, 55 percent of employment in Iowa will be in middle-skill jobs.
- Between 2012 and 2022, 53 percent of new jobs will be middle-skill. New jobs are additional openings that occur as a result of new businesses or business expansion.
- Over the same time period, 49 percent of replacement jobs will be middle-skill. Replacement jobs are those that need to be filled as workers permanently leave the labor force or retire.
- Fifty percent of the annual job openings between 2012 and 2022 will be middle-skill.

Source: 2012-2022 Iowa Occupational Projections, Labor Market Information Division, Iowa Workforce Development.

## Iowa's Middle-Skill Jobs with the Largest Total Annual Openings

The chart below details the top 20 middle-skill occupations with the largest annual openings for the 2012-2022 time period. Thirty-five percent of the occupations can be found in the office and administrative support occupational group such as customer service representatives; office clerks; secretaries and administrative assistants-except legal, medical and executive; bookkeeping, accounting and auditing clerks; tellers; first-line supervisors of office and administrative workers support workers; and receptionists and information clerks.

An additional 10 percent are represented by two additional groups. The personal care and service occupations of childcare workers and hairdressers, hairstylists and cosmetologists. The sales and related occupational group which includes: first-line supervisors of retail sales workers, and sales representatives-wholesale and manufacturing, except technical and scientific products.

**Figure 4. Middle-Skill Occupations with the Largest Total Annual Openings, 2012-2022**

Standard Occupational Classification	Occupational Title	2012 Estimated Employment	2022 Projected Employment	2014 Mean Wage	2014 Mean Salary	Annual Growth Rate (%)	Total Annual Openings
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>1,758,205</b>	<b>1,955,480</b>	<b>\$19.35</b>	<b>\$40,241</b>	<b>1.1</b>	<b>61,665</b>
53-3032	Heavy & Tractor-Trailer Truck Drivers	42,685	50,715	19.38	40,318	1.9	1,485
11-9013	Farmers, Ranchers, & Other Agricultural Managers	89,100	80,180	31.93	66,414	-1.0	1,440
29-1141	Registered Nurses	32,490	38,125	25.73	53,524	1.7	1,195
43-4051	Customer Service Representatives	24,670	28,855	15.32	31,867	1.7	1,090
43-9061	Office Clerks, General	34,740	37,430	14.47	30,101	0.8	1,000
39-9011	Childcare Workers	17,045	20,545	8.82	18,347	2.1	850
31-1014	Nursing Assistants	22,635	25,695	12.17	25,311	1.4	735
41-1011	First-Line Supervisors of Retail Sales Workers	20,875	22,990	17.82	37,071	1.0	665
51-2092	Team Assemblers	22,460	25,170	15.39	32,012	1.2	625
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	22,080	25,240	14.57	30,297	1.4	580
43-3031	Bookkeeping, Accounting, & Auditing Clerks	25,295	28,530	15.51	32,268	1.3	555
41-4012	Sales Representatives, Wholesale & Mfg, Ex Technical & Scientific Products	17,715	19,610	29.64	61,660	1.1	535
43-3071	Tellers	8,750	9,915	12.06	25,081	1.3	525
25-9041	Teacher Assistants	15,645	16,775	10.76	22,389	0.7	470
49-9071	Maintenance & Repair Workers, General	14,600	16,250	17.79	36,997	1.1	445
47-2031	Carpenters	9,980	12,900	18.90	39,315	2.9	415
43-1011	First-Line Supervisors of Office & Administrative Support Workers	10,380	11,905	22.62	47,053	1.5	400
43-4171	Receptionists & Information Clerks	11,555	12,415	12.83	26,684	0.7	395
39-5012	Hairdressers, Hairstylists, & Cosmetologists	8,080	9,815	12.48	25,949	2.1	365
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	8,415	9,670	13.84	28,781	1.5	365

Source: Occupational Employment Projections, Labor Market Information Division, Iowa Workforce Development.



## Iowa's Fast-Growing Middle-Skill Jobs

Iowa's fast-growing middle-skill occupations have an annual growth rate that is more than twice as fast as the 1.1 percent annual rate for Iowa. Nearly one-third of the jobs are in the healthcare practitioners and technical occupations such as diagnostic medical sonographers; veterinary technologists and technicians; dental hygienists; health technologists and technicians, all other; surgical technologists and medical and clinical laboratory technicians. The construction and extraction occupational group accounts for twenty-six percent of the jobs and include insulation workers-mechanical; brickmasons and blockmasons; carpenters; helpers-electricians; cement masons and concrete finishers; and fence erectors.

It's important when looking at fast-growing occupations to also consider the estimated employment. Some jobs may be fast-growing, but have small employment or vice versa. For example, diagnostic medical sonographers are tied for the fastest growth rate at 4.4 percent and have an estimated 360 workers. Medical and clinical laboratory technicians have a growth rate of only 2.5 percent however, they possess an estimated employment level of 1,460.

**Figure 5. Fast-Growing Middle-Skill Occupations, 2012-2022**

Standard Occupational Classification	Occupational Title	2012 Estimated Employment	2022 Projected Employment	2014 Mean Wage	2014 Mean Salary	Total Annual Openings	Annual Growth Rate (%)
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>1,758,205</b>	<b>1,955,480</b>	<b>\$19.35</b>	<b>\$40,241</b>	<b>61,665</b>	<b>1.1</b>
29-2032	Diagnostic Medical Sonographers	540	780	28.45	59,167	30	4.4
31-2011	Occupational Therapy Assistants	360	520	24.84	51,659	25	4.4
47-2132	Insulation Workers, Mechanical	355	505	18.36	38,185	20	4.2
31-2021	Physical Therapist Assistants	800	1,105	22.76	47,339	50	3.8
49-9062	Medical Equipment Repairers	480	645	22.72	47,258	30	3.4
47-2021	Brickmasons & Blockmasons	1,695	2,245	21.18	44,054	75	3.2
43-6013	Medical Secretaries	4,170	5,410	14.67	30,521	175	3.0
47-2031	Carpenters	9,980	12,900	18.90	39,315	415	2.9
47-3013	Helpers--Electricians	705	910	13.75	28,602	30	2.9
31-2022	Physical Therapist Aides	740	950	12.73	26,481	35	2.8
29-2056	Veterinary Technologists & Technicians	640	825	14.97	31,137	25	2.8
47-4031	Fence Erectors	585	740	14.49	30,139	30	2.7
31-9011	Massage Therapists	850	1,080	16.13	33,555	30	2.7
29-2021	Dental Hygienists	2,035	2,575	32.31	67,195	105	2.7
51-4122	Welding/Soldering/Brazing Machine Setters/Operators	1,595	2,005	17.72	36,855	80	2.6
49-9041	Industrial Machinery Mechanics	4,270	5,365	20.83	43,334	230	2.6
29-2099	Health Technologists & Technicians, All Other	1,025	1,285	18.83	39,163	35	2.5
29-2055	Surgical Technologists	625	780	18.38	38,236	20	2.5
29-2012	Medical & Clinical Laboratory Technicians	1,460	1,820	19.54	40,637	75	2.5

Source: Occupational Employment Projections, Labor Market Information Division, Iowa Workforce Development.

## IOWA'S MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>1,758,205</b>	<b>1,955,480</b>	<b>197,275</b>	<b>1.1</b>	<b>61,665</b>	<b>\$19.35</b>	<b>\$40,241</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>161,915</b>	<b>160,970</b>	<b>-945</b>	<b>-0.1</b>	<b>3,775</b>	<b>41.59</b>	<b>86,513</b>
11-3071	Transportation, Storage, & Distribution Managers	1,215	1,295	80	0.7	35	36.34	75,593
11-9013	Farmers, Ranchers, & Other Agricultural Managers	89,100	80,180	-8,920	-1.0	1,440	31.93	66,414
11-9051	Food Service Managers	2,820	2,995	175	0.6	70	19.60	40,775
11-9081	Lodging Managers	975	1,125	150	1.5	45	18.95	39,406
11-9141	Property, Real Estate, & Community Association Managers	1,685	1,970	290	1.7	65	23.67	49,231
11-9199	Managers, All Other	11,135	11,395	260	0.2	270	38.09	79,229
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>76,000</b>	<b>87,095</b>	<b>11,095</b>	<b>1.5</b>	<b>2,625</b>	<b>28.79</b>	<b>59,882</b>
13-1021	Buyers & Purchasing Agents, Farm Products	780	820	35	0.4	20	26.18	54,455
13-1022	Wholesale & Retail Buyers, Ex Farm Products	1,395	1,555	160	1.1	50	27.29	56,769
13-1023	Purchasing Agents, Ex Wholesale, Retail, & Farm Products	2,685	2,880	190	0.7	70	26.13	54,358
13-1031	Claims Adjusters, Examiners, & Investigators	3,910	4,535	620	1.6	150	25.81	53,692
13-1199	Business Operations Specialists, All Other	14,610	15,550	945	0.6	295	27.85	57,929
13-2082	Tax Preparers	1,025	1,270	245	2.4	45	15.37	31,977
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>33,470</b>	<b>40,560</b>	<b>7,085</b>	<b>2.1</b>	<b>1,275</b>	<b>33.20</b>	<b>69,050</b>
15-1134	Web Developers	860	1,005	150	1.7	30	28.86	60,028
15-1151	Computer User Support Specialists	4,850	5,980	1,130	2.3	190	19.53	40,632
15-1152	Computer Network Support Specialists	1,595	1,690	95	0.6	35	24.85	51,696
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>18,715</b>	<b>20,165</b>	<b>1,450</b>	<b>0.8</b>	<b>590</b>	<b>31.38</b>	<b>65,262</b>
17-3023	Electrical & Electronics Engineering Technicians	1,225	1,220	-5	0.0	25	27.15	56,473
17-3026	Industrial Engineering Technicians	665	710	45	0.7	20	22.39	46,572
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>12,490</b>	<b>13,850</b>	<b>1,360</b>	<b>1.1</b>	<b>525</b>	<b>26.96</b>	<b>56,083</b>
19-4011	Agricultural & Food Science Technicians	1,075	1,175	100	0.9	50	15.94	33,146
19-4031	Chemical Technicians	585	635	55	0.9	20	20.66	42,971
19-4091	Environmental Science & Protection Technicians, Incl Health	440	550	105	2.4	30	19.50	40,565
19-4093	Forest & Conservation Technicians	535	545	15	0.3	20	20.12	41,842
19-4099	Life, Physical, & Social Science Technicians, All Other	1,020	1,160	140	1.4	55	19.90	41,382
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>25,495</b>	<b>30,165</b>	<b>4,670</b>	<b>1.8</b>	<b>1,050</b>	<b>18.97</b>	<b>39,467</b>
21-1011	Substance Abuse & Behavioral Disorder Counselors	1,295	1,605	310	2.4	60	19.27	40,086
21-1093	Social & Human Service Assistants	5,045	6,120	1,075	2.1	240	14.17	29,470
21-1094	Community Health Workers	415	515	100	2.4	20	16.44	34,203
<b>23-0000</b>	<b>Legal Occupations</b>	<b>8,250</b>	<b>9,305</b>	<b>1,050</b>	<b>1.3</b>	<b>240</b>	<b>35.78</b>	<b>74,422</b>
23-2011	Paralegals & Legal Assistants	1,635	1,885	250	1.5	50	20.75	43,151
23-2093	Title Examiners, Abstractors, & Searchers	725	820	95	1.3	20	17.48	36,358
<b>25-0000</b>	<b>Educ, Training, &amp; Library Occupations</b>	<b>115,965</b>	<b>127,835</b>	<b>11,870</b>	<b>1.0</b>	<b>3,660</b>	<b>22.12</b>	<b>46,008</b>
25-2011	Preschool Teachers, Ex Special Educ	4,215	4,825	610	1.4	180	13.01	27,061
25-3021	Self-Enrichment Education Teachers	1,765	1,990	230	1.3	55	16.69	34,705
25-4031	Library Technicians	1,910	2,065	150	0.8	120	13.04	27,130
25-9041	Teacher Assistants	15,645	16,775	1,130	0.7	470	10.76	22,389
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>26,560</b>	<b>29,770</b>	<b>3,210</b>	<b>1.2</b>	<b>970</b>	<b>18.39</b>	<b>38,261</b>
27-1023	Floral Designers	1,365	1,360	-5	0.0	35	11.61	24,139
27-1026	Merchandise Displayers & Window Trimmers	1,035	1,170	140	1.4	40	11.97	24,891
27-2042	Musicians & Singers	620	695	75	1.2	25	N.A.	N.A.
27-4021	Photographers	2,105	2,395	290	1.4	50	13.03	27,107
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>84,995</b>	<b>100,885</b>	<b>15,890</b>	<b>1.9</b>	<b>3,345</b>	<b>31.97</b>	<b>66,503</b>
29-1126	Respiratory Therapists	920	1,065	145	1.6	30	24.57	51,113
29-1141	Registered Nurses	32,490	38,125	5,635	1.7	1,195	25.73	53,524
29-2012	Medical & Clinical Laboratory Technicians	1,460	1,820	360	2.5	75	19.54	40,637
29-2021	Dental Hygienists	2,035	2,575	540	2.7	105	32.31	67,195
29-2032	Diagnostic Medical Sonographers	540	780	240	4.4	30	28.45	59,167
29-2034	Radiologic Technologists	2,590	3,030	440	1.7	80	23.13	48,113
29-2041	Emergency Medical Technicians & Paramedics	2,245	2,605	360	1.6	95	15.89	33,044
29-2052	Pharmacy Technicians	3,665	4,415	750	2.0	110	13.93	28,964
29-2055	Surgical Technologists	625	780	155	2.5	20	18.38	38,236
29-2056	Veterinary Technologists & Technicians	640	825	180	2.8	25	14.97	31,137
29-2061	Licensed Practical & Licensed Vocational Nurses	7,630	9,215	1,585	2.1	345	18.38	38,224
29-2071	Medical Records & Health Information Technicians	2,050	2,410	365	1.8	90	16.56	34,436
29-2081	Opticians, Dispensing	945	1,145	195	2.1	45	14.07	29,264
29-2099	Health Technologists & Technicians, All Other	1,025	1,285	260	2.5	35	18.83	39,163

IOWA'S MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>1,758,205</b>	<b>1,955,480</b>	<b>197,275</b>	<b>1.1</b>	<b>61,665</b>	<b>\$19.35</b>	<b>\$40,241</b>
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>49,160</b>	<b>58,595</b>	<b>9,435</b>	<b>1.9</b>	<b>1,885</b>	<b>13.19</b>	<b>27,425</b>
31-1014	Nursing Assistants	22,635	25,695	3,060	1.4	735	12.17	25,311
31-2011	Occupational Therapy Assistants	360	520	160	4.4	25	24.84	51,659
31-2021	Physical Therapist Assistants	800	1,105	305	3.8	50	22.76	47,339
31-2022	Physical Therapist Aides	740	950	210	2.8	35	12.73	26,481
31-9011	Massage Therapists	850	1,080	230	2.7	30	16.13	33,555
31-9091	Dental Assistants	2,800	3,325	525	1.9	110	17.12	35,615
31-9092	Medical Assistants	3,600	4,440	840	2.3	155	14.72	30,612
31-9094	Medical Transcriptionists	2,025	2,065	40	0.2	45	15.97	33,220
31-9096	Veterinary Assistants & Laboratory Animal Caretakers	810	855	50	0.6	20	10.16	21,125
31-9099	Healthcare Support Workers, All Other	2,195	2,490	295	1.3	70	15.20	31,611
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>22,335</b>	<b>24,270</b>	<b>1,930</b>	<b>0.9</b>	<b>845</b>	<b>19.95</b>	<b>41,489</b>
33-1012	First-Line Supervisors of Police & Detectives	715	760	45	0.6	25	33.27	69,206
33-2011	Firefighters	1,695	1,805	110	0.6	55	18.01	37,457
33-3012	Correctional Officers & Jailers	3,130	3,275	140	0.4	95	21.97	45,690
33-3051	Police & Sheriff's Patrol Officers	4,750	5,030	280	0.6	175	25.12	52,241
33-9032	Security Guards	6,710	7,520	815	1.2	185	15.95	33,171
33-9092	Lifeguards/Ski Patrol/Other Recreational Protective Service Workers	2,045	2,295	255	1.2	165	8.58	17,856
33-9099	Protective Service Workers, All Other	565	625	60	1.1	45	14.23	29,590
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>132,020</b>	<b>146,170</b>	<b>14,145</b>	<b>1.1</b>	<b>6,245</b>	<b>9.53</b>	<b>19,821</b>
35-1011	Chefs & Head Cooks	730	795	65	0.9	20	18.12	37,695
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	8,415	9,670	1,255	1.5	365	13.84	28,781
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>59,645</b>	<b>68,480</b>	<b>8,835</b>	<b>1.5</b>	<b>2,115</b>	<b>11.90</b>	<b>24,749</b>
37-1011	First-Line Supervisors of Housekeeping & Janitorial Workers	2,315	2,715	395	1.7	95	16.53	34,386
37-1012	First-Line Supervisors of Landscape/Lawn/Grounds Workers	1,610	1,845	240	1.5	40	20.23	42,083
37-2021	Pest Control Workers	480	585	105	2.2	25	16.91	35,175
37-3012	Pesticide Handlers, Sprayers, & Applicators, Vegetation	1,000	1,125	120	1.2	35	15.36	31,947
37-3013	Tree Trimmers & Pruners	840	1,035	195	2.3	40	16.85	35,045
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>53,010</b>	<b>63,675</b>	<b>10,665</b>	<b>2.0</b>	<b>2,315</b>	<b>10.94</b>	<b>22,758</b>
39-1011	Gaming Supervisors	680	795	120	1.8	25	23.05	47,952
39-1021	First-Line Supervisors of Personal Service Workers	1,285	1,515	230	1.8	45	16.70	34,726
39-3011	Gaming Dealers	1,515	1,805	290	1.9	55	8.53	17,740
39-5011	Barbers	400	490	90	2.3	20	N.A.	N.A.
39-5012	Hairdressers, Hairstylists, & Cosmetologists	8,080	9,815	1,735	2.1	365	12.48	25,949
39-7011	Tour Guides & Escorts	385	425	40	1.0	25	9.54	19,843
39-9011	Childcare Workers	17,045	20,545	3,500	2.1	850	8.82	18,347
39-9031	Fitness Trainers & Aerobics Instructors	2,805	3,160	355	1.3	70	11.72	24,382
39-9041	Residential Advisors	415	480	65	1.6	25	12.21	25,397
39-9099	Personal Care & Service Workers, All Other	695	830	135	1.9	35	10.01	20,831
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>177,320</b>	<b>195,030</b>	<b>17,710</b>	<b>1.0</b>	<b>7,080</b>	<b>16.18</b>	<b>33,651</b>
41-1011	First-Line Supervisors of Retail Sales Workers	20,875	22,990	2,115	1.0	665	17.82	37,071
41-1012	First-Line Supervisors of Non-Retail Sales Workers	5,110	5,550	440	0.9	110	33.68	70,062
41-2012	Gaming Change Persons & Booth Cashiers	485	460	-20	-0.4	20	N.A.	N.A.
41-3011	Advertising Sales Agents	2,140	2,195	55	0.3	70	22.58	46,959
41-3021	Insurance Sales Agents	6,205	7,665	1,460	2.4	290	25.42	52,879
41-3099	Sales Representatives, Services, All Other	4,525	5,280	755	1.7	200	26.13	54,350
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	17,715	19,610	1,895	1.1	535	29.64	61,660
41-9011	Demonstrators & Product Promoters	1,520	1,670	150	1.0	60	11.44	23,798
41-9021	Real Estate Brokers	680	840	165	2.4	20	41.88	87,111
41-9022	Real Estate Sales Agents	1,570	1,910	340	2.2	50	20.24	42,098
41-9091	Door-to-Door Sales/News/Street Vendors, & Related Workers	2,160	2,130	-25	-0.1	20	N.A.	N.A.
41-9099	Sales & Related Workers, All Other	2,850	3,045	190	0.7	75	14.69	30,553

IOWA'S MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>1,758,205</b>	<b>1,955,480</b>	<b>197,275</b>	<b>1.1</b>	<b>61,665</b>	<b>\$19.35</b>	<b>\$40,241</b>
<b>43-0000</b>	<b>Office &amp; Admin Support Occupations</b>	<b>246,530</b>	<b>268,415</b>	<b>21,885</b>	<b>0.9</b>	<b>7,855</b>	<b>15.49</b>	<b>32,223</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	10,380	11,905	1,525	1.5	400	22.62	47,053
43-2011	Switchboard Operators, Incl Answering Service	1,100	950	-150	-1.4	20	12.02	25,002
43-3011	Bill & Account Collectors	3,780	4,560	785	2.1	185	15.14	31,500
43-3021	Billing & Posting Clerks	5,150	6,310	1,155	2.2	210	16.19	33,683
43-3031	Bookkeeping, Accounting, & Auditing Clerks	25,295	28,530	3,235	1.3	555	15.51	32,268
43-3051	Payroll & Timekeeping Clerks	1,490	1,710	220	1.5	55	17.66	36,728
43-3061	Procurement Clerks	540	580	40	0.7	25	18.38	38,235
43-3071	Tellers	8,750	9,915	1,170	1.3	525	12.06	25,081
43-3099	Financial Clerks, All Other	670	735	65	1.0	25	16.58	34,493
43-4031	Court, Municipal, & License Clerks	1,390	1,535	145	1.0	35	18.31	38,082
43-4051	Customer Service Representatives	24,670	28,855	4,185	1.7	1,090	15.32	31,867
43-4061	Eligibility Interviewers, Government Programs	1,040	1,200	160	1.5	35	23.94	49,795
43-4071	File Clerks	1,315	1,270	-40	-0.3	30	14.60	30,378
43-4081	Hotel, Motel, & Resort Desk Clerks	3,030	3,625	595	2.0	205	9.07	18,873
43-4111	Interviewers, Ex Eligibility & Loan	1,550	1,635	85	0.5	40	13.38	27,840
43-4121	Library Assistants, Clerical	1,870	2,140	270	1.4	110	12.18	25,338
43-4131	Loan Interviewers & Clerks	3,225	3,900	675	2.1	90	16.17	33,643
43-4141	New Accounts Clerks	715	755	40	0.6	20	16.38	34,072
43-4151	Order Clerks	2,655	2,830	175	0.7	90	16.99	35,334
43-4161	Human Resources Assistants, Ex Payroll & Timekeeping	1,265	1,310	40	0.3	35	17.63	36,673
43-4171	Receptionists & Information Clerks	11,555	12,415	860	0.7	395	12.83	26,684
43-4199	Information & Record Clerks, All Other	1,940	1,940	-5	0.0	40	17.27	35,926
43-5031	Police, Fire, & Ambulance Dispatchers	860	910	50	0.6	30	18.30	38,063
43-5032	Dispatchers, Ex Police, Fire, & Ambulance	1,815	2,110	295	1.6	80	18.82	39,144
43-5052	Postal Service Mail Carriers	3,695	2,780	-915	-2.5	130	23.95	49,817
43-5061	Production, Planning, & Expediting Clerks	3,230	3,620	390	1.2	120	20.12	41,849
43-5071	Shipping, Receiving, & Traffic Clerks	6,750	7,105	355	0.5	210	15.15	31,512
43-5111	Weighers, Measurers, Checkers, & Samplers, Recordkeeping	1,100	1,165	60	0.5	30	14.33	29,802
43-6011	Executive Secretaries & Executive Administrative Assistants	13,345	13,290	-50	0.0	160	20.20	42,014
43-6012	Legal Secretaries	2,120	2,060	-60	-0.3	25	17.53	36,466
43-6013	Medical Secretaries	4,170	5,410	1,240	3.0	175	14.67	30,521
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	22,080	25,240	3,155	1.4	580	14.57	30,297
43-9021	Data Entry Keyers	1,970	1,480	-490	-2.5	25	13.33	27,728
43-9041	Insurance Claims & Policy Processing Clerks	3,195	3,805	610	1.9	145	17.54	36,480
43-9051	Mail Clerks & Mail Machine Operators, Ex Postal Service	2,015	1,835	-180	-0.9	45	12.47	25,940
43-9061	Office Clerks, General	34,740	37,430	2,690	0.8	1,000	14.47	30,101
43-9071	Office Machine Operators, Ex Computer	930	865	-65	-0.7	20	14.16	29,457
43-9199	Office & Administrative Support Workers, All Other	2,470	2,495	20	0.1	70	15.28	31,782
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>15,395</b>	<b>16,015</b>	<b>620</b>	<b>0.4</b>	<b>505</b>	<b>15.28</b>	<b>31,780</b>
45-1011	First-Line Supervisors of Farming, Fishing, & Forestry Workers	1,185	1,230	45	0.4	30	24.57	51,114
45-2021	Animal Breeders	535	560	25	0.5	20	16.15	33,595
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>75,710</b>	<b>93,145</b>	<b>17,435</b>	<b>2.3</b>	<b>2,980</b>	<b>19.83</b>	<b>41,243</b>
47-1011	First-Line Supervisors of Construction Trades & Extraction Workers	5,690	6,990	1,300	2.3	190	26.29	54,683
47-2021	Brickmasons & Blockmasons	1,695	2,245	550	3.2	75	21.18	44,054
47-2031	Carpenters	9,980	12,900	2,915	2.9	415	18.90	39,315
47-2071	Paving, Surfacing, & Tamping Equipment Operators	810	955	145	1.8	25	19.05	39,634
47-2073	Operating Engineers & Other Const Equipment Operators	5,105	6,150	1,045	2.0	215	20.84	43,340
47-2111	Electricians	7,350	8,830	1,480	2.0	285	22.55	46,897
47-2121	Glaziers	450	525	80	1.8	20	19.37	40,280
47-2132	Insulation Workers, Mechanical	355	505	150	4.2	20	18.36	38,185
47-2152	Plumbers, Pipefitters, & Steamfitters	6,290	7,745	1,455	2.3	225	22.51	46,826
47-2211	Sheet Metal Workers	2,020	2,415	400	2.0	80	24.16	50,243
47-2221	Structural Iron & Steel Workers	855	1,050	195	2.3	50	25.15	52,309
47-3013	Helpers--Electricians	705	910	205	2.9	30	13.75	28,602
47-3015	Helpers--Pipefitters, Plumbers, Pipefitters, & Steamfitters	490	605	120	2.4	20	13.99	29,097
47-4011	Construction & Building Inspectors	725	815	95	1.3	25	25.29	52,604
47-4031	Fence Erectors	585	740	160	2.7	30	14.49	30,139
47-4051	Highway Maintenance Workers	3,575	3,780	205	0.6	75	19.49	40,541

