

Employment-Based Training for Manufacturing in Minnesota

October 12, 2022



- **Overview of Department of Labor and Industry and Facts about Manufacturing in Minnesota**
- **Overview of Youth Skills Training**
- **Overview of Minnesota Dual-Training Pipeline**
- **Overview of Registered Apprenticeship**
- **Questions/ Answers**

About the Department of Labor and Industry

*DLI's **VISION** is to be a trusted resource, service provider and impartial regulator.*

*DLI's **MISSION** is to ensure Minnesota's work and living environments are equitable, healthy and safe.*

DLI Programs:

- Registered Apprenticeship
- Minnesota Dual-Training Pipeline
- Youth Skills Training Program
- Child Labor Outreach and Compliance
- Workplace Safety Consultation
- Workers Compensation Administration
- OSHA Compliance
- Wage and Hour Compliance
- Construction Codes and Licensing
- Office of Combative Sports

Manufacturing's Importance for Minnesota



Manufacturing added **\$56 billion to Minnesota's economy** in 2021, representing the second largest contribution to the state's gross domestic product by any industry

Workers took home **\$23.4 billion in wages** from Minnesota manufacturing jobs in 2021, the second-largest total payroll among private sector industries

Manufacturing in Minnesota pays an **average annual wage of \$74,630**, which is **10 percent higher** than the state's overall average private sector wage

Manufacturing provides more than **310,000 highly skilled, well-paying jobs**

YST @ DLI

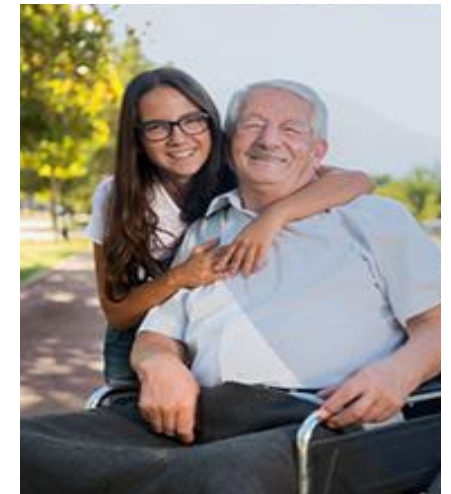
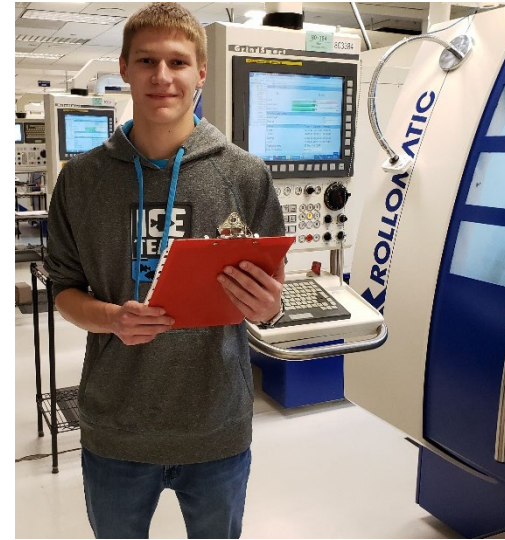
Youth Skills Training

What is the Youth Skills Training (YST) program?

- Supporting partnerships between industry and education
- Creating opportunities for students to learn about industries
- Providing industry-related classes and safety training
- Establishing safe, healthy and meaningful paid work experiences
- Developing a pathway for future talent

Current YST eligible industries:

