Manufacturing Production Pathway

**Freight, Stock, and Material Movers**
- No formal education
- $11.21 - $24.52 per hour; $23k - $51k per year

**Inspectors, Testers, Sorters, Samplers, and Weighers**
- High school diploma or equivalent
- $13.33 - $22.73 per hour; $27k - $71k per year

**Cutting, Punching, and Press Machine Setters**
- High school diploma or equivalent
- $13.83 - $28.37 per hour; $28k - $59k per year

**Inspectors, Testers, Sorters, Samplers, and Weighers**
- High school diploma or equivalent
- $13.33 - $22.73 per hour; $27k - $71k per year

**Computer Controlled Machine Tool Operators (CNC)**
- High school diploma or equivalent
- $16 - $34 per hour; $33k - $71k per year

**First-Line Supervisors of Production Workers**
- Likely Registered Apprenticeship previously completed
- $18 - $49 per hour; $38k - $101k per year

**Industrial Production Managers / Facilities Managers**
- Bachelor’s degree
- $33 - $93 per hour; $67k - $192k per year

**Structural Metal Fabricators and Fitters / Metal Products Assembler**
- High school diploma or equivalent
- $13.69 - $34.34, $28k - $71k per year

**Machinist**
- High school diploma or equivalent
- $15 - $37 per hour; $33k - $77k per year

**Assemblers and Fabricators, Team Assemblers**
- High school diploma or equivalent
- $11.49 - $24.08 per hour; $23k - $50k per year

**Electrical Assembler**
- High school diploma or equivalent
- $13.83 - $28.37 per hour; $28k - $59k per year

**Sheet Metal Workers**
- High school diploma or equivalent
- $16 - $49 per hour; $33k - $102k per year

**First-Line Supervisors of Production Workers**
- Likely Registered Apprenticeship previously completed
- $18 - $49 per hour; $38k - $101k per year

**Industrial Engineers/Engineering Technician Associate’s / Bachelor’s degree**
- $33 - $71 per hour; $67k - $146k per year

**Assemblers and Fabricators, Team Assemblers**
- High school diploma or equivalent
- $11.49 - $24.08 per hour; $23k - $50k per year

**Occupations that are currently supported by Registered Apprenticeship and pre-apprenticeship programs in Massachusetts**

Data source: Massachusetts Emsi and O*NET data
Manufacturing Maintenance Pathway

- **Mechanical Engineers / Engineering Technicians**
  Bachelor’s degree
  $31 - $70 per hour; $66k - $145k per year

- **Assemblers and Fabricators, including Team Assemblers**
  High school diploma or equivalent
  $11 - $24 per hour; $23k - $50k per year

- **First-Line Supervisors of Mechanics**
  Previous completion of Registered Apprenticeship
  $21 - $53 per hour; $44k - $110k per year

- **Electricians**
  Registered Apprenticeship
  $16 - $52 per hour; $34k - $108k per year

- **Industrial Machinery Mechanics**
  High school diploma or equivalent, likely Registered Apprenticeship previously completed
  $17 - $38 per hour; $36k - $79k per year

- **Welding, Soldering, and Brazing, Machine Setters, Operators and Tenders**
  Registered Apprenticeship
  $14 - $32 per hour; $29k - $66k per year

- **Cutting, Punching, and Press Machine Setters**
  High school diploma or equivalent
  $13 - $28 per hour; $28k - $59k per year

- **Computer Controlled Machine Tool Operators (CNC)**
  High school diploma or equivalent
  $16 - $34 per hour; $33k - $71k per year

- **Maintenance and Repair Workers, General**
  High school diploma or equivalent
  $13 - $33 per hour; $27k - $68k per year

- **Maintenance Workers, Machinery**
  High school diploma or equivalent
  $17 - $35 per hour; $35k - $73k per year

- **Multiple Machine Tool Setters, Operators, and Tenders**
  High school diploma or equivalent
  $11 - $26 per hour; $24k - $54k per year

- **Industrial Maintenance Managers / Facilities Managers**
  Bachelor’s degree
  $33 - $93 per hour; $67k - $192k per year

- **Electricians**
  Registered Apprenticeship
  $16 - $52 per hour; $34k - $108k per year

- **First-Line Supervisors of Mechanics**
  Previous completion of Registered Apprenticeship
  $21 - $53 per hour; $44k - $110k per year

- **Journeyman Electricians**
  Journeyman Apprenticeship
  $25 - $55 per hour; $50k - $110k per year

- **Industrial Machinery Mechanics**
  High school diploma or equivalent, likely Registered Apprenticeship previously completed
  $17 - $38 per hour; $36k - $79k per year

- **Welding, Soldering, and Brazing, Machine Setters, Operators and Tenders**
  Registered Apprenticeship
  $14 - $32 per hour; $29k - $66k per year

- **Maintenance Workers, Machinery**
  High school diploma or equivalent
  $17 - $35 per hour; $35k - $73k per year

- **Multiple Machine Tool Setters, Operators, and Tenders**
  High school diploma or equivalent
  $11 - $26 per hour; $24k - $54k per year
Manufacturing Career Pathways: Production and Maintenance

This document includes two sample career pathways for manufacturing in the Commonwealth of Massachusetts, which highlight both apprenticeship opportunities and high-growth occupations. These pathways are based on labor market data, priority occupations and pathways in the Regional Labor Market Blueprints (www.mass.gov/service-details/view-your-regions-blueprint), and career and technical education Innovation Pathways (www.doe.mass.edu/ccte/innovation-pathways/).

These career pathways are meant to serve as external visuals, to be used to show students, job seekers, and incumbent workers how they might enter and advance in this industry. Users can learn more about available apprenticeships at www.mass.gov/topics/apprenticeships and other education and training programs at jobquest.dcs.eol.mass.gov/jobquest/Training.aspx.

There are multiple on- and off-ramps available to students, job seekers, and incumbent workers. Although the visuals depict a linear pathway of how one might advance from entry-level to senior positions, there are opportunities for direct entry into these positions through apprenticeships, other education and training programs, and lateral transfers from other industries.

This tool can be used by all partners for their individual audiences. Partners, including workforce development teams, adult education providers, technical schools, school districts, colleges, other service providers—and most importantly, employers—can provide valuable intelligence to continue to update and validate this pathway information over time.