## IOWA'S MIDDLE-SKILL OCCUPATIONS, 2012-2022

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		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>1,758,205</b>	<b>1,955,480</b>	<b>197,275</b>	<b>1.1</b>	<b>61,665</b>	<b>\$19.35</b>	<b>\$40,241</b>
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>68,585</b>	<b>76,810</b>	<b>8,225</b>	<b>1.2</b>	<b>2,420</b>	<b>20.01</b>	<b>41,631</b>
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	4,200	4,595	400	1.0	155	28.17	58,596
49-2011	Computer, Automated Teller, & Office Machine Repairers	1,805	1,980	175	1.0	55	17.60	36,609
49-2022	Telecommunications Equipment Installers/Repairers, Ex Line Installers	2,355	2,405	50	0.2	35	25.83	53,737
49-2094	Electrical & Electronics Repairers, Commercial/Industrial Equipment	790	885	95	1.2	25	23.86	49,626
49-2097	Electronic Home Entertainment Equipment Installers & Repairers	595	635	40	0.7	25	17.99	37,411
49-3021	Automotive Body & Related Repairers	2,230	2,590	360	1.6	80	19.08	39,681
49-3023	Automotive Service Technicians & Mechanics	9,795	10,875	1,080	1.1	355	18.11	37,670
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	4,175	4,710	530	1.3	140	18.45	38,383
49-3041	Farm Equipment Mechanics & Service Technicians	1,965	2,100	135	0.7	70	17.73	36,885
49-3042	Mobile Heavy Equipment Mechanics, Ex Engines	1,635	1,715	75	0.5	55	20.99	43,662
49-3093	Tire Repairers & Changers	1,255	1,390	130	1.0	55	12.79	26,609
49-9012	Control & Valve Installers & Repairers, Ex Mechanical Door	565	580	15	0.3	20	24.52	51,006
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	3,235	4,015	775	2.4	160	22.29	46,366
49-9031	Home Appliance Repairers	640	690	50	0.8	25	15.64	32,529
49-9041	Industrial Machinery Mechanics	4,270	5,365	1,090	2.6	230	20.83	43,334
49-9043	Maintenance Workers, Machinery	1,440	1,615	175	1.2	35	19.70	40,983
49-9044	Millwrights	800	980	180	2.3	30	21.37	44,450
49-9051	Electrical Power-Line Installers & Repairers	1,620	1,730	115	0.7	65	27.65	57,504
49-9052	Telecommunications Line Installers & Repairers	1,180	1,340	165	1.4	45	20.61	42,870
49-9062	Medical Equipment Repairers	480	645	165	3.4	30	22.72	47,258
49-9071	Maintenance & Repair Workers, General	14,600	16,250	1,645	1.1	445	17.79	36,997
49-9098	Helpers--Installation, Maintenance, & Repair Workers	690	775	85	1.2	30	12.26	25,501
49-9099	Installation, Maintenance, & Repair Workers, All Other	2,375	2,510	135	0.6	55	17.60	36,611
<b>51-0000</b>	<b>Production Occupations</b>	<b>161,460</b>	<b>173,485</b>	<b>12,030</b>	<b>0.7</b>	<b>4,695</b>	<b>16.07</b>	<b>33,436</b>
51-1011	First-Line Supervisors of Production & Operating Workers	9,580	10,125	545	0.6	190	24.88	51,755
51-2031	Engine & Other Machine Assemblers	1,575	1,720	150	1.0	40	17.51	36,424
51-2041	Structural Metal Fabricators & Fitters	1,910	2,025	120	0.6	90	16.85	35,043
51-2092	Team Assemblers	22,460	25,170	2,710	1.2	625	15.39	32,012
51-2099	Assemblers & Fabricators, All Other	4,565	5,065	500	1.1	120	13.90	28,918
51-3092	Food Batchmakers	2,415	2,500	85	0.4	85	15.77	32,797
51-3093	Food Cooking Machine Operators & Tenders	975	1,015	40	0.4	30	14.25	29,645
51-4011	Computer-Controlled Machine Tool Operators, Metal/Plastic	2,780	3,335	555	2.0	135	18.00	37,449
51-4031	Cutting/Punching/Press Machine Setters/Operators, Metal/Plastic	3,930	3,750	-180	-0.5	35	16.39	34,084
51-4033	Grinding/Lapping/Polishing/Buffering Machine Tool Setters, Metal/Plastic	1,000	980	-20	-0.2	20	15.09	31,393
51-4041	Machinists	5,570	6,335	765	1.4	205	18.02	37,486
51-4072	Molding, Coremaking, & Casting Machine Setters/Operators/Tenders, Metal/Plastic	2,475	2,325	-150	-0.6	30	13.87	28,851
51-4081	Multiple Machine Tool Setters/Operators, Metal/Plastic	1,815	1,690	-125	-0.7	35	16.21	33,720
51-4121	Welders, Cutters, Solderers, & Brazers	8,330	9,010	675	0.8	270	16.85	35,038
51-4122	Welding, Soldering, Brazing Machine Setters/Operators/Tenders	1,595	2,005	410	2.6	80	17.72	36,855
51-5111	Prepress Technicians & Workers	980	855	-125	-1.3	25	15.54	32,330
51-5112	Printing Press Operators	2,780	2,745	-30	-0.1	50	16.30	33,896
51-7011	Cabinetmakers & Bench Carpenters	1,555	1,725	170	1.1	30	15.95	33,171
51-7041	Sawing Machine Setters, Operators, & Tenders, Wood	660	800	140	2.1	30	13.05	27,147
51-7042	Woodworking Machine Setters/Operators/Tenders, Ex Sawing	830	990	160	1.9	20	14.29	29,733
51-7099	Woodworkers, All Other	510	600	90	1.8	25	N.A.	N.A.
51-8013	Power Plant Operators	665	620	-45	-0.7	20	31.19	64,872
51-8031	Water & Wastewater Treatment Plant & System Operators	1,970	2,130	160	0.8	85	19.76	41,103
51-8091	Chemical Plant & System Operators	910	970	55	0.6	40	23.09	48,025
51-9011	Chemical Equipment Operators & Tenders	695	745	50	0.7	30	20.54	42,729
51-9012	Separating/Filtering/Clarifying/Precipitating/Still Machine Operators	1,185	1,255	70	0.6	50	18.61	38,707
51-9021	Crushing, Grinding, & Polishing Machine Setters/Operators/Tenders	775	780	10	0.1	25	17.14	35,646
51-9023	Mixing/Blending Machine Setters/Operators/Tenders	1,980	2,165	185	0.9	75	17.17	35,712
51-9041	Extruding/Forming/Pressing/Compacting Machine Setters/Operators/Tenders	695	710	20	0.3	20	15.03	31,255
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	5,505	6,095	590	1.1	180	17.59	36,592
51-9081	Dental Laboratory Technicians	515	550	30	0.6	20	16.93	35,215
51-9083	Ophthalmic Laboratory Technicians	410	475	65	1.6	20	14.03	29,183
51-9111	Packaging & Filling Machine Operators & Tenders	4,670	4,780	110	0.2	120	14.13	29,382
51-9121	Coat/Paint/Spray Machine Setters, Operators, & Tenders	2,180	2,285	105	0.5	50	15.40	32,038
51-9195	Molders, Shapers, & Casters, Ex Metal/Plastic	805	925	120	1.5	40	13.77	28,650
51-9197	Tire Builders	1,035	1,030	-5	0.0	25	N.A.	N.A.
51-9199	Production Workers, All Other	9,490	10,525	1,035	1.1	350	14.06	29,242

IOWA'S MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>1,758,205</b>	<b>1,955,480</b>	<b>197,275</b>	<b>1.1</b>	<b>61,665</b>	<b>\$19.35</b>	<b>\$40,241</b>
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>133,170</b>	<b>150,785</b>	<b>17,615</b>	<b>1.3</b>	<b>4,675</b>	<b>15.85</b>	<b>32,975</b>
53-1021	First-Line Supervisors of Helpers, Laborers, & Material Movers, Hand	1,790	2,050	265	1.5	75	22.07	45,911
53-1031	First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	2,755	3,130	380	1.4	115	24.94	51,878
53-3021	Bus Drivers, Transit & Intercity	1,805	1,970	165	0.9	50	14.47	30,104
53-3022	Bus Drivers, School or Special Client	5,610	5,710	100	0.2	115	15.40	32,027
53-3031	Driver/Sales Workers	4,245	4,630	385	0.9	105	13.29	27,649
53-3032	Heavy & Tractor-Trailer Truck Drivers	42,685	50,715	8,030	1.9	1,485	19.38	40,318
53-3033	Light Truck or Delivery Services Drivers	10,365	11,670	1,310	1.3	295	14.83	30,846
53-3099	Motor Vehicle Operators, All Other	775	885	110	1.4	35	12.73	26,486
53-4011	Locomotive Engineers	675	685	10	0.1	20	N.A.	N.A.
53-4031	Railroad Conductors & Yardmasters	630	640	10	0.2	20	28.16	58,573
53-6099	Transportation Workers, All Other	445	495	55	1.2	25	16.38	34,070
53-7021	Crane & Tower Operators	570	665	90	1.6	30	23.84	49,593
53-7032	Excavating & Loading Machine & Dragline Operators	1,450	1,720	275	1.9	40	16.14	33,572
Source: Labor Market Information Division, Iowa Workforce Development								
Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.								

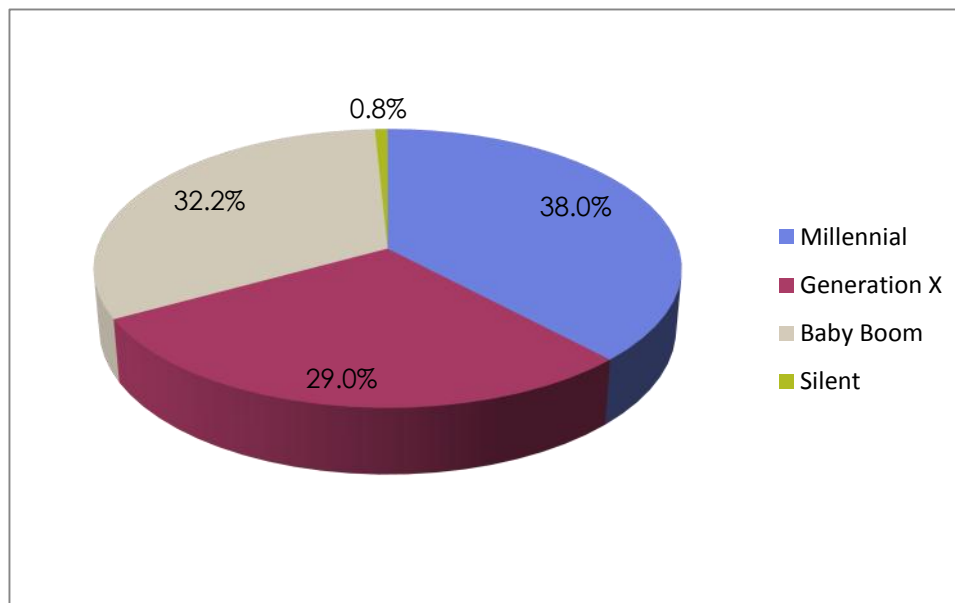
## Millennials Represent Largest Share of Iowa's Workforce

For nearly a decade, the Millennial generation has been entering the workforce in growing numbers. Currently, this youngest group of workers represents the largest component of the state's workforce at over 600,000 (38 percent). In 2013, over half of the generation was concentrated in the 25 to 34 year-old age cohort. The Millennials have become larger than the Baby Boom generation, and the generation has not realized its full potential since many of its members are still in their teens and attending school. Though there is a lack of consensus on exact dates, a Millennial is someone who was born in the 1980's and 1990's. This generation is also referred to as Generation Y, or the "echo boom" generation. Generation Y represents a population bulge, rivaling the size of the Baby Boom generation. Within just a few years, workers in this group will account for about one half of the state's total workforce.

Birth years are generally used to define the generations: Millennials (1980-1999), Generation X (1965-1979), Baby Boomers (1946-1964) and the Silent Generation (1925-1945). Each generation displays unique traits that are the result of the economic, political and social environment in which they were raised. For example, the Millennials were disproportionately affected by the deep recession of 2008-2009, which in many cases delayed their entry into the workforce. A Pew Research Study found that based on measures such as the percentage who are unemployed or the share living in poverty, this generation of college-educated adults is faring worse than Gen Xers, Baby Boomers or members of the Silent generation when they were in their mid-20s and early 30s.

A major generational shift is occurring in the workforce as the Baby Boomers are beginning to retire, while their children—the "Millennials"—enter their prime working years. The Baby Boom generation is currently 50 to 68 years of age, and accounts for 32 percent of the state's workforce. The ongoing retirements of the Baby Boomers are likely to cause skill shortages since these individuals have acquired a broad base of knowledge and skills that will need to be replaced. Several of Iowa's major industries have relatively high proportions of workers in the 55 and over age category, which will require many positions to be filled. Iowa's Educational Services and Utilities sectors have the largest concentration of older workers at 30 percent. Other sectors with high proportions of older workers are: Mining (29 percent), Public Administration (28 percent), Real Estate and Rental and Leasing (27 percent) and Transportation and Warehousing (27 percent).

**Figure 6. Iowa's Workforce by Generation - 2013**



Source: 2013 Iowa Population Estimates by Age and 2013 Current Population Survey (CPS).  
U.S. Census Bureau, Department of Commerce.

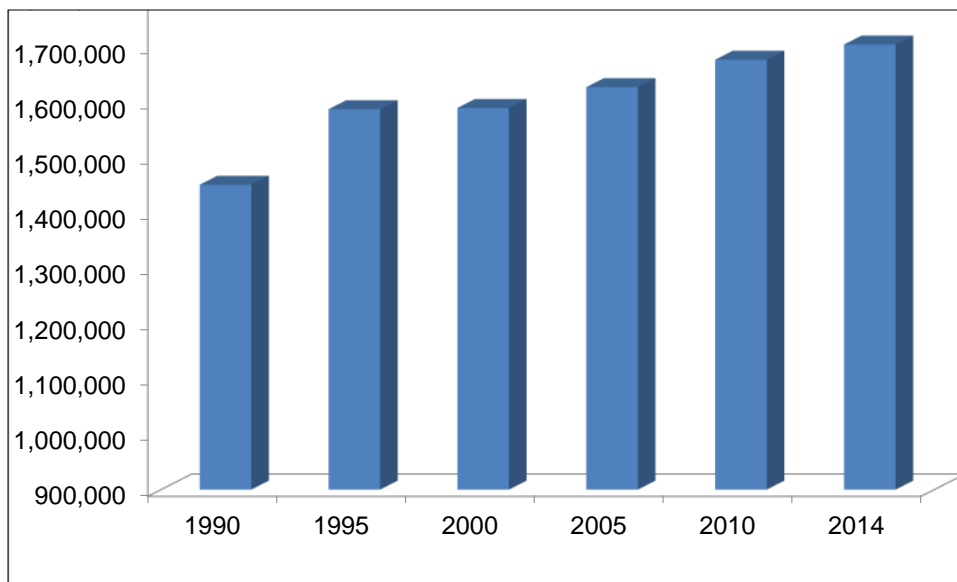
## Iowa Labor Force Expands at Slow Pace

Iowa's labor force expanded again in 2014 following small declines during the 2009 to 2012 recovery period. The deep recession of 2008-2009 officially ended in June 2009, but job growth was sub-par for the next several years. The lack of job opportunities following the recession discouraged many individuals from seeking employment. In 2015, Iowa's labor force is again expected to experience strong growth following a gain of over 30,000 workers last year (+1.8 percent). From 1990 to 2014, Iowa's labor force expanded by 253,400 workers, translating into a growth rate of 17.5 percent, or 0.7 percent annually. In contrast, the U.S. labor force grew by 23.9 percent over the same period, or close to 1.0 percent annually. Future labor force growth for both Iowa and the nation is expected to be slower as the population ages. According to the 2013 population estimates, Iowa ranks 10th in the nation based on the proportion of its population 65 and over, and 4th in the nation based on its share of population 85 and over.

Historical patterns show that labor force growth is tied to population growth and a strong economy. An area that continues to add both people and jobs is most likely to experience long-term economic prosperity. In Iowa, the metro areas have become magnets for individuals looking for higher-paying job opportunities. This trend has been apparent for some time, and is one of the factors that has decreased the supply of younger workers in many of Iowa's rural counties. For example, Dallas County, which is a part of the Des Moines metro area, leads all Iowa counties based on population and labor force growth. From 1990 to 2014, the county increased its labor force by 26,000 workers for a robust growth rate of 161.5 percent. Johnson County ranked second, adding 26,500 workers (45.9 percent). Based on numeric change, Polk County increased its labor force by the largest number—66,800 (35.2%). Conversely, 22 of Iowa's rural counties lost a sizable portion of their labor force over the period; Page County led the group with a 18.5 percent drop. Other significant losses occurred in Winnebago County (-17.2 percent) and Hamilton County (-15.5 percent).

Although Iowa's labor force has grown at a slow pace, the state has one of the higher labor force participation rates in the nation. In 2014, the rate was 70.4 percent compared to 62.9 percent for the U.S. The labor force participation rate is the percentage of the working age population (16-64) who are employed or unemployed.

**Figure 7. The Number of Workers in Iowa's Labor Force  
1990-2014**



Source: Labor Market and Workforce Information Division, Iowa Workforce Development.



## Iowa's Nonfarm Employment by Industry

The Iowa economy is evolving in response to a wide range of factors, not the least of which are changes in consumer preferences, an older and more diverse labor force, global competition, technological advances and less unionization. These factors have contributed to the long-term shift from the goods-producing industries to the service-providing industries. Manufacturing, the largest of the goods-producing industries, has been substantially transformed by technology. The computerized processes that are being used in today's factories have increased productivity without the need for a corresponding gain in employment.

Iowa's nonfarm employment is composed of the goods-producing industries and the service-providing industries. Natural resources and mining, construction and manufacturing are defined as the goods-producing sectors. In Iowa, the goods-producing component of the economy has lost employment due to the decline in manufacturing jobs since 2000. The goods-producing industries, which accounted for 21.5 percent of the state's nonfarm jobs in 2000, represented 19.0 percent of these jobs in 2014. Both construction and manufacturing incurred large job cuts as the result of the 2008-2009 recession. Manufacturing jobs have also declined due to the offshoring of production jobs to lower-wage countries, the effects of technological improvements and the transfer of non-core functions to a wide array of businesses in the service-providing sector.

Meanwhile, the state's service-providing industries have increased their proportion of nonfarm employment from 78.5 percent in 2000 to 81.0 percent in 2014. The top three service-providing sectors from 2000-2014 (based on rate of growth) were professional and business services (+26.5 percent), education and health (+22.9 percent), and finance (+16.1 percent). Information, the smallest of the service-providing sectors, lost 14,800 jobs or 36.6 percent of its employment over the period. Most of the losses were concentrated in telecommunications and in book and newspaper publishing and printing. However, the sector is starting to add jobs again as new businesses emerge that provide internet publishing and broadcasting services and web search portals. Health services will continue to be one of the fastest-growing sectors in the state due to the state's aging population, which will increase the demand for these services.

Some of the newer technologies will play an important role in driving employment growth over the next decade. Included among these are the mobile internet, cloud technology, 3D printing, advanced robotics, renewable energy and next-generation genomics.

**Figure 8. Iowa's Nonfarm Employment by Industry - 2000, 2010 and 2014**

	2000		2010		2014	
	Employment	%	Employment	%	Employment	%
Total Nonfarm	1,478,500	100.0	1,469,300	100.0	1,548,200	100.0
Natural Resources and Mining	2,100	0.1	2,100	0.1	2,200	0.1
Construction	63,900	4.3	61,600	4.2	74,500	4.8
Manufacturing	251,500	17.0	200,500	13.6	216,700	14.0
Trade and Transportation	315,800	21.4	299,500	20.4	312,700	20.2
Information	40,400	2.7	28,700	2.0	25,600	1.7
Finance	89,700	6.1	101,300	6.9	104,100	6.7
Professional and Business Services	107,600	7.3	121,700	8.3	136,100	8.8
Educational and Health Services	181,900	12.3	214,100	14.6	223,500	14.4
Leisure and Hospitality	125,500	8.5	129,900	8.8	137,700	8.9
Other Services	56,800	3.8	56,900	3.9	59,000	3.8
Government	243,300	16.5	253,100	17.2	256,000	16.5

Source: Labor Market and Workforce Information Division, Iowa Workforce Development.

## Iowa Community Colleges Develop Employer-Driven Training

Iowa's 15 community colleges have traditionally focused on training students for middle-skill positions, those that require an associate degree, postsecondary certificate or vocational credential. The colleges re-train the long-term unemployed, match new graduates' skill sets to available jobs through internships and mentoring, and design program content to meet employers' job needs. Community colleges are the gateway to opportunity for many minority, low income, and first-generation postsecondary education students. They also provide access to education for many nontraditional students, such as adults who are working while acquiring new skills. For example, Northeast Iowa Community College began offering a *Degree after Five* program for working adults at the urging of local businesses.

Today, employers are collaborating with the colleges to identify the skills they need to fill specific jobs, and they are lending their expertise to provide clearly defined career pathways along the way. Iowa's community colleges are responding to specific needs in their regional economies by training workers for high-demand occupations in areas like advanced manufacturing, biotechnology, food processing, energy innovation, information technology, healthcare, and transportation. Companies are in need of a wide variety of skilled workers to expand their workforces, and they are creating jobs that pay middle-class wages. To respond to employers' needs, community colleges have become more focused on providing students with relevant skills that have job-market values. Many of the career and technical programs at the state's community colleges have become employer-driven and employer-supported. An advisory board of employers and other partners from the region is generally formed to identify skills that are needed for specific occupations and to assist educators with the development of curriculum.

Partnerships between the community colleges and businesses can be mutually satisfying. Businesses who partner with community colleges often realize a positive return on their training investments. They gain access to a steady pipeline of skilled workers which help to improve employee retention rates and productivity. Alternatively, the colleges benefit from business support in their mission to help individuals obtain marketable skills and credentials. Businesses assist colleges in a number of ways:

- Developing and validating curriculum; mapping career pathways
- Helping meet college completion goals
- Providing donations of equipment, materials and classroom space
- Increasing revenues
- Promoting and marketing training programs

Community colleges can be a resource for any type of training, including accredited, traditional postsecondary and customized, corporate training. Each of Iowa's community colleges is unique. They are connected to the regional economy and have the flexibility to add or expand programs to meet the needs of the region. The following are examples of customized training programs that were developed through partnerships with local businesses:

- The Advanced Manufacturing Sector Board at Kirkwood Community College developed several new training programs, driven by the board of employers. These programs were requested due to critical workforce shortages in the occupational fields of CNC Technician and Machinist, Welder, and Industrial Maintenance Technician and Assembler.
- North Iowa Area Community College worked with the Valent Biosciences Corporation in Osage, Iowa to provide a *Plant Operations and Safety Program* prior to starting full operation of their new plant this past summer. The college worked with Valent to outline the parameters of the training program and then consulted with Indian Hills Community College's Iowa Bio Development Center on the final design and delivery of the program.

Please see the Appendices for further detail on the types of employer-driven training programs that are being provided by Iowa's 15 community colleges. Many of these programs have been designed with input from an employer/mix advisory group or a sector board.

## APPENDICES

### 01 - NORTHEAST IOWA COMMUNITY COLLEGE

- ***Opportunity Dubuque: An Employer-Driven Workforce Solution***
  - ◆ Listening to area businesses, Northeast Iowa Community College quickly launched a new certification initiative named *Opportunity Dubuque* in January 2012 with the goal of upgrading workers' skills, creating low-skill to advanced-skill career pathways, and ultimately filling local employer demand for talent in high-wage careers. The talent to be trained was identified as: 1) the unemployed and underemployed, 2) high school student with a penchant for hand-on learning, 3) dislocated workers who needed to brush up on new skills to become marketable again, and 4) referrals from local community groups and non-profits who needed a fresh start in life.
  - ◆ Funding: Resources have included grant funds from Iowa Economic Development Authority and the Department of Labor; Workforce Investment Act training funds; state tuition assistance (GAP) and in-kind donations.
  - ◆ **Outcomes:**
    - ⇒ Since January 2012, 238 students graduated (24 in training) in welding, introduction to modern manufacturing, CNC, certified production technology, mechatronics, mainframe, middleware, storage and unix storage.
    - ⇒ 223 graduates employed or continuing education (97%).
    - ⇒ Replicated Opportunity model at four rural Northeast Iowa Community College center locations.
    - ⇒ Evolved to include career pathway certificates in information technology, healthcare and transportation and logistics.
    - ⇒ Expanded from 8 to 24 employer partners in just two years.
- ***Career Pathway Certificates (CPC)***
  - ◆ Career pathway certificates provide training for individuals through the *Pathways for Academic Careers and Employment* (PACE) and GAP state programs in high-demand occupations that lead directly to employment and often ladder into academic credit programs.
  - ◆ NICC offers CPCs based on input from employer groups through its HR Alliance, Manufacturing Alliance, and CEO Executive Exchange.
  - ◆ Curriculum developed with employers.
  - ◆ CPCs at NICC include Certified Nursing Aide, CNC Machining, Mechatronics, Certified Production Technician, CDL, Welding, EMT.
- ***NEW Shared CNC Lab with Cresco High School***
  - ◆ Over the past five years, NICC has been approached by numerous manufacturers in northeast Iowa regarding the lack of manufacturing-related training opportunities available on the north end of the NICC district. These businesses from New Hampton, Decorah, Cresco, etc. could not access labs that are over two hours away from Calmar at the Peosta campus. Based on the number of local manufacturing-related job openings and the economic impact of these opportunities, it made sense to create a lab that meets these needs in northeast Iowa.
  - ◆ Based on needs assessments from employers such as Stanley, Deco, Featherlite, Upper Iowa Tool & Die, and Tri-Mark, NICC converted an existing but under-utilized auto lab in Cresco to focus on training opportunities in CNC machining for unemployed and underemployed adults. The location (at Cresco high school) also created partnerships to utilize the space for exploratory and concurrent enrollment classes for high school students to generate interest in the manufacturing skilled trades.

- **New Programs through Iowa-Advanced Manufacturing grant**
  - ◆ Through industry partnerships in the state TAA I-AM grant, NICC developed a spring welding and evening welding program, as well as industrial maintenance diploma and Associate of Applied Science (AAS) program.
- **New Programs through Bridges2Healthcare grant**
  - ◆ Through industry partnerships in the Iowa, Wisconsin, and Minnesota tri-state TAA grant, NICC developed a medical assisting program, pharmacy technician certificate program, and expanded Certified Nursing Aide training to new rural locations.
- **New Programs through Skill Up grant**
  - ◆ Through industry partnerships in information technology, NICC developed and delivered IT certificate (non-credit) programming for more than 20 unique certificates and brought more than 30 third-party trainings to 20 local business partners.
- **New Programs through DOL Energy Sector Partnership grant**
  - ◆ Through grant partnerships with local industry, NICC developed and delivered programming in wind technology (AAS credit program), as well as certificate programming in solar photovoltaic, solar thermal, geothermal, deconstructions, and offered third-party training through RESNET and BPI Building Analyst.
- **Finance, AAS**
  - ◆ Recently, NICC incorporated a finance degree into the Agricultural education plan in direct response to the banking industry's desire for finance employees skilled in agriculture.
- **Mechanical Engineering Technology, AAS**
  - ◆ Developed in partnership with local industry demand for engineering support, NICC created a new program through the support of a National Science Foundation ATE grant. In addition to industry, the program also partners with Project Lead the Way in area high schools.
- **Gas Utility Construction and Service, Diploma**
  - ◆ Developed a unique partnership with Black Hills Energy in Dubuque. This program leverages the partnership to train workers for the energy field, while sharing costs associated with equipment, instructor and marketing.
- **Degree after Five, AA**
  - ◆ *Degree after Five* was developed after conversations with several businesses regarding the need for evening programming for working adults. Businesses also provided input on admissions criteria for this unique program.
- **John Deere TECH, AAS**
  - ◆ The John Deere TECH program is designed to upgrade the technical competence and professional level of incoming John Deere dealership technicians. It is supported by John Deere Company and operated by NICC.

*Note:* All Career and Technical Education programs at Northeast Iowa Community College include an advisory board of employers and other partners from the program development stage. In essence, all programs at the College are employer-driven and employer-supported.

## **02 - NORTH IOWA AREA COMMUNITY COLLEGE**

The following are examples of customized, credit or noncredit training programs that are being *driven by employers* or employer/mix advisory groups:

**Credit Example:** In the fall of 2013, NIACC started a Diesel Technology Program to train students for careers as Diesel Technicians. For many years, NIACC heard about the need for Diesel Technicians in the area from local employers. Prior to the start of the program, NIACC convened an advisory committee comprised of seven local companies who employ Diesel Technicians. The advisory committee helped to select the structure and curriculum components of the program and donated much-needed equipment to help get the program started. NIACC is currently in the process of building an addition to the industrial facilities' area to house the program.

**Non-Credit Example:** Prior to beginning full operation of their new \$146 million dollar plant in Osage, Valent Biosciences needed a program designed to teach new employees safety and the fundamentals of fermentation, sterilization, and separation technologies (**Plant Operations and Safety Program**). NIACC worked with Valent to outline the parameters of the training program to fit the content, time and cost needs of the company. NIACC then worked with Indian Hills Community College's Iowa BioDevelopment Center on the final design and delivery of the program.

### 03 - IOWA LAKES COMMUNITY COLLEGE

- **Advanced Manufacturing**
  - ◆ **Welding Technology Certificate Program.** Both credit and noncredit offerings have been developed in response to industry needs in the northwest region of Iowa, specifically Emmet, Dickinson and Clay Counties, where the greatest demand for welders has been documented. Expanding manufacturing facilities need welding technicians who have the personal skills to work well on teams. Human relations is a key component of this program. AWS Certifications are available to participants who successfully complete coursework. The Welding Program Advisory Committee and Industry-needs were paramount in developing this short-term, skill-up program. STEM connection: engineering and math.
- **Agriculture**
  - ◆ **Commercial Applicator Short-Term, Skill-Up Program.** This is an approved GAP program, developed as a result of a collaboration between industry and College faculty to identify skills needed, curriculum development and assistance with preparing a marketing plan to attract workers to this high-skill, high-wage career opportunity. The industry professionals are continuing to work on additional skill-gap programs in the agriculture industry. The following are noncredit programs that align with the credit programs, and they are Sector Board initiated. Programs in progress: Beef Specialist, Grain Handler, Precision Ag, and Inventory Specialist. STEM connection: science, technology and math.
- **Allied Health and Nursing**
  - ◆ **Certified Nurse Aide** is available for enrollment as either credit or noncredit. STEM connection: science, technology and math.
- **Business/Financial**
  - ◆ **Basic Accounting Program.** This is a noncredit offering, GAP Program. It was developed to fill the need for entry-level bookkeeper positions, often clerical in nature, who may do billing for a company.
  - ◆ **Accounting Clerk.** This is a noncredit offering, GAP Program, continuation of the Basic Program, which includes payroll, inventory reconciliation, account payable and accounts receivable responsibilities.
  - ◆ **Certified Bookkeeper.** Both credit and noncredit offerings. Completers are prepared to successfully earn a national credential through examination. For the bookkeeping/financial programs, individuals are able to bridge into the next level of employment responsibilities by transitioning into a two-year degree program. The Credit Program Advisory Committee has approved the short-term, skill-up programs. Employers are supportive of hiring these completers, as the demand for employees is high. The demand for degree completers has outstripped the supply.
  - ◆ **Basic Computing, Advanced Computing, Administrative Specialist.** These noncredit programs are approved by the Degree Program Advisory Committee and employers in the banking, insurance and real estate industries. These businesses are eager to hire program completers to fill the employment opportunities for receptionists and customer service specialists. Depending on which program the participant completes, Microsoft credentials are available, upon passage of the national examination. STEM connection: technology.
- **Energy**
  - ◆ **Wind Energy and Turbine Technology.** This credit program is for a diploma or associate in applied science degree. STEM connection: science, technology, engineering and math.
  - ◆ **Working at Heights.** This is a short-term, skill-up, noncredit program.
  - ◆ **Tower Technician.** This is a short-term, skill-up, noncredit program for the telecommunications industry as well as wind energy.
  - ◆ **Electrical Technology.** This credit program is approved for apprenticeship. Noncredit opportunities have been developed in PLC training for several of the area manufacturers. Short-term training in both high and low voltage are also popular business-specific courses that have been piloted at Iowa Lakes. STEM connection: science, technology, engineering and math.

