



Building the Nation's Talent Pipeline for Strategic Industries

Creating Opportunity and Meeting the Need

National Center for Next Generation Manufacturing Summit
FANUC America Headquarters - Rochester Hills, MI
October 16, 2025

Who We Are

- Team of senior SMEs focused on **building the talent pipeline required to support strategic industry sectors** and their supply chains
- Developed **unique infrastructure and programs designed to be scaled to** support regional ecosystem development
- Launched the **first Registered Apprenticeships in U.S. designed for the semiconductor industry** in 2022
- Now active in **27 states with 157 employers** with approx. 3,400 apprentices registered and another 8,800 committed to programs
- **Redesigned and maintain USDOL competency models for advanced manufacturing and the semiconductor industry** – the KSAs required to succeed

Why We Exist

To help **reduce fragmentation of efforts** and align to a proven national strategy

To address unfilled positions that delay progress, strain teams, limit growth, cost money

To help build **industry-aligned, sustainable support systems** that support industry

To promote regional **coordination, scalable infrastructure, and clear, reportable outcomes** aligned with objectives

Our Mission:

To ensure the nation has a talent pipeline required to support industries important to U.S. national security and global competitiveness.

"To build, operate, and maintain"

Who We Help

- **Employers** — Broaden the pool to fill critical roles and better attract, train and retain talent
- **Educators & Training Providers** — Ensure ongoing curricular alignment with industry / job requirements in support of career entry and advancement
- **Regional partners** — Reduce fragmentation, braid funding, reduce time to implementation and deliver clear, reportable outcomes
- **Individuals** — Enable more people to leverage skills to enter into and advance in careers through stackable learning experiences and furthering education



Why a National Strategy & Infrastructure Matter

- It is **more efficient and cost effective**
- It **reduces time to implementation** and measurable impact
- It **enables scaling**
- It provides a **consistent, comprehensive approach** needed to support DIB/MIB priorities
- It limits the need for regions to figure out a strategy, enabling **focus on deployment vs. development**



NIICA's Holistic National Strategy

Key Components



- Build a pipeline of individuals with **transferable and foundational skills**
- Ensure **skill-based learning** is integrated into public education
- Leverage a dynamic tool to **connect individuals to jobs and needed training**
- **Provide “learn and earn” opportunities** to those who may not otherwise be engaged
- **Substantially increase the pipeline** of participants pursuing advanced manufacturing, tech and engineering related careers

Broadening the Pipeline

A **comprehensive approach** to enable broader participation in high value careers



Students in the education system
(K-12 – post secondary)



Returning service members and
their families



Underemployed adults directly and
those wishing to change careers

Leveraging Registered Apprenticeships

- Enables more people without degrees to **leverage skills to enter into and advance in careers**
- Provides a **comprehensive approach to develop effective training**—design through implementation & registration
- Built around real operational needs and **designed to be scaled** across sites and with partners
- Aids in **attraction and retention of talent**
- Flexible models and SME support **ease of program development administration**



NIICA Offers Comprehensive Support to Establish Registered Apprenticeships



Design & Register

- ✓ RA program design, implementation and administration, (including National Program Sponsorship)
- ✓ Convert existing IRAPs and training to RA / pre-apprenticeship pathways
- ✓ OJT design + curriculum/RTI alignment
- ✓ Mentor & supervisor development (train-the-trainer)



Launch & Comply

- ✓ Strategic onboarding & multi-site rollout
- ✓ Compliance & documentation (federal and state)
- ✓ Funding navigation: WIOA, state incentives, tax credits



Access & Retention

- ✓ Direct access for students, returning service members; trades to operations and school to industry transition
- ✓ Wraparound services to support access and retention



Connect the Ecosystem

- ✓ Pathway alignment with K–12, CTE, and postsecondary systems
- ✓ Coordination with state workforce systems and boards
- ✓ Data-informed job/training/talent profiling & matching (National Talent Hub™)

Our National Footprint

USDOL contract Apprenticeship Program related data (updated 10/14/25)

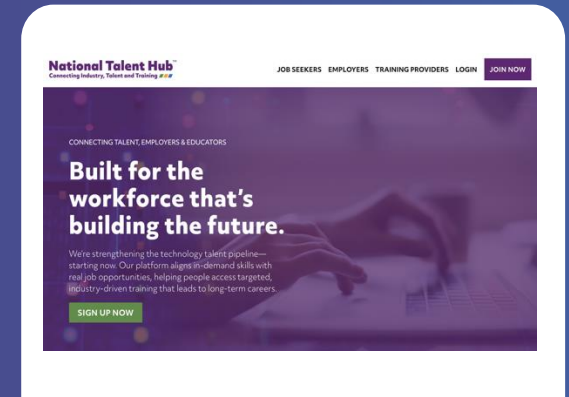
New Registered Apprentices	Total # of Committed Apprentices	Apprenticeship Accelerator Events	Employer/Group Sponsors	Employers Engaged	RTI Curriculum Development
3,623	8,792	29	74	159	345

Total # of Community Colleges/Education Providers in NIICA National Network	Total # of Signed Standards	Total # of Standards in Development and/or Under Review	Total # of States with Programs	Training Workshops Conducted	National Outreach to Employers, Sponsors, Intermediaries, Stakeholders and Educators
160	185	67	27	93	2,668

What is the National Talent Hub™?

Connecting industry, talent, and training

- **Real-time connectivity** for employers, training providers, talent and regional partners
- Automation to **ensure ongoing alignment** between curriculum, jobs and individual skills
- Greater access, **skills alignment and interconnected education** pathway beginning in K-12
- Cloud-based tool to **prioritize high demand skills** for targeted training
- Houses **industry defined job competency** profiles containing required knowledge, skills and abilities (KSAs)



Key Attributes of National Talent Hub™



Developed through industry input and federal investments



“Comprehensive Competency Standards Database” and “Semiconductor Competency Model” are housed in the NTH



Unique, dynamic tool – reflects job requirements in real-time



Facilitates lifelong career and education mapping, skills assessments and training plan development



Provides detailed, competency-based linkage between individuals, employers and training providers

NIICA Products and Services

Programs and Infrastructure

- National Center for Skill-Based Learning™ (CSBL)
- Workforce Education Career and Apprentice Network (WE CAN®)
- National Talent Hub™ (NTH)
- Growing Apprenticeships in Nanotechnology and Semiconductors™ (GAINS™)
- Semiconductor and Advanced Manufacturing Technician Program (SAM-TAP™)
- Semiconductor Industry Network of Colleges™ (SINC™)
- NIICA Certification
- Semiconductor Competency Standard
- Gateway Apprenticeship Program®

General Services

- Talent pipeline evaluation and gap analysis
- Regional / employer workforce strategy development and implementation
- Training program and RA design
- Curriculum alignment

Niica

**National Institute for Industry
and Career Advancement** 

CSBLTM

 **Center for Skills Based Learning**

Thank You!

For More Information, contact:

Nikki Zaahir - Executive Director

nzaahir@niica.org

Clay Nagel - Sr. Director, National Center for Skill-based Learning

cnagel@niica.org