



# Employment and Training Opportunities in Advanced Manufacturing

AJAC:  
Advanced Manufacturing  
Apprenticeships

Artwork by Nessa Ankney

# Overview

- Advanced Manufacturing in Washington State
- Apprenticeship – elements of training, certifications, available supports
- AJAC Overview – available programs, opportunities to engage during and after high school, available supports

# Presenters

- Bri Durham – Director of Programs and Business Engagement
- Chris Pierson – Director of Operations and Funding
- Erin Williams – Regional Program Manager

# Advanced Manufacturing

*A Mess* by Nessa Ankney



# Advanced Manufacturing in Washington State



Food &  
Beverage



Wood &  
Paper



Computer  
Electronics



Aerospace &  
Defense



Medical  
Equipment



Space



Chemical &  
Plastics



Transportation &  
Logistics



Automation &  
Machinery



Clean  
Energy

# Advanced Manufacturing Examples (1 of 2)

- Aerospace Manufacturing
  - Backbone of WA State Manufacturing
  - More than 1,300 aerospace companies with over 250,000 workers in industry
- Food Processing
  - Over 164,000 jobs including 36,000 farms producing over 3,000 different agricultural commodities
  - Automation and rapid advances in technology are impacting the sector

# Advanced Manufacturing Examples (2 of 2)

- Space Exploration
  - Over 6,200 workers, generating \$1.76 billion in economic activity for WA State
  - Parts and supplies for rockets, satellites, engines, and propulsion systems used in space flight
- Maritime Manufacturing
  - 2,300 companies employing nearly 70,000 workers
  - Ship building, recreational fishing, food processing

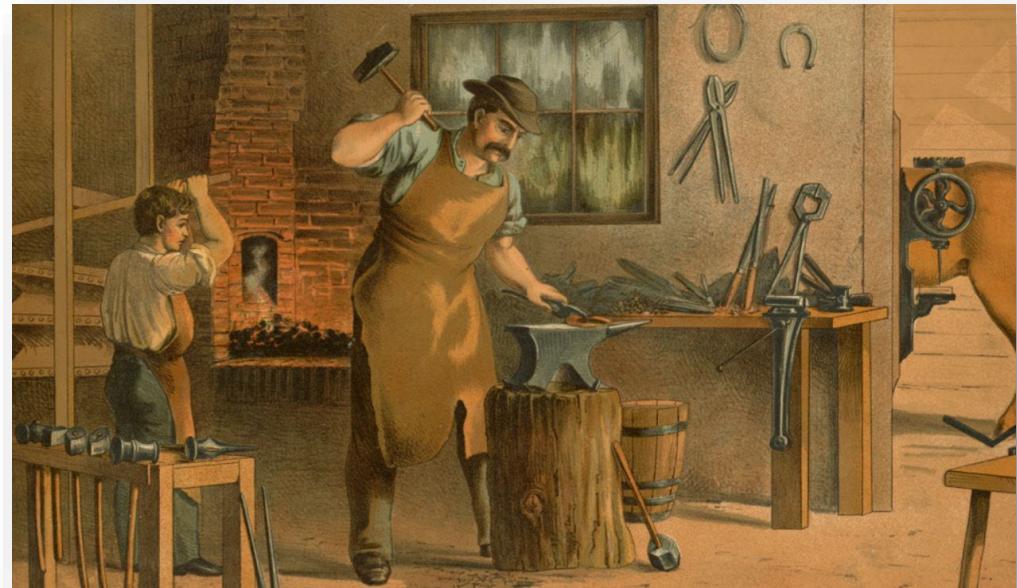
# Registered Apprenticeship

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# History of Apprenticeship

- A form of job training used for centuries (e.g. stonemasons, scribes, shipwrights, midwives, gunsmiths)
- “The original 4-year degree”
- Apprenticeship training split between theory and practice
- Upon completing an apprenticeship a person was called “journeyman”



# Elements of Apprenticeship



**On-the-Job  
Training**



**Classroom  
Instruction**



**Wage  
Progression**



**SKILLED AND CERTIFIED  
WORKFORCE**

**93%**

**7%**

**Results:**

**Journey-Level Credential  
Transferable College Credit  
and/or Degree**

# On-the-Job Training (OJT)

- **Supervised:**
  - Apprentice works with mentor(s) throughout program
- **Structured:**
  - Employer provides apprentice with practical work experience in the skill areas required to learn their trade



# Related Supplemental Instruction (RSI)

## Classroom Instruction (RSI)

- The theory behind what you are learning on the job
- Hands-on activities in the classroom
- 144 hrs/year at a selected local community or technical college
  - 4 hours, one night a week
  - 3 or 4 quarters a year
- 50% reduced tuition



# Results and Available Supports

- Journey-level certificate
  - National, issued by WA State
- College credits
  - 15-60
  - Apply towards 2-year degree
- Financial aid available
  - Washington College Grant for Apprenticeship





**Advanced Manufacturing  
Apprenticeships**

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# AJAC

- Statewide, non-profit apprenticeship training intermediary serving aerospace & advanced manufacturing industries in WA
- Designed to serve the supply chain, focus on small/ medium-sized companies
- Founded in 2008 through a state investment; annual funding through SBCTC
- Partner with employers, colleges, school districts, CBOs, and local workforce development boards