- ◆ **Skills 1 Maintenance.** This is a 40-hour program that focuses on precision maintenance and the tools that assist the process. Participants learn about vibration, alignment and lubrication. The program has been driven by the Industrial Maintenance Advisory Committee, and has been delivered three times, with three more sessions already being requested. Total enrollment = 25.
- ◆ **Electrical Safety.** Electrical Safety and Arc Flash have been in high demand, especially by co-ops, since they have a large number of individuals that are around and perform some level of electrical tasks. Over one hundred individuals have participated this year.
- ◆ **Welding.** This short-term certificate was developed to train participants for the occupation of production welder. The program lasts eight weeks, and allows the individual to develop basic welding techniques. The program has been most successful in the Storm Lake area.

#### 04 - NORTHWEST COMMUNITY COLLEGE

##### • Employer-Driven Training Programs

- ◆ **Electrical Training.** The Trade and Industry Coordinator at Northwest Iowa Community College worked with the Maintenance Supervisor at Premium Iowa Pork of Hospers, Iowa to develop customized electrical training for their maintenance personnel. Topics included Electrical Safety/Arc Flash, Basic DC/AC Electrical Theory and Applications; Relays, Motor Starters and Basic Control Circuits; Electrical Motor Theory and Variable Frequency Drives. This 24-hour course has been delivered at different times to accommodate all shifts.
- ◆ **Radiologic Technology.** The Radiologic Technology program was started at NCC in response to a request from business and community leaders. During several health meetings in 2002 and 2003, area hospital administrators identified a need for more radiologic technicians in northwest Iowa and asked NCC for assistance to fill these needs. After consulting with a Radiologic Technology advisory board and additional area hospital administrators, NCC administrators determined that there was sufficient need to begin a new Radiologic Technology program. From that point, NCC filed a notice of intent to offer an AAS in Radiologic Technology, and worked with the Department of Education to develop curriculum for the program. This program has been highly successful, and many NCC Radiologic Technology graduates now work in area clinic and hospitals in northwest Iowa and the surrounding areas.

#### 05 - IOWA CENTRAL COMMUNITY COLLEGE

*Note:* Each Career and Technical Education program is designed to meet the needs of business and industry. Iowa Central Community College receives ongoing feedback on the programs to ensure that they are meeting these needs.

##### • New Programs

- ◆ **Process Technology.** After both Cargill and CJ BioAmerica established plants in the Fort Dodge region, it became apparent that they were looking for skill sets that were very similar to many of the existing companies. This was especially true of any company that was doing a batch process. Koch Fertilizer approached Iowa Central Community College about starting a program, and other companies came to the table to help design the program. This program also has components within the Career Academy. Estimated enrollment = 20.
- ◆ **Robotics and Automation.** This program was started in fall 2014 after the College was invited to tour a couple of local manufacturers. Employers explained the complexity of making robots work with all the other systems, and the need for individuals with these skills. Estimated enrollment = 10.

##### • Credit Program

- ◆ **Gunsmith Technology.** Through industry partnership and grant funding with Brownells, the college created a regional Gunsmith Technology Associate in Applied Science (AAS) degree to develop well-trained gunsmiths for Iowa and the Midwest. The coursework was designed in collaboration with industry, and was scheduled to begin in the fall 2012 for a five-semester program. Gunsmith Technology is a program that prepares individuals to apply technical knowledge and skills to make, repair, maintain, and modify firearms according to blueprints or customer specifications, using specialized hand tools and machines. Hunters, sportsmen, collectors, and firearms enthusiasts around the nation all need the services of experienced Gunsmiths to repair and customize their favorite firearms.

- **Non-Credit Programs**

- ◆ **CJ College.** This program was put together for CJ BioAmerica, and was designed to be delivered prior to the company's start-up. This was a four-week program that provided technical training that related directly to individuals' jobs. It included both science and industrial training topics. There were approximately 80 training participants.
- ◆ **JBS Pre-Employment Training, Fundamentals of Industrial Maintenance.** This 82-hour training course is designed to provide workers with basic knowledge and skills required for positions in industrial maintenance at JBS. Students will go through preliminary testing for the NCRC, online safety, and job shadowing in cooperation with Iowa Works for one week before beginning the training. Students are paid a salary through a temporary employment agency provided by JBS during the training period. The course provides a fundamental understanding of math, job success skills, hand tools, motors and controls, mechanical drives and fluid power. Students are given an opportunity to gain practical knowledge and experience from classroom instruction and hands-on examinations.
- ◆ **Fisher-Emerson, Machine Operator Training Program.** The Machine Operator Training Program (MOTP) through Fisher-Emerson has been in operation for more than 10 years. Iowa Valley and Iowa Works partner on recruitment efforts to identify top candidates for the program. Next, interested persons are directed to the Iowa Valley Education and Training Center to complete pre-employment assessments designed specifically for the machine operator program. Potential employees are assessed on their math and mechanical skills. Once the assessment process is complete, participants attend an orientation, tour the plant, and participate in an interview with Fisher-Emerson. Twelve candidates are selected for each MOTP. On the first day of training, participants are signed up as employees through Temp Associates, and they are paid during the 7-10 week training program. The training is conducted through Iowa Valley Continuing Education. Instruction covers everything from job success skills to math to machine-specific training. Upon successful completion of the MOTP, students may receive up to 8.5 college credits toward the Machine Trades program at Marshalltown Community College.

## 06 - IOWA VALLEY COMMUNITY COLLEGE DISTRICT

- **Credit Programs**

- ◆ **Energy.** In 2009, local utility companies approached Iowa Valley Community College about training students for upcoming shortages in the utility industry. An advisory board made up of Alliant Energy, MidAmerican Energy and several R.E.C. partners has been meeting since 2009 to address this regional need. A grant was obtained to start a cohort program in noncredit training for the utility industry that would build toward a credit program. After several successful non-credit cohorts of students taking a 10-week utility technician training, the college sought and received approval from the State of Iowa to start a credit Utility Technician Diploma in fall of 2012. The credit advisory committee has added utility industry employers. The committee continued to meet in 2012 and 2013 to develop a recommendation that the diploma program be expanded to two-year degrees in both gas line technology and power line technology. The advisory committee helped develop the curriculum outcomes desired for graduates of these programs, and also advised on needed equipment and facilities.
- ◆ **Agriculture: Mobile Service Tech.** Approximately two years ago, the Recruitment Manager for Titan Machinery, which owns and operates a network of service agricultural (Case IH and New Holland) and construction equipment stores in the United States and Europe was in Marshalltown visiting the local dealership. He, his colleague, the manager of the local dealership and the Agriculture faculty member were having a conversation about the changing nature of farming as well as the increasing sophistication and size of equipment, and the challenges these changes were presenting to the equipment industry. This initial conversation was followed up with discussions with representatives from other agricultural service dealers in the central Iowa area, and they all expressed the great need for Mobile Service Technicians. From that meeting, our Agriculture faculty member spent time "job shadowing" with the area dealerships to better understand the skills and knowledge that would need to be addressed by the curriculum. Those visits allowed our faculty member to develop an AAS degree program—the first of its kind in the nation. The program is designed to assist agricultural equipment dealers in providing quality service to agricultural producers in the field. An Ellsworth Mobile Service Technician will diagnose, repair and service agricultural equipment in rural locations (literally in the field), using a specially-equipped service truck. This individual has been trained in electricity and electronics, mechanization, computers and precision agriculture, hydraulics, machine repair and maintenance, planting and seeding, hay and forage operations and a multitude of other areas.

- ◆ **Precision Ag.** Many years ago, our Agriculture Advisory Board recommended that we offer a precision agriculture course based on the need for basic skills and knowledge in this area. An introductory course soon followed, and student interest in the precision agriculture area increased. At the same time, the need for precision agriculture technicians was rapidly increasing, and the industry was having a hard time finding qualified applicants. After numerous visits with people in the precision agriculture industry and approval from our advisory board, there was a realization that a specific precision agriculture technician program was highly needed since very few colleges in the U.S. offer such a degree. After visits and meetings with industry representatives, a two-year AAS degree program was developed and implemented at the college. Soon after the degree program was officially approved, the college was the recipient of a nearly \$50,000 USDA-SPECA Challenge Grant. The goal of the grant was to bring precision agriculture knowledge and skills to the secondary school level to showcase what the technology was capable of doing, and to encourage students to look at the industry as a future career option. ECC recently received another \$50,000 USDA-SPECA Challenge Grant that will allow the college to create the Ellsworth Precision Ag Center for Knowledge and Skills. This center is a collaborative effort between the college and several precision agriculture dealers in central Iowa that will allow provide education and training to college and secondary students, secondary educators and adult learners.
- **Energy**
  - ◆ **Engineering Technology.** This is a credit program. Short-term programming is being developed in the areas of robotics, advanced data acquisition and analysis. STEM connection: science, technology, engineering and math.
  - ◆ **Heating, Ventilation, Air-Conditioning and Cooling.** This is a credit program that offers several customized training opportunities to help skill-up incumbent workers, which are employer-specific. There are plans to formalize the common themes, and bring the training competencies to the program advisory committees/sector boards to establish seamless transition to the workplace, regardless of employer. STEM connection: science, technology, engineering and math.
- **Transportation**
  - ◆ **Commercial Drivers License.** This is a noncredit program that has been very popular at Iowa Lakes Community College. There is a high demand for truck drivers, and this license opens the door for additional employability for several of the other Career and Technical degree program participants.

*Note:* These are a few examples of noncredit programs that align with credit, degree programs at Iowa Lakes. Industry participation on the Program Advisory Committees (credit), and representation on the noncredit Sector Boards continue to drive skill-up programming and course competencies.

## 07 - HAWKEYE COMMUNITY COLLEGE

- The following is an example of one of Hawkeye's many employer/customer-driven programs. It is an ACE program for Tyson Fresh Foods in Waterloo. Tyson's Maintenance Training Supervisor advised that the program worked well for Tyson because it gave them a pool of 10-12 new employees every six months. He also stated:
 

"Tyson Fresh Foods established an operation in Waterloo in 2001, but found it difficult to find qualified, skilled maintenance employees within the local workforce. Tyson took advantage of an opportunity to partner with Hawkeye Community College's Business and Community Education Department to enter into an Accelerated Career Education (ACE) program to train and develop their own maintenance workforce. Tyson and Hawkeye collaborate on semi-annual recruiting fairs to attract new candidates for the program. Successful candidates are hired by Tyson, and then enrolled in Tyson's ACE Industrial Maintenance program. The 716-hour hybrid course is articulable to the credit Industrial Maintenance program in the event that students should choose to transition into an Associate's program. Over time, this program has produced 264 successful maintenance employees for Tyson in Waterloo."

## 09 - EASTERN IOWA COMMUNITY COLLEGES

- In 2012, a series of meetings were held throughout the Eastern Iowa Community Colleges region with various members of the general community along with the participation of business and industry. The intent of the meeting was to gain input into the colleges' strategic plan. From these meetings came the idea of developing a new program at EICC, Engineering Technology. Although most of the components of the program existed at the three campuses, packaging them into a format that could provide a career path to students became instrumental. In late 2013, a Defining Engineering Tech Forum was held in which 11 companies participated to define the issues, the field of Engineering Tech, the job itself and provide direction to EICC in the future. The results of the Defining Forum were juried in early 2014 with the Advanced Manufacturing Sector Board. The first classes in the program started in the first semester of academic year 2014-15 with 147 students.



## 10 - KIRKWOOD COMMUNITY COLLEGE

### Continuing Education and Training Services:

- **Advanced Manufacturing.** The Advanced Manufacturing Sector Board at Kirkwood directed the development of several new training programs, driven by the board of employers. The training programs were requested due to critical workforce shortages in the occupational fields of CNC Technician and Machinist; Welder; Industrial Maintenance Technician and Assembler. The board has a member distribution of over 32 employers.  
Four programs were developed to meet the needs, and have had excellent enrollments, graduation rates, and job placement:
  - ◆ **CNC Operator Accelerated Training Program.** This program consists of four modules provided over 16 weeks. Students can take all modules or the module(s) that are needed to complete their skill set. The program is fully articulated to the Academic two-year AAS degree of CNC Machinist with 16 credits accepted. The program is embedded with NIMS industry-recognized credentials.
  - ◆ **Welding Accelerated Training Program.** This program is offered over 12 weeks. It is fully articulated to the Academic Welding diploma and AAS degree program. It is also embedded with AWS Welding Certification credentials.
  - ◆ **Modern Manufacturing.** This short-term certificate program prepares students for entry-level manufacturing positions and internship opportunities through Skilled Iowa. This program fully articulates to the Pathways Welding Certificate Program, with pathways to the Academic Welding diploma and AAS degree program.
  - ◆ **PACE Industrial Maintenance.** This short-term certificate program was designed to assist students with barriers to college-level courses. This pathway program provides certification and articulates to the Academic AAS Industrial Maintenance degree program.
- **Financial Services and Customer Service.** The Financial Services and Customer Service Sector Board at Kirkwood has been actively involved in the development and delivery of a 220-hour certification program to prepare students for Customer Service Representative positions with specialties in insurance, collections and sales.
  - ◆ **Customer Service Representative Certificate.** This short-term, 220-hour industry-endorsed certificate program has an excellent completion and placement rate, working with over 12 employers in the region. This certificate is a locally, industry-recognized credential.
  - ◆ **Sales Certificate.** This is a short-term certificate program under development. Employers in a variety of sectors have expressed difficulty in finding applicants with a 'sales' skill set. Through meetings with a myriad of employers, the certificate will be offered in the spring of 2015 or fall of 2015.
- **Information Technology.** The Information Technology Sector Board and Advisory Boards have directed the development for several new pathway programs and specialty programming language classes to address the workforce shortage for Tier 1 software/hardware technicians and software designers.
  - ◆ **Rubies on Rails/Python.** These short-term certificates are used as 'add-on' skill development for students at the University of Iowa and Kirkwood Community College. The general public is also able to take the training classes.
  - ◆ **PACE Office and Information Technology Pathway.** This pathway program was established to support students with barriers to college to prepare for an administrative office professional position and/or learn back digital technology skills. This program articulates into many AAS degree programs and has the highest rate of student transfer onto credit programs of all PACE programs at the college.
  - ◆ **IT Apprenticeship Program.** As a result of interest from business and industry that are struggling to find qualified information technology workers, work is progressing on the design of Required Instruction Training for employer-sponsored apprenticeship programs in the areas of Computer Service Technician and Network Administrator.
- **Transportation and Logistics.** The Transportation and Logistic Industry Sector Board have directed the development of two new programs in Class B Certification and Logistics Technician Certificate. The board has just been formalized.
  - ◆ **Class B Certification.** This short-term certificate provides students with the opportunity to drive vehicles needing the Class B endorsement. UPS, Kings Concrete, Menards, and Source Media supported the development of the program. This certificate provides an industry-recognized credential.

- ◆ **Logistics Technician Certificate.** This short-term certificate was developed as a pathways program to support entry-level positions in warehousing, transportation and logistics. The program is embedded with industry-recognized Manufacturing Skills Standard Credentials.
- ◆ **Class B Accelerated.** This short-term certificate provides students the opportunity to learn how to drive a semi-tractor trailer, and provides an industry-recognized credential. Kirkwood partners with employers to provide pre-employment training to students where the employers have identified students and intends to hire them after graduating from the training program.
- **Healthcare Employer Advisory Committee.** The Committee requested a short-term training program to assist Registered Nurses return to work.
  - ◆ **Nursing Boot Camp.** To help registered nurses transition back into the clinical environment, Kirkwood Continuing Education offers Nursing Boot Camp, a multi-session program geared toward the individual who desires to return to nursing after an extended absence. The program was developed with guidance from employer partners.

**Credit Programs:**

- **Automation Advisory Committee:**
  - ◆ **Automation and Instrumentation Technologies' AAS degree program.** This program was designed to meet the needs of area advanced manufacturers in the areas of cutting-edge technology equipment installation, maintenance, troubleshooting and repair. With the technical assistance of area businesses uniquely designed trainers mirror advanced manufacturing production systems, affording students real life training experiences. Training is provided in the areas of low/high voltage electricity, mechanical drive systems, microprocessor technology and the communication systems that makes these technologies work together. Stackable, industry aligned, third-party credentials are embedded throughout the curriculum validating student knowledge and skill sets.
- **Dental Program Advisory Committee:**
  - ◆ **Dental Assistant Program.** The program provides courses through continuing education that offer training to practicing dental assistants so they can obtain an Essential Functions skill set, which adds to their resume of work skills for employment. The dental hygiene faculty also offer courses in radiography through continuing education.
- **Physical Education Faculty:**
  - ◆ **Exercise Science.** An AAS degree program is in development as a result of employer requests for trainers and exercise facilitators. The program is STEM-based science with a strong emphasis on body development and nutrition.

**11 - DES MOINES AREA COMMUNITY COLLEGE (DMACC)**

- **Vermeer and DMACC - Addressing the Skills Gap**
  - ◆ **Background.** For more than six decades, Vermeer has produced agricultural and industrial equipment that is built tough, built to perform, built for value, and backed by caring customer service. Vermeer is based in Pella, Iowa, and employs over 3,000 team members. Because of the nature of its business, the majority of Vermeer team members are highly skilled welders, machinists and other production experts. Committed to providing continual training opportunities for its employees, Vermeer developed a Metal Inert Gas (MIG) welding training program. The program has been recognized as outstanding by the American Welding Society (AWS). Vermeer's challenge, however, continues to be finding enough skilled employees to fulfill its significant workforce needs.
  - ◆ **Challenges.** There is a nationwide shortage of welders, particularly highly technical MIG welders. The shortage is compounded in rural communities, such as Pella, despite the opportunities offered by companies like Vermeer. The lack of a fully-staffed operation impacts production time, and therefore limited Vermeer's potential growth.
  - ◆ **Solution.** To help solve their technical welding workforce shortage, Vermeer partnered with Des Moines Area Community College's Business Resources (DBR) department to create a publically-offered enhanced MIG welding training program available broadly throughout central Iowa. Vermeer provided its award-winning curriculum and DMACC developed an affordable certificate program available to all individuals interested in the field of welding. The resulting MIG welding program has very high

- ◆ performance expectations, and the graduates have been rewarded with outstanding job opportunities. Given the demanding nature of the program, and in respect to the substantial investment by Vermeer, DMACC expends tremendous effort determining a career pathway for each student that leads to employment upon completion of training. As a public community college, DMACC is able to use state funds such as “PACE” and “GAP,” as well as the Iowa New Jobs Training Program to ensure the training is accessible and affordable.
- ◆ **Results.** The results of the Vermeer-DMACC partnership have been outstanding. Both program participants and Vermeer have greatly benefited. Since February 2012, five program cohorts have been offered. To date:
  - \* A total of 56 students have graduated from the program (91 percent completion rate).
  - \* Ninety-one percent of graduates have been offered employment (51). Forty-one of these were offered employment at Vermeer.
  - \* Retention for the highly-skilled program graduates hired by Vermeer exceeds 80 percent.

Given its outstanding return on investment, Vermeer continues to invest in welding training opportunities by providing DMACC with materials, fabricating welding coupons, recommending adjunct instructors, and allowing DMACC to utilize its AWS-awarded curriculum in its public offering courses.

*“The DMACC Business Resources - Vermeer collaborative training solution is true workforce development. Many of the training participants had been on unemployment for a while and were discouraged. Through this program, they received encouragement, and we are confident that they are now going to be successful in the workforce.”* Rich Kacmarynski, Vermeer Welding Recruiter

#### 14 - SOUTHWESTERN COMMUNITY COLLEGE (SWCC)

- **Recent New Credit Programs Developed Due to Industry Demand.** *All career and technical programs at Southwestern are employer-driven, and include an advisory board of employers and other partners from the program development stage.*
  - ◆ **Electrical Technology, diploma and AAS.** Responding to requests from local and regional industry, Southwestern researched, proposed and implemented an Electrical Technology program. Partnering with area industries including Pinnacle Foods Group LLC, Johnson Controls, Ferrera Candy Company, and O’Neal Electric; SWCC was able to organize a strong advisory team which assisted in the development of a curriculum that will produce skilled workers to meet the demand in the electrical career field. Prior to this effort, there was no formal training program in the southwest Iowa area for electrical technicians.
  - ◆ **Industrial Maintenance Technology, certificate, diploma and AAS.** Responding to requests from regional businesses such as Bunn-O-Matic, Precision Pulley and Idler, Osceola Foods and Cardinal Glass, SWCC started an Industrial Maintenance Technology program. The labor market data showed there would be an average of 65 job openings in the region each year through 2020. Employment of industrial maintenance workers was expected to grow by a minimum of 13 percent through 2020. Many who are employed in the field are expected to retire in coming years, and employers reported difficulty in recruiting workers with the necessary skills to be industrial maintenance technicians. The College organized an advisory team with area industry members, and developed a curriculum that would produce skilled graduates to meet this industry demand. The funding to begin the program was through the Iowa Advanced Manufacturing Grant.
  - ◆ **Welding Technology, certificate, diploma and AAS.** Responding to requests from Vanmark, Wellman Dynamics, Iowa Steel, Inc., and Precision Pulley, SWCC started a new Welding Technology program. Labor market information indicated that welding occupations will have the 2nd highest job growth rate in Region 14 through 2020, growing by 52 percent. Partnering with the businesses previously mentioned, an advisory team was organized, and a comprehensive welding technology curriculum was developed to produce skilled workers to meet the regional demand. Funding to expand this program was obtained through the Iowa Advanced Manufacturing grant.
- **Non-Credit Training Programs Since July 1, 2014 (Customized Training):**
  - ◆ **Industrial Maintenance.** This training was developed for companies in Red Oak, Creston, and Osceola. Currently, there are 67 participants with two more sessions scheduled.
  - ◆ Geometrical Dimensioning and Tolerances training in Osceola with 16 participants.
  - ◆ Welding training in Leon, Creston, and Red Oak; 42 trained.

*Note: Southwestern Community College plans training for later this fiscal year to include electrical, welding, HVAC, plumbing and industrial maintenance.*

## 15 - INDIAN HILLS COMMUNITY COLLEGE

### • Customized Training Programs for Regional Employers:

- ◆ **East Penn Manufacturing.** East Penn headquartered in Lyon Station, Pennsylvania, with a large manufacturing facility in Corydon, Iowa, is a leading manufacturer of batteries with over 8,000 employees, 450 product designs, and hundreds of awards for manufacturing and environmental excellence. East Penn's product line of Deka batteries is one of the most well respected brands in the battery market today.

Indian Hills Community College developed a customized industrial maintenance program approximately three years ago to meet the needs of East Penn's Corydon location. This customized program is based on keeping East Penn's manufacturing facility operating at an efficient level, while maintaining their high safety standards. Several of East Penn's industrial maintenance employees train each year to insure that their Corydon operation remains effective and efficient. Multiple changes have been made to the customized industrial maintenance program over the last three years to assure that the requisite standards are met.

- ◆ **Cargill Meat Solutions.** Cargill Meat Solutions, located in Ottumwa, Iowa, is the umbrella organization of Cargill's North American beef, pork and turkey, foodservice, food distribution and case ready businesses. These companies employ more than 32,000 people in the U.S. and Canada, who work at dozens of processing and support facilities. They focus on product innovation and quality, food safety, animal well-being, improved sustainability and community engagement.

Indian Hills Community College is currently working with Cargill Meat Solution's industrial maintenance personnel in the areas of confined space entry, electrical safety and Hazmat. IHCC is also working with Cargill Meat Solutions to train 115 employees in a 40-hour mechanical craft skills training program.

The mechanical craft skills training program positions each employee to better maintain their respective equipment, while also effectively decreasing the amount of downtime for the preventive maintenance of equipment. This proven program continues to be scrutinized for efficiency and effectiveness.

- ◆ **Clow Valve.** With a large manufacturing facility located in Oskaloosa, Iowa, Clow Valve is a manufacturer of fire hydrants and waterworks valves. The Oskaloosa plant includes iron and brass foundries, a machine shop, assembly, finished goods warehouse, shipping and administrative offices. Clow Valve is especially proud to continue their history of offering manufactured products that comply with "Made in the USA" requirements.

Indian Hills Community College is currently involved in a customized supervisory training series that includes communications, leadership, team building and effective management to name a few. One of the main goals is to have consistent leadership on each team in all of Clow Valve's departments.

- ◆ **John Deere Ottumwa Works.** John Deere Ottumwa Works manufactures round bales, small square bales, pull-type forage harvesters, mower conditioners, and self-propelled windrowers. The Ottumwa Works facility is spread across 120 acres, has a payroll of over 850 employees, and makes over 10,000 units per year.

Indian Hills Community College is working on safety training plant wide, which will reduce lost time injuries caused by sprains and strains. Additionally, critical error reduction techniques and the reduction of injury casing errors will also be covered in the safety training.

This comprehensive training program will reduce injuries plant wide, while improving overall productivity. A majority of the training will take place on-site in John Deere's Ottumwa Work's training facilities.

- ◆ **Dexter Apache Holdings, Inc. - STEM Focus.** Headquartered in Fairfield, Iowa, Dexter Apache Holdings and its predecessor, The Dexter Company, has a rich heritage for delivering high quality, durable commercial laundry equipment. The company offers commercial and industrial laundry equipment for self-service laundromats, hotels, motels, hospitals, universities and care giving facilities.

Indian Hills Community College is currently involved in a customized training program to provide precision measuring and blue print training to Dexter Apache Holdings' employees. The precision measuring training will enable employees to more effectively measure material to decrease scrap, while producing more efficient products.

Through their 100% employee-owned company, Dexter Apache Holdings is positioned to continue delivering high quality, innovative products and services to their customers and business partners.

## **16 - SOUTHEASTERN COMMUNITY COLLEGE**

- In the summer of 2012 Roquette America, a manufacturer in Keokuk, IA, came to Southeastern Community College through its Center for Business (CBIZ) expressing the need for workers with skills in industrial operations maintenance. Roquette had difficulty finding employees with the skill set for their industrial maintenance positions. As a result of a community grant in Roquette's name, equipment was purchased and CBIZ developed the non-credit Industrial Operations Maintenance Skills (IOMS) program. This is an eight-week program that includes the following:
  - ◆ Students learn to operate, repair and troubleshoot industrial machinery.
  - ◆ Training equipment for this program includes more than 200 hands-on training aids that replicate tools, components and systems currently used on factory floors across the country.

In addition to the creation of the IOMS training, CBIZ continues to work with Roquette to extend the training of two of Roquette's employees who completed the IOMS program in apprenticeship type training through the for-credit Industrial Maintenance Program. Two of the modules in IOMS have been cross-walked with the credit instruction.

In the fall of 2014, the Industrial Operations Maintenance Skills program was extended into Central Lee High in Donnellson, and continued with Fort Madison and Keokuk in spring 2015. This program is being offered as a dual-enrollment class.

