

SMART Iowa Career Pathways Map

Industrial Maintenance and Related Occupations



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Methodology

This draft career pathways map was developed using secondary labor market information (LMI) and research on industrial maintenance and related occupations in advanced manufacturing. The map was validated with local employers, including typical wages and occupation trajectories.

Data in this career pathways map defines occupations using the Standard Occupational Classification (SOC) system from the Bureau of Labor Statistics (BLS). The LMI included in this report offers a snapshot of the occupations and their requirements from data collected in October 2024.

All data are presented for the 10 counties that comprise the Hawkeye Community College service area: Benton, Black Hawk, Bremer, Buchanan, Butler, Chickasaw, Fayette, Floyd, Grundy, and Tama.

Data Collection Sources

Occupational progression, wages, typical education, on-the-job learning, and work experience data provided in the map were collected from Lightcast™ Developer and O*NET and through desk research.

Lightcast™ Developer

Data in this map were predominantly collected from Lightcast™ Developer in October 2024. Lightcast™ Developer provided data on:

- Prevalent occupations in occupational groups and their advancement opportunities
- Wage ranges reflecting the 10th and 90th percentiles, to show wage progression
- Typical entry-level education
- Work experience required
- Typical on-the-job learning required
- Career pathway progression (a proprietary tool identified similar jobs across different sectors based on overlapping skills)

O*NET

The Occupational Information Network, or O*NET, is a comprehensive database system that collects, organizes, describes and disseminates data on occupation characteristics and worker attributes, designed, developed and tested by scientific and technical experts under the leadership of the U.S. Department of Labor.

Desk Research

To finalize the occupations included and progression opportunities as well as to confirm the information provided in the pathway map, CSW referenced other sources of information, including CSW's past work in this area and various Internet searches around these roles and their advancement as well as accessibility. CSW also used the Bureau of Labor Statistics Occupational Outlook Handbook to define on-the-job learning levels collected through Lightcast™ Developer.

Local Validation

As part of the validation process to ensure the map reflects accurate occupational information and typical progression, CSW conducted semi-structured interviews with area employers.

Limitations

While labor market information is a good indicator of occupational demand and employment, it does not always provide the complete picture. Each employer has their own process for defining work and titling positions, as well as advancing workers through specific career pathways, which might not be reflected in this map.

Workers in the occupations represented are employed in a variety of organizations. Therefore, it is likely that for certain employers or organization types, these occupations, their requirements, the work involved, or the opportunities for advancement will be different than those listed here. Regional differences in industries across the region will also impact the availability of the occupations included as well as their requirements.

Understanding the Career Pathways Map

This map is specific to occupational advancement in the Hawkeye Community College service area. Specific cities or regions, especially those outside of the service area, may pay different wages or require different skills, credentials, or work experience depending on local employers. Demand for the included occupations will also vary based on where a jobseeker lives.

This map was developed using job postings and employment data from Lightcast™ Developer in October 2024. This information includes the typical wages and requirements for jobs and might not exactly match the positions identified by jobseekers. The data included in the map is constantly changing.

Career Pathways Key

This is the Bureau of Labor and Statistics occupation title, which might not match job titles used in postings.

This line provides the wage range for this occupation, from the 10th percentile (entry level) wage to the 90th percentile (experienced) wage.

● **Helpers—Installation, Maintenance, and Repair Workers**

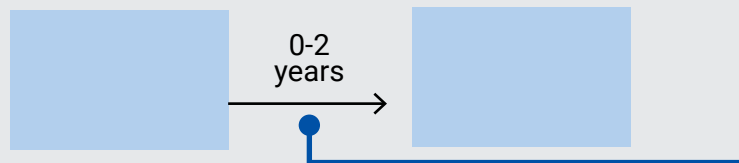
● Short-term OJL
● \$12.82-\$22.48

● **H.S.**

● The color of this box designates the skill level required for this occupation.

● This line indicates the amount of on-the-job learning (OJL) this occupation could include.

● This circle provides the degree or credential typically required for this occupation.







This is an estimate of how much time it will take overall to advance to the next occupation in the pathway, based on the credential attainment and work experience needed. It does not account for personal factors on the part of the jobseeker that could impact the time needed.