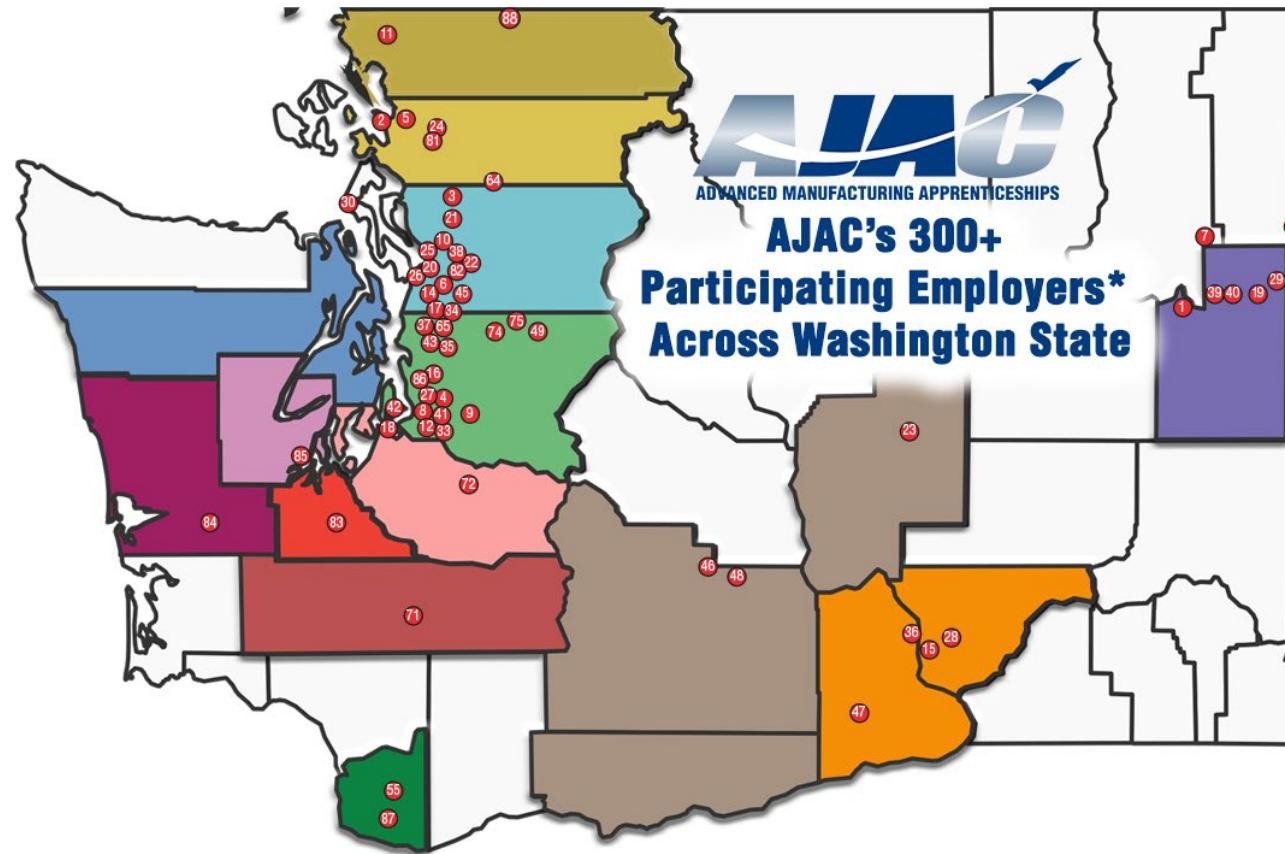


# Mission and Vision

- **Vision:** Create industry-driven apprenticeship programs that serve the lifelong learning requirements of a 21<sup>st</sup> century workforce.
- **Mission:** AJAC is an industry-driven apprenticeship organization, founded on the belief that mastery occurs on the job. Through pre-apprenticeship, youth apprenticeship and adult apprenticeship, all people have the opportunity to earn competitive wages, find meaningful and fulfilling work, and pursue lifelong learning.