IOWA WORKFORCE DEVELOPMENT REGION 1 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>125,330</b>	<b>138,060</b>	<b>12,730</b>	<b>1.0</b>	<b>4255</b>	<b>\$17.90</b>	<b>\$37,222</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>12,905</b>	<b>12,790</b>	<b>-115</b>	<b>-0.1</b>	<b>290</b>	<b>36.24</b>	<b>75,375</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	7,195	6,555	-640	-0.9	115	N.A.	N.A.
11-9199	Managers, All Other	1,010	995	-15	-0.1	20	32.42	67,444
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>4,395</b>	<b>4,955</b>	<b>560</b>	<b>1.3</b>	<b>140</b>	<b>26.29</b>	<b>54,680</b>
13-1199	Business Operations Specialists, All Other	975	1,020	40	0.4	15	22.78	47,384
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>2,635</b>	<b>3,235</b>	<b>605</b>	<b>2.3</b>	<b>100</b>	<b>33.68</b>	<b>70,046</b>
15-1151	Computer User Support Specialists	500	625	130	2.6	20	22.30	46,385
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>1,000</b>	<b>1,065</b>	<b>65</b>	<b>0.7</b>	<b>30</b>	<b>29.08</b>	<b>60,483</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>545</b>	<b>585</b>	<b>45</b>	<b>0.8</b>	<b>25</b>	<b>22.14</b>	<b>46,046</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>1,955</b>	<b>2,290</b>	<b>335</b>	<b>1.7</b>	<b>80</b>	<b>17.45</b>	<b>36,292</b>
21-1093	Social & Human Service Assistants	285	340	55	1.9	15	13.55	28,188
<b>23-0000</b>	<b>Legal Occupations</b>	<b>435</b>	<b>480</b>	<b>45</b>	<b>1.0</b>	<b>10</b>	<b>30.61</b>	<b>63,659</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>8,535</b>	<b>9,375</b>	<b>845</b>	<b>1.0</b>	<b>265</b>	<b>20.55</b>	<b>42,749</b>
25-2011	Preschool Teachers, Ex Special Education	230	260	30	1.3	10	13.66	28,421
25-4031	Library Technicians	160	170	15	0.9	10	13.64	28,361
25-9041	Teacher Assistants	1,605	1,720	115	0.7	50	11.10	23,090
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>1,925</b>	<b>2,190</b>	<b>265</b>	<b>1.4</b>	<b>75</b>	<b>16.93</b>	<b>35,206</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>5,770</b>	<b>6,745</b>	<b>980</b>	<b>1.7</b>	<b>215</b>	<b>29.46</b>	<b>61,271</b>
29-1141	Registered Nurses	2,150	2,480	330	1.5	75	24.30	50,542
29-2021	Dental Hygienists	200	240	40	2.0	10	30.39	63,203
29-2041	Emergency Medical Technicians & Paramedics	265	310	45	1.7	10	12.78	26,575
29-2052	Pharmacy Technicians	320	405	80	2.5	10	13.87	28,860
29-2061	Licensed Practical & Licensed Vocational Nurses	535	650	115	2.1	25	18.65	38,801
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>3,405</b>	<b>3,905</b>	<b>500</b>	<b>1.5</b>	<b>115</b>	<b>12.25</b>	<b>25,472</b>
31-1014	Nursing Assistants	1,860	2,075	215	1.2	55	11.20	23,287
31-9091	Dental Assistants	225	255	30	1.3	10	16.45	34,221
31-9092	Medical Assistants	325	385	60	1.8	10	14.73	30,648
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>1,510</b>	<b>1,640</b>	<b>130</b>	<b>0.9</b>	<b>65</b>	<b>18.81</b>	<b>39,130</b>
33-3051	Police & Sheriff's Patrol Officers	315	335	20	0.6	10	23.40	48,679
33-9032	Security Guards	400	445	45	1.1	10	15.47	32,173
33-9092	Lifeguards/Ski Patrol/Other Recreational Protective Service Workers	315	350	35	1.1	25	8.20	17,053
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>8,950</b>	<b>9,930</b>	<b>980</b>	<b>1.1</b>	<b>420</b>	<b>9.23</b>	<b>19,208</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	460	520	60	1.3	20	14.18	29,499
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>4,205</b>	<b>4,795</b>	<b>590</b>	<b>1.4</b>	<b>145</b>	<b>11.32</b>	<b>23,555</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>3,800</b>	<b>4,580</b>	<b>780</b>	<b>2.1</b>	<b>170</b>	<b>10.48</b>	<b>21,790</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	490	600	110	2.2	25	11.90	24,749
39-7011	Tour Guides & Escorts	175	195	20	1.1	10	8.86	18,437
39-9011	Childcare Workers	1,165	1,410	245	2.1	60	8.48	17,643
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>11,510</b>	<b>12,465</b>	<b>955</b>	<b>0.8</b>	<b>445</b>	<b>15.76</b>	<b>32,781</b>
41-1011	First-Line Supervisors of Retail Sales Workers	1,140	1,230	95	0.8	35	18.42	38,317
41-3021	Insurance Sales Agents	325	395	70	2.2	15	26.03	54,138
41-3099	Sales Representatives, Services, All Other	190	220	30	1.6	10	20.39	42,405
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	1,290	1,405	115	0.9	35	30.26	62,933

**IOWA WORKFORCE DEVELOPMENT REGION 1 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>125,330</b>	<b>138,060</b>	<b>12,730</b>	<b>1.0</b>	<b>4255</b>	<b>\$17.90</b>	<b>\$37,222</b>
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>15,400</b>	<b>16,510</b>	<b>1,105</b>	<b>0.7</b>	<b>460</b>	<b>14.33</b>	<b>29,811</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	610	690	80	1.3	20	21.53	44,774
43-3011	Bill & Account Collectors	205	250	40	2.0	10	N.A.	N.A.
43-3031	Bookkeeping, Accounting, & Auditing Clerks	1,915	2,125	210	1.1	40	14.97	31,140
43-3071	Tellers	530	595	65	1.2	30	12.32	25,629
43-4051	Customer Service Representatives	1,225	1,405	180	1.5	50	13.80	28,701
43-4081	Hotel, Motel, & Resort Desk Clerks	305	370	65	2.1	20	8.67	18,029
43-4171	Receptionists & Information Clerks	670	725	55	0.8	25	12.29	25,555
43-5052	Postal Service Mail Carriers	260	195	-65	-2.5	10	23.89	49,690
43-5061	Production, Planning, & Expediting Clerks	305	350	45	1.5	15	16.62	34,570
43-5071	Shipping, Receiving, & Traffic Clerks	345	360	15	0.4	10	14.29	29,731
43-6013	Medical Secretaries	310	385	75	2.4	10	14.21	29,554
43-6014	Secretaries & Administrative Assistants, Ex Legal/Medical/Executive	1,975	2,185	210	1.1	45	13.61	28,312
43-9061	Office Clerks, General	2,220	2,330	110	0.5	60	13.88	28,862
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>1,695</b>	<b>1,715</b>	<b>20</b>	<b>0.1</b>	<b>50</b>	<b>15.29</b>	<b>31,802</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>6,120</b>	<b>7,475</b>	<b>1,355</b>	<b>2.2</b>	<b>240</b>	<b>19.23</b>	<b>39,992</b>
47-1011	First-Line Supervisors of Construction Trades & Extraction Workers	340	415	75	2.2	10	24.66	51,298
47-2021	Brickmasons & Blockmasons	215	290	75	3.5	10	20.58	42,815
47-2031	Carpenters	690	900	205	3.0	30	19.05	39,633
47-2073	Operating Engineers & Other Construction Equipment Operators	635	770	135	2.1	25	21.47	44,652
47-2111	Electricians	590	690	100	1.7	20	21.91	45,571
47-2152	Plumbers, Pipefitters, & Steamfitters	290	345	50	1.7	10	22.33	46,455
47-4051	Highway Maintenance Workers	390	410	20	0.5	10	19.08	39,688
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>5,190</b>	<b>5,820</b>	<b>630</b>	<b>1.2</b>	<b>190</b>	<b>18.56</b>	<b>38,604</b>
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	330	355	25	0.8	10	25.44	52,911
49-3023	Automotive Service Technicians & Mechanics	625	695	70	1.1	25	16.75	34,839
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	305	330	25	0.8	10	20.32	42,261
49-3041	Farm Equipment Mechanics & Service Technicians	295	325	30	1.0	10	17.55	36,494
49-3042	Mobile Heavy Equipment Mechanics, Ex Engines	255	280	25	1.0	10	18.55	38,587
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	175	215	40	2.3	10	19.89	41,365
49-9041	Industrial Machinery Mechanics	520	640	120	2.3	25	21.61	44,956
49-9071	Maintenance & Repair Workers, General	1,110	1,235	130	1.2	35	16.24	33,780
<b>51-0000</b>	<b>Production Occupations</b>	<b>13,670</b>	<b>14,645</b>	<b>975</b>	<b>0.7</b>	<b>400</b>	<b>16.03</b>	<b>33,348</b>
51-1011	First-Line Supervisors of Production & Operating Workers	650	690	35	0.5	15	24.49	50,941
51-2092	Team Assemblers	2,070	2,250	180	0.9	50	16.79	34,913
51-2099	Assemblers & Fabricators, All Other	600	675	70	1.2	15	13.44	27,952
51-4011	Computer-Controlled Machine Tool Operators, Metal/Plastic	1,020	1,230	210	2.1	50	17.77	36,957
51-4041	Machinists	465	540	80	1.7	20	17.79	36,994
51-4121	Welders, Cutters, Solderers, & Brazers	765	830	65	0.8	25	16.21	33,711
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	405	425	20	0.5	10	15.30	31,833
51-9199	Production Workers, All Other	1,050	1,165	115	1.1	40	15.76	32,782
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>9,780</b>	<b>10,855</b>	<b>1,075</b>	<b>1.1</b>	<b>320</b>	<b>15.57</b>	<b>32,388</b>
53-1031	First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	215	245	30	1.4	10	17.69	36,797
53-3022	Bus Drivers, School or Special Client	450	460	10	0.2	10	13.60	28,284
53-3031	Driver/Sales Workers	435	480	45	1.0	10	14.79	30,769
53-3032	Heavy & Tractor-Trailer Truck Drivers	3,015	3,425	410	1.4	90	18.28	38,024
53-3033	Light Truck or Delivery Services Drivers	810	890	80	1.0	20	16.04	33,372

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

IOWA WORKFORCE DEVELOPMENT REGION 2 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>62,755</b>	<b>68,070</b>	<b>5,315</b>	<b>0.8</b>	<b>2,025</b>	<b>\$17.23</b>	<b>\$35,845</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>6,880</b>	<b>6,700</b>	<b>-180</b>	<b>-0.3</b>	<b>140</b>	<b>35.94</b>	<b>74,759</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	4,180	3,830	-345	-0.8	65	N.A.	N.A.
11-9199	Managers, All Other	600	590	-10	-0.2	15	37.75	78,511
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>1,860</b>	<b>2,045</b>	<b>185</b>	<b>1.0</b>	<b>55</b>	<b>26.47</b>	<b>55,058</b>
13-1199	Business Operations Specialists, All Other	520	535	15	0.3	10	28.00	58,239
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>590</b>	<b>685</b>	<b>95</b>	<b>1.6</b>	<b>20</b>	<b>27.28</b>	<b>56,733</b>
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>430</b>	<b>455</b>	<b>30</b>	<b>0.7</b>	<b>15</b>	<b>28.77</b>	<b>59,836</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>360</b>	<b>400</b>	<b>35</b>	<b>1.0</b>	<b>15</b>	<b>27.32</b>	<b>56,832</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>540</b>	<b>625</b>	<b>85</b>	<b>1.6</b>	<b>20</b>	<b>17.96</b>	<b>37,357</b>
<b>23-0000</b>	<b>Legal Occupations</b>	<b>265</b>	<b>305</b>	<b>35</b>	<b>1.3</b>	<b>10</b>	<b>27.57</b>	<b>57,340</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>3,080</b>	<b>3,335</b>	<b>255</b>	<b>0.8</b>	<b>90</b>	<b>18.94</b>	<b>39,405</b>
25-9041	Teacher Assistants	685	735	50	0.7	20	9.86	20,518
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>765</b>	<b>825</b>	<b>65</b>	<b>0.8</b>	<b>25</b>	<b>16.75</b>	<b>34,848</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>3,340</b>	<b>3,820</b>	<b>485</b>	<b>1.5</b>	<b>120</b>	<b>29.96</b>	<b>62,307</b>
29-1141	Registered Nurses	1,350	1,530	185	1.4	45	26.27	54,647
29-2021	Dental Hygienists	185	220	35	1.9	10	33.63	69,942
29-2061	Licensed Practical & Licensed Vocational Nurses	305	360	60	2.0	15	17.42	36,228
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>1,975</b>	<b>2,245</b>	<b>270</b>	<b>1.4</b>	<b>65</b>	<b>12.81</b>	<b>26,640</b>
31-1014	Nursing Assistants	910	1,020	110	1.2	30	11.62	24,177
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>530</b>	<b>565</b>	<b>35</b>	<b>0.7</b>	<b>20</b>	<b>18.62</b>	<b>38,724</b>
33-3051	Police & Sheriff's Patrol Officers	240	250	10	0.4	10	22.03	45,827
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>4,725</b>	<b>5,145</b>	<b>420</b>	<b>0.9</b>	<b>210</b>	<b>9.23</b>	<b>19,196</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	310	350	40	1.3	15	16.35	34,010
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>2,220</b>	<b>2,485</b>	<b>260</b>	<b>1.2</b>	<b>75</b>	<b>12.76</b>	<b>26,542</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>1,860</b>	<b>2,225</b>	<b>365</b>	<b>2.0</b>	<b>75</b>	<b>11.28</b>	<b>23,461</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	330	395	65	2.0	15	10.82	22,513
39-9011	Childcare Workers	380	485	100	2.6	20	8.39	17,447
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>6,300</b>	<b>6,695</b>	<b>395</b>	<b>0.6</b>	<b>235</b>	<b>13.66</b>	<b>28,412</b>
41-1011	First-Line Supervisors of Retail Sales Workers	765	820	55	0.7	25	14.83	30,841
41-3021	Insurance Sales Agents	240	290	55	2.3	10	23.05	47,953
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	795	840	45	0.6	20	24.89	51,763
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>8,305</b>	<b>8,770</b>	<b>465</b>	<b>0.6</b>	<b>240</b>	<b>14.39</b>	<b>29,924</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	325	360	35	1.1	10	22.17	46,111
43-3011	Bill & Account Collectors	180	210	30	1.7	10	14.60	30,373
43-3031	Bookkeeping, Accounting, & Auditing Clerks	880	950	70	0.8	15	14.15	29,435
43-3071	Tellers	365	365	0	0.0	15	11.58	24,092
43-4051	Customer Service Representatives	545	600	55	1.0	20	16.34	33,989
43-4121	Library Assistants, Clerical	145	170	20	1.4	10	9.62	20,010
43-4171	Receptionists & Information Clerks	360	370	10	0.3	10	10.98	22,840
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	1,205	1,320	120	1.0	25	13.90	28,917
43-9061	Office Clerks, General	1,140	1,175	35	0.3	30	13.72	28,542
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>930</b>	<b>935</b>	<b>5</b>	<b>0.1</b>	<b>30</b>	<b>16.75</b>	<b>34,841</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>2,930</b>	<b>3,615</b>	<b>685</b>	<b>2.3</b>	<b>120</b>	<b>17.49</b>	<b>36,381</b>
47-2031	Carpenters	385	510	125	3.2	20	20.58	42,797
47-2073	Operating Engineers & Other Construction Equipment Operators	200	250	45	2.3	10	19.30	40,145
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>2,805</b>	<b>3,130</b>	<b>320</b>	<b>1.1</b>	<b>100</b>	<b>19.65</b>	<b>40,875</b>
49-3021	Automotive Body & Related Repairers	255	300	45	1.8	10	N.A.	N.A.
49-3023	Automotive Service Technicians & Mechanics	375	410	35	0.9	15	16.42	34,150
49-3041	Farm Equipment Mechanics & Service Technicians	230	250	20	0.9	10	14.56	30,280
49-9041	Industrial Machinery Mechanics	190	240	50	2.6	10	20.22	42,053
49-9071	Maintenance & Repair Workers, General	435	480	40	0.9	10	17.47	36,329



**IOWA WORKFORCE DEVELOPMENT REGION 2 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>62,755</b>	<b>68,070</b>	<b>5,315</b>	<b>0.8</b>	<b>2,025</b>	<b>\$17.23</b>	<b>\$35,845</b>
<b>51-0000</b>	<b>Production Occupations</b>	<b>7,125</b>	<b>7,680</b>	<b>555</b>	<b>0.8</b>	<b>205</b>	<b>15.46</b>	<b>32,156</b>
51-1011	First-Line Supervisors of Production & Operating Workers	410	425	15	0.4	10	23.59	49,057
51-2092	Team Assemblers	1,590	1,795	205	1.3	45	14.88	30,954
51-4121	Welders, Cutters, Solderers, & Brazers	780	840	60	0.8	25	14.99	31,173
51-9023	Mixing & Blending Machine Setters/Operators/Tenders	295	345	50	1.7	15	18.06	37,560
51-9111	Packaging & Filling Machine Operators & Tenders	285	315	30	1.1	10	N.A.	N.A.
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>4,935</b>	<b>5,395</b>	<b>460</b>	<b>0.9</b>	<b>155</b>	<b>15.22</b>	<b>31,656</b>
53-3032	Heavy & Tractor-Trailer Truck Drivers	1,540	1,710	165	1.1	40	18.64	38,765
53-3033	Light Truck or Delivery Services Drivers	420	470	50	1.2	10	13.76	28,622
Source: Labor Market Information Division, Iowa Workforce Development								
Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.								

**IOWA WORKFORCE DEVELOPMENT REGION 3-4 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>95,065</b>	<b>102,445</b>	<b>7,380</b>	<b>0.8</b>	<b>3,025</b>	<b>\$16.64</b>	<b>\$34,608</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>11,155</b>	<b>10,870</b>	<b>-285</b>	<b>-0.3</b>	<b>230</b>	<b>36.61</b>	<b>76,150</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	6,485	5,945	-540	-0.8	105	N.A.	N.A.
11-9199	Managers, All Other	1,050	1,030	-20	-0.2	25	27.28	56,738
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>3,285</b>	<b>3,580</b>	<b>290</b>	<b>0.9</b>	<b>90</b>	<b>25.79</b>	<b>53,648</b>
13-1199	Business Operations Specialists, All Other	1,090	1,120	25	0.2	20	23.30	48,462
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>615</b>	<b>690</b>	<b>75</b>	<b>1.2</b>	<b>15</b>	<b>25.09</b>	<b>52,192</b>
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>1,020</b>	<b>1,110</b>	<b>90</b>	<b>0.9</b>	<b>35</b>	<b>27.70</b>	<b>57,618</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>745</b>	<b>830</b>	<b>85</b>	<b>1.1</b>	<b>30</b>	<b>22.67</b>	<b>47,145</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>1,345</b>	<b>1,585</b>	<b>240</b>	<b>1.8</b>	<b>55</b>	<b>16.95</b>	<b>35,261</b>
21-1093	Social & Human Service Assistants	605	735	130	2.1	30	13.83	28,771
<b>23-0000</b>	<b>Legal Occupations</b>	<b>335</b>	<b>375</b>	<b>40</b>	<b>1.2</b>	<b>10</b>	<b>26.07</b>	<b>54,226</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>6,005</b>	<b>6,520</b>	<b>515</b>	<b>0.9</b>	<b>180</b>	<b>19.80</b>	<b>41,188</b>
25-4031	Library Technicians	130	140	10	0.8	10	12.07	25,107
25-9041	Teacher Assistants	910	960	50	0.5	25	10.81	22,479
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>1,270</b>	<b>1,395</b>	<b>125</b>	<b>1.0</b>	<b>45</b>	<b>14.84</b>	<b>30,862</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>3,560</b>	<b>4,035</b>	<b>475</b>	<b>1.3</b>	<b>120</b>	<b>27.00</b>	<b>56,159</b>
29-1141	Registered Nurses	1,390	1,560	170	1.2	45	23.65	49,195
29-2061	Licensed Practical & Licensed Vocational Nurses	310	345	35	1.1	10	16.98	35,313
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>2,885</b>	<b>3,325</b>	<b>440</b>	<b>1.5</b>	<b>100</b>	<b>12.29</b>	<b>25,568</b>
31-1014	Nursing Assistants	1,350	1,515	165	1.2	40	N.A.	N.A.
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>775</b>	<b>835</b>	<b>60</b>	<b>0.8</b>	<b>35</b>	<b>16.62</b>	<b>34,575</b>
33-3051	Police & Sheriff's Patrol Officers	220	235	15	0.7	10	22.90	47,623
33-9092	Lifeguard/Ski Patrol/Other Recreational Protective Service Workers	190	215	25	1.3	15	8.40	17,472
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>6,285</b>	<b>6,870</b>	<b>590</b>	<b>0.9</b>	<b>285</b>	<b>9.37</b>	<b>19,481</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	475	535	60	1.3	20	12.85	26,731
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>3,755</b>	<b>4,230</b>	<b>475</b>	<b>1.3</b>	<b>125</b>	<b>11.83</b>	<b>24,615</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>2,230</b>	<b>2,635</b>	<b>405</b>	<b>1.8</b>	<b>90</b>	<b>11.01</b>	<b>22,898</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	435	520	90	2.1	20	13.67	28,443
39-9011	Childcare Workers	800	960	165	2.1	40	8.36	17,397
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>8,775</b>	<b>9,520</b>	<b>745</b>	<b>0.8</b>	<b>345</b>	<b>14.73</b>	<b>30,634</b>
41-1011	First-Line Supervisors of Retail Sales Workers	880	965	80	0.9	25	16.80	34,943
41-3021	Insurance Sales Agents	340	405	65	1.9	15	26.95	56,062
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	1,025	1,105	80	0.8	30	26.65	55,434
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>11,890</b>	<b>12,565</b>	<b>675</b>	<b>0.6</b>	<b>330</b>	<b>14.31</b>	<b>29,772</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	390	425	35	0.9	15	21.33	44,364
43-3031	Bookkeeping, Accounting, & Auditing Clerks	1,590	1,720	130	0.8	30	14.22	29,575
43-3071	Tellers	380	400	20	0.5	20	12.09	25,141
43-4051	Customer Service Representatives	855	970	115	1.3	35	16.20	33,706
43-4081	Hotel, Motel, & Resort Desk Clerks	130	150	20	1.5	10	9.14	19,019
43-4121	Library Assistants, Clerical	150	175	25	1.7	10	9.20	19,145
43-4171	Receptionists & Information Clerks	420	430	10	0.2	10	12.32	25,625
43-5052	Postal Service Mail Carriers	220	170	-50	-2.3	10	23.18	48,218
43-5071	Shipping, Receiving, & Traffic Clerks	285	295	10	0.4	10	15.14	31,498
43-6013	Medical Secretaries	260	315	55	2.1	10	13.50	28,077
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	1,945	2,170	220	1.1	45	13.03	27,093
43-9061	Office Clerks, General	1,760	1,805	45	0.3	40	13.79	28,691
43-9199	Office & Administrative Support Workers, All Other	290	285	-5	-0.2	10	15.12	31,442
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>2,115</b>	<b>2,195</b>	<b>85</b>	<b>0.4</b>	<b>70</b>	<b>15.05</b>	<b>31,308</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>4,390</b>	<b>5,245</b>	<b>855</b>	<b>1.9</b>	<b>160</b>	<b>16.60</b>	<b>34,532</b>
47-1011	First-Line Supervisors of Construction Trades & Extraction Workers	250	300	45	1.8	10	23.28	48,417
47-2031	Carpenters	405	510	105	2.6	15	15.61	32,468
47-2073	Operating Engineers & Other Construction Equipment Operators	305	355	50	1.6	10	16.56	34,439
47-2111	Electricians	285	320	40	1.4	10	21.49	44,701

**IOWA WORKFORCE DEVELOPMENT REGION 3-4 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>95,065</b>	<b>102,445</b>	<b>7,380</b>	<b>0.8</b>	<b>3,025</b>	<b>\$16.64</b>	<b>\$34,608</b>
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>4,340</b>	<b>4,825</b>	<b>480</b>	<b>1.1</b>	<b>150</b>	<b>19.35</b>	<b>40,238</b>
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	275	290	15	0.5	10	24.80	51,574
49-3023	Automotive Service Technicians & Mechanics	415	450	35	0.8	15	17.48	36,359
49-3041	Farm Equipment Mechanics & Service Technicians	480	520	35	0.7	20	18.61	38,715
49-9041	Industrial Machinery Mechanics	645	785	140	2.2	35	18.39	38,251
49-9071	Maintenance & Repair Workers, General	830	900	70	0.8	25	16.43	34,180
<b>51-0000</b>	<b>Production Occupations</b>	<b>10,890</b>	<b>11,225</b>	<b>335</b>	<b>0.3</b>	<b>285</b>	<b>15.17</b>	<b>31,545</b>
51-1011	First-Line Supervisors of Production & Operating Workers	660	680	20	0.3	10	24.12	50,159
51-2092	Team Assemblers	880	965	85	1.0	20	15.31	31,848
51-2099	Assemblers & Fabricators, All Other	235	270	35	1.5	10	13.25	27,552
51-4011	Computer-Controlled Machine Tool Operators, Metal & Plastic	210	230	20	1.0	10	14.84	30,869
51-4041	Machinists	565	630	60	1.1	20	15.82	32,896
51-4121	Welders, Cutters, Solderers, & Brazers	530	560	30	0.6	15	16.22	33,740
51-8031	Water & Wastewater Treatment Plant & System Operators	205	225	20	1.0	10	17.82	37,056
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	345	375	30	0.9	10	16.98	35,323
51-9111	Packaging & Filling Machine Operators & Tenders	365	390	25	0.7	10	12.26	25,495
51-9199	Production Workers, All Other	340	355	20	0.6	10	13.72	28,531
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>7,405</b>	<b>7,985</b>	<b>580</b>	<b>0.8</b>	<b>225</b>	<b>14.20</b>	<b>29,537</b>
53-3032	Heavy & Tractor-Trailer Truck Drivers	2,490	2,820	330	1.3	75	16.75	34,834
53-3033	Light Truck or Delivery Services Drivers	645	725	80	1.2	20	11.73	24,401

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

IOWA WORKFORCE DEVELOPMENT REGION 5 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>49,235</b>	<b>53,645</b>	<b>4,410</b>	<b>0.9</b>	<b>1,610</b>	<b>\$18.46</b>	<b>\$38,402</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>6,035</b>	<b>5,910</b>	<b>-125</b>	<b>-0.2</b>	<b>130</b>	<b>36.20</b>	<b>75,302</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	3,535	3,250	-290	-0.8	55	N.A.	N.A.
11-9199	Managers, All Other	555	540	-10	-0.2	10	34.11	70,947
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>1,785</b>	<b>1,920</b>	<b>135</b>	<b>0.8</b>	<b>45</b>	<b>27.92</b>	<b>58,072</b>
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>335</b>	<b>375</b>	<b>35</b>	<b>1.0</b>	<b>10</b>	<b>29.03</b>	<b>60,382</b>
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>400</b>	<b>425</b>	<b>25</b>	<b>0.6</b>	<b>10</b>	<b>30.47</b>	<b>63,385</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>610</b>	<b>685</b>	<b>70</b>	<b>1.1</b>	<b>25</b>	<b>21.75</b>	<b>45,248</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>705</b>	<b>810</b>	<b>105</b>	<b>1.5</b>	<b>25</b>	<b>18.55</b>	<b>38,580</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>2,985</b>	<b>3,205</b>	<b>220</b>	<b>0.7</b>	<b>90</b>	<b>19.50</b>	<b>40,552</b>
25-4031	Library Technicians	135	145	10	0.7	10	10.93	22,743
25-9041	Teacher Assistants	560	590	25	0.4	15	10.25	21,319
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>510</b>	<b>550</b>	<b>40</b>	<b>0.8</b>	<b>20</b>	<b>16.90</b>	<b>35,146</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>2,465</b>	<b>2,890</b>	<b>425</b>	<b>1.7</b>	<b>95</b>	<b>29.81</b>	<b>61,998</b>
29-1141	Registered Nurses	990	1,160	170	1.7	35	23.29	48,452
29-2061	Licensed Practical & Licensed Vocational Nurses	265	325	60	2.3	10	16.67	34,681
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>1,495</b>	<b>1,710</b>	<b>210</b>	<b>1.4</b>	<b>50</b>	<b>12.01</b>	<b>24,988</b>
31-1014	Nursing Assistants	880	990	110	1.3	30	11.61	24,139
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>700</b>	<b>730</b>	<b>30</b>	<b>0.4</b>	<b>25</b>	<b>21.26</b>	<b>44,227</b>
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>3,110</b>	<b>3,435</b>	<b>325</b>	<b>1.0</b>	<b>145</b>	<b>9.31</b>	<b>19,369</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	200	230	25	1.3	10	14.83	30,855
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>1,645</b>	<b>1,885</b>	<b>240</b>	<b>1.5</b>	<b>60</b>	<b>11.24</b>	<b>23,387</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>1,120</b>	<b>1,375</b>	<b>255</b>	<b>2.3</b>	<b>50</b>	<b>10.99</b>	<b>22,861</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	255	310	50	2.0	10	N.A.	N.A.
39-9011	Childcare Workers	245	310	65	2.7	15	N.A.	N.A.
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>4,715</b>	<b>5,030</b>	<b>315</b>	<b>0.7</b>	<b>175</b>	<b>15.94</b>	<b>33,162</b>
41-1011	First-Line Supervisors of Retail Sales Workers	560	600	40	0.7	15	15.50	32,242
41-4012	Sales Representatives Wholesale & Manufacturing, Ex Technical & Scientific Products	670	725	55	0.8	20	24.13	50,196
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>6,540</b>	<b>6,980</b>	<b>435</b>	<b>0.7</b>	<b>190</b>	<b>14.11</b>	<b>29,357</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	245	270	25	1.0	10	18.16	37,765
43-3031	Bookkeeping, Accounting, & Auditing Clerks	990	1,060	75	0.8	15	14.12	29,363
43-3071	Tellers	270	285	15	0.6	15	12.79	26,595
43-4051	Customer Service Representatives	255	275	20	0.8	10	15.79	32,838
43-4171	Receptionists & Information Clerks	220	240	20	0.9	10	12.06	25,089
43-6013	Medical Secretaries	215	275	60	2.8	10	13.97	29,059
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	1,020	1,140	120	1.2	25	13.45	27,974
43-9061	Office Clerks, General	935	1,015	80	0.9	30	13.09	27,236
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>765</b>	<b>775</b>	<b>10</b>	<b>0.1</b>	<b>25</b>	<b>N.A.</b>	<b>N.A.</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>2,425</b>	<b>2,930</b>	<b>510</b>	<b>2.1</b>	<b>95</b>	<b>19.96</b>	<b>41,510</b>
47-2031	Carpenters	280	365	85	3.0	10	19.09	39,702
47-2111	Electricians	385	460	75	1.9	15	19.42	40,396
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>2,615</b>	<b>2,925</b>	<b>310</b>	<b>1.2</b>	<b>95</b>	<b>19.37</b>	<b>40,299</b>
49-3023	Automotive Service Technicians & Mechanics	415	435	20	0.5	10	17.89	37,202
49-3041	Farm Equipment Mechanics & Service Technicians	225	245	15	0.7	10	N.A.	N.A.
49-9041	Industrial Machinery Mechanics	340	425	85	2.5	20	20.55	42,746
49-9071	Maintenance & Repair Workers, General	395	455	60	1.5	15	16.29	33,888
<b>51-0000</b>	<b>Production Occupations</b>	<b>3,790</b>	<b>4,070</b>	<b>280</b>	<b>0.7</b>	<b>110</b>	<b>15.72</b>	<b>32,697</b>
51-2092	Team Assemblers	420	470	50	1.2	10	14.23	29,599
51-4121	Welders, Cutters, Solderers, & Brazers	230	245	15	0.7	10	16.58	34,481
51-9023	Mixing & Blending Machine Setters/Operators/Tenders	255	295	40	1.6	10	19.79	41,165
51-9111	Packaging & Filling Machine Operators & Tenders	355	365	10	0.3	10	N.A.	N.A.

