

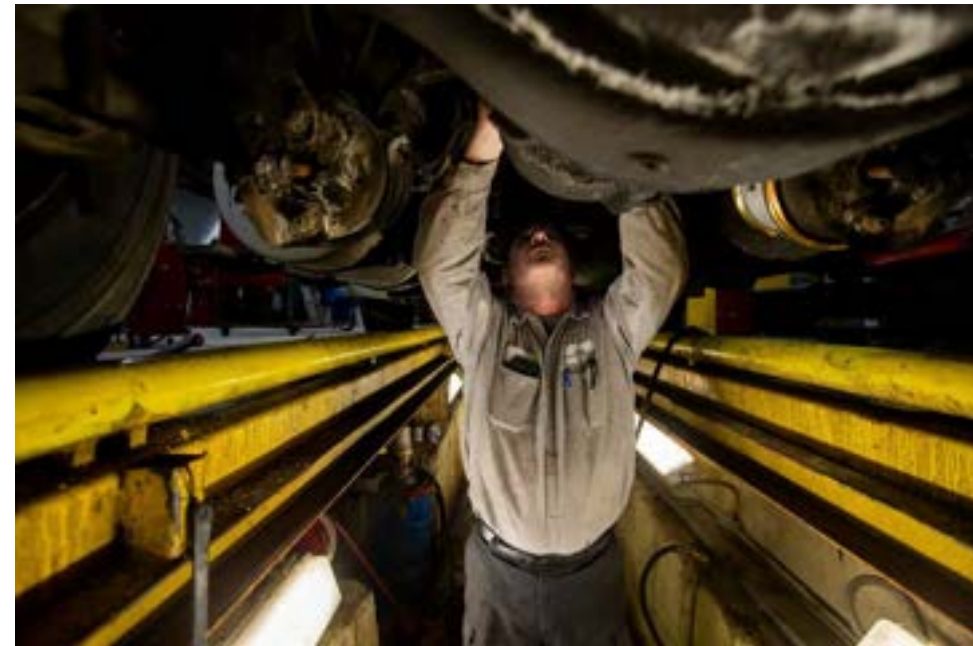
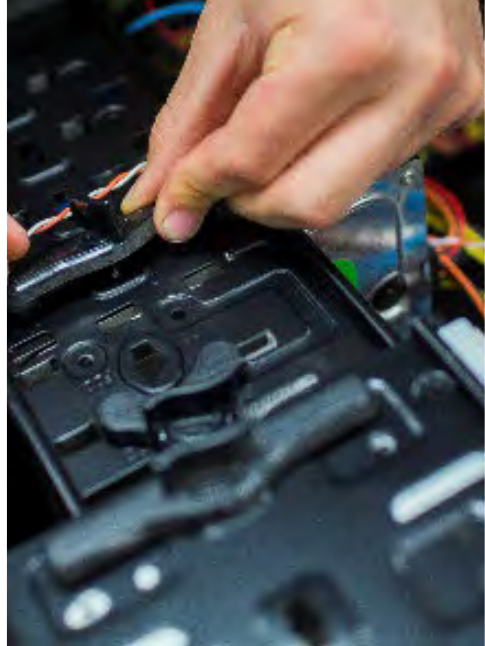


Strengthening and Expanding Advanced Manufacturing Career Pathways and Partnerships

Presented by:
Jeanne Germain
Dean of Manufacturing, Apprenticeships, & K12 Relations

Session Overview

- Northwood Tech in Brief
- Program Spotlight: CNC Machining Supply vs. Demand
- Filling in the Gaps: Northwood Tech Mobile Training Initiatives