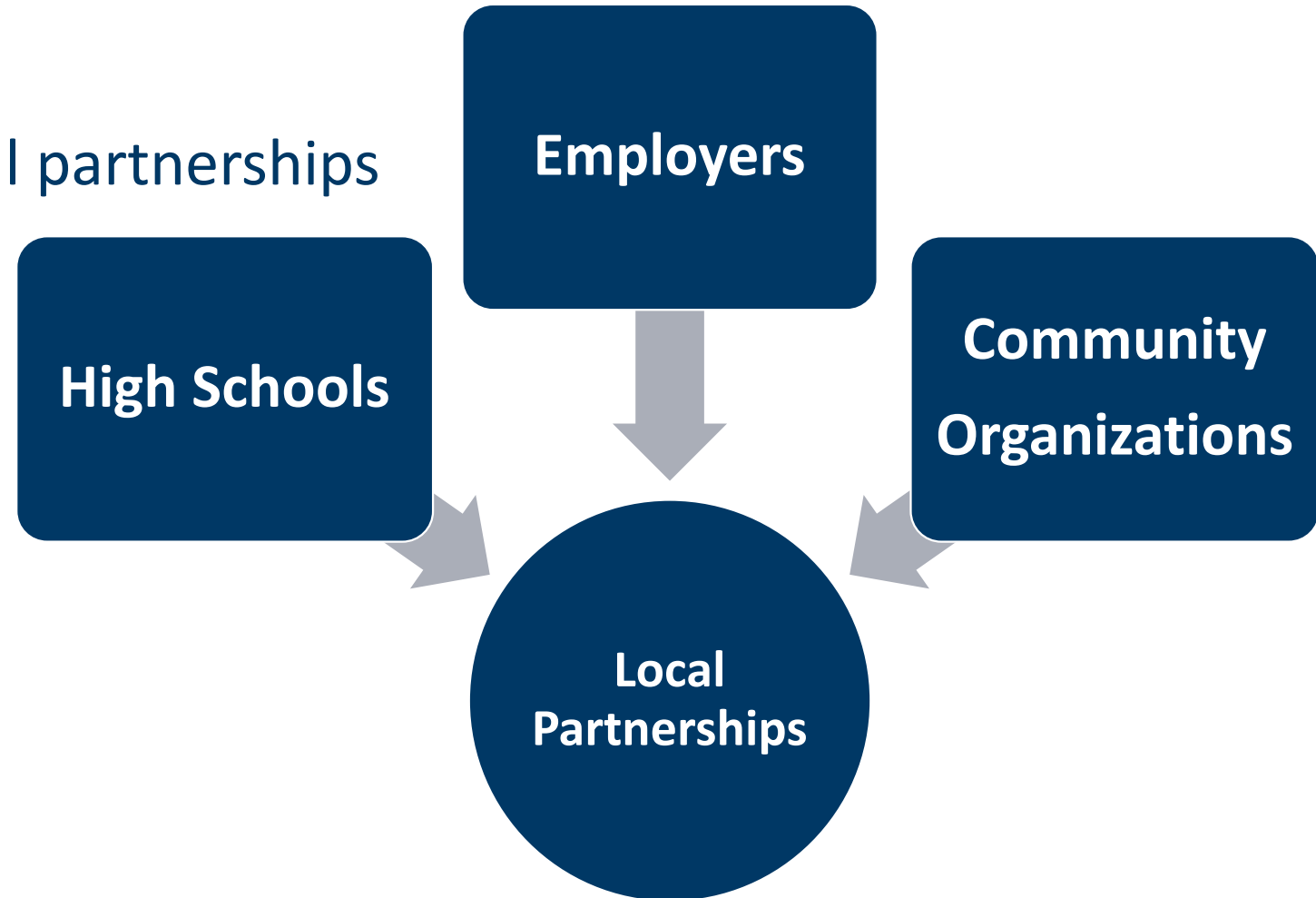
- ✓ **Advanced Manufacturing**
- ✓ **Agriculture**
- ✓ **Automotive**
- ✓ **Health Care**
- ✓ **Information Technology**



GOALS:

1. Support the creation of local partnerships

High Schools
Employers
Chambers of Commerce
Workforce Groups
Nonprofit organization
Postsecondary institutions



GOALS:

- 2. introduce students to careers in high-growth, high-demand industries
- 3. prepare students for successful careers
- 4. address the shortage of skilled employees

Exposure

Education

Experience

Learn & Earn model

Develop paid work experiences for 16 and 17-year-old “student learners” to participate in safe, healthy and meaningful on-the-job training at employer sites



School requirements:

1. Industry exposure opportunities for students of all ages
2. Industry-related classes for high school credit
3. Industry-recognized credential/certification
4. Paid work experience for students 16 years of age and older



Employer requirements:

1. Partner with local schools
2. Seek employer approval through YST program
3. Create a safe, healthy, meaningful paid work experiences
4. Train and mentor student learners

By meeting YST requirements and receiving approval from DLI, student learners are allowed to work in industries otherwise prohibited by child-labor laws.



YST Programs can be approved with or without YST grant funding

Step 1: Employer submits	<ul style="list-style-type: none">- Proof of Workers' Compensation- Equipment & tool review (Form 1)
Step 2: School submits	<ul style="list-style-type: none">- Class syllabus from industry related class(es) for high school credit

Step 3: Safety Meeting	- Review all information submitted with YST staff and a safety consultant
Step 4: YST staff/employer	- YST statute, final review and signature
Step 5: All parties	- Parent, student, school, employer complete and sign training agreement

Safe, healthy and meaningful paid work experiences

A YST safety meeting is not:

- The YST safety meeting is not an OSHA inspection
- The YST safety meeting does not result in citations or fines
- The YST safety meeting will not trigger an OSHA inspection
- The YST safety meeting is not entered into a data base or recorded for any purpose other than YST program approval

YST program grant funding:

- Total of \$1,000,000 in grant funding awarded each year
- Grants up to \$100,000 awarded to local partnerships
- Two-year grant period
- 49 YST grants have been awarded throughout the state since the start of the program in 2017

YST grant round 6 timeline:

- Oct. 17 to Nov. 4, 2022: Letter of Intent accepted
 - The letter of intent is an online form (link posted on dli.mn.gov/yst)
- Nov. 7 to Dec. 2, 2022: Grant applications accepted
- Feb. 14, 2023: Grantees announced
- July 1, 2023, to June 30, 2025: Grant performance period