**IOWA WORKFORCE DEVELOPMENT REGION 5 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	49,235	53,645	4,410	0.9	1,610	\$18.46	\$38,402
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	4,260	4,790	530	1.2	145	17.65	36,719
53-3032	Heavy & Tractor-Trailer Truck Drivers	1,480	1,735	255	1.7	50	22.39	46,569
53-3033	Light Truck or Delivery Services Drivers	360	405	40	1.1	10	12.79	26,608
Source: Labor Market Information Division, Iowa Workforce Development								
Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.								

**IOWA WORKFORCE DEVELOPMENT REGION 6 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>49,535</b>	<b>53,615</b>	<b>4,080</b>	<b>0.8</b>	<b>1,610</b>	<b>\$17.80</b>	<b>\$37,016</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>5,415</b>	<b>5,275</b>	<b>-145</b>	<b>-0.3</b>	<b>115</b>	<b>38.09</b>	<b>79,237</b>
11-1021	General & Operations Managers	540	590	50	0.9	15	38.51	80,111
11-9013	Farmers, Ranchers, & Other Agricultural Managers	3,110	2,820	-290	-0.9	50	56.70	117,937
11-9199	Managers, All Other	400	390	-10	-0.3	10	35.99	74,854
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>1,715</b>	<b>1,860</b>	<b>145</b>	<b>0.8</b>	<b>50</b>	<b>26.13</b>	<b>54,361</b>
13-1199	Business Operations Specialists, All Other	505	515	15	0.3	10	24.98	51,962
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>770</b>	<b>835</b>	<b>70</b>	<b>0.9</b>	<b>20</b>	<b>31.46</b>	<b>65,429</b>
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>530</b>	<b>565</b>	<b>35</b>	<b>0.7</b>	<b>15</b>	<b>31.36</b>	<b>65,231</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>350</b>	<b>395</b>	<b>45</b>	<b>1.3</b>	<b>15</b>	<b>24.73</b>	<b>51,436</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>795</b>	<b>905</b>	<b>105</b>	<b>1.3</b>	<b>30</b>	<b>18.36</b>	<b>38,180</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>3,355</b>	<b>3,620</b>	<b>265</b>	<b>0.8</b>	<b>100</b>	<b>20.69</b>	<b>43,029</b>
25-2021	Elementary School Teachers, Ex Special Education	1,050	1,155	100	1.0	35	21.85	45,454
25-2031	Secondary School Teachers, Ex Special & Career/Tech Education	270	280	10	0.4	10	N.A.	N.A.
25-9041	Teacher Assistants	740	765	25	0.3	20	9.57	19,910
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>460</b>	<b>525</b>	<b>65</b>	<b>1.4</b>	<b>15</b>	<b>14.26</b>	<b>29,670</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>2,070</b>	<b>2,405</b>	<b>335</b>	<b>1.6</b>	<b>80</b>	<b>28.87</b>	<b>60,052</b>
29-1141	Registered Nurses	730	840	110	1.5	25	25.40	52,823
29-2061	Licensed Practical & Licensed Vocational Nurses	375	440	60	1.6	15	17.75	36,920
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>1,685</b>	<b>1,955</b>	<b>275</b>	<b>1.6</b>	<b>60</b>	<b>12.36</b>	<b>25,705</b>
31-1011	Home Health Aides	245	335	90	3.7	15	10.58	21,996
31-1014	Nursing Assistants	1,085	1,205	125	1.2	35	12.35	25,693
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>490</b>	<b>520</b>	<b>30</b>	<b>0.6</b>	<b>15</b>	<b>19.01</b>	<b>39,547</b>
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>3,665</b>	<b>4,020</b>	<b>355</b>	<b>1.0</b>	<b>170</b>	<b>9.81</b>	<b>20,399</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	280	310	30	1.1	10	11.49	23,890
35-2012	Cooks, Institution & Cafeteria	255	285	25	1.0	10	11.61	24,141
35-2014	Cooks, Restaurant	415	470	55	1.3	15	8.96	18,634
35-3011	Bartenders	635	700	60	0.9	30	8.94	18,601
35-3021	Combined Food Preparation & Serving Workers, Incl Fast Food	595	675	80	1.3	30	8.88	18,475
35-3031	Waiters & Waitresses	680	710	30	0.4	35	11.00	22,878
35-9021	Dishwashers	220	235	15	0.7	10	8.08	16,801
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>1,995</b>	<b>2,245</b>	<b>250</b>	<b>1.3</b>	<b>65</b>	<b>10.92</b>	<b>22,718</b>
37-2011	Janitors & Cleaners, Ex Maids & Housekeeping Cleaners	940	1,040	100	1.1	30	10.77	22,396
37-2012	Maids & Housekeeping Cleaners	485	560	70	1.4	15	9.10	18,935
37-3011	Landscaping & Groundskeeping Workers	335	385	50	1.5	15	13.07	27,193
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>805</b>	<b>965</b>	<b>160</b>	<b>2.0</b>	<b>35</b>	<b>11.43</b>	<b>23,784</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	245	290	45	1.8	10	N.A.	N.A.
39-9011	Childcare Workers	160	215	55	3.4	10	N.A.	N.A.
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>4,265</b>	<b>4,605</b>	<b>345</b>	<b>0.8</b>	<b>170</b>	<b>14.16</b>	<b>29,457</b>
41-1011	First-Line Supervisors of Retail Sales Workers	520	560	40	0.8	15	18.54	38,558
41-2011	Cashiers	1,520	1,625	105	0.7	75	8.71	18,125
41-2031	Retail Salespersons	1,150	1,245	95	0.8	50	12.04	25,052
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	335	365	30	0.9	10	26.25	54,591
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>5,965</b>	<b>6,290</b>	<b>325</b>	<b>0.5</b>	<b>170</b>	<b>14.89</b>	<b>30,962</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	240	265	25	1.0	10	20.49	42,628
43-3031	Bookkeeping, Accounting, & Auditing Clerks	755	815	60	0.8	15	15.52	32,276
43-3071	Tellers	220	230	10	0.5	10	12.40	25,784
43-4051	Customer Service Representatives	335	370	35	1.0	10	13.67	28,441
43-4171	Receptionists & Information Clerks	215	235	20	0.9	10	12.28	25,535
43-5071	Shipping, Receiving, & Traffic Clerks	310	330	15	0.5	10	16.17	33,637
43-5081	Stock Clerks & Order Fillers	260	260	0	0.0	10	11.17	23,236
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	715	800	85	1.2	20	13.90	28,911
43-9061	Office Clerks, General	680	705	25	0.4	15	13.60	28,289
43-9199	Office & Administrative Support Workers, All Other	440	435	0	0.0	10	N.A.	N.A.
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>940</b>	<b>1,010</b>	<b>70</b>	<b>0.7</b>	<b>35</b>	<b>17.43</b>	<b>36,260</b>
45-2091	Agricultural Equipment Operators	330	390	65	2.0	15	16.70	34,744
45-2093	Farmworkers, Farm, Ranch, & Aquacultural Animals	235	245	10	0.4	10	N.A.	N.A.

**IOWA WORKFORCE DEVELOPMENT REGION 6 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>49,535</b>	<b>53,615</b>	<b>4,080</b>	<b>0.8</b>	<b>1,610</b>	<b>\$17.80</b>	<b>\$37,016</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>2,250</b>	<b>2,625</b>	<b>375</b>	<b>1.7</b>	<b>75</b>	<b>19.40</b>	<b>40,356</b>
47-2031	Carpenters	265	330	65	2.5	10	16.03	33,349
47-2061	Construction Laborers	325	375	55	1.7	10	14.91	31,022
47-2073	Operating Engineers & Other Construction Equipment Operators	215	250	30	1.4	10	20.39	42,413
47-2111	Electricians	230	265	35	1.5	10	24.43	50,817
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>2,000</b>	<b>2,180</b>	<b>180</b>	<b>0.9</b>	<b>65</b>	<b>19.71</b>	<b>40,993</b>
49-9041	Industrial Machinery Mechanics	160	205	45	2.8	10	17.18	35,725
49-9071	Maintenance & Repair Workers, General	615	660	45	0.7	15	17.19	35,749
<b>51-0000</b>	<b>Production Occupations</b>	<b>6,165</b>	<b>6,585</b>	<b>420</b>	<b>0.7</b>	<b>185</b>	<b>14.42</b>	<b>30,000</b>
51-2092	Team Assemblers	710	840	130	1.8	25	14.26	29,657
51-3022	Meat, Poultry, & Fish Cutters & Trimmers	525	605	80	1.5	20	N.A.	N.A.
51-3023	Slaughterers & Meat Packers	320	340	20	0.6	10	N.A.	N.A.
51-4041	Machinists	220	250	30	1.4	10	N.A.	N.A.
51-4122	Welding, Soldering, and Brazing Machine Setters/Operators/Tenders	275	290	15	0.5	10	15.87	33,008
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	345	340	-5	-0.1	10	14.41	29,964
51-9199	Production Workers, All Other	1,140	1,280	140	1.2	45	N.A.	N.A.
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>3,655</b>	<b>4,015</b>	<b>360</b>	<b>1.0</b>	<b>120</b>	<b>13.76</b>	<b>28,613</b>
53-3032	Heavy & Tractor-Trailer Truck Drivers	965	1,115	150	1.6	30	15.19	31,595
53-3033	Light Truck or Delivery Services Drivers	390	420	35	0.9	10	10.95	22,773
53-7062	Laborers & Freight, Stock, & Material Movers, Hand	735	815	80	1.1	30	13.01	27,068

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

IOWA WORKFORCE DEVELOPMENT REGION 7 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>117,145</b>	<b>128,695</b>	<b>11,550</b>	<b>1.0</b>	<b>3,960</b>	<b>\$18.41</b>	<b>\$38,300</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>10,690</b>	<b>10,580</b>	<b>-115</b>	<b>-0.1</b>	<b>245</b>	<b>39.67</b>	<b>82,511</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	5,585	4,995	-595	-1.1	90	N.A.	N.A.
11-9199	Managers, All Other	625	630	5	0.1	15	34.16	71,058
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>4,100</b>	<b>4,580</b>	<b>480</b>	<b>1.2</b>	<b>125</b>	<b>26.82</b>	<b>55,790</b>
13-1199	Business Operations Specialists, All Other	755	805	50	0.7	15	23.93	49,783
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>1,375</b>	<b>1,580</b>	<b>205</b>	<b>1.5</b>	<b>45</b>	<b>30.19</b>	<b>62,788</b>
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>1,270</b>	<b>1,370</b>	<b>100</b>	<b>0.8</b>	<b>40</b>	<b>28.60</b>	<b>59,479</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>415</b>	<b>440</b>	<b>30</b>	<b>0.7</b>	<b>15</b>	<b>27.72</b>	<b>57,656</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>1,825</b>	<b>2,170</b>	<b>345</b>	<b>1.9</b>	<b>75</b>	<b>19.05</b>	<b>39,629</b>
21-1093	Social & Human Service Assistants	245	305	60	2.4	10	13.21	27,476
<b>23-0000</b>	<b>Legal Occupations</b>	<b>425</b>	<b>485</b>	<b>60</b>	<b>1.4</b>	<b>15</b>	<b>30.91</b>	<b>64,297</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>8,280</b>	<b>9,075</b>	<b>795</b>	<b>1.0</b>	<b>255</b>	<b>19.90</b>	<b>41,400</b>
25-2011	Preschool Teachers, Ex Special Ed	330	385	55	1.7	15	N.A.	N.A.
25-4031	Library Technicians	175	190	15	0.9	10	11.55	24,014
25-9041	Teacher Assistants	1,285	1,360	75	0.6	35	10.10	21,012
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>1,430</b>	<b>1,625</b>	<b>195</b>	<b>1.4</b>	<b>55</b>	<b>17.40</b>	<b>36,185</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>5,795</b>	<b>6,805</b>	<b>1,010</b>	<b>1.7</b>	<b>220</b>	<b>31.29</b>	<b>65,077</b>
29-1141	Registered Nurses	2,070	2,420	350	1.7	75	26.04	54,163
29-2012	Medical & Clinical Laboratory Technicians	175	215	40	2.3	10	19.68	40,927
29-2061	Licensed Practical & Licensed Vocational Nurses	550	640	90	1.6	25	17.87	37,161
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>3,085</b>	<b>3,630</b>	<b>545</b>	<b>1.8</b>	<b>115</b>	<b>13.17</b>	<b>27,402</b>
31-1014	Nursing Assistants	1,430	1,600	170	1.2	45	12.37	25,732
31-9092	Medical Assistants	280	330	55	2.0	10	13.91	28,943
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>1,405</b>	<b>1,520</b>	<b>120</b>	<b>0.9</b>	<b>50</b>	<b>17.65</b>	<b>36,720</b>
33-3051	Police & Sheriff's Patrol Officers	345	365	20	0.6	15	23.64	49,176
33-9032	Security Guards	455	500	50	1.1	10	13.91	28,939
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>8,900</b>	<b>9,915</b>	<b>1,015</b>	<b>1.1</b>	<b>440</b>	<b>9.63</b>	<b>20,022</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	585	665	80	1.4	25	12.49	25,980
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>3,940</b>	<b>4,445</b>	<b>505</b>	<b>1.3</b>	<b>130</b>	<b>11.62</b>	<b>24,177</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>4,045</b>	<b>4,840</b>	<b>795</b>	<b>2.0</b>	<b>165</b>	<b>10.32</b>	<b>21,458</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	425	530	105	2.5	20	12.34	25,669
39-9011	Childcare Workers	1,450	1,710	260	1.8	70	8.38	17,440
39-9031	Fitness Trainers & Aerobics Instructors	495	545	50	1.0	10	N.A.	N.A.
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>11,355</b>	<b>12,245</b>	<b>895</b>	<b>0.8</b>	<b>435</b>	<b>16.38</b>	<b>34,065</b>
41-1011	First-Line Supervisors of Retail Sales Workers	1,415	1,535	125	0.9	45	16.83	35,008
41-3021	Insurance Sales Agents	490	555	65	1.3	20	24.20	50,337
41-3099	Sales Representatives, Services, All Other	340	385	50	1.5	15	21.53	44,785
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	1,070	1,150	80	0.7	30	30.69	63,833
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>14,445</b>	<b>15,540</b>	<b>1,095</b>	<b>0.8</b>	<b>435</b>	<b>15.13</b>	<b>31,467</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	560	630	70	1.3	20	22.25	46,276
43-3011	Bill & Account Collectors	400	475	75	1.9	20	13.38	27,827
43-3021	Billing & Posting Clerks	395	460	70	1.8	15	15.08	31,367
43-3031	Bookkeeping, Accounting, & Auditing Clerks	1,705	1,885	180	1.1	35	15.15	31,521
43-3071	Tellers	505	525	20	0.4	25	11.39	23,683
43-4051	Customer Service Representatives	1,245	1,435	185	1.5	55	14.37	29,880
43-4081	Hotel, Motel, & Resort Desk Clerks	140	160	20	1.4	10	8.90	18,510
43-4121	Library Assistants, Clerical	125	145	20	1.6	10	11.93	24,815
43-4171	Receptionists & Information Clerks	665	740	75	1.1	25	13.18	27,413
43-5052	Postal Service Mail Carriers	235	185	-45	-1.9	10	23.97	49,855
43-5061	Production, Planning, & Expediting Clerks	240	260	20	0.8	10	19.23	40,006
43-5071	Shipping, Receiving, & Traffic Clerks	505	540	35	0.7	15	15.01	31,229
43-6011	Executive Secretaries & Executive Administrative Assistants	640	625	-15	-0.2	10	18.71	38,920
43-6013	Medical Secretaries	440	555	115	2.6	15	15.27	31,757
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	1,720	1,890	175	1.0	40	14.64	30,455
43-9061	Office Clerks, General	1,710	1,820	115	0.7	45	13.91	28,941



IOWA WORKFORCE DEVELOPMENT REGION 7 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment						
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings	2014 Mean Wage	2014 Mean Salary
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>117,145</b>	<b>128,695</b>	<b>11,550</b>	<b>1.0</b>	<b>3,960</b>	<b>\$18.41</b>	<b>\$38,300</b>
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>860</b>	<b>890</b>	<b>30</b>	<b>0.3</b>	<b>30</b>	<b>16.71</b>	<b>34,747</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>5,210</b>	<b>6,305</b>	<b>1,095</b>	<b>2.1</b>	<b>195</b>	<b>19.17</b>	<b>39,878</b>
47-1011	First-Line Supervisors of Construction Trades & Extraction Workers	310	375	65	2.1	10	24.54	51,044
47-2031	Carpenters	640	805	165	2.6	25	16.40	34,115
47-2073	Operating Engineers & Other Construction Equipment Operators	575	675	100	1.7	25	23.61	49,115
47-2111	Electricians	375	425	50	1.3	10	21.07	43,831
47-2152	Plumbers, Pipefitters, & Steamfitters	465	560	95	2.0	15	19.12	39,775
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>5,175</b>	<b>5,765</b>	<b>590</b>	<b>1.1</b>	<b>180</b>	<b>19.40</b>	<b>40,349</b>
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	290	310	20	0.7	10	28.38	59,033
49-3023	Automotive Service Technicians & Mechanics	535	590	55	1.0	20	16.71	34,752
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	225	250	25	1.1	10	19.92	41,438
49-3041	Farm Equipment Mechanics & Service Technicians	270	300	35	1.3	10	18.75	38,999
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	235	285	50	2.1	10	20.29	42,201
49-9041	Industrial Machinery Mechanics	555	690	135	2.4	30	22.02	45,794
49-9071	Maintenance & Repair Workers, General	1,520	1,645	125	0.8	40	18.14	37,731
<b>51-0000</b>	<b>Production Occupations</b>	<b>14,565</b>	<b>15,225</b>	<b>660</b>	<b>0.5</b>	<b>385</b>	<b>17.09</b>	<b>35,541</b>
51-1011	First-Line Supervisors of Production & Operating Workers	750	775	30	0.4	15	24.39	50,737
51-2041	Structural Metal Fabricators & Fitters	200	200	5	0.3	10	N.A.	N.A.
51-2092	Team Assemblers	1,460	1,505	45	0.3	30	19.47	40,506
51-2099	Assemblers & Fabricators, All Other	395	460	65	1.6	15	12.95	26,946
51-4011	Computer-Controlled Machine Tool Operators, Metal/Plastic	315	365	50	1.6	15	18.26	37,981
51-4041	Machinists	835	915	80	1.0	25	18.81	39,123
51-4081	Multiple Machine Tool Setters/Operators/Tenders, Metal/Plastic	920	840	-80	-0.9	20	17.11	35,588
51-4121	Welders, Cutters, Solderers, & Brazers	910	955	50	0.5	25	17.46	36,321
51-4122	Welding, Soldering, Brazing Machine Setters/Operators/Tenders	245	315	65	2.7	15	17.08	35,529
51-7042	Woodworking Machine Setters/Operators/Tenders, Ex Sawing	290	345	55	1.9	10	13.89	28,883
51-9023	Mixing & Blending Machine Setters/Operators/Tenders	370	445	75	2.0	20	N.A.	N.A.
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	930	975	45	0.5	25	20.77	43,193
51-9121	Coating, Painting, Spraying Machine Setters/Operators/Tenders	470	490	20	0.4	10	14.25	29,647
51-9199	Production Workers, All Other	1,135	1,195	65	0.6	35	13.73	28,558
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>8,570</b>	<b>9,660</b>	<b>1,090</b>	<b>1.3</b>	<b>310</b>	<b>15.34</b>	<b>31,913</b>
53-1031	First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	210	240	25	1.2	10	26.72	55,575
53-3032	Heavy & Tractor-Trailer Truck Drivers	2,150	2,510	365	1.7	70	18.30	38,071
53-3033	Light Truck or Delivery Services Drivers	685	760	75	1.1	20	15.18	31,585

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

IOWA WORKFORCE DEVELOPMENT REGION 8 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>39,870</b>	<b>43,495</b>	<b>3,625</b>	<b>0.9</b>	<b>1,305</b>	<b>\$16.75</b>	<b>\$34,836</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>4,875</b>	<b>4,725</b>	<b>-145</b>	<b>-0.3</b>	<b>95</b>	<b>39.81</b>	<b>82,802</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	3,035	2,805	-230	-0.8	50	N.A.	N.A.
11-9199	Managers, All Other	515	515	0	0.0	10	N.A.	N.A.
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>1,170</b>	<b>1,245</b>	<b>75</b>	<b>0.6</b>	<b>30</b>	<b>28.08</b>	<b>58,408</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>425</b>	<b>435</b>	<b>15</b>	<b>0.4</b>	<b>15</b>	<b>18.73</b>	<b>38,949</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>550</b>	<b>650</b>	<b>100</b>	<b>1.8</b>	<b>25</b>	<b>24.65</b>	<b>51,266</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>2,150</b>	<b>2,310</b>	<b>160</b>	<b>0.7</b>	<b>65</b>	<b>19.28</b>	<b>40,095</b>
25-9041	Teacher Assistants	470	490	20	0.4	15	10.60	22,048
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>505</b>	<b>575</b>	<b>70</b>	<b>1.4</b>	<b>20</b>	<b>12.98</b>	<b>27,005</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>1,760</b>	<b>2,095</b>	<b>335</b>	<b>1.9</b>	<b>70</b>	<b>26.02</b>	<b>54,132</b>
29-1141	Registered Nurses	725	865	140	1.9	30	23.77	49,443
29-2061	Licensed Practical & Licensed Vocational Nurses	225	265	40	1.8	10	17.94	37,318
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>1,050</b>	<b>1,230</b>	<b>185</b>	<b>1.8</b>	<b>40</b>	<b>12.52</b>	<b>26,047</b>
31-1014	Nursing Assistants	550	640	90	1.6	20	11.54	23,994
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>385</b>	<b>410</b>	<b>20</b>	<b>0.5</b>	<b>15</b>	<b>16.89</b>	<b>35,138</b>
33-9092	Lifeguards/Ski Patrol/Other Recreational Protective Service Workers	105	110	5	0.5	10	N.A.	N.A.
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>2,580</b>	<b>2,860</b>	<b>280</b>	<b>1.1</b>	<b>110</b>	<b>9.71</b>	<b>20,197</b>
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>1,480</b>	<b>1,665</b>	<b>180</b>	<b>1.2</b>	<b>50</b>	<b>12.40</b>	<b>25,787</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>1,530</b>	<b>1,895</b>	<b>365</b>	<b>2.4</b>	<b>65</b>	<b>11.20</b>	<b>23,306</b>
39-9011	Childcare Workers	345	415	70	2.0	15	N.A.	N.A.
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>4,060</b>	<b>4,475</b>	<b>415</b>	<b>1.0</b>	<b>165</b>	<b>13.37</b>	<b>27,810</b>
41-1011	First-Line Supervisors of Retail Sales Workers	435	485	50	1.1	15	17.03	35,412
41-3021	Insurance Sales Agents	520	620	100	1.9	20	17.29	35,973
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	455	490	35	0.8	10	24.31	50,562
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>4,690</b>	<b>4,940</b>	<b>250</b>	<b>0.5</b>	<b>130</b>	<b>14.23</b>	<b>29,596</b>
43-3031	Bookkeeping, Accounting, & Auditing Clerks	670	720	45	0.7	10	13.58	28,239
43-3071	Tellers	220	225	5	0.2	10	N.A.	N.A.
43-4051	Customer Service Representatives	385	425	40	1.0	15	13.91	28,940
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	705	780	75	1.1	15	13.44	27,965
43-9061	Office Clerks, General	635	650	15	0.2	15	13.45	27,969
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>790</b>	<b>790</b>	<b>0</b>	<b>0.0</b>	<b>25</b>	<b>18.32</b>	<b>38,112</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>2,140</b>	<b>2,510</b>	<b>375</b>	<b>1.8</b>	<b>70</b>	<b>16.13</b>	<b>33,555</b>
47-2031	Carpenters	285	350	65	2.3	10	14.82	30,818
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>1,820</b>	<b>2,005</b>	<b>185</b>	<b>1.0</b>	<b>65</b>	<b>18.33</b>	<b>38,134</b>
49-3023	Automotive Service Technicians & Mechanics	295	325	25	0.8	10	18.14	37,723
49-3041	Farm Equipment Mechanics & Service Technicians	190	215	25	1.3	10	N.A.	N.A.
49-9041	Industrial Machinery Mechanics	220	275	55	2.5	10	17.90	37,222
49-9071	Maintenance & Repair Workers, General	345	385	40	1.2	10	15.83	32,922
<b>51-0000</b>	<b>Production Occupations</b>	<b>3,580</b>	<b>3,960</b>	<b>380</b>	<b>1.1</b>	<b>115</b>	<b>14.43</b>	<b>30,023</b>
51-2092	Team Assemblers	520	595	70	1.3	15	13.56	28,200
51-9111	Packaging & Filling Machine Operators & Tenders	240	285	45	1.9	10	12.53	26,069
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>3,755</b>	<b>4,085</b>	<b>325</b>	<b>0.9</b>	<b>115</b>	<b>14.76</b>	<b>30,708</b>
53-3032	Heavy & Tractor-Trailer Truck Drivers	1,405	1,575	170	1.2	40	17.19	35,762
53-3033	Light Truck or Delivery Services Drivers	300	330	25	0.8	10	N.A.	N.A.