100+
Associate Degree, Tech Diploma
and Certificate Programs

Founded in 1912

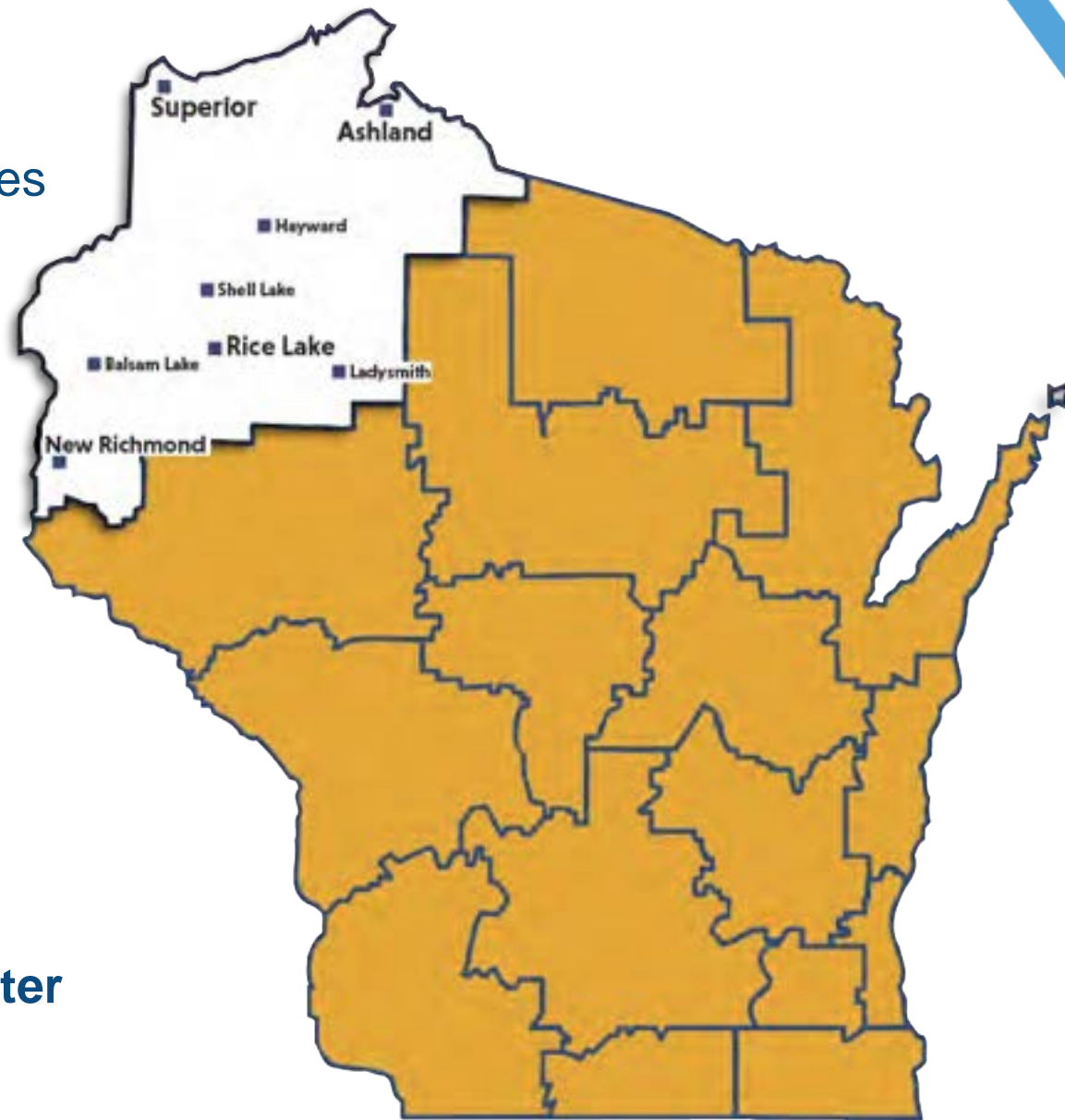
- 1 of 16 Wisconsin Technical Colleges
- 11-Counties – 10,500 sq. miles
- 45 K12 School Districts