YST grant funding uses:

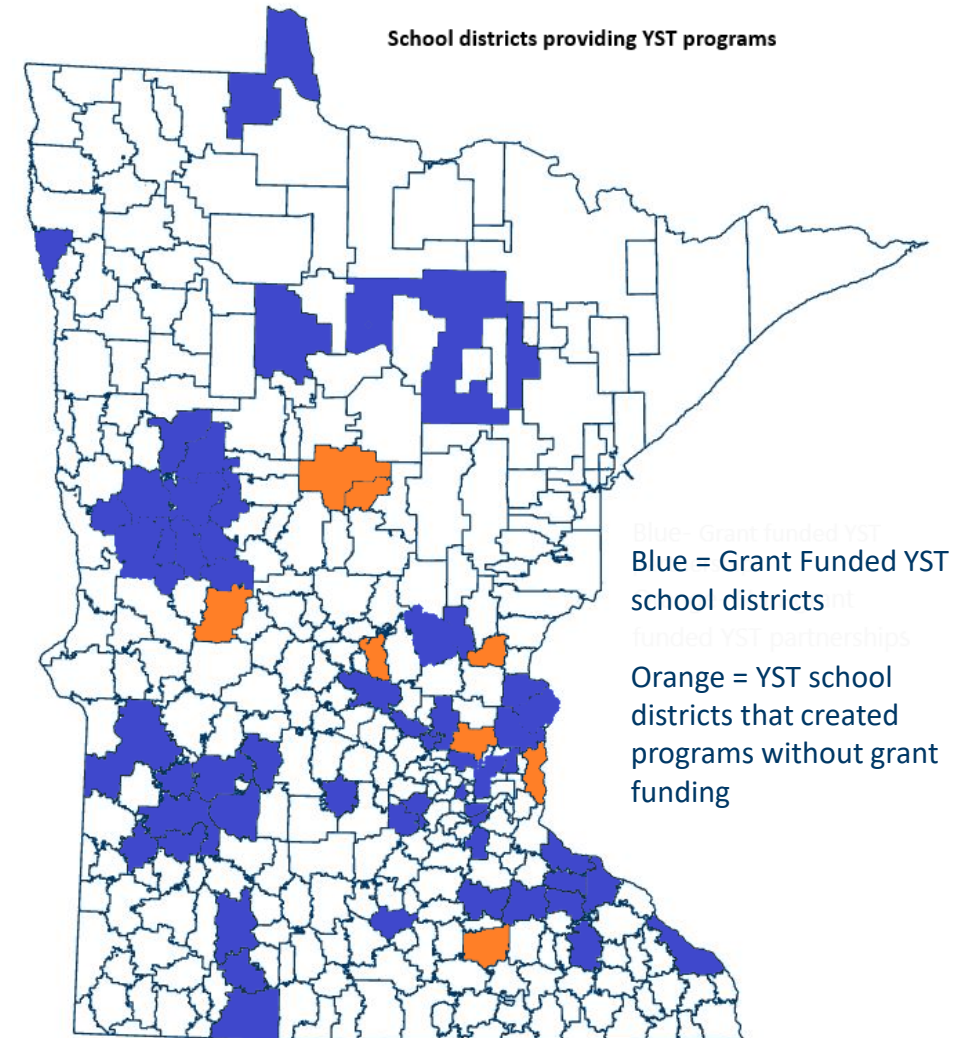
- Marketing and advertising programs
- Recruiting schools, employers and students
- Employer training
- Student transportation
- Staff to coordinate and monitor program outcomes
- Student credentials/certifications

*****Funds cannot be used to pay student wages*****

YST grant recipients

Red Wing Ignite	Faribault
Hutchinson	Burnsville
TwinWest	Detroit Lakes
White Bear Lake	Goodwill Industries
Winona	Lakeville
Elk River	Monticello
Forest Lake	North Branch
Vadnais Heights Economic Development (VHEDC)	Princeton
SW MN Private Industry Council	SW Metro District #288
Intermediate District #287	Hibbing
Bloomington	Boys & Girls Club of Central MN
Ramsey County Workforce Cooperative	Southeast Service Cooperative
Genesys Works	American Nursing & Technical
Spark-Y	Marvin
Bemidji	

ISD # 112 Eastern Carver County
 Roseville Area Schools
 Mankato Area Public Schools
 Chisago Lakes School District
 Grand Rapids Area Chamber of Commerce
 Milaca Public Schools
 East Grand Forks Public Schools
 Otter Tail County



Since start of program in 2017:

- **41,005** students provided with industry exposure
- **23,498** students have completed industry related classes
- **1,410** students have earned an industry related credential
- **537** students have participated in a paid work experience