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

IOWA WORKFORCE DEVELOPMENT REGION 9 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>158,285</b>	<b>176,925</b>	<b>18,640</b>	<b>1.2</b>	<b>5,670</b>	<b>\$18.43</b>	<b>\$38,343</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>13,530</b>	<b>13,565</b>	<b>35</b>	<b>0.0</b>	<b>335</b>	<b>41.21</b>	<b>85,714</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	6,970	6,160	-815	-1.2	110	N.A.	N.A.
11-9199	Managers, All Other	555	570	15	0.3	15	36.99	76,939
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>5,005</b>	<b>5,775</b>	<b>770</b>	<b>1.5</b>	<b>175</b>	<b>27.81</b>	<b>57,850</b>
13-1031	Claims Adjusters, Examiners, & Investigators	275	310	35	1.3	10	26.68	55,500
13-1199	Business Operations Specialists, All Other	950	1,040	90	0.9	20	24.49	50,939
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>1,710</b>	<b>2,105</b>	<b>395</b>	<b>2.3</b>	<b>70</b>	<b>29.17</b>	<b>60,667</b>
15-1151	Computer User Support Specialists	445	570	125	2.8	20	16.64	34,610
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>1,880</b>	<b>2,100</b>	<b>215</b>	<b>1.1</b>	<b>70</b>	<b>32.54</b>	<b>67,688</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>765</b>	<b>890</b>	<b>125</b>	<b>1.6</b>	<b>35</b>	<b>30.43</b>	<b>63,296</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>1,815</b>	<b>2,130</b>	<b>320</b>	<b>1.8</b>	<b>75</b>	<b>19.14</b>	<b>39,812</b>
21-1093	Social & Human Service Assistants	390	460	75	1.9	15	12.07	25,103
<b>23-0000</b>	<b>Legal Occupations</b>	<b>635</b>	<b>725</b>	<b>90</b>	<b>1.4</b>	<b>20</b>	<b>24.12</b>	<b>50,167</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>8,425</b>	<b>9,170</b>	<b>750</b>	<b>0.9</b>	<b>255</b>	<b>20.78</b>	<b>43,220</b>
25-2011	Preschool Teachers, Ex Special Education	430	475	50	1.2	15	13.61	28,304
25-9041	Teacher Assistants	1,380	1,455	75	0.5	40	11.43	23,783
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>2,235</b>	<b>2,490</b>	<b>255</b>	<b>1.1</b>	<b>80</b>	<b>16.72</b>	<b>34,779</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>7,995</b>	<b>9,715</b>	<b>1,725</b>	<b>2.2</b>	<b>330</b>	<b>30.86</b>	<b>64,197</b>
29-1141	Registered Nurses	2,985	3,580	595	2.0	115	24.89	51,771
29-2012	Medical & Clinical Laboratory Technicians	205	270	65	3.2	10	N.A.	N.A.
29-2021	Dental Hygienists	320	400	80	2.5	15	30.07	62,539
29-2032	Diagnostic Medical Sonographers	160	235	75	4.7	10	N.A.	N.A.
29-2034	Radiologic Technologists	315	380	65	2.1	10	22.45	46,704
29-2041	Emergency Medical Technicians & Paramedics	170	210	45	2.6	10	13.88	28,871
29-2052	Pharmacy Technicians	380	455	75	2.0	10	13.70	28,496
29-2061	Licensed Practical & Licensed Vocational Nurses	385	475	90	2.3	20	19.14	39,813
29-2071	Medical Records & Health Information Technicians	170	205	35	2.1	10	15.05	31,297
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>3,710</b>	<b>4,455</b>	<b>745</b>	<b>2.0</b>	<b>145</b>	<b>12.27</b>	<b>25,532</b>
31-1014	Nursing Assistants	1,655	1,880	225	1.4	55	11.44	23,793
31-9091	Dental Assistants	220	260	40	1.8	10	14.78	30,736
31-9092	Medical Assistants	505	615	110	2.2	20	12.59	26,187
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>2,230</b>	<b>2,435</b>	<b>205</b>	<b>0.9</b>	<b>90</b>	<b>18.88</b>	<b>39,268</b>
33-3012	Correctional Officers & Jailers	225	245	15	0.7	10	19.01	39,546
33-3051	Police & Sheriff's Patrol Officers	495	530	35	0.7	20	28.03	58,309
33-9032	Security Guards	625	700	75	1.2	20	12.54	26,093
33-9092	Lifeguards/Ski Patrol/Other Recreational Protective Service Workers	315	345	30	1.0	25	N.A.	N.A.
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>13,120</b>	<b>14,490</b>	<b>1,370</b>	<b>1.0</b>	<b>625</b>	<b>9.50</b>	<b>19,751</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	820	925	105	1.3	35	12.80	26,627
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>6,005</b>	<b>6,875</b>	<b>870</b>	<b>1.4</b>	<b>210</b>	<b>11.51</b>	<b>23,942</b>
37-1011	First-Line Supervisors of Housekeeping & Janitorial Workers	225	260	35	1.6	10	16.08	33,438
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>5,140</b>	<b>6,270</b>	<b>1,130</b>	<b>2.2</b>	<b>215</b>	<b>10.93</b>	<b>22,730</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	700	845	145	2.1	30	10.82	22,510
39-9011	Childcare Workers	1,030	1,230	200	1.9	50	8.53	17,732
39-9031	Fitness Trainers & Aerobics Instructors	495	545	50	1.0	10	11.92	24,799
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>16,675</b>	<b>18,185</b>	<b>1,510</b>	<b>0.9</b>	<b>655</b>	<b>15.87</b>	<b>33,002</b>
41-1011	First-Line Supervisors of Retail Sales Workers	1,940	2,130	190	1.0	60	17.02	35,402
41-1012	First-Line Supervisors of Non-Retail Sales Workers	395	430	30	0.8	10	29.23	60,797
41-3021	Insurance Sales Agents	515	625	110	2.1	25	28.73	59,749
41-3099	Sales Representatives, Services, All Other	470	535	65	1.4	20	24.10	50,136
41-4012	Sales Representatives Wholesale & Manufacturing Ex Technical & Scientific Products	1,730	1,900	175	1.0	50	27.83	57,879

**IOWA WORKFORCE DEVELOPMENT REGION 9 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>158,285</b>	<b>176,925</b>	<b>18,640</b>	<b>1.2</b>	<b>5,670</b>	<b>\$18.43</b>	<b>\$38,343</b>
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>20,010</b>	<b>22,180</b>	<b>2,170</b>	<b>1.1</b>	<b>670</b>	<b>14.34</b>	<b>29,831</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	795	900	110	1.4	30	21.91	45,579
43-3011	Bill & Account Collectors	320	390	70	2.2	15	12.68	26,371
43-3021	Billing & Posting Clerks	370	435	70	1.9	15	14.85	30,888
43-3031	Bookkeeping, Accounting, & Auditing Clerks	1,820	2,080	255	1.4	45	14.99	31,175
43-3071	Tellers	560	615	50	0.9	30	11.41	23,727
43-4051	Customer Service Representatives	2,295	2,705	410	1.8	105	13.49	28,052
43-4081	Hotel, Motel, & Resort Desk Clerks	235	275	40	1.7	15	8.60	17,880
43-4151	Order Clerks	355	370	15	0.4	10	11.64	24,217
43-4171	Receptionists & Information Clerks	925	1,050	120	1.3	35	12.36	25,718
43-5032	Dispatchers, Ex Police, Fire, & Ambulance	160	205	45	2.8	10	16.93	35,207
43-5052	Postal Service Mail Carriers	285	220	-65	-2.3	10	23.73	49,361
43-5061	Production, Planning, & Expediting Clerks	280	320	40	1.4	10	18.70	38,900
43-5071	Shipping, Receiving, & Traffic Clerks	665	700	35	0.5	20	14.46	30,067
43-6011	Executive Secretaries & Executive Administrative Assistants	610	625	15	0.2	10	20.51	42,651
43-6013	Medical Secretaries	785	1,060	275	3.5	35	13.16	27,368
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	2,100	2,380	285	1.4	55	13.91	28,942
43-9061	Office Clerks, General	2,590	2,805	215	0.8	75	13.85	28,799
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>710</b>	<b>725</b>	<b>20</b>	<b>0.3</b>	<b>25</b>	<b>14.50</b>	<b>30,162</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>7,205</b>	<b>8,750</b>	<b>1,550</b>	<b>2.2</b>	<b>270</b>	<b>21.54</b>	<b>44,799</b>
47-1011	First-Line Supervisors of Construction Trades & Extraction Workers	555	675	125	2.3	20	30.75	63,968
47-2031	Carpenters	910	1,195	285	3.1	40	19.20	39,944
47-2073	Operating Engineers & Other Construction Equipment Operators	320	390	70	2.2	15	19.05	39,628
47-2111	Electricians	775	905	130	1.7	30	28.33	58,932
47-2152	Plumbers, Pipefitters, & Steamfitters	750	890	140	1.9	25	25.99	54,057
47-2211	Sheet Metal Workers	215	255	40	1.9	10	25.18	52,375
47-2221	Structural Iron & Steel Workers	150	180	25	1.7	10	27.37	56,932
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>7,485</b>	<b>8,425</b>	<b>940</b>	<b>1.3</b>	<b>270</b>	<b>20.09</b>	<b>41,790</b>
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	425	460	35	0.8	15	28.43	59,135
49-2097	Electronic Home Entertainment Equipment Installers & Repairers	185	205	20	1.1	10	15.34	31,914
49-3023	Automotive Service Technicians & Mechanics	995	1,100	105	1.1	35	17.96	37,350
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	345	385	40	1.2	10	18.90	39,310
49-3041	Farm Equipment Mechanics & Service Technicians	205	230	20	1.0	10	18.21	37,886
49-3042	Mobile Heavy Equipment Mechanics, Ex Engines	190	205	15	0.8	10	21.09	43,865
49-3093	Tire Repairers & Changers	195	210	15	0.8	10	N.A.	N.A.
49-9041	Industrial Machinery Mechanics	635	810	175	2.8	35	21.13	43,951
49-9071	Maintenance & Repair Workers, General	2,085	2,305	220	1.1	60	17.83	37,090
49-9099	Installation, Maintenance, & Repair Workers, All Other	215	255	35	1.6	10	20.76	43,186
<b>51-0000</b>	<b>Production Occupations</b>	<b>19,320</b>	<b>20,995</b>	<b>1,670</b>	<b>0.9</b>	<b>580</b>	<b>16.72</b>	<b>34,777</b>
51-1011	First-Line Supervisors of Production & Operating Workers	1,195	1,295	105	0.9	25	23.92	49,756
51-2092	Team Assemblers	2,570	2,890	320	1.2	75	15.82	32,916
51-2099	Assemblers & Fabricators, All Other	670	745	80	1.2	20	18.41	38,297
51-3092	Food Batchmakers	545	565	20	0.4	20	N.A.	N.A.
51-4011	Computer-Controlled Machine Tool Operators, Metal/Plastic	295	365	70	2.4	15	17.54	36,487
51-4021	Extruding & Drawing Machine Setters & Operators, Metal/Plastic	705	675	-30	-0.4	15	N.A.	N.A.
51-4041	Machinists	520	595	75	1.4	20	19.53	40,629
51-4121	Welders, Cutters, Solderers, & Brazers	1,085	1,200	115	1.1	40	17.39	36,179
51-8091	Chemical Plant & System Operators	430	465	30	0.7	20	N.A.	N.A.
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	735	815	80	1.1	25	N.A.	N.A.
51-9111	Packaging & Filling Machine Operators & Tenders	895	1,020	125	1.4	35	12.68	26,373
51-9199	Production Workers, All Other	2,450	2,730	285	1.2	90	16.20	33,701
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>12,680</b>	<b>14,465</b>	<b>1,780</b>	<b>1.4</b>	<b>465</b>	<b>14.94</b>	<b>31,072</b>
53-1021	First-Line Supervisors of Helpers, Laborers, & Material Movers, Hand	200	245	45	2.3	10	23.77	49,435
53-1031	First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	320	365	50	1.6	15	24.03	49,978
53-3022	Bus Drivers, School or Special Client	495	515	25	0.5	10	15.44	32,122
53-3031	Driver/Sales Workers	595	635	40	0.7	15	12.72	26,458
53-3032	Heavy & Tractor-Trailer Truck Drivers	3,065	3,645	580	1.9	105	19.41	40,382
53-3033	Light Truck or Delivery Services Drivers	975	1,100	125	1.3	30	14.56	30,287

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

**IOWA WORKFORCE DEVELOPMENT REGION 10 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>279,110</b>	<b>312,845</b>	<b>33,730</b>	<b>1.2</b>	<b>9,920</b>	<b>\$21.51</b>	<b>\$44,745</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>25,315</b>	<b>25,535</b>	<b>220</b>	<b>0.1</b>	<b>620</b>	<b>44.82</b>	<b>93,233</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	11,430	10,160	-1,275	-1.1	185	N.A.	N.A.
11-9051	Food Service Managers	555	590	35	0.6	15	20.00	41,609
11-9141	Property, Real Estate, & Community Association Managers	425	500	75	1.8	20	23.93	49,769
11-9199	Managers, All Other	1,370	1,410	40	0.3	35	40.63	84,512
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>13,065</b>	<b>14,910</b>	<b>1,840</b>	<b>1.4</b>	<b>435</b>	<b>29.50</b>	<b>61,356</b>
13-1023	Purchasing Agents, Ex Wholesale, Retail, & Farm Products	455	500	45	1.0	10	28.14	58,538
13-1031	Claims Adjusters, Examiners, & Investigators	355	415	60	1.7	15	26.54	55,205
13-1199	Business Operations Specialists, All Other	3,760	4,105	345	0.9	85	28.75	59,799
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>8,020</b>	<b>9,115</b>	<b>1,095</b>	<b>1.4</b>	<b>240</b>	<b>34.93</b>	<b>72,657</b>
15-1151	Computer User Support Specialists	735	910	175	2.4	30	21.85	45,453
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>6,365</b>	<b>6,460</b>	<b>100</b>	<b>0.2</b>	<b>170</b>	<b>33.28</b>	<b>69,225</b>
17-3021	Aerospace Engineering & Operations Technicians	370	350	-15	-0.4	10	N.A.	N.A.
17-3023	Electrical & Electronics Engineering Technicians	530	525	-5	-0.1	10	28.65	59,588
17-3029	Engineering Technicians, Ex Drafters, All Other	370	320	-50	-1.4	10	25.00	52,003
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>3,765</b>	<b>4,210</b>	<b>445</b>	<b>1.2</b>	<b>150</b>	<b>26.09</b>	<b>54,260</b>
19-4061	Social Science Research Assistants	230	260	30	1.3	10	N.A.	N.A.
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>3,560</b>	<b>4,275</b>	<b>715</b>	<b>2.0</b>	<b>150</b>	<b>19.01</b>	<b>39,533</b>
21-1093	Social & Human-Service Assistants	645	790	145	2.2	30	13.69	28,470
<b>23-0000</b>	<b>Legal Occupations</b>	<b>1,235</b>	<b>1,395</b>	<b>160</b>	<b>1.3</b>	<b>35</b>	<b>30.28</b>	<b>62,980</b>
23-2011	Paralegals & Legal Assistants	440	505	65	1.5	15	19.92	41,426
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>20,200</b>	<b>22,730</b>	<b>2,525</b>	<b>1.3</b>	<b>670</b>	<b>27.98</b>	<b>58,207</b>
25-2011	Preschool Teachers, Ex Special Education	555	655	100	1.8	25	13.02	27,071
25-3021	Self-Enrichment Education Teachers	345	405	60	1.7	10	18.99	39,492
25-4031	Library Technicians	285	310	20	0.7	15	17.47	36,333
25-9041	Teacher Assistants	3,260	3,505	245	0.8	100	12.09	25,149
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>4,010</b>	<b>4,520</b>	<b>510</b>	<b>1.3</b>	<b>150</b>	<b>20.43</b>	<b>42,492</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>15,500</b>	<b>18,320</b>	<b>2,820</b>	<b>1.8</b>	<b>600</b>	<b>36.10</b>	<b>75,078</b>
29-1126	Respiratory Therapists	240	280	40	1.7	10	24.04	49,997
29-1141	Registered Nurses	6,070	7,090	1,020	1.7	220	27.56	57,320
29-2012	Medical & Clinical Laboratory Technicians	265	325	60	2.3	15	22.47	46,732
29-2021	Dental Hygienists	365	480	115	3.2	20	33.33	69,327
29-2032	Diagnostic Medical Sonographers	130	195	65	5.0	10	29.18	60,685
29-2034	Radiologic Technologists	370	430	60	1.6	10	23.14	48,126
29-2041	Emergency Medical Technicians & Paramedics	260	305	45	1.7	10	16.94	35,227
29-2052	Pharmacy Technicians	750	900	150	2.0	20	15.10	31,415
29-2061	Licensed Practical & Licensed Vocational Nurses	820	1,025	205	2.5	40	18.75	38,995
29-2071	Medical Records & Health Information Technicians	300	350	45	1.5	15	19.00	39,520
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>6,765</b>	<b>8,280</b>	<b>1,515</b>	<b>2.2</b>	<b>280</b>	<b>14.36</b>	<b>29,865</b>
31-1014	Nursing Assistants	2,535	2,940	410	1.6	90	12.56	26,125
31-2021	Physical Therapist Assistants	165	235	70	4.2	10	23.56	49,006
31-9091	Dental Assistants	515	625	110	2.1	20	18.44	38,361
31-9092	Medical Assistants	685	860	175	2.6	30	15.43	32,088
31-9097	Phlebotomists	240	310	70	2.9	10	13.90	28,911
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>3,470</b>	<b>3,745</b>	<b>275</b>	<b>0.8</b>	<b>125</b>	<b>21.86</b>	<b>45,469</b>
33-3012	Correctional Officers & Jailers	430	440	10	0.2	10	23.25	48,360
33-3051	Police & Sheriff's Patrol Officers	640	670	30	0.5	25	25.86	53,781
33-9032	Security Guards	1,180	1,315	130	1.1	30	19.39	40,330
33-9092	Lifeguards/Ski Patrol/Other Recreational Protective Service Workers	305	335	30	1.0	25	8.90	18,504
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>20,325</b>	<b>22,785</b>	<b>2,460</b>	<b>1.2</b>	<b>1,000</b>	<b>9.69</b>	<b>20,160</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	1,435	1,660	225	1.6	60	14.09	29,317
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>8,355</b>	<b>9,565</b>	<b>1,210</b>	<b>1.4</b>	<b>295</b>	<b>12.93</b>	<b>26,893</b>
37-1011	First-Line Supervisors of Housekeeping & Janitorial Workers	325	380	55	1.7	15	17.73	36,880
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>8,295</b>	<b>10,255</b>	<b>1,960</b>	<b>2.4</b>	<b>370</b>	<b>10.94</b>	<b>22,761</b>
39-1021	First-Line Supervisors of Personal Service Workers	265	315	50	1.9	10	16.90	35,158
39-5012	Hairdressers, Hairstylists, & Cosmetologists	1,135	1,370	235	2.1	50	12.03	25,029
39-9011	Childcare Workers	2,725	3,335	615	2.3	140	8.71	18,109
39-9031	Fitness Trainers & Aerobics Instructors	485	575	90	1.9	15	13.15	27,346

**IOWA WORKFORCE DEVELOPMENT REGION 10 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>279,110</b>	<b>312,845</b>	<b>33,730</b>	<b>1.2</b>	<b>9,920</b>	<b>\$21.51</b>	<b>\$44,745</b>
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>26,915</b>	<b>29,615</b>	<b>2,700</b>	<b>1.0</b>	<b>1,080</b>	<b>16.50</b>	<b>34,328</b>
41-1011	First-Line Supervisors of Retail Sales Workers	3,010	3,315	305	1.0	95	18.94	39,390
41-1012	First-Line Supervisors of Non-Retail Sales Workers	615	655	40	0.7	10	31.24	64,988
41-3011	Advertising Sales Agents	390	410	20	0.5	15	27.54	57,292
41-3021	Insurance Sales Agents	765	960	195	2.5	40	26.47	55,050
41-3099	Sales Representatives, Services, All Other	1,030	1,210	175	1.7	45	28.39	59,055
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	2,540	2,820	280	1.1	80	29.75	61,871
41-9099	Sales & Related Workers, All Other	295	325	30	1.0	10	14.15	29,426
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>39,130</b>	<b>42,640</b>	<b>3,510</b>	<b>0.9</b>	<b>1,250</b>	<b>16.23</b>	<b>33,750</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	1,920	2,170	250	1.3	70	22.84	47,507
43-3011	Bill & Account Collectors	225	270	45	2.0	10	18.31	38,082
43-3021	Billing & Posting Clerks	705	850	140	2.0	25	18.21	37,871
43-3031	Bookkeeping, Accounting, & Auditing Clerks	3,005	3,425	420	1.4	70	16.27	33,845
43-3051	Payroll & Timekeeping Clerks	270	305	35	1.3	10	18.70	38,904
43-3071	Tellers	920	1,045	125	1.4	55	12.32	25,623
43-4051	Customer Service Representatives	5,060	5,980	920	1.8	230	15.45	32,131
43-4081	Hotel, Motel, & Resort Desk Clerks	330	410	80	2.4	25	9.51	19,787
43-4121	Library Assistants, Clerical	250	280	30	1.2	15	13.67	28,433
43-4151	Order Clerks	1,035	1,145	110	1.1	40	17.74	36,893
43-4171	Receptionists & Information Clerks	1,525	1,680	155	1.0	55	13.34	27,737
43-4199	Information & Record Clerks, All Other	365	330	-35	-1.0	10	18.15	37,759
43-5032	Dispatchers, Ex Police, Fire, & Ambulance	455	530	75	1.6	20	17.77	36,967
43-5052	Postal Service Mail Carriers	465	360	-105	-2.3	15	24.13	50,201
43-5061	Production, Planning, & Expediting Clerks	1,655	1,755	100	0.6	50	21.41	44,528
43-5071	Shipping, Receiving, & Traffic Clerks	780	840	65	0.8	25	15.86	32,981
43-5111	Weighers, Measurers, Checkers, & Samplers, Recordkeeping	415	420	5	0.1	10	N.A.	N.A.
43-6011	Executive Secretaries & Executive Administrative Assistants	2,180	2,155	-25	-0.1	25	21.17	44,030
43-6013	Medical Secretaries	550	735	185	3.4	25	15.32	31,875
43-6014	Secretaries/Administrative Assistants, Ex Legal, Medical, & Executive	4,115	4,590	470	1.1	95	15.45	32,134
43-9041	Insurance Claims & Policy Processing Clerks	350	425	75	2.1	15	17.05	35,473
43-9061	Office Clerks, General	5,030	5,350	325	0.6	140	15.56	32,374
43-9199	Office & Administrative Support Workers, All Other	850	870	25	0.3	25	16.81	34,969
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>1,770</b>	<b>1,880</b>	<b>110</b>	<b>0.6</b>	<b>65</b>	<b>14.03</b>	<b>29,186</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>11,865</b>	<b>14,645</b>	<b>2,785</b>	<b>2.3</b>	<b>475</b>	<b>21.17</b>	<b>44,044</b>
47-1011	First-Line Supervisors of Construction Trades & Extraction Workers	770	955	185	2.4	25	28.70	59,695
47-2021	Brickmasons & Blockmasons	275	365	90	3.3	10	23.39	48,653
47-2031	Carpenters	1,600	2,060	460	2.9	65	19.70	40,966
47-2073	Operating Engineers & Other Construction Equipment Operators	690	805	120	1.7	25	20.77	43,201
47-2111	Electricians	1,345	1,645	300	2.2	55	25.44	52,909
47-2152	Plumbers, Pipefitters, & Steamfitters	1,160	1,450	295	2.5	45	24.38	50,706
47-2211	Sheet Metal Workers	310	375	65	2.1	15	25.09	52,190
47-2221	Structural Iron & Steel Workers	155	190	35	2.3	10	24.58	51,133
47-4051	Highway Maintenance Workers	410	425	15	0.4	10	20.70	43,053
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>10,740</b>	<b>12,050</b>	<b>1,310</b>	<b>1.2</b>	<b>380</b>	<b>21.19</b>	<b>44,068</b>
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	585	625	40	0.7	20	30.32	63,071
49-2094	Electrical/Electronics Repairers, Commercial & Industrial Equipment	410	430	20	0.5	10	24.29	50,516
49-3021	Automotive Body & Related Repairers	300	350	55	1.8	10	18.31	38,093
49-3023	Automotive Service Technicians & Mechanics	1,365	1,525	165	1.2	50	17.31	36,001
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	665	750	90	1.4	25	18.07	37,586
49-3041	Farm Equipment Mechanics & Service Technicians	300	340	40	1.3	15	15.98	33,239
49-3042	Mobile Heavy Equipment Mechanics, Ex Engines	190	205	15	0.8	10	23.27	48,397
49-3093	Tire Repairers & Changers	160	175	15	0.9	10	13.76	28,625
49-9011	Mechanical Door Repairers	150	180	30	2.0	10	N.A.	N.A.
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	415	515	100	2.4	20	25.02	52,036
49-9031	Home Appliance Repairers	180	195	15	0.8	10	16.77	34,878
49-9041	Industrial Machinery Mechanics	835	1,050	220	2.6	45	23.18	48,213
49-9043	Maintenance Workers, Machinery	495	545	50	1.0	10	21.23	44,155
49-9044	Millwrights	350	395	45	1.3	10	23.61	49,113
49-9051	Electrical Power-Line Installers & Repairers	400	435	35	0.9	20	26.07	54,230
49-9071	Maintenance & Repair Workers, General	1,825	2,070	245	1.3	60	20.60	42,840

**IOWA WORKFORCE DEVELOPMENT REGION 10 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>279,110</b>	<b>312,845</b>	<b>33,730</b>	<b>1.2</b>	<b>9,920</b>	<b>\$21.51</b>	<b>\$44,745</b>
<b>51-0000</b>	<b>Production Occupations</b>	<b>17,485</b>	<b>18,700</b>	<b>1,215</b>	<b>0.7</b>	<b>495</b>	<b>17.82</b>	<b>37,072</b>
51-1011	First-Line Supervisors of Production & Operating Workers	1,130	1,185	50	0.4	20	27.48	57,151
51-2022	Electrical & Electronic Equipment Assemblers	795	740	-55	-0.7	10	N.A.	N.A.
51-2092	Team Assemblers	1,905	2,130	225	1.2	50	15.66	32,583
51-2099	Assemblers & Fabricators, All Other	475	520	45	0.9	15	13.17	27,403
51-3092	Food Batchmakers	550	555	5	0.1	20	21.63	44,988
51-4011	Computer-Controlled Machine Tool Operators, Metal/Plastic	350	425	80	2.3	20	18.92	39,348
51-4012	Computer Controlled Machine Tool Programmers, Metal/Plastic	200	230	30	1.5	10	22.48	46,760
51-4033	Grinding, Lapping, Polishing, & Buffing Machine Tool Setters/ Operators/ Tenders, Metal/Plastic	325	340	15	0.5	10	N.A.	N.A.
51-4041	Machinists	385	445	60	1.6	15	20.50	42,632
51-4072	Molding, Coremaking, & Casting Machine Setters/Operators/Tenders, Metal/Plastic	625	635	10	0.2	10	13.70	28,494
51-4121	Welders, Cutters, Solderers, & Brazers	695	755	60	0.9	25	18.35	38,172
51-5112	Printing Press Operators	580	570	-10	-0.2	10	15.46	32,158
51-8031	Water & Wastewater Treatment Plant & System Operators	260	275	15	0.6	10	21.50	44,725
51-9023	Mixing & Blending Machine Setters, Operators, & Tenders	435	455	20	0.5	15	20.58	42,804
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	660	765	105	1.6	25	22.40	46,592
51-9111	Packaging & Filling Machine Operators & Tenders	975	1,010	35	0.4	25	16.76	34,852
51-9199	Production Workers, All Other	850	980	130	1.5	35	12.84	26,702
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>22,960</b>	<b>27,215</b>	<b>4,255</b>	<b>1.9</b>	<b>890</b>	<b>16.50</b>	<b>34,318</b>
53-1021	First-Line Supervisors of Helpers, Laborers, & Material Movers, Hand	235	270	35	1.5	10	20.56	42,771
53-1031	First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	385	450	65	1.7	20	24.42	50,787
53-3022	Bus Drivers, School or Special Client	775	795	20	0.3	15	15.72	32,690
53-3031	Driver/Sales Workers	690	755	65	0.9	15	13.19	27,442
53-3032	Heavy & Tractor-Trailer Truck Drivers	11,160	13,980	2,820	2.5	460	20.78	43,223
53-3033	Light Truck or Delivery Services Drivers	1,350	1,500	150	1.1	35	15.84	32,956