Campus Locations

- Ashland
- New Richmond
- Rice Lake
- Superior

Outreach Centers

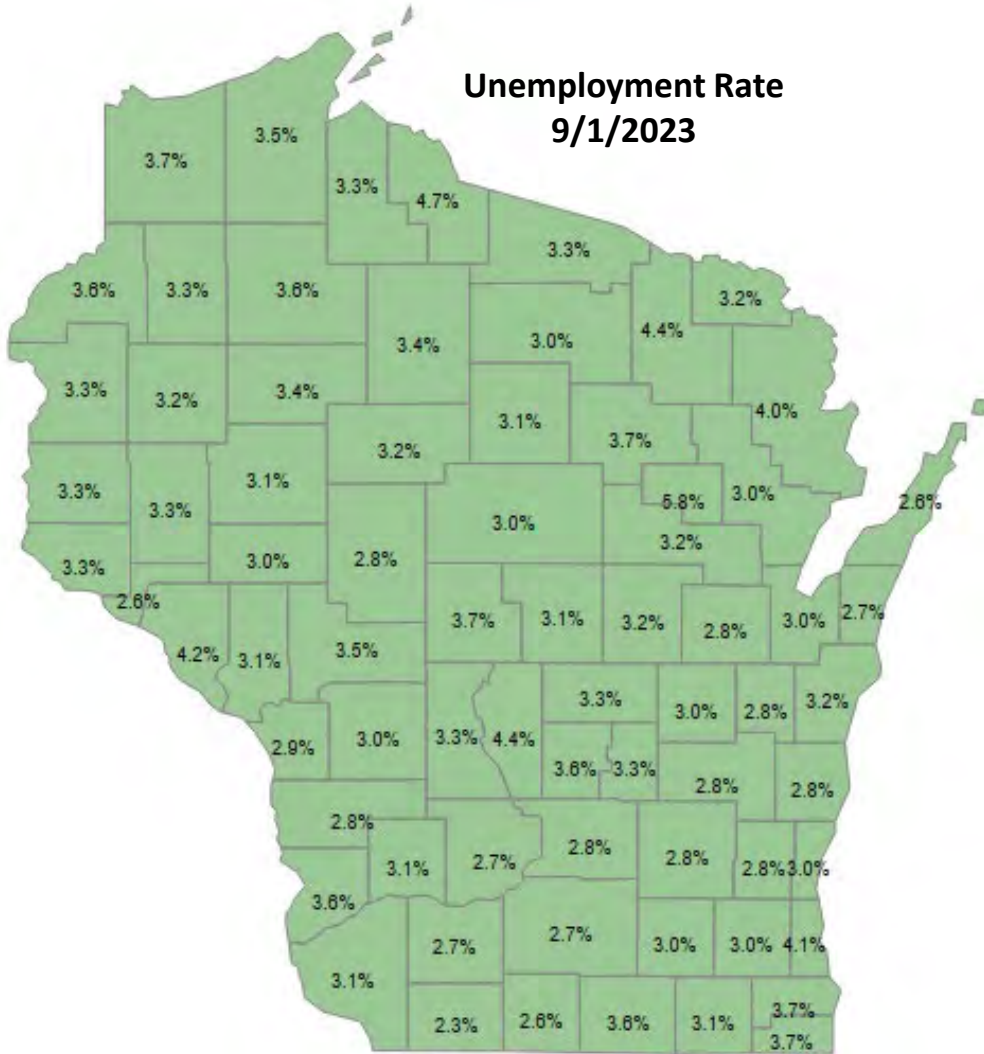
- Hayward
- Ladysmith
- Balsam Lake
- Shell Lake Health Education Center