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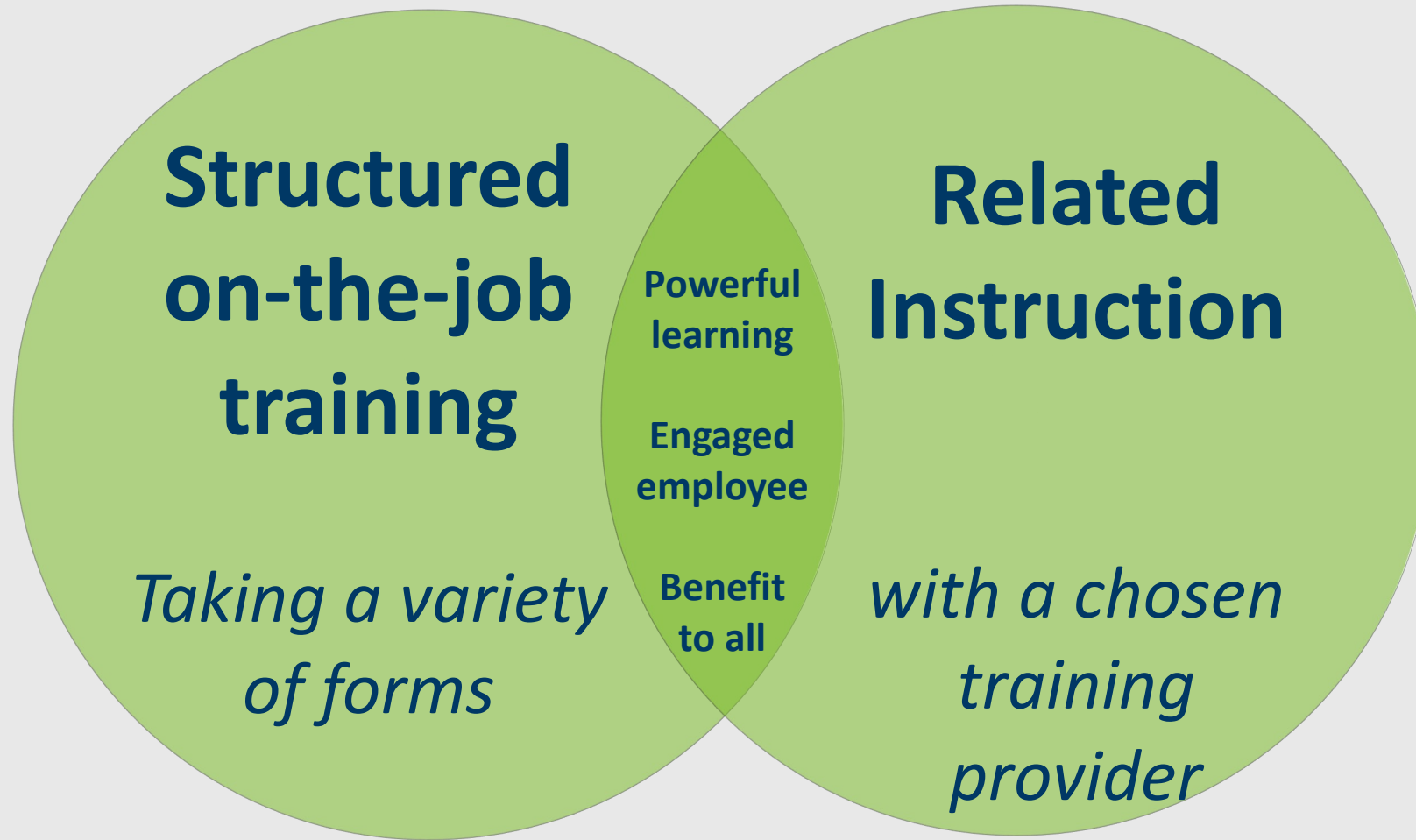
[**www.dli.mn.gov/yst**](http://www.dli.mn.gov/yst)

What is Minnesota Dual-Training Pipeline?



- Source of support to employers to develop their own employment-based, dual-training programs
- An innovative approach to address current and future workforce needs in the key industries of **advanced manufacturing, agriculture, health care services and information technology**
- Private Investment, Public Education, Labor and Industry Experience

Minnesota Dual-Training Pipeline Employment-Based Training



Benefits of Employment-Based Training

■ Employers:

- Build and shape their own workforce
- Creates new skilled worker pipeline
- Workers produce as they train
- Improve productivity overall
- Reduce employee turnover

■ Workers:

- Employment
- Job Training
- Wages increase with progress
- Master in-demand skills
- Credentials