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

**IOWA WORKFORCE DEVELOPMENT REGION 11 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>453,900</b>	<b>518,520</b>	<b>64,620</b>	<b>1.4</b>	<b>17,250</b>	<b>\$21.48</b>	<b>\$44,684</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>40,670</b>	<b>42,775</b>	<b>2,105</b>	<b>0.5</b>	<b>1,160</b>	<b>45.87</b>	<b>95,410</b>
11-3071	Transportation, Storage, & Distribution Managers	350	395	40	1.1	10	39.97	83,136
11-9013	Farmers, Ranchers, & Other Agricultural Managers	16,870	14,935	-1,930	-1.1	270	29.82	62,035
11-9051	Food Service Managers	760	805	45	0.6	20	20.63	42,905
11-9141	Property, Real Estate, & Community Association Managers	605	705	100	1.7	25	27.43	57,059
11-9199	Managers, All Other	1,770	1,955	185	1.0	55	43.39	90,241
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>29,795</b>	<b>35,170</b>	<b>5,375</b>	<b>1.8</b>	<b>1,135</b>	<b>30.36</b>	<b>63,158</b>
13-1022	Wholesale & Retail Buyers, Except Farm Products	335	390	55	1.6	15	29.88	62,148
13-1023	Purchasing Agents, Except Wholesale, Retail, & Farm Products	550	610	60	1.1	15	27.33	56,851
13-1031	Claims Adjusters, Examiners, & Investigators	2,190	2,600	410	1.9	90	25.17	52,361
13-1199	Business Operations Specialists, All Other	5,260	5,880	620	1.2	135	29.72	61,820
13-2082	Tax Preparers	340	405	65	1.9	15	15.52	32,284
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>13,995</b>	<b>17,735</b>	<b>3,735</b>	<b>2.7</b>	<b>600</b>	<b>34.78</b>	<b>72,349</b>
15-1134	Web Developers	440	550	110	2.5	20	30.50	63,444
15-1151	Computer User Support Specialists	1,430	1,805	375	2.6	60	21.37	44,439
15-1152	Computer Network Support Specialists	800	865	65	0.8	20	25.86	53,796
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>5,020</b>	<b>5,665</b>	<b>650</b>	<b>1.3</b>	<b>180</b>	<b>31.82</b>	<b>66,185</b>
17-3022	Civil Engineering Technicians	420	420	0	0.0	10	26.16	54,417
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>5,035</b>	<b>5,575</b>	<b>540</b>	<b>1.1</b>	<b>215</b>	<b>29.06</b>	<b>60,446</b>
19-4011	Agricultural & Food Science Technicians	530	595	70	1.3	25	17.16	35,695
19-4031	Chemical Technicians	230	255	25	1.1	10	18.77	39,048
19-4099	Life, Physical, & Social Science Technicians, All Other	320	395	75	2.3	20	21.78	45,292
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>6,330</b>	<b>7,450</b>	<b>1,120</b>	<b>1.8</b>	<b>255</b>	<b>20.51</b>	<b>42,659</b>
21-1093	Social & Human Service Assistants	1,125	1,375	255	2.3	55	15.37	31,962
<b>23-0000</b>	<b>Legal Occupations</b>	<b>3,245</b>	<b>3,685</b>	<b>440</b>	<b>1.4</b>	<b>95</b>	<b>46.00</b>	<b>95,683</b>
23-2011	Paralegals & Legal Assistants	960	1,115	160	1.7	30	23.60	49,093
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>27,970</b>	<b>31,210</b>	<b>3,240</b>	<b>1.2</b>	<b>905</b>	<b>23.24</b>	<b>48,331</b>
25-2011	Preschool Teachers, Except Special Education	905	1,040	135	1.5	40	13.27	27,602
25-3021	Self-Enrichment Education Teachers	620	745	125	2.0	25	17.00	35,361
25-4031	Library Technicians	420	460	35	0.8	25	13.49	28,065
25-9041	Teacher Assistants	4,170	4,505	335	0.8	130	10.74	22,331
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>8,680</b>	<b>9,730</b>	<b>1,055</b>	<b>1.2</b>	<b>315</b>	<b>20.95</b>	<b>43,572</b>
27-1023	Floral Designers	260	270	15	0.6	10	12.36	25,698
27-1026	Merchandise Displayers & Window Trimmers	495	575	75	1.5	20	11.24	23,389
27-2042	Musicians & Singers	255	275	25	1.0	10	N.A.	N.A.
27-4021	Photographers	580	650	70	1.2	15	14.65	30,473
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>21,490</b>	<b>25,960</b>	<b>4,470</b>	<b>2.1</b>	<b>890</b>	<b>34.29</b>	<b>71,328</b>
29-1141	Registered Nurses	7,965	9,525	1,560	2.0	310	26.61	55,347
29-2012	Medical & Clinical Laboratory Technicians	370	465	95	2.6	20	19.04	39,595
29-2021	Dental Hygienists	555	715	160	2.9	30	33.50	69,685
29-2032	Diagnostic Medical Sonographers	270	400	130	4.8	15	29.69	61,758
29-2034	Radiologic Technologists	605	735	130	2.1	20	24.49	50,938
29-2041	Emergency Medical Technicians & Paramedics	455	520	60	1.3	20	17.24	35,851
29-2052	Pharmacy Technicians	1,010	1,225	215	2.1	30	14.03	29,173
29-2056	Veterinary Technologists & Technicians	290	365	75	2.6	10	16.32	33,944
29-2061	Licensed Practical & Licensed Vocational Nurses	1,375	1,700	325	2.4	65	19.16	39,850
29-2071	Medical Records & Health Information Technicians	470	565	95	2.0	20	17.38	36,149
29-2081	Opticians, Dispensing	230	275	45	2.0	10	14.12	29,372
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>10,035</b>	<b>12,205</b>	<b>2,170</b>	<b>2.2</b>	<b>410</b>	<b>14.15</b>	<b>29,429</b>
31-1014	Nursing Assistants	4,915	5,605	690	1.4	165	12.94	26,910
31-2011	Occupational Therapy Assistants	110	165	60	5.5	10	25.44	52,913
31-2021	Physical Therapist Assistants	195	275	80	4.1	10	23.08	47,997
31-9011	Massage Therapists	260	345	80	3.1	10	16.71	34,763
31-9091	Dental Assistants	560	675	115	2.1	25	17.75	36,923
31-9092	Medical Assistants	1,225	1,540	315	2.6	55	16.71	34,758
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>7,480</b>	<b>8,270</b>	<b>790</b>	<b>1.1</b>	<b>285</b>	<b>20.01</b>	<b>41,622</b>
33-2011	Firefighters	615	660	50	0.8	20	15.76	32,775
33-3012	Correctional Officers & Jailers	715	750	35	0.5	20	23.68	49,258
33-3051	Police & Sheriff's Patrol Officers	1,330	1,420	90	0.7	50	25.89	53,846
33-9032	Security Guards	2,785	3,215	430	1.5	85	16.43	34,165
33-9092	Lifeguards/Ski Patrol/Other Recreational Protective Service Workers	695	780	85	1.2	55	8.48	17,646
33-9099	Protective Service Workers, All Other	100	115	10	1.0	10	15.07	31,345



IOWA WORKFORCE DEVELOPMENT REGION 11 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>453,900</b>	<b>518,520</b>	<b>64,620</b>	<b>1.4</b>	<b>17,250</b>	<b>\$21.48</b>	<b>\$44,684</b>
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>32,765</b>	<b>36,615</b>	<b>3,850</b>	<b>1.2</b>	<b>1,625</b>	<b>9.70</b>	<b>20,172</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	2,140	2,470	325	1.5	95	15.39	32,006
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>14,550</b>	<b>17,050</b>	<b>2,500</b>	<b>1.7</b>	<b>550</b>	<b>12.26</b>	<b>25,491</b>
37-1011	First-Line Supervisors of Housekeeping & Janitorial Workers	675	805	130	1.9	30	14.79	30,758
37-1012	First-Line Supervisors of Landscaping/Lawn/Grounds Workers	285	340	55	1.9	10	21.84	45,434
37-3013	Tree Trimmers & Pruners	255	325	70	2.7	15	16.49	34,307
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>15,965</b>	<b>19,555</b>	<b>3,585</b>	<b>2.2</b>	<b>720</b>	<b>11.19</b>	<b>23,281</b>
39-1021	First-Line Supervisors of Personal Service Workers	520	615	95	1.8	20	17.07	35,512
39-5012	Hairdressers, Hairstylists, & Cosmetologists	2,195	2,665	470	2.1	100	14.96	31,113
39-9011	Childcare Workers	4,525	5,370	840	1.9	215	9.32	19,393
39-9031	Fitness Trainers & Aerobics Instructors	1,545	1,750	205	1.3	40	12.05	25,055
39-9099	Personal Care & Service Workers, All Other	470	525	55	1.2	20	9.95	20,693
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>45,810</b>	<b>51,620</b>	<b>5,810</b>	<b>1.3</b>	<b>1,935</b>	<b>18.88</b>	<b>39,264</b>
41-1011	First-Line Supervisors of Retail Sales Workers	4,880	5,425	545	1.1	160	19.19	39,912
41-1012	First-Line Supervisors of Non-Retail Sales Workers	1,115	1,255	140	1.3	30	38.45	79,974
41-3011	Advertising Sales Agents	550	570	20	0.4	20	25.88	53,821
41-3021	Insurance Sales Agents	1,835	2,300	465	2.5	90	27.19	56,555
41-3099	Sales Representatives, Services, All Other	1,985	2,360	375	1.9	90	28.18	58,623
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	5,350	6,155	805	1.5	185	34.45	71,655
41-9011	Demonstrators & Product Promoters	515	595	80	1.6	20	11.08	23,051
41-9022	Real Estate Sales Agents	405	495	90	2.2	15	21.09	43,875
41-9099	Sales & Related Workers, All Other	415	485	70	1.7	15	18.92	39,353
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>72,450</b>	<b>81,340</b>	<b>8,890</b>	<b>1.2</b>	<b>2,585</b>	<b>16.78</b>	<b>34,907</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	3,755	4,470	720	1.9	160	24.44	50,840
43-3011	Bill & Account Collectors	1,985	2,480	495	2.5	105	15.69	32,632
43-3021	Billing & Posting Clerks	1,040	1,285	250	2.4	45	17.20	35,780
43-3031	Bookkeeping, Accounting, & Auditing Clerks	5,490	6,460	970	1.8	145	17.25	35,870
43-3051	Payroll & Timekeeping Clerks	465	555	90	1.9	20	18.57	38,620
43-3061	Procurement Clerks	170	185	15	0.9	10	19.09	39,699
43-3071	Tellers	2,850	3,390	540	1.9	185	12.09	25,146
43-4031	Court, Municipal, & License Clerks	395	435	40	1.0	10	19.65	40,871
43-4051	Customer Service Representatives	9,735	11,675	1,935	2.0	460	16.34	33,985
43-4061	Eligibility Interviewers, Government Programs	510	580	65	1.3	15	24.44	50,834
43-4081	Hotel, Motel, & Resort Desk Clerks	890	1,065	175	2.0	60	9.51	19,777
43-4111	Interviewers, Except Eligibility & Loan	725	775	55	0.8	20	13.99	29,097
43-4121	Library Assistants, Clerical	380	440	60	1.6	25	15.76	32,776
43-4131	Loan Interviewers & Clerks	1,630	2,070	440	2.7	55	N.A.	N.A.
43-4141	New Accounts Clerks	465	515	50	1.1	15	17.00	35,358
43-4151	Order Clerks	430	430	0	0.0	10	18.37	38,212
43-4161	Human Resources Assistants, Except Payroll & Timekeeping	435	450	15	0.3	15	18.78	39,070
43-4171	Receptionists & Information Clerks	2,820	3,255	435	1.5	120	13.49	28,054
43-4199	Information & Record Clerks, All Other	480	450	-30	-0.6	10	18.20	37,858
43-5032	Dispatchers, Except Police, Fire, & Ambulance	550	630	85	1.5	25	19.23	40,002
43-5052	Postal Service Mail Carriers	805	565	-235	-2.9	30	24.58	51,133
43-5053	Postal Service Mail Sorters/Processors/Process Machine Operators	1,100	745	-355	-3.2	10	23.48	48,841
43-5061	Production, Planning, & Expediting Clerks	745	830	90	1.2	25	22.04	45,848
43-5071	Shipping, Receiving, & Traffic Clerks	1,360	1,470	110	0.8	45	15.86	32,979
43-6011	Executive Secretaries & Executive Administrative Assistants	4,340	4,410	70	0.2	60	21.42	44,548
43-6013	Medical Secretaries	1,290	1,720	430	3.3	60	15.61	32,463
43-6014	Secretaries & Administrative Assistants, Ex Legal/Medical/Executive	5,475	6,320	840	1.5	150	16.26	33,824
43-9041	Insurance Claims & Policy Processing Clerks	2,535	3,100	570	2.2	125	18.33	38,123
43-9051	Mail Clerks & Mail Machine Operators, Ex Postal Service	700	665	-35	-0.5	15	12.99	27,010
43-9061	Office Clerks, General	9,710	10,725	1,010	1.0	305	15.35	31,929
43-9071	Office Machine Operators, Ex Computer	505	490	-15	-0.3	10	14.38	29,907
43-9199	Office & Administrative Support Workers, All Other	355	370	10	0.3	10	14.98	31,150
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>1,865</b>	<b>2,010</b>	<b>145</b>	<b>0.8</b>	<b>70</b>	<b>14.78</b>	<b>30,741</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>18,210</b>	<b>23,000</b>	<b>4,790</b>	<b>2.6</b>	<b>775</b>	<b>20.82</b>	<b>43,300</b>
47-1011	First-Line Supervisors of Construction Trades & Extraction Workers	1,340	1,700	360	2.7	50	26.19	54,476
47-2021	Brickmasons & Blockmasons	375	505	130	3.5	15	22.43	46,659
47-2031	Carpenters	2,600	3,415	820	3.2	115	20.33	42,296
47-2073	Operating Engineers & Other Construction Equipment Operators	1,095	1,365	265	2.4	50	23.36	48,584
47-2111	Electricians	2,190	2,725	540	2.5	95	25.40	52,837
47-2152	Plumbers, Pipefitters, & Steamfitters	1,410	1,805	390	2.8	55	23.44	48,753
47-2211	Sheet Metal Workers	370	460	90	2.4	15	N.A.	N.A.
47-2221	Structural Iron & Steel Workers	125	160	35	2.8	10	25.22	52,452
47-4011	Construction & Building Inspectors	240	270	30	1.3	10	26.69	55,522
47-4051	Highway Maintenance Workers	560	595	35	0.6	10	20.99	43,662

**IOWA WORKFORCE DEVELOPMENT REGION 11 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>453,900</b>	<b>518,520</b>	<b>64,620</b>	<b>1.4</b>	<b>17,250</b>	<b>\$21.48</b>	<b>\$44,684</b>
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>17,990</b>	<b>20,710</b>	<b>2,720</b>	<b>1.5</b>	<b>695</b>	<b>20.75</b>	<b>43,169</b>
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	1,240	1,390	150	1.2	50	29.01	60,335
49-2011	Computer, Automated Teller, & Office Machine Repairers	590	645	60	1.0	20	18.59	38,662
49-2022	Telecommunications Equipment Installers/Repairers, Ex Line Installers	790	810	20	0.3	15	26.89	55,928
49-2094	Electrical/Electronics Repairers, Commercial/Industrial Equipment	265	320	55	2.1	10	23.77	49,437
49-2097	Electronic Home Entertainment Equipment Installers & Repairers	205	240	35	1.7	10	N.A.	N.A.
49-2098	Security & Fire Alarm Systems Installers	235	270	35	1.5	10	20.87	43,402
49-3021	Automotive Body & Related Repairers	535	640	100	1.9	20	19.87	41,326
49-3023	Automotive Service Technicians & Mechanics	2,510	2,865	355	1.4	100	19.87	41,331
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	995	1,120	125	1.3	35	20.19	41,992
49-3041	Farm Equipment Mechanics & Service Technicians	520	575	55	1.1	20	18.68	38,855
49-3042	Mobile Heavy Equipment Mechanics, Ex Engines	360	395	35	1.0	15	20.77	43,203
49-3093	Tire Repairers & Changers	410	470	60	1.5	20	12.94	26,916
49-9021	Heating, Air Conditioning, Refrigeration Mechanics & Installers	1,160	1,475	310	2.7	60	23.71	49,309
49-9041	Industrial Machinery Mechanics	1,205	1,565	360	3.0	70	21.08	43,856
49-9051	Electrical Power-Line Installers & Repairers	245	285	40	1.6	10	23.43	48,734
49-9052	Telecommunications Line Installers & Repairers	275	330	60	2.2	15	18.80	39,109
49-9062	Medical Equipment Repairers	160	220	60	3.8	10	22.93	47,700
49-9071	Maintenance & Repair Workers, General	3,675	4,175	500	1.4	120	17.65	36,705
49-9098	Helpers--Installation, Maintenance, & Repair Workers	210	255	40	1.9	10	12.90	26,822
49-9099	Installation, Maintenance, & Repair Workers, All Other	495	540	50	1.0	15	17.75	36,925
<b>51-0000</b>	<b>Production Occupations</b>	<b>28,450</b>	<b>31,310</b>	<b>2,860</b>	<b>1.0</b>	<b>895</b>	<b>15.99</b>	<b>33,266</b>
51-1011	First-Line Supervisors of Production & Operating Workers	1,435	1,530	95	0.7	30	26.57	55,262
51-2092	Team Assemblers	4,225	4,855	635	1.5	130	15.22	31,656
51-2099	Assemblers & Fabricators, All Other	1,015	1,205	190	1.9	35	13.97	29,061
51-3092	Food Batchmakers	245	250	10	0.4	10	12.62	26,242
51-4011	Computer-Controlled Machine Tool Operators, Metal/Plastic	845	1,060	215	2.5	45	N.A.	N.A.
51-4033	Grinding/Lapping/Polishing/Buffering Machine Tool Operators, Metal/Plastic	520	575	60	1.2	20	15.32	31,866
51-4041	Machinists	700	800	100	1.4	25	18.52	38,528
51-4081	Multiple Machine Tool Setters/Operators/Tenders, Metal/Plastic	475	460	-15	-0.3	10	13.95	29,011
51-4121	Welders, Cutters, Solderers, & Brazers	875	945	70	0.8	30	17.15	35,665
51-4122	Welding, Soldering, & Brazing Machine Setters/Operators/Tenders	305	380	75	2.5	15	N.A.	N.A.
51-5112	Printing Press Operators	880	870	-5	-0.1	15	N.A.	N.A.
51-5113	Print Binding & Finishing Workers	475	450	-25	-0.5	10	15.21	31,646
51-7099	Woodworkers, All Other	520	640	125	2.4	30	N.A.	N.A.
51-8031	Water & Wastewater Treatment Plant & System Operators	270	290	25	0.9	10	25.35	52,736
51-9023	Mixing & Blending Machine Setters/Operators/Tenders	400	415	15	0.4	15	16.94	35,225
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	1,120	1,300	180	1.6	45	16.10	33,479
51-9111	Packaging & Filling Machine Operators & Tenders	1,475	1,620	150	1.0	50	13.24	27,542
51-9121	Coat/Paint/Spray Machine Setters/Operators/Tenders	680	745	65	1.0	20	17.54	36,484
51-9195	Molders, Shapers, & Casters, Ex Metal/Plastic	215	245	30	1.4	10	11.31	23,533
51-9197	Tire Builders	570	570	0	0.0	15	N.A.	N.A.
51-9199	Production Workers, All Other	2,150	2,435	280	1.3	85	13.36	27,788
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>26,095</b>	<b>29,875</b>	<b>3,780</b>	<b>1.4</b>	<b>955</b>	<b>16.17</b>	<b>33,644</b>
53-1021	First-Line Supervisors of Helpers/Laborers/Material Movers, Hand	395	455	65	1.6	15	21.85	45,451
53-1031	First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	575	640	65	1.1	25	28.69	59,669
53-3021	Bus Drivers, Transit & Intercity	490	550	60	1.2	15	15.05	31,304
53-3022	Bus Drivers, School or Special Client	1,440	1,465	25	0.2	30	16.36	34,039
53-3031	Driver/Sales Workers	1,280	1,440	160	1.3	35	11.72	24,374
53-3032	Heavy & Tractor-Trailer Truck Drivers	6,495	7,750	1,255	1.9	230	20.69	43,026
53-3033	Light Truck or Delivery Services Drivers	2,845	3,315	465	1.6	95	15.97	33,221
53-7032	Excavating & Loading Machine & Dragline Operators	425	485	60	1.4	10	N.A.	N.A.

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

**IOWA WORKFORCE DEVELOPMENT REGION 12 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>86,755</b>	<b>96,010</b>	<b>9,255</b>	<b>1.1</b>	<b>3,045</b>	<b>\$17.71</b>	<b>\$36,839</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>8,275</b>	<b>8,155</b>	<b>-125</b>	<b>-0.2</b>	<b>190</b>	<b>39.28</b>	<b>81,692</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	4,745	4,240	-500	-1.1	75	36.08	75,056
11-9199	Managers, All Other	485	475	-10	-0.2	10	34.92	72,631
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>2,565</b>	<b>2,835</b>	<b>270</b>	<b>1.1</b>	<b>80</b>	<b>25.76</b>	<b>53,574</b>
13-1199	Business Operations Specialists, All Other	520	535	15	0.3	10	24.02	49,959
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>850</b>	<b>1,000</b>	<b>150</b>	<b>1.8</b>	<b>30</b>	<b>20.36</b>	<b>42,344</b>
15-1151	Computer User Support Specialists	410	490	80	2.0	15	12.75	26,519
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>430</b>	<b>470</b>	<b>45</b>	<b>1.0</b>	<b>15</b>	<b>29.88</b>	<b>62,146</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>300</b>	<b>350</b>	<b>50</b>	<b>1.7</b>	<b>15</b>	<b>27.16</b>	<b>56,501</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>1,370</b>	<b>1,635</b>	<b>260</b>	<b>1.9</b>	<b>60</b>	<b>18.34</b>	<b>38,148</b>
21-1093	Social & Human Service Assistants	220	260	40	1.8	10	12.45	25,903
<b>23-0000</b>	<b>Legal Occupations</b>	<b>315</b>	<b>350</b>	<b>35</b>	<b>1.1</b>	<b>10</b>	<b>33.50</b>	<b>69,684</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>4,825</b>	<b>5,285</b>	<b>460</b>	<b>1.0</b>	<b>150</b>	<b>20.29</b>	<b>42,212</b>
25-3021	Self-Enrichment Education Teachers	295	335	40	1.4	10	17.55	36,500
25-9041	Teacher Assistants	505	535	30	0.6	15	10.63	22,100
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>1,235</b>	<b>1,365</b>	<b>130</b>	<b>1.1</b>	<b>45</b>	<b>13.95</b>	<b>29,016</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>4,705</b>	<b>5,630</b>	<b>920</b>	<b>2.0</b>	<b>190</b>	<b>30.37</b>	<b>63,170</b>
29-1141	Registered Nurses	1,890	2,215	325	1.7	70	23.24	48,349
29-2061	Licensed Practical & Licensed Vocational Nurses	255	315	60	2.4	10	19.04	39,597
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>2,355</b>	<b>2,795</b>	<b>440</b>	<b>1.9</b>	<b>90</b>	<b>12.92</b>	<b>26,879</b>
31-1014	Nursing Assistants	1,110	1,255	145	1.3	35	11.73	24,394
31-9092	Medical Assistants	245	305	65	2.7	10	13.21	27,478
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>1,145</b>	<b>1,240</b>	<b>95</b>	<b>0.8</b>	<b>40</b>	<b>22.39</b>	<b>46,579</b>
33-3051	Police & Sheriff's Patrol Officers	265	280	20	0.8	10	28.00	58,235
33-9032	Security Guards	360	395	35	1.0	10	17.10	35,561
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>7,120</b>	<b>7,880</b>	<b>760</b>	<b>1.1</b>	<b>340</b>	<b>9.43</b>	<b>19,621</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	470	535	60	1.3	20	13.91	28,923
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>2,950</b>	<b>3,365</b>	<b>415</b>	<b>1.4</b>	<b>105</b>	<b>11.61</b>	<b>24,143</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>2,445</b>	<b>2,850</b>	<b>405</b>	<b>1.7</b>	<b>95</b>	<b>11.15</b>	<b>23,193</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	500	595	95	1.9	20	9.95	20,691
39-9011	Childcare Workers	710	860	150	2.1	35	9.61	19,994
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>10,325</b>	<b>11,195</b>	<b>870</b>	<b>0.8</b>	<b>405</b>	<b>14.02</b>	<b>29,154</b>
41-1011	First-Line Supervisors of Retail Sales Workers	1,130	1,245	115	1.0	35	18.00	37,449
41-3021	Insurance Sales Agents	210	240	30	1.4	10	20.26	42,134
41-3099	Sales Representatives, Services, All Other	190	220	25	1.3	10	28.19	58,639
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	860	925	65	0.8	25	24.80	51,594
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>10,260</b>	<b>11,185</b>	<b>925</b>	<b>0.9</b>	<b>325</b>	<b>14.71</b>	<b>30,593</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	435	495	55	1.3	15	20.90	43,479
43-3021	Billing & Posting Clerks	210	250	40	1.9	10	15.03	31,264
43-3031	Bookkeeping, Accounting, & Auditing Clerks	1,440	1,635	195	1.4	30	14.96	31,110
43-3071	Tellers	440	445	5	0.1	20	12.13	25,230
43-4051	Customer Service Representatives	700	790	90	1.3	30	14.39	29,924
43-4081	Hotel, Motel, & Resort Desk Clerks	165	195	30	1.8	10	9.74	20,257
43-4151	Order Clerks	180	210	30	1.7	10	14.76	30,705
43-4171	Receptionists & Information Clerks	465	520	55	1.2	20	13.02	27,087
43-6013	Medical Secretaries	405	520	115	2.8	15	14.52	30,202
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	1,130	1,275	140	1.2	30	13.44	27,963
43-9061	Office Clerks, General	1,250	1,335	85	0.7	35	13.90	28,922
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>795</b>	<b>815</b>	<b>20</b>	<b>0.3</b>	<b>25</b>	<b>16.44</b>	<b>34,191</b>

IOWA WORKFORCE DEVELOPMENT REGION 12 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>86,755</b>	<b>96,010</b>	<b>9,255</b>	<b>1.1</b>	<b>3,045</b>	<b>\$17.71</b>	<b>\$36,839</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>4,185</b>	<b>5,150</b>	<b>970</b>	<b>2.3</b>	<b>165</b>	<b>18.19</b>	<b>37,831</b>
47-1011	First-Line Supervisors of Construction Trades & Extraction Workers	310	375	65	2.1	10	24.49	50,943
47-2031	Carpenters	500	645	145	2.9	20	17.34	36,067
47-2073	Operating Engineers & Other Construction Equipment Operators	430	495	65	1.5	15	19.67	40,920
47-2111	Electricians	270	315	45	1.7	10	22.25	46,272
47-2152	Plumbers, Pipefitters, & Steamfitters	475	585	110	2.3	15	20.69	43,033
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>4,050</b>	<b>4,495</b>	<b>445</b>	<b>1.1</b>	<b>145</b>	<b>20.05</b>	<b>41,712</b>
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	240	260	20	0.8	10	27.47	57,131
49-3023	Automotive Service Technicians & Mechanics	500	545	45	0.9	15	19.42	40,403
49-3031	Bus & Truck Mechanics & Diesel Engine Specialists	335	375	40	1.2	10	17.71	36,839
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	210	260	50	2.4	10	21.96	45,672
49-9041	Industrial Machinery Mechanics	310	395	85	2.7	20	20.36	42,353
49-9071	Maintenance & Repair Workers, General	690	770	80	1.2	20	16.94	35,233
<b>51-0000</b>	<b>Production Occupations</b>	<b>8,090</b>	<b>8,810</b>	<b>720</b>	<b>0.9</b>	<b>255</b>	<b>15.61</b>	<b>32,469</b>
51-1011	First-Line Supervisors of Production & Operating Workers	445	470	30	0.7	10	26.16	54,415
51-2092	Team Assemblers	1,095	1,300	205	1.9	35	9.89	20,578
51-4121	Welders, Cutters, Solderers, & Brazers	375	400	30	0.8	10	16.86	35,073
51-9023	Mixing & Blending Machine Setters/Operators/Tenders	255	275	20	0.8	10	15.30	31,819
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	285	335	50	1.8	10	16.00	33,274
51-9083	Ophthalmic Laboratory Technicians	210	235	25	1.2	10	N.A.	N.A.
51-9111	Packaging & Filling Machine Operators & Tenders	590	620	30	0.5	15	13.40	27,878
51-9199	Production Workers, All Other	450	500	50	1.1	15	17.42	36,227
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>8,165</b>	<b>9,150</b>	<b>985</b>	<b>1.2</b>	<b>285</b>	<b>16.21</b>	<b>33,715</b>
53-1031	First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	190	220	30	1.6	10	27.01	56,187
53-3022	Bus Drivers, School or Special Client	410	400	-10	-0.2	10	16.97	35,303
53-3032	Heavy & Tractor-Trailer Truck Drivers	2,345	2,730	385	1.6	75	19.27	40,079
53-3033	Light Truck or Delivery Services Drivers	700	795	90	1.3	20	15.87	33,016
Source: Labor Market Information Division, Iowa Workforce Development								
Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.								