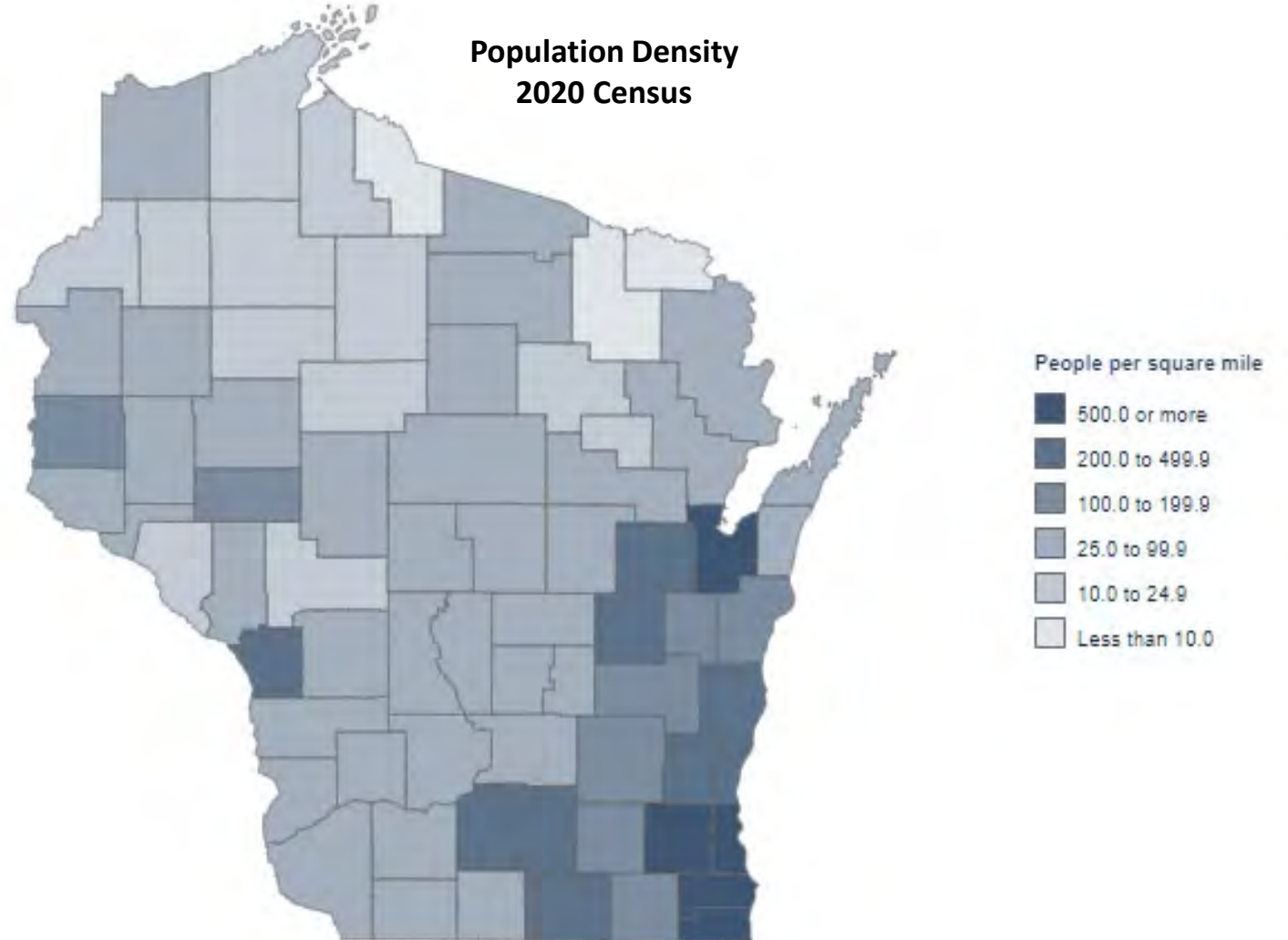
- 11 Recognized Tribal Nations of Wisconsin
- Serve 4 tribal nations
- Tribal Members
 - Red Cliff – 5312
 - Bad River – 1545
 - Lac Courte Oreilles – 7275
 - St. Croix – 1054

**Unemployment Rate
9/1/2023**



[Index - WisConomy \(jobcenterofwisconsin.com\)](https://index.wisconsin.gov)

**Population Density
2020 Census**



[2020 Population and Housing State Data \(census.gov\)](https://www.census.gov)

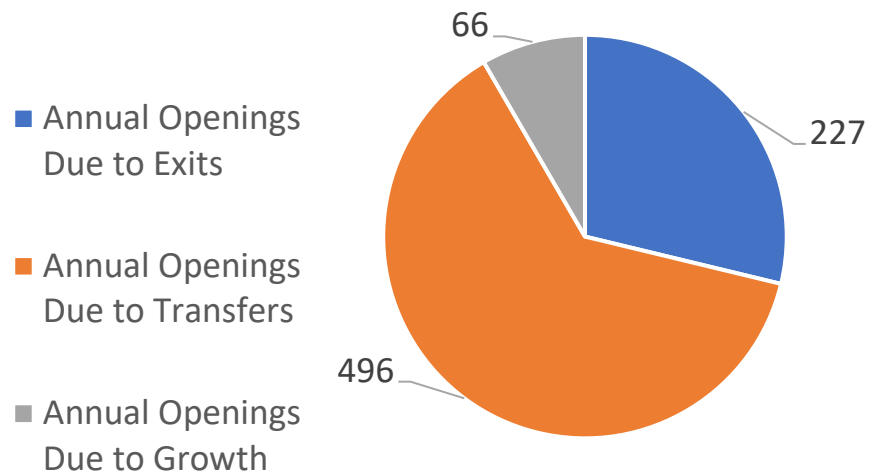
Challenge #1 – Declining Enrollment

Machine Tool Operator – CNC 1-Year Technical Diploma (Rice Lake Campus)