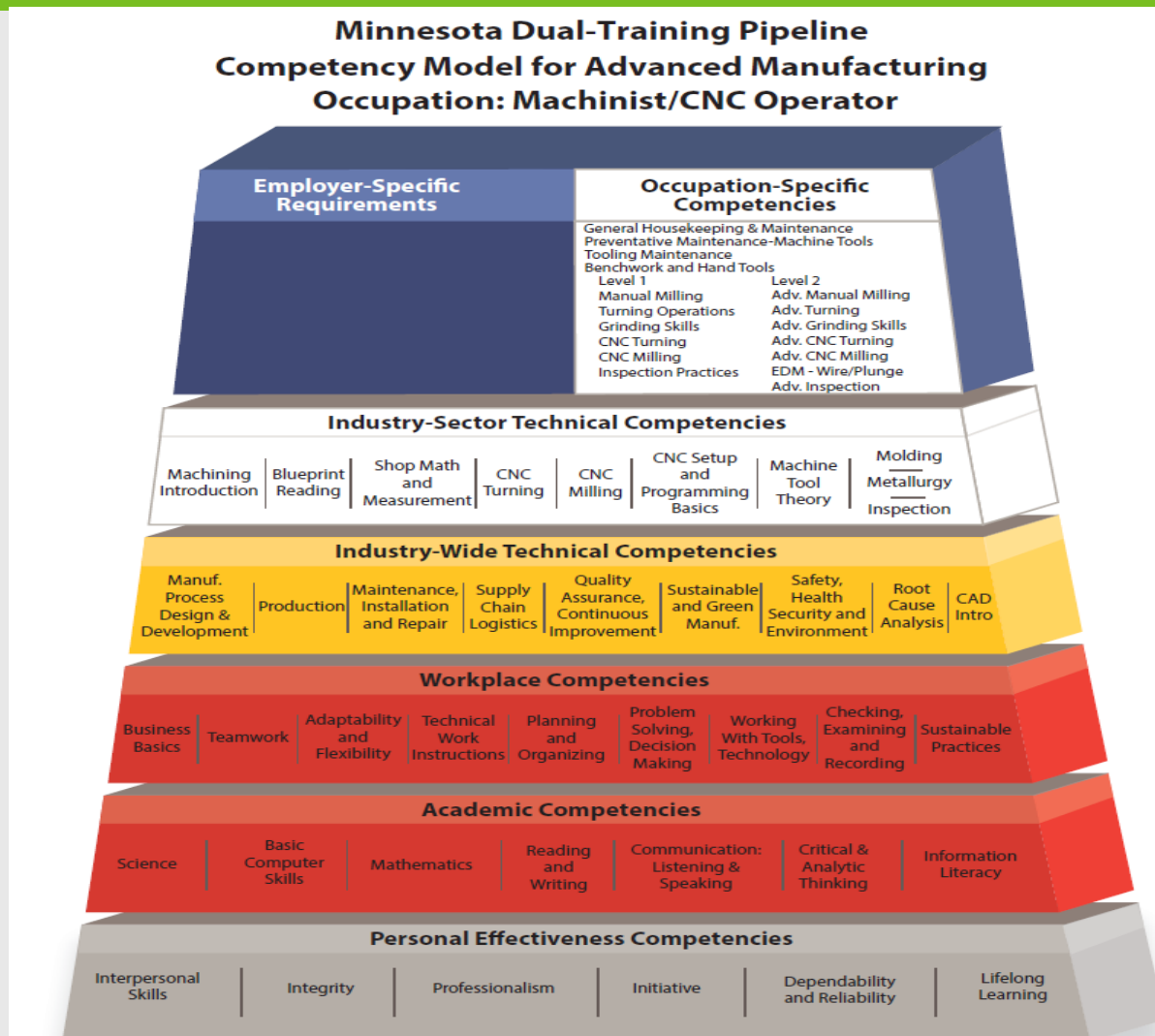
Minnesota Dual-Training Pipeline Strategies

- **Industry Forums:** *Inform and direct* Minnesota Dual-Training Pipeline on industry trends and needs through discussion and strategic planning aimed to expand dual training.
- **Competency Councils:** *Define and identify* specific occupational competencies for the four key industries.
- **Dual-Training Consulting:** *Create and disseminate* dual training resources for employers, employees and dual trainees: toolbox, grants, and expanding mentorship networks to set up dual training.

Advanced Manufacturing Occupations

- Computer Numerical Control (CNC) Programmer
- Coordinate Measuring Machine (CMM) Programmer
- Extrusion Molding Technician
- Flexo Technician
- Injection Molding Technician
- Logistics and Supply Chain Manager
- Machinist/ Tool and Die Maker
- Machinist / CNC Operator
- Manufacturing Engineer
- Maintenance and Repair Worker
- Manufacturing Production Supervisor
- Mechatronics Technician
- Print Press Operator
- Quality Assurance/ Food Safety Supervisor
- Quality Assurance Technician
- Robotics Operator
- Safety Technician
- Solderer
- Welder

Minnesota Dual-Training Pipeline Competency Pyramid



Based on: Advanced Manufacturing Competency Model Employment and Training Administration, United States Department of Labor, April 2010.

* Pipeline recommends the Industry-Sector Technical Competencies as formal training opportunities (provided through related instruction) and the Occupation-Specific Competencies as on-the-job training opportunities.