Skill Levels

	Entry level	<ul style="list-style-type: none"> • No high school diploma or equivalent • High school diploma or equivalent
	Middle Skill	<ul style="list-style-type: none"> • High School Diploma or equivalent with 3 or more years of work experience • Nondegree certification or credential • Associate Degree
	Advanced Skill	<ul style="list-style-type: none"> • Nondegree certification or credential with 5 or more years of work experience • Associate Degree with 5 or more years of work experience • Bachelor's Degree

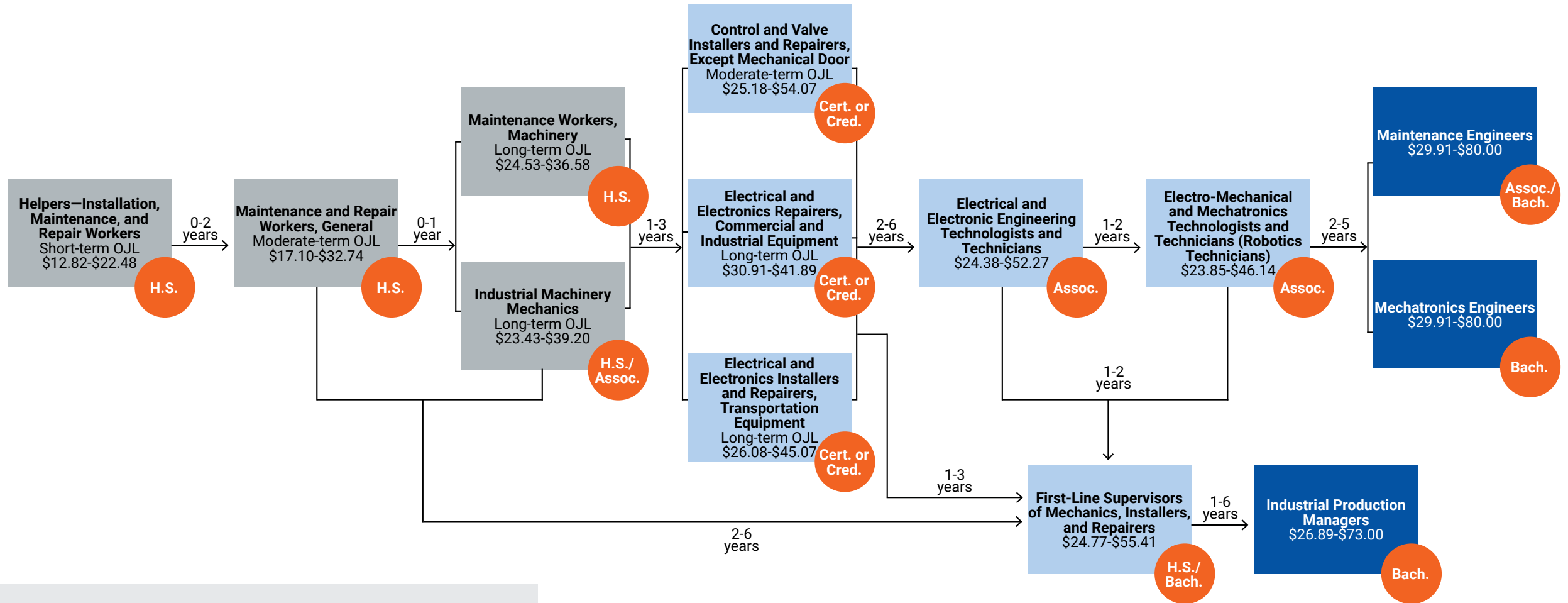
Credential Requirements

 H.S.	High School Diploma or equivalent
 Cert. or Cred.	Nondegree certification or credential
 Assoc.	Associate of Applied Science/Associate of Science
 Bach.	Bachelor of Arts/Bachelor of Science

On-The-Job Learning (OJL)

Short-term OJL	1 month or less of combined on-the-job experience and informal learning that is needed for a worker to develop the skills to attain competency in the occupation (includes employer-sponsored training programs)
Moderate-term OJL	More than 1 month, and up to 12 months, of combined on-the-job experience and informal learning that is needed for a worker to develop the skills to attain competency in the occupation (includes employer-sponsored training programs)
Long-term OJL	More than 12 months of on-the-job learning or, alternatively, combined work experience and formal classroom instruction that is needed for a worker to attain competency in the skills needed in the occupation (includes employer-sponsored training programs and excludes apprenticeships)

Career Pathways in Industrial Maintenance and Related Occupations



Pathways Map Key

Helpers—Installation, Maintenance, and Repair Workers

Short-term OJL
\$12.82-\$22.48

H.S.

Occupation

On-the-job learning provided

Wage range

Credential