Enrollment Year	2018-19	2019-20	2020-21	2021-22
# of Applicants	15	19	14	11
# of New Students	7	10	7	1

Challenge #2 – High Employer Demand

789 Projected Manufacturing Openings By 2030

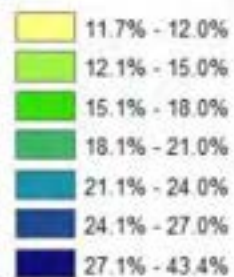


- Wisconsin ranks 2nd among the states with the largest manufacturing concentration.
- Statewide, machinists rank 17th on the list of the Top 50 Hot Jobs and regional job postings for skilled machinists exceed the national average.

The Age Wave

Percent of the Population
Age 65 and over
2025

And then
there's this...



Source: WIDOA Demographic Services, Population Projections, Vintage 2013
Prepared by Eric Grosso, WIDHS Bureau of Aging and Disability Resources

Strategy #1 – Part-Time Scheduling

MTO-CNC Program

- Monday - Friday
- 4-7 Hours/Day
- Full Year
- 1-Year Technical Diploma
- Difficult for incumbent workers or high school students to attend

CNC Technician Program

- Monday - Friday
- 3 Hours/Day (mornings)
- Full Year
- Embedded Technical Diploma (1st Semester of MTO-CNC)
- Conducive for both incumbent workers and high school students
- Intend to run 2nd semester in afternoons based on interest

Strategy #2 – Align All MT Programs

Multiple Options for CNC Technician Program Graduates

- Complete 1-Year Machine Tool Operator Program at Ashland or Superior
- Complete 2-Year Machine Tool Technician Program at Superior
- Complete 2-Year Machine Tooling Technics Program at New Richmond
- Complete Machine Tool Operator – CNC in Rice Lake when Reinstated

Strategy #3 – Create Micro-Credentials

Print Reading for Machine Trades – 3 Credits

- Print Reading Foundations
- Interpreting Industrial Prints
- Geometric Dimensioning & Tolerancing
- CFPL for Full Course

Targeted Populations

- Incumbent workers
- Incarcerated individuals
- Alternative Ed Students

Strategy #4: Seize the Grant Opportunity!

Wisconsin Technical College System Career Pathways Grant

- PT CNC Technician Academy Instructor
 - FT Machining Pathways Success Coordinator
 - PT Math Instructor
 - Curriculum Modifications
 - Mentoring for Instructor
- Travel
 - Student Laptops
 - MasterCam Software
 - Supplies, Tools, Textbooks
 - Marketing
 - Creation of Sponsor a Scholar Program

Dual Enrollment CNC Technician Academy

2022-23 Academy – HS Only

- 7 Students from 1 School District
- 3 Employed in Field
- 3 Continuing in Aligned Program

2023-24 Academy – HS Only

- 6 Students from 3 School Districts

2024-25 Enrollment Open to All



County Jail Micro-Credential Program

Barron County Jail

- 1 Session
4 enrolled/1 finished

St. Croix County Jail

- 1st Session
10 enrolled/7 finished
- 2nd Session
10 enrolled/9 finished
- 3rd Session (in progress)
7 enrolled

Filling the Gaps with Mobile Training

PROGRAMS

- Mobile Construction Essentials
- Mobile Welding Lab
- Mobile Industry 4.0
- Mobile Emergency Services
- Northwood Tech/NTCA Digital Badging Program

CREDENTIALS

- Associate Degree
- Technical Diploma
- Digital Badges (Micro-credentials)
- Certificates, CEU's and Licenses