- Grants are available to cover the cost of related instruction (tuition, fees, books, and materials) – Grant application will open again in spring of 2023; more details on the grant can be found here: <https://www.ohe.state.mn.us/mPg.cfm?pageID=2160>
- \$6,000/student employee per year; Maximum grant is \$150,000 per employer per year; It is a reimbursement model for payments to the company.
- If employer exceeds \$25 million in annual gross revenue from 2022, 25% match is required;
- Employers (or representative of) may apply if:
 - Employees will be trained in an eligible occupation;
 - Employees have not yet attained competency standards;
 - Permanent work location in Minnesota.

Upcoming Minnesota Dual-Training Pipeline Events

Speaker Series

- Skills-Based Practices: what it is and how to begin: Oct. 19, from 9-10a.m. [Register here to join our webinar.](#)

Industry Forums

- Advanced Manufacturing Industry Forum: Nov. 1, from 1-2:30 p.m. [Register to attend.](#)

Contact Pipeline Team



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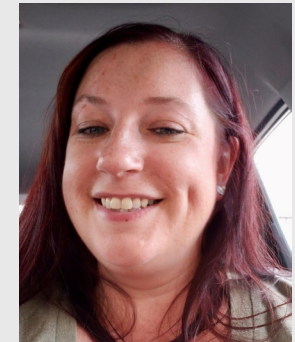
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Registered Apprenticeship



**APPRENTICESHIP
MINNESOTA**



**DEPARTMENT OF
LABOR AND INDUSTRY**

Myths and Facts

Myths	Facts
Registered apprenticeship programs are only in Minnesota's metro area	Registered apprenticeship programs are operating throughout the state
Registered apprenticeship programs are only in the construction trades	Registered apprenticeship programs are becoming more common in non-traditional industries
Registered apprenticeship programs are only for large companies	Employers large and small are sponsors for apprenticeship programs, dictated by the needs of each employer
Registered apprentices will get trained and then leave the employer	Registered apprenticeship programs have proven to help reduce turnover and increase employee productivity
All registered apprenticeship programs involve unions	Some registered apprenticeship programs involve unions

Benefits of Apprenticeship

Employers

Build and shape their own workforce

Creates new skilled worker pathway

Workers produce as they train

Improve productivity

Reduced employee turnover

Retain/Transfer organizational knowledge

Employer incentives to hire veterans

Workers

Employment

Comprehensive job training

Safety instruction

Wages increase with progress

Master in-demand skills

Nationally recognized credential

Registered apprentices are G.I. benefit eligible

Minnesota

Pathway to the middle class

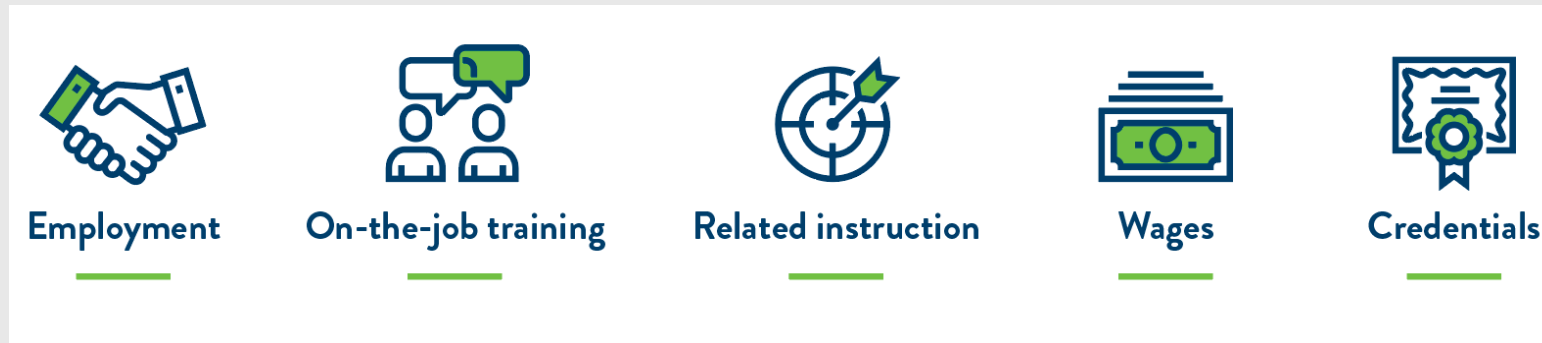
Quality training for workers

Safety for workers

Vibrant economy

What is Registered Apprenticeship?

Essential Program Components of Registered Apprenticeship



A time-tested model to:

recruit, *train* and *retain* a highly skilled and diverse workforce.