IOWA WORKFORCE DEVELOPMENT REGION 13 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>81,595</b>	<b>90,170</b>	<b>8,570</b>	<b>1.1</b>	<b>2,850</b>	<b>\$16.82</b>	<b>\$34,992</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>8,305</b>	<b>8,105</b>	<b>-200</b>	<b>-0.2</b>	<b>180</b>	<b>33.78</b>	<b>70,255</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	5,100	4,595	-505	-1.0	80	N.A.	N.A.
11-9199	Managers, All Other	560	555	-10	-0.2	10	30.93	64,325
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>2,250</b>	<b>2,515</b>	<b>265</b>	<b>1.2</b>	<b>70</b>	<b>27.94</b>	<b>58,111</b>
13-1199	Business Operations Specialists, All Other	545	565	20	0.4	10	26.11	54,312
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>665</b>	<b>770</b>	<b>100</b>	<b>1.5</b>	<b>20</b>	<b>29.71</b>	<b>61,791</b>
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>430</b>	<b>465</b>	<b>35</b>	<b>0.8</b>	<b>15</b>	<b>29.81</b>	<b>62,009</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>430</b>	<b>460</b>	<b>35</b>	<b>0.8</b>	<b>20</b>	<b>27.17</b>	<b>56,520</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>1,035</b>	<b>1,200</b>	<b>165</b>	<b>1.6</b>	<b>40</b>	<b>18.67</b>	<b>38,830</b>
<b>23-0000</b>	<b>Legal Occupations</b>	<b>300</b>	<b>345</b>	<b>45</b>	<b>1.5</b>	<b>10</b>	<b>31.43</b>	<b>65,366</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>4,820</b>	<b>5,240</b>	<b>420</b>	<b>0.9</b>	<b>150</b>	<b>19.86</b>	<b>41,317</b>
25-2011	Preschool Teachers, Ex Special Education	205	225	20	1.0	10	13.13	27,310
25-9041	Teacher Assistants	925	990	60	0.6	25	10.59	22,022
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>845</b>	<b>940</b>	<b>95</b>	<b>1.1</b>	<b>30</b>	<b>15.01</b>	<b>31,224</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>4,160</b>	<b>4,875</b>	<b>715</b>	<b>1.7</b>	<b>155</b>	<b>29.47</b>	<b>61,292</b>
29-1141	Registered Nurses	1,395	1,590	200	1.4	45	26.25	54,607
29-2061	Licensed Practical & Licensed Vocational Nurses	505	595	90	1.8	20	18.79	39,087
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>3,210</b>	<b>3,730</b>	<b>520</b>	<b>1.6</b>	<b>115</b>	<b>14.37</b>	<b>29,885</b>
31-1014	Nursing Assistants	1,455	1,615	160	1.1	45	14.76	30,695
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>1,785</b>	<b>1,955</b>	<b>170</b>	<b>1.0</b>	<b>75</b>	<b>19.24</b>	<b>40,015</b>
33-3051	Police & Sheriff's Patrol Officers	315	330	15	0.5	10	26.89	55,922
33-9032	Security Guards	555	640	85	1.5	15	13.77	28,636
33-9092	Lifeguards, Ski Patrol, & Other Recreational Protective Service Workers	320	355	40	1.3	25	8.36	17,387
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>7,370</b>	<b>8,045</b>	<b>675</b>	<b>0.9</b>	<b>340</b>	<b>9.53</b>	<b>19,815</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	500	555	50	1.0	20	13.71	28,510
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>3,135</b>	<b>3,645</b>	<b>510</b>	<b>1.6</b>	<b>115</b>	<b>11.13</b>	<b>23,148</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>3,270</b>	<b>4,020</b>	<b>750</b>	<b>2.3</b>	<b>135</b>	<b>11.30</b>	<b>23,511</b>
39-3011	Gaming Dealers	300	365	65	2.2	10	N.A.	N.A.
39-5012	Hairdressers, Hairstylists, & Cosmetologists	425	520	90	2.1	20	10.66	22,180
39-9011	Childcare Workers	655	800	140	2.1	35	8.27	17,207
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>7,920</b>	<b>8,645</b>	<b>720</b>	<b>0.9</b>	<b>315</b>	<b>13.35</b>	<b>27,759</b>
41-1011	First-Line Supervisors of Retail Sales Workers	925	1,010	90	1.0	30	17.60	36,612
41-3021	Insurance Sales Agents	270	330	60	2.2	10	21.08	43,838
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	735	795	60	0.8	20	24.99	51,973
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>10,040</b>	<b>10,795</b>	<b>755</b>	<b>0.8</b>	<b>310</b>	<b>14.05</b>	<b>29,228</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	410	460	50	1.2	15	19.71	40,989
43-3031	Bookkeeping, Accounting, & Auditing Clerks	1,135	1,270	130	1.1	25	14.31	29,763
43-3071	Tellers	375	385	10	0.3	20	12.26	25,494
43-4051	Customer Service Representatives	650	725	80	1.2	25	12.56	26,126
43-4081	Hotel, Motel, & Resort Desk Clerks	215	265	50	2.3	15	8.65	17,997
43-4171	Receptionists & Information Clerks	445	485	40	0.9	15	12.05	25,056
43-5011	Cargo & Freight Agents	135	175	35	2.6	10	N.A.	N.A.
43-5052	Postal Service Mail Carriers	225	180	-45	-2.0	10	23.67	49,239
43-5071	Shipping, Receiving, & Traffic Clerks	260	270	15	0.6	10	13.25	27,569
43-6013	Medical Secretaries	260	330	70	2.7	10	14.75	30,672
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	1,190	1,330	145	1.2	30	13.89	28,895
43-9061	Office Clerks, General	1,460	1,560	100	0.7	40	12.82	26,665
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>880</b>	<b>885</b>	<b>10</b>	<b>0.1</b>	<b>25</b>	<b>13.43</b>	<b>27,938</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>3,480</b>	<b>4,280</b>	<b>805</b>	<b>2.3</b>	<b>135</b>	<b>18.00</b>	<b>37,439</b>
47-2031	Carpenters	405	525	115	2.8	15	17.84	37,113
47-2073	Operating Engineers & Other Construction Equipment Operators	210	250	40	1.9	10	20.52	42,681
47-2111	Electricians	195	240	45	2.3	10	20.62	42,884
47-2152	Plumbers, Pipefitters, & Steamfitters	255	320	65	2.5	10	17.53	36,454

**IOWA WORKFORCE DEVELOPMENT REGION 13 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>81,595</b>	<b>90,170</b>	<b>8,570</b>	<b>1.1</b>	<b>2,850</b>	<b>\$16.82</b>	<b>\$34,992</b>
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>3,815</b>	<b>4,260</b>	<b>440</b>	<b>1.2</b>	<b>135</b>	<b>18.50</b>	<b>38,489</b>
49-1011	First-Line Supervisors of Mechanics, Installers, & Repairers	285	310	25	0.9	10	27.32	56,829
49-3023	Automotive Service Technicians & Mechanics	505	550	45	0.9	20	18.92	39,356
49-3041	Farm Equipment Mechanics & Service Technicians	260	290	30	1.2	10	16.74	34,818
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	205	265	60	2.9	10	16.46	34,233
49-9041	Industrial Machinery Mechanics	230	295	65	2.8	15	18.01	37,461
49-9071	Maintenance & Repair Workers, General	795	895	95	1.2	25	16.30	33,911
<b>51-0000</b>	<b>Production Occupations</b>	<b>6,200</b>	<b>6,785</b>	<b>585</b>	<b>0.9</b>	<b>195</b>	<b>15.02</b>	<b>31,233</b>
51-1011	First-Line Supervisors of Production & Operating Workers	405	430	30	0.7	10	25.00	51,999
51-2092	Team Assemblers	1,115	1,270	160	1.4	35	13.03	27,097
51-4121	Welders, Cutters, Solderers, & Brazers	405	445	40	1.0	15	15.60	32,438
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	295	345	50	1.7	10	15.23	31,675
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>7,255</b>	<b>8,210</b>	<b>955</b>	<b>1.3</b>	<b>265</b>	<b>14.52</b>	<b>30,196</b>
53-1031	First-Line Supervisors of Transportation & Material-Moving Machine & Vehicle Operators	190	220	30	1.6	10	24.62	51,217
53-3032	Heavy & Tractor-Trailer Truck Drivers	1,815	2,125	315	1.7	60	18.41	38,284
53-3033	Light Truck or Delivery Services Drivers	450	490	40	0.9	10	11.25	23,406

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

IOWA WORKFORCE DEVELOPMENT REGION 14 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>33,595</b>	<b>36,250</b>	<b>2,655</b>	<b>0.8</b>	<b>1,060</b>	<b>\$16.44</b>	<b>\$34,194</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>4,760</b>	<b>4,665</b>	<b>-90</b>	<b>-0.2</b>	<b>100</b>	<b>33.00</b>	<b>68,638</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	2,885	2,690	-195	-0.7	45	N.A.	N.A.
11-9199	Managers, All Other	560	550	-10	-0.2	10	33.40	69,475
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>1,030</b>	<b>1,070</b>	<b>40</b>	<b>0.4</b>	<b>25</b>	<b>26.29</b>	<b>54,692</b>
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>250</b>	<b>265</b>	<b>15</b>	<b>0.6</b>	<b>10</b>	<b>26.01</b>	<b>54,106</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>415</b>	<b>480</b>	<b>60</b>	<b>1.4</b>	<b>15</b>	<b>16.49</b>	<b>34,303</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>2,420</b>	<b>2,605</b>	<b>185</b>	<b>0.8</b>	<b>70</b>	<b>20.00</b>	<b>41,607</b>
25-9041	Teacher Assistants	450	475	25	0.6	15	10.13	21,066
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>250</b>	<b>280</b>	<b>30</b>	<b>1.2</b>	<b>10</b>	<b>15.34</b>	<b>31,899</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>1,295</b>	<b>1,520</b>	<b>225</b>	<b>1.7</b>	<b>50</b>	<b>25.89</b>	<b>53,860</b>
29-1141	Registered Nurses	455	520	60	1.3	15	24.05	50,022
29-2061	Licensed Practical & Licensed Vocational Nurses	270	335	65	2.4	15	18.86	39,223
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>1,155</b>	<b>1,345</b>	<b>195</b>	<b>1.7</b>	<b>40</b>	<b>11.56</b>	<b>24,041</b>
31-1014	Nursing Assistants	655	740	85	1.3	20	10.98	22,838
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>320</b>	<b>340</b>	<b>20</b>	<b>0.6</b>	<b>15</b>	<b>18.94</b>	<b>39,400</b>
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>2,130</b>	<b>2,335</b>	<b>205</b>	<b>1.0</b>	<b>95</b>	<b>9.08</b>	<b>18,876</b>
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>1,090</b>	<b>1,215</b>	<b>125</b>	<b>1.1</b>	<b>35</b>	<b>11.80</b>	<b>24,547</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>1,020</b>	<b>1,245</b>	<b>225</b>	<b>2.2</b>	<b>45</b>	<b>10.47</b>	<b>21,786</b>
39-9011	Childcare Workers	265	315	50	1.9	15	8.38	17,427
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>2,750</b>	<b>2,970</b>	<b>220</b>	<b>0.8</b>	<b>110</b>	<b>12.83</b>	<b>26,683</b>
41-1011	First-Line Supervisors of Retail Sales Workers	310	345	30	1.0	10	15.77	32,807
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	310	325	15	0.5	10	23.11	48,063
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>3,775</b>	<b>3,945</b>	<b>170</b>	<b>0.5</b>	<b>105</b>	<b>14.39</b>	<b>29,933</b>
43-3071	Tellers	200	210	5	0.3	10	12.91	26,853
43-4051	Customer Service Representatives	290	315	25	0.9	10	15.91	33,085
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	600	665	65	1.1	15	12.38	25,748
43-9061	Office Clerks, General	410	420	10	0.2	10	12.31	25,614
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>815</b>	<b>815</b>	<b>-5</b>	<b>-0.1</b>	<b>25</b>	<b>17.41</b>	<b>36,221</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>1,355</b>	<b>1,620</b>	<b>265</b>	<b>2.0</b>	<b>50</b>	<b>19.14</b>	<b>39,819</b>
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>1,575</b>	<b>1,725</b>	<b>150</b>	<b>1.0</b>	<b>55</b>	<b>18.73</b>	<b>38,960</b>
49-9071	Maintenance & Repair Workers, General	335	370	35	1.0	10	18.10	37,642
<b>51-0000</b>	<b>Production Occupations</b>	<b>3,805</b>	<b>4,120</b>	<b>320</b>	<b>0.8</b>	<b>115</b>	<b>15.22</b>	<b>31,662</b>
51-2092	Team Assemblers	485	525	40	0.8	10	13.40	27,866
51-2099	Assemblers & Fabricators, All Other	310	375	70	2.3	10	10.76	22,371
51-9111	Packaging & Filling Machine Operators & Tenders	335	350	15	0.4	10	15.39	32,014
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>2,845</b>	<b>3,085</b>	<b>245</b>	<b>0.9</b>	<b>85</b>	<b>14.80</b>	<b>30,777</b>
53-3032	Heavy & Tractor-Trailer Truck Drivers	870	975	105	1.2	25	22.47	46,743

Source: Labor Market Information Division, Iowa Workforce Development  
 Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

IOWA WORKFORCE DEVELOPMENT REGION 15 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>65,575</b>	<b>70,875</b>	<b>5,300</b>	<b>0.8</b>	<b>2,115</b>	<b>\$16.98</b>	<b>\$35,312</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>7,965</b>	<b>7,685</b>	<b>-275</b>	<b>-0.3</b>	<b>160</b>	<b>36.24</b>	<b>75,387</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	4,945	4,525	-420	-0.8	80	N.A.	N.A.
11-9199	Managers, All Other	795	780	-15	-0.2	15	29.26	60,862
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>2,365</b>	<b>2,575</b>	<b>210</b>	<b>0.9</b>	<b>65</b>	<b>25.12</b>	<b>52,241</b>
13-1199	Business Operations Specialists, All Other	700	695	-5	-0.1	10	21.94	45,644
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>575</b>	<b>625</b>	<b>50</b>	<b>0.9</b>	<b>15</b>	<b>32.37</b>	<b>67,328</b>
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>425</b>	<b>445</b>	<b>20</b>	<b>0.5</b>	<b>10</b>	<b>29.58</b>	<b>61,522</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>350</b>	<b>365</b>	<b>15</b>	<b>0.4</b>	<b>15</b>	<b>23.80</b>	<b>49,510</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>995</b>	<b>1,140</b>	<b>145</b>	<b>1.5</b>	<b>40</b>	<b>17.82</b>	<b>37,060</b>
21-1093	Social & Human Service Assistants	205	240	35	1.7	10	13.15	27,342
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>4,110</b>	<b>4,455</b>	<b>340</b>	<b>0.8</b>	<b>125</b>	<b>18.94</b>	<b>39,398</b>
25-2011	Preschool Teachers, Ex Special Education	220	245	25	1.1	10	11.02	22,921
25-9041	Teacher Assistants	815	865	50	0.6	25	9.84	20,472
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>960</b>	<b>1,045</b>	<b>85</b>	<b>0.9</b>	<b>35</b>	<b>14.20</b>	<b>29,538</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>2,585</b>	<b>3,000</b>	<b>415</b>	<b>1.6</b>	<b>95</b>	<b>28.00</b>	<b>58,239</b>
29-1141	Registered Nurses	1,145	1,320	175	1.5	40	23.79	49,485
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>1,470</b>	<b>1,680</b>	<b>215</b>	<b>1.5</b>	<b>50</b>	<b>11.80</b>	<b>24,553</b>
31-1014	Nursing Assistants	840	960	120	1.4	30	N.A.	N.A.
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>735</b>	<b>790</b>	<b>55</b>	<b>0.7</b>	<b>30</b>	<b>17.97</b>	<b>37,367</b>
33-9092	Lifeguards/Ski Patrol/Other Recreational Protective Service Workers	100	105	10	1.0	10	9.10	18,920
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>4,085</b>	<b>4,415</b>	<b>335</b>	<b>0.8</b>	<b>180</b>	<b>9.20</b>	<b>19,133</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	290	320	30	1.0	10	13.55	28,187
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>2,360</b>	<b>2,680</b>	<b>320</b>	<b>1.4</b>	<b>80</b>	<b>10.88</b>	<b>22,622</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>1,765</b>	<b>2,180</b>	<b>410</b>	<b>2.3</b>	<b>75</b>	<b>10.02</b>	<b>20,846</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	255	320	65	2.5	10	N.A.	N.A.
39-9011	Childcare Workers	445	540	95	2.1	25	9.12	18,963
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>6,995</b>	<b>7,600</b>	<b>600</b>	<b>0.9</b>	<b>280</b>	<b>13.87</b>	<b>28,850</b>
41-1011	First-Line Supervisors of Retail Sales Workers	755	825	70	0.9	25	15.74	32,745
41-3021	Insurance Sales Agents	230	275	45	2.0	10	25.63	53,305
41-3099	Sales Representatives, Services, All Other	230	250	20	0.9	10	N.A.	N.A.
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	560	590	30	0.5	15	26.12	54,338
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>8,440</b>	<b>9,040</b>	<b>595</b>	<b>0.7</b>	<b>250</b>	<b>14.51</b>	<b>30,176</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	280	315	35	1.3	10	19.82	41,230
43-3031	Bookkeeping, Accounting, & Auditing Clerks	1,180	1,290	110	0.9	20	13.38	27,833
43-3071	Tellers	355	375	25	0.7	20	12.52	26,041
43-4051	Customer Service Representatives	360	400	40	1.1	15	13.87	28,842
43-4171	Receptionists & Information Clerks	405	440	30	0.7	15	11.59	24,103
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	970	1,075	105	1.1	25	14.03	29,185
43-9061	Office Clerks, General	1,455	1,545	85	0.6	40	13.19	27,427
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>1,270</b>	<b>1,315</b>	<b>50</b>	<b>0.4</b>	<b>40</b>	<b>13.40</b>	<b>27,864</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>2,765</b>	<b>3,315</b>	<b>550</b>	<b>2.0</b>	<b>100</b>	<b>18.80</b>	<b>39,098</b>
47-2031	Carpenters	340	440	95	2.8	15	N.A.	N.A.
47-2073	Operating Engineers & Other Construction Equipment Operators	345	405	60	1.7	15	19.96	41,517
47-2152	Plumbers, Pipefitters, & Steamfitters	260	315	55	2.1	10	21.98	45,713
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>2,955</b>	<b>3,220</b>	<b>265</b>	<b>0.9</b>	<b>95</b>	<b>18.56</b>	<b>38,602</b>
49-3023	Automotive Service Technicians & Mechanics	280	295	15	0.5	10	16.24	33,774
49-9041	Industrial Machinery Mechanics	185	230	45	2.4	10	19.01	39,534
49-9071	Maintenance & Repair Workers, General	770	835	65	0.8	20	16.81	34,967



IOWA WORKFORCE DEVELOPMENT REGION 15 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>65,575</b>	<b>70,875</b>	<b>5,300</b>	<b>0.8</b>	<b>2,115</b>	<b>\$16.98</b>	<b>\$35,312</b>
<b>51-0000</b>	<b>Production Occupations</b>	<b>7,505</b>	<b>7,950</b>	<b>445</b>	<b>0.6</b>	<b>215</b>	<b>14.90</b>	<b>30,993</b>
51-1011	First-Line Supervisors of Production & Operating Workers	520	540	20	0.4	10	20.92	43,513
51-2092	Team Assemblers	580	605	30	0.5	10	15.72	32,698
51-3092	Food Batchmakers	335	340	10	0.3	10	N.A.	N.A.
51-4041	Machinists	410	450	40	1.0	15	15.72	32,700
51-4121	Welders, Cutters, Solderers, & Brazers	435	460	25	0.6	15	16.41	34,135
51-9199	Production Workers, All Other	950	1,030	80	0.8	35	N.A.	N.A.
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>4,740</b>	<b>5,185</b>	<b>445</b>	<b>0.9</b>	<b>145</b>	<b>15.14</b>	<b>31,488</b>
53-3032	Heavy & Tractor-Trailer Truck Drivers	1,730	1,925	195	1.1	50	15.90	33,066
53-3033	Light Truck or Delivery Services Drivers	360	410	45	1.3	10	14.99	31,174

Source: Labor Market Information Division, Iowa Workforce Development

Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.

**IOWA WORKFORCE DEVELOPMENT REGION 16 MIDDLE-SKILL OCCUPATIONS, 2012-2022**

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>60,415</b>	<b>65,815</b>	<b>5,400</b>	<b>0.9</b>	<b>2,000</b>	<b>\$17.60</b>	<b>\$36,599</b>
<b>11-0000</b>	<b>Management Occupations</b>	<b>5,485</b>	<b>5,320</b>	<b>-165</b>	<b>-0.3</b>	<b>120</b>	<b>36.27</b>	<b>75,442</b>
11-9013	Farmers, Ranchers, & Other Agricultural Managers	3,200	2,855	-345	-1.1	50	N.A.	N.A.
<b>13-0000</b>	<b>Business &amp; Financial Operations Occupations</b>	<b>1,900</b>	<b>2,060</b>	<b>160</b>	<b>0.8</b>	<b>50</b>	<b>25.35</b>	<b>52,732</b>
<b>15-0000</b>	<b>Computer &amp; Mathematical Occupations</b>	<b>490</b>	<b>550</b>	<b>55</b>	<b>1.1</b>	<b>15</b>	<b>31.41</b>	<b>65,343</b>
<b>17-0000</b>	<b>Architecture &amp; Engineering Occupations</b>	<b>660</b>	<b>680</b>	<b>25</b>	<b>0.4</b>	<b>20</b>	<b>30.74</b>	<b>63,932</b>
<b>19-0000</b>	<b>Life, Physical, &amp; Social Science Occupations</b>	<b>245</b>	<b>255</b>	<b>10</b>	<b>0.4</b>	<b>10</b>	<b>27.55</b>	<b>57,309</b>
<b>21-0000</b>	<b>Community &amp; Social Service Occupations</b>	<b>550</b>	<b>640</b>	<b>90</b>	<b>1.6</b>	<b>20</b>	<b>19.72</b>	<b>41,021</b>
<b>25-0000</b>	<b>Education, Training, &amp; Library Occupations</b>	<b>3,270</b>	<b>3,535</b>	<b>265</b>	<b>0.8</b>	<b>95</b>	<b>19.08</b>	<b>39,680</b>
25-9041	Teacher Assistants	795	835	40	0.5	20	9.90	20,590
<b>27-0000</b>	<b>Arts, Design, Entertainment, Sports, &amp; Media Occupations</b>	<b>625</b>	<b>690</b>	<b>65</b>	<b>1.0</b>	<b>20</b>	<b>15.16</b>	<b>31,527</b>
<b>29-0000</b>	<b>Healthcare Practitioners &amp; Technical Occupations</b>	<b>3,000</b>	<b>3,470</b>	<b>470</b>	<b>1.6</b>	<b>110</b>	<b>30.80</b>	<b>64,055</b>
29-1141	Registered Nurses	1,085	1,245	160	1.5	35	26.21	54,519
29-2061	Licensed Practical & Licensed Vocational Nurses	395	480	80	2.0	20	17.36	36,105
<b>31-0000</b>	<b>Healthcare Support Occupations</b>	<b>1,940</b>	<b>2,325</b>	<b>385</b>	<b>2.0</b>	<b>75</b>	<b>12.52</b>	<b>26,040</b>
31-1014	Nursing Assistants	1,015	1,155	140	1.4	35	11.36	23,619
31-9092	Medical Assistants	230	275	45	2.0	10	13.99	29,091
<b>33-0000</b>	<b>Protective Service Occupations</b>	<b>1,170</b>	<b>1,220</b>	<b>55</b>	<b>0.5</b>	<b>40</b>	<b>22.40</b>	<b>46,589</b>
33-3012	Correctional Officers & Jailers	455	460	5	0.1	10	25.85	53,769
33-9092	Lifeguards/Ski Patrol/Other Recreational Protective Service Workers	110	125	15	1.4	10	N.A.	N.A.
<b>35-0000</b>	<b>Food Preparation &amp; Serving Related Occupations</b>	<b>3,730</b>	<b>4,130</b>	<b>400</b>	<b>1.1</b>	<b>175</b>	<b>8.87</b>	<b>18,458</b>
35-1012	First-Line Supervisors of Food Preparation & Serving Workers	255	290	30	1.2	10	12.58	26,173
<b>37-0000</b>	<b>Building &amp; Grounds Cleaning &amp; Maintenance Occupations</b>	<b>1,925</b>	<b>2,170</b>	<b>245</b>	<b>1.3</b>	<b>65</b>	<b>10.97</b>	<b>22,813</b>
<b>39-0000</b>	<b>Personal Care &amp; Service Occupations</b>	<b>1,615</b>	<b>1,955</b>	<b>345</b>	<b>2.1</b>	<b>65</b>	<b>10.07</b>	<b>20,944</b>
39-5012	Hairdressers, Hairstylists, & Cosmetologists	235	285	55	2.3	10	12.91	26,852
39-9011	Childcare Workers	550	650	105	1.9	25	8.54	17,756
<b>41-0000</b>	<b>Sales &amp; Related Occupations</b>	<b>4,990</b>	<b>5,375</b>	<b>380</b>	<b>0.8</b>	<b>195</b>	<b>14.35</b>	<b>29,855</b>
41-1011	First-Line Supervisors of Retail Sales Workers	645	695	50	0.8	20	17.25	35,870
41-4012	Sales Representatives, Wholesale & Manufacturing, Ex Technical & Scientific Products	415	445	25	0.6	10	26.21	54,507
<b>43-0000</b>	<b>Office &amp; Administrative Support Occupations</b>	<b>6,820</b>	<b>7,185</b>	<b>365</b>	<b>0.5</b>	<b>195</b>	<b>14.45</b>	<b>30,054</b>
43-1011	First-Line Supervisors of Office & Administrative Support Workers	305	335	35	1.1	10	20.36	42,354
43-3031	Bookkeeping, Accounting, & Auditing Clerks	690	755	65	0.9	10	14.49	30,131
43-3071	Tellers	215	225	10	0.5	10	N.A.	N.A.
43-4051	Customer Service Representatives	465	510	40	0.9	15	15.45	32,129
43-4171	Receptionists & Information Clerks	315	340	20	0.6	10	11.70	24,329
43-6014	Secretaries & Administrative Assistants, Ex Legal, Medical, & Executive	805	900	95	1.2	20	13.60	28,298
43-9061	Office Clerks, General	980	1,045	60	0.6	25	13.15	27,351
<b>45-0000</b>	<b>Farming, Fishing, &amp; Forestry Occupations</b>	<b>535</b>	<b>555</b>	<b>20</b>	<b>0.4</b>	<b>20</b>	<b>19.16</b>	<b>39,855</b>
<b>47-0000</b>	<b>Construction &amp; Extraction Occupations</b>	<b>2,805</b>	<b>3,455</b>	<b>650</b>	<b>2.3</b>	<b>110</b>	<b>20.26</b>	<b>42,139</b>
47-2031	Carpenters	345	450	105	3.0	15	N.A.	N.A.
47-2111	Electricians	205	245	35	1.7	10	23.94	49,804
47-2152	Plumbers, Pipefitters, & Steamfitters	275	340	65	2.4	10	N.A.	N.A.
47-2211	Sheet Metal Workers	250	305	55	2.2	10	26.70	55,531
<b>49-0000</b>	<b>Installation, Maintenance, &amp; Repair Occupations</b>	<b>3,080</b>	<b>3,400</b>	<b>315</b>	<b>1.0</b>	<b>105</b>	<b>19.19</b>	<b>39,910</b>
49-3023	Automotive Service Technicians & Mechanics	525	585	60	1.1	20	15.58	32,402
49-9021	Heating, Air Conditioning, & Refrigeration Mechanics & Installers	145	180	35	2.4	10	N.A.	N.A.
49-9041	Industrial Machinery Mechanics	300	365	65	2.2	15	22.32	46,426
49-9071	Maintenance & Repair Workers, General	725	790	65	0.9	20	18.75	38,995

IOWA WORKFORCE DEVELOPMENT REGION 16 MIDDLE-SKILL OCCUPATIONS, 2012-2022

Standard Occupational Classification (SOC)	Occupational Title	Employment					2014 Mean Wage	2014 Mean Salary
		2012 Estimated	2022 Projected	2012-22 Change	Annual Growth Rate (%)	Total Annual Openings		
<b>00-0000</b>	<b>Total, All Occupations</b>	<b>60,415</b>	<b>65,815</b>	<b>5,400</b>	<b>0.9</b>	<b>2,000</b>	<b>\$17.60</b>	<b>\$36,599</b>
<b>51-0000</b>	<b>Production Occupations</b>	<b>9,340</b>	<b>9,840</b>	<b>500</b>	<b>0.5</b>	<b>260</b>	<b>15.64</b>	<b>32,535</b>
51-1011	First-Line Supervisors of Production & Operating Workers	465	480	15	0.3	10	24.12	50,176
51-2041	Structural Metal Fabricators & Fitters	295	295	0	0.0	10	17.79	37,003
51-2092	Team Assemblers	1,000	1,055	55	0.6	20	15.09	31,385
51-2099	Assemblers & Fabricators, All Other	290	340	50	1.7	10	11.50	23,912
51-4041	Machinists	215	240	25	1.2	10	17.48	36,351
51-4121	Welders, Cutters, Solderers, & Brazers	415	455	40	1.0	15	17.54	36,483
51-4122	Welding, Soldering, & Brazing Machine Setters/Operators/Tenders	190	240	50	2.6	10	19.71	40,988
51-9061	Inspectors, Testers, Sorters, Samplers, & Weighers	435	480	40	0.9	15	15.34	31,902
51-9111	Packaging & Filling Machine Operators & Tenders	475	480	5	0.1	10	14.23	29,608
51-9199	Production Workers, All Other	880	895	20	0.2	25	13.08	27,209
<b>53-0000</b>	<b>Transportation &amp; Material Moving Occupations</b>	<b>6,080</b>	<b>6,825</b>	<b>750</b>	<b>1.2</b>	<b>220</b>	<b>14.31</b>	<b>29,766</b>
53-3032	Heavy & Tractor-Trailer Truck Drivers	1,525	1,870	345	2.3	60	15.47	32,188
53-3033	Light Truck or Delivery Services Drivers	355	385	35	1.0	10	11.45	23,821
Source: Labor Market Information Division, Iowa Workforce Development								
Occupations will not add to total due to rounding and suppression. Middle-skill jobs require more than a high school diploma or equivalent, but not a four-year degree.								

Terry E. Branstad, Governor

Kim Reynolds, Lt. Governor

Beth Townsend, Director  
Iowa Workforce Development

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