Mobile Construction Essentials



163 total enrollments since 2017

Partnership with St. Croix Tribe

- 10 students
- 9 credit Technical Diploma
- Courses: Construction Framing 1, Blueprint Reading, and Applied Math
- OSHA 10, Basic First Aid, CPR, AED
- Built three tiny homes on tribal land
- Students invited to spring graduation

Mobile Welding Lab



- Partnered with CVTC on RESTORE grant
- 53 ft trailer, generator, and 8 welding booths



[Mobile Welding Lab - YouTube](#)

www.NorthwoodTech.edu

NTCA/Northwood Tech Broadband



Workforce Innovation Grant - HOMES

Northwood Technical College presented a nearly \$10-million workforce grant

Northwood Technical College is the recipient of a \$9,823,075 Workforce Innovation Grant to fund its three-year Housing Opportunity and Mobile Education Solutions (HOMES) project. Gov. Tony Evers and Wisconsin Economic Development Corporation (WEDC) Secretary and CEO Missy Hughes made the announcement on Tuesday, June 21 at the Northwood Tech Rice Lake Campus.

"The HOMES project will help fund three work-



Governor Tony Evers addressed the crowd gathered in the HUB at the Rice Lake Campus.

Gov. congratulates Northwood Tech on winning \$9.8M grant

Northwood Tech receives grant for mobile training, housing

Northwood Tech receives nearly \$10 million workforce grant

RICE LAKE — Northwood Technical College is the recipient of a \$9,823,075 Workforce Innovation Grant to fund its three-year Housing Opportunity and Mobile Education Solutions project. Gov. Tony Evers and Wisconsin Economic Development Corporation Secretary and CEO Missy Hughes made the announcement on Tuesday, June 21, at the Northwood Tech Rice Lake campus.

"The HOMES project will help fund three workforce housing projects in Northwood Tech's region and will provide new funding for cutting-edge

mobile training equipment targeted towards advanced manufacturing competencies," said John Will, president of Northwood Tech. "The multifamily housing will be equipped with community rooms that can also serve as classrooms, which will add potential training hubs for Northwood Tech's growing portfolio of mobile education solutions. We're excited to partner with Impact Seven to accomplish this innovative solution to two of the region's major workforce challenges—housing and expanded postsecondary opportunities."

HOMES will provide housing and skills to individuals to enter jobs in the advanced manufacturing industry, targeting the unemployed/underemployed and underserved populations in Ashland, Barron, Bayfield, Burnett, Douglas, Iron, Polk, Rusk, St. Croix, Sawyer and Washburn counties. Sites will be selected in communities with strong employer support where there is a measurable shortage of workforce housing.

Impact Seven will establish a workforce housing fund to reduce risk on housing projects for three multiam-