Development of a Registered Apprenticeship Program



Review job description and align with standards



Review wage scale, safety training, on-the-job training, and related instruction



Employer confirms Registered Apprenticeship Standards



Program starts within 30 days



Scheduled check-ins and technical assistance



Expand hiring pipeline

Apprentice Participation Demographic Trends by Calendar Year

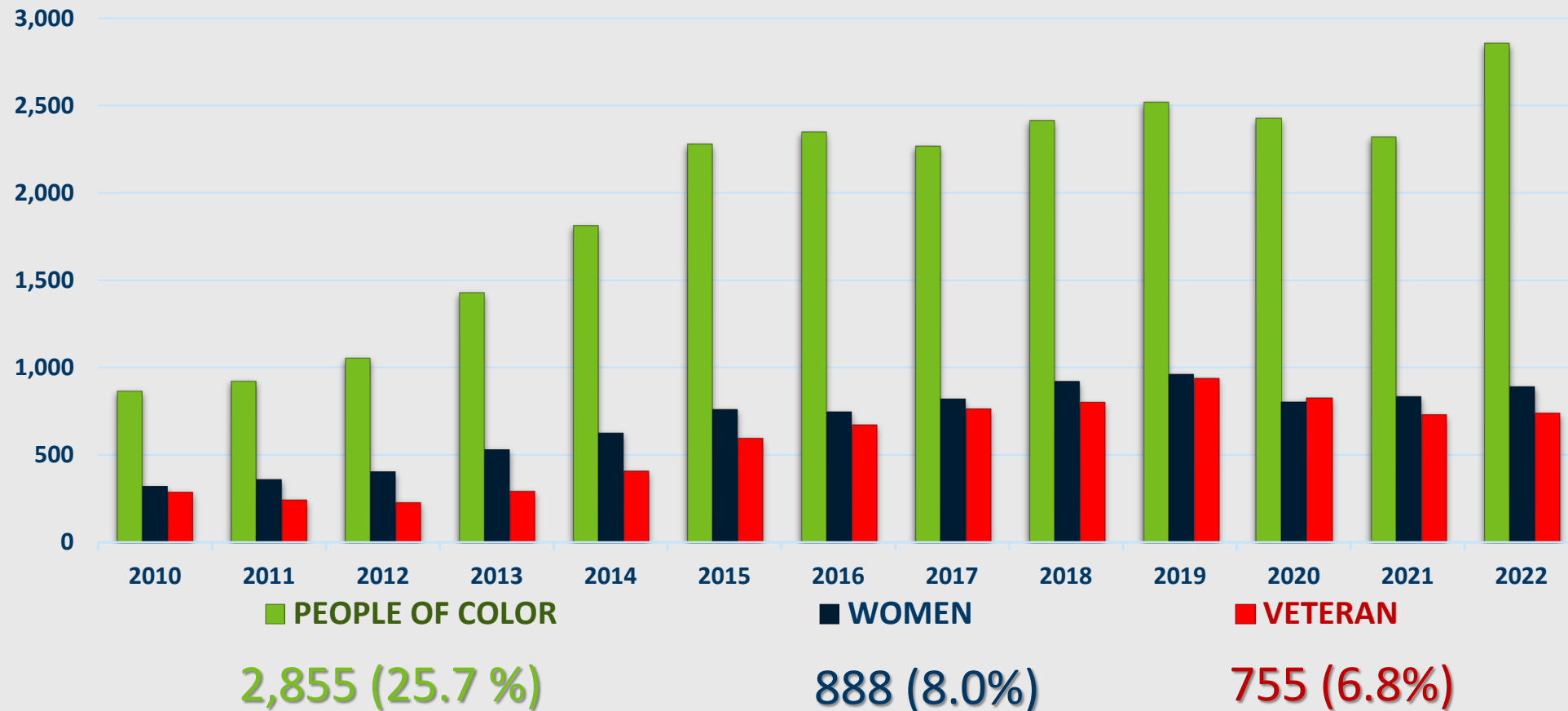
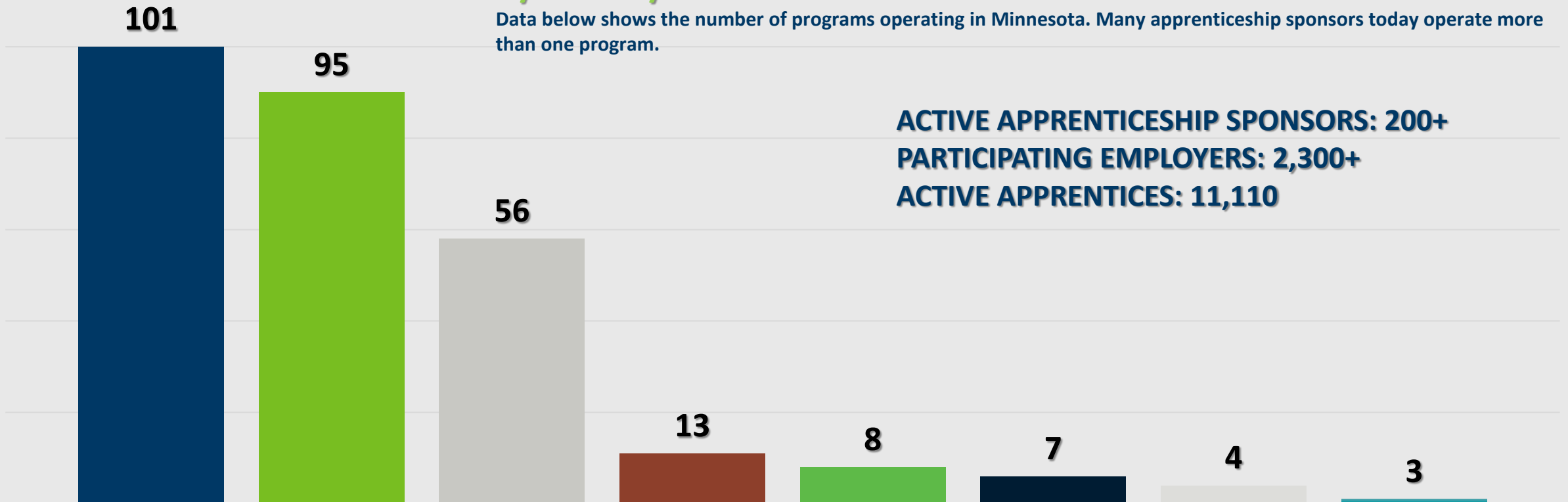