# Employer Footprint



# Foundational Programs



Pre-Apprenticeship

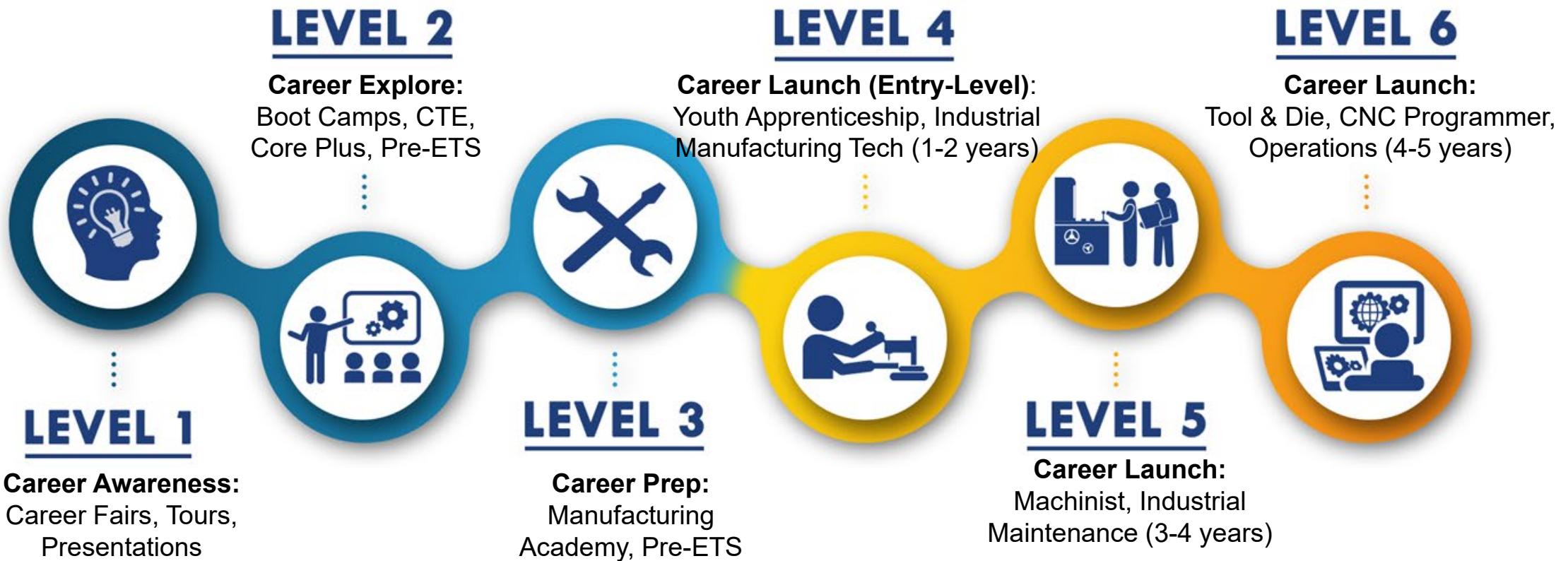


Youth Apprenticeship



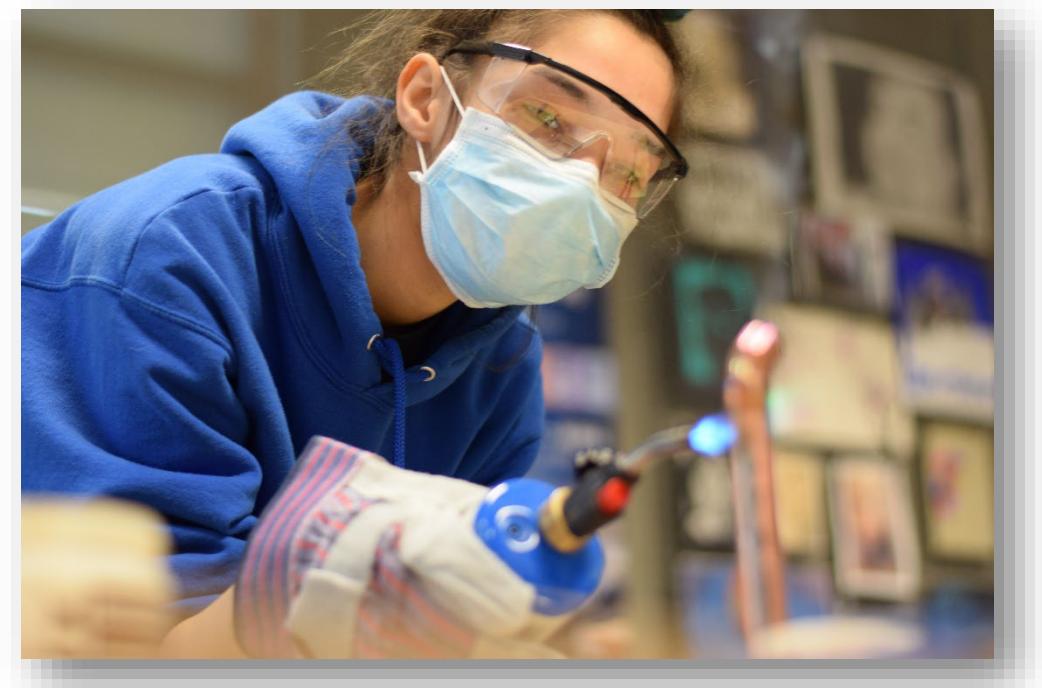
Adult Apprenticeship

# Pathways to Apprenticeship



# Pre-Employment Transition Services

- Pre-ETS
  - Workplace readiness
  - Self-Advocacy
  - Individual Work-Based Learning
  - Paid Work-Based Learning
- Embedded into MA
- Can also be offered as boot camp



# Other available supports

- AJAC works with IEP counselors/teachers to support youth apprentices with disabilities
- College partnerships can also be utilized to support accommodations for students
- AJAC partners with numerous social enterprises to hire/train people with disabilities

# Thank you!

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