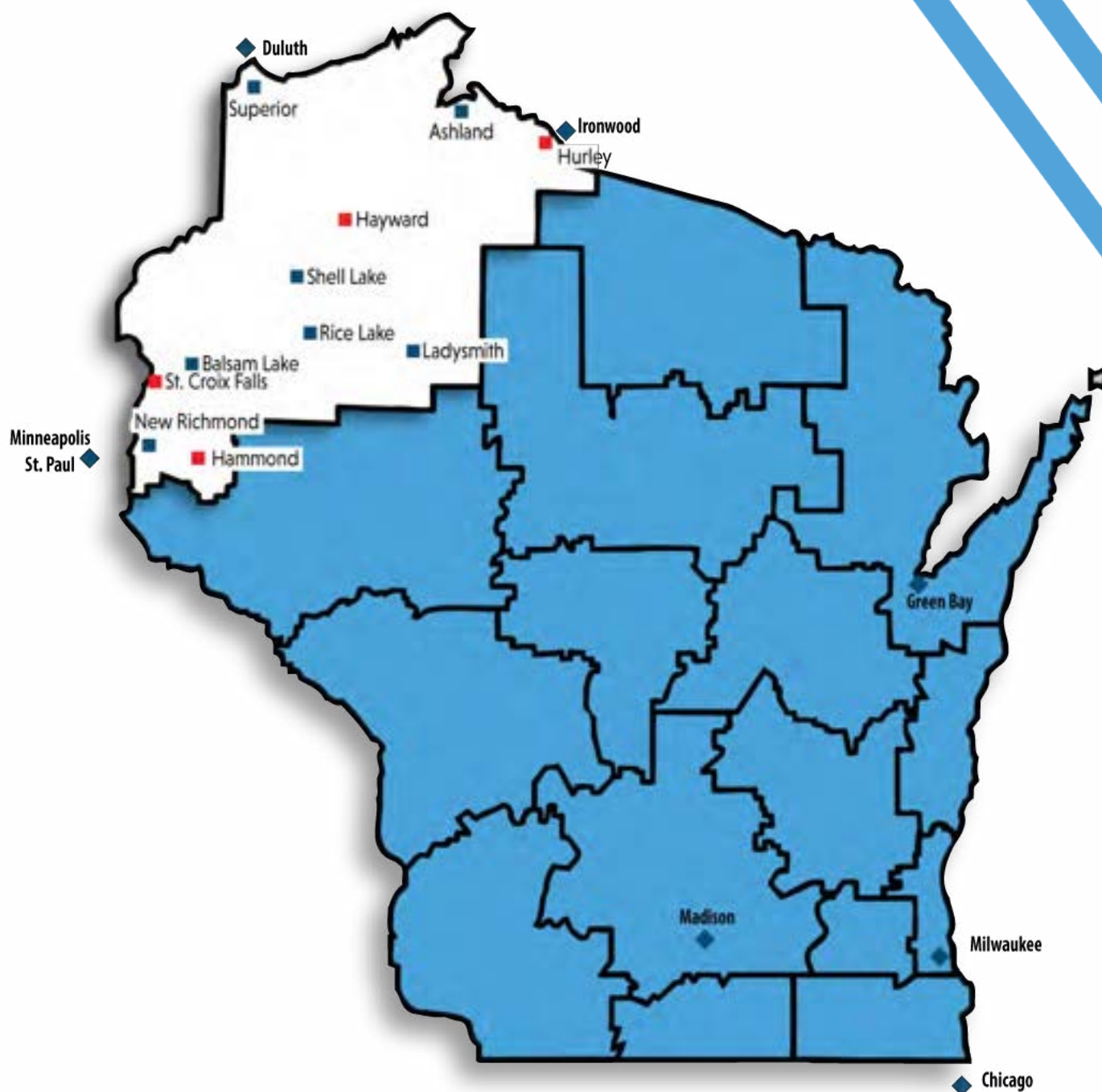
ily rental housing projects that include "workforce accelerators" for on-site training. Northwood Tech will acquire mobile training equipment, which will add to its growing portfolio of movable, hands-on education options. HOMES will provide affordable housing options and educational assets that will serve communities for decades to come.

For more information on the Workforce Innovation Grants, please visit wedc.org/programs-and-resources/workforce-innovation-grant/.



The people involved in the draft and design of the application for the HOMES project posed for a photo at the presentation of the grant at Northwood Tech. (L to R): Dan Miller, associate dean, workforce and community development; John Will, president of Northwood Technical College; Jeanne Germain, dean of career prep, manufacturing, and apprenticeships; Doni Marry, director, grants/resource development; Gov. Tony Evers; Liz Pizzi, associate dean, workforce and community development; Rose Cibulka, associate dean, academic affairs; Jennifer Schultz, institutional effectiveness technician; Missy Hughes, WEDC Secretary and CEO; and Brett Gerber, president and CEO of Impact Seven. Photo provided.

Northwood Tech receives nearly \$10 million workforce grant



Mobile Industry 4.0 with Housing - HOMES

Mechatronics Basics

PMMI Mechatronics Certification

- Electricity 1
- Fluid Power 1
- Programmable Logic Controllers
- Mechanical Components 1

Technical Diploma – 14 credits

37 enrollments, to date



Mobile Emergency Services



Mobile Emergency Services

- Non-credit programming
- Multiple mobile units
- Multiple levels and subject areas of training
- Partner with area fire departments (majority volunteer)

- Mobile burn simulator
 - 2,055 enrollments since 2007

- Mobile confined space trailer and Mobile car fire simulator
 - 3,646 enrollments since 2007



*Thank
You*



Jeanne Germain

Dean of Manufacturing, Apprenticeships, & K12 Relations

Jeanne.Germain@northwoodtech.edu

www.northwoodtech.edu