CHART: NUMBER OF ACTIVE APPRENTICESHIP PROGRAMS

By Industry Sector

Data below shows the number of programs operating in Minnesota. Many apprenticeship sponsors today operate more than one program.



ACTIVE APPRENTICESHIP SPONSORS: 200+
PARTICIPATING EMPLOYERS: 2,300+
ACTIVE APPRENTICES: 11,110

Manufacturing in Apprenticeship

The advanced manufacturing industry is critical to Minnesota's economic future. Today's manufacturers face complex workforce challenges. However, significant talent shortages slow manufacturers' efforts to innovate and grow.

Among these challenges:

- An aging workforce of highly skilled and experienced workers
- Attracting talent to emerging manufacturing jobs
- Investing in talent that keeps pace with the latest technology advances
- Implementing workforce training models that effectively develop talent.

Registered apprenticeship provides a proven solution for recruiting, training and retaining highly skilled talent.

Registered Apprenticeship Manufacturing Occupations = 56, Apprentices = 172

Occupations include:

Welder

Mechatronics

Machinist

Maintenance Technician

Manufacturing Supervisor

Tool and Die Maker/Repairer

And Many More...

Manufacturing Employer Sponsors

ADVANCED MANUFACTURING:

- **Aero Design** – Sewing Machining Repairer (Duluth)
- **AGCO**- Mechatronics Technician, Welder (Jackson)
- **Ajax Metal Forming Solutions** (Fridley)
- **Alliance Machine** – Machinist Level 1 (Elk River)
- **Analog Technologies Corp.** - Solderer
- **Custom Mold & Design** – Machinist (Forest Lake)
- **Daiken Applied** – Maintenance Technician
- **Diversified Plastic** – Tool Maker (Minneapolis)
- **Eaton Corporation** – Machinist, Maintenance Mechanic
- **Entegris** – Mold Maker (Chaska)
- **MTS Systems** – CNC Machinist Level 1/Mechanical Assembler (Eden Prairie)
- **Innovize** – Flexographic Press Operator (Vadnais Heights)
- **Intek** – Extrusion Molding Machine Operator
- **Integer** – Associate Machinist, Machine Operator & Tool Maker (Chaska)
- **K & G Manufacturing** – CNC Operator (Faribault)
- **Logic PD** – Solderer & Machine Operator (Eden Prairie)
- **L & M Radiator** – Welder & Machinist
- **Mechanical Systems** – Welder (Dundas)
- **Mikros Engineering** – Injection Molding Machine Operator
- **MRG Tool & Die** – CNC Machinist Level 2, Supervisor (Faribault)
- **MTS** – CNC Machinist Level 1, Mechanical Assembler
- **NTM** – Machine Operator (Fridley)
- **Owens Corning** – Maintenance Mechanic (Minneapolis)
- **Pequot Tool and Manufacturing** - CNC Machinist (Pequot Lakes)
- **Potlach** – Mechanical Technician (Bemidji)
- **Schwing America Inc.** - Welder (Vadnais Heights)
- **Seneca Foods** – Maintenance and CNC Machinist (Rochester)
- **SkyWater Technology** – Equipment Maintenance Technician (Bloomington)
- **Spectro Alloys** – Mechatronics Technician
- **TEROG** - CNC Machinist
- **TLC Precision** – Radar Technician (St. Paul)
- **Turck, Inc.** – Advanced Manufacturing Technician (Plymouth)
- **Uponor, Inc.** – Maintenance Technician (Apple Valley)
- **Viracon** – Maintenance Mechanic (Owatonna)
- **Wells Academy** – CNC Operator (Bemidji)
- **Aftermarket Solutions**—Electronics Technician (Hibbing)

Apprenticeship MN Contacts



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Questions?

