In July 2019, Connecticut State Colleges & Universities System Office, was awarded an $8-million-dollar H-1B Scaling Apprenticeship Through Sector-Based Strategies grant from the U.S. Department of Labor, Employment Training Administration (DOL/ETA). The National Advanced Manufacturing Apprenticeship Project (NAMAP) comes with four industry-leading employer partners that anchor the nation’s industrial defense complex: General Dynamics Electric Boat (EB), International Business Machines (IBM), Lockheed Martin (LM), and Pratt & Whitney (PW). The NAMAP grant will build and scale pre-apprenticeship, registered apprenticeship, and Industry-Recognized Apprenticeship programs (IRAP) in a broad range of occupations that support the advanced manufacturing sector.

The National Advanced Manufacturing Apprenticeship Project goals are to sustain and expand the NAMAP anchor employers’ existing apprenticeship training programs proven to place a high percentage of inexperienced, under-skilled workers into middle-skill advanced manufacturing jobs on career pathways. Scale-up evidence-based apprenticeship training programs nationally through replication within and across NAMAP anchor employers and smaller manufacturers; and facilitate the development of best practices for evidence-based apprenticeship training models that result to continuous improvement and additional apprenticeship programs.

**Employer Partners:**
Lockheed Martin, IBM, General Dynamics Electric Boat, and Pratt & Whitney

**Grant Partners:**
NIMS, Achieving the Dream (ATD), Higher Ed Insight, LLC (HEI) and Tooling U

**Manufacturing Associations:**
Aerospace Components, Manufacturers, Inc. (ACM), California Manufacturing & Technology Associations, Eastern Advanced Manufacturing Alliance (EAMA) and Small Manufacturers Association of CT (SMA).

**Workforce Partners:**
State of Connecticut Department of Labor (CTDOL), Eastern Workforce Investment Board (EWIB), Northwest Regional Workforce Investment Board (NRWIB) and Sound Manufacturing, Inc

**Training Partners:**
Connecticut Center for Advanced Technology (CCAT), Manufacturing Apprenticeship Center and Westerly Education Center (WEC).

**Educational Partners:**
Asnuntuck Community College, Goodwin College, New England and Board of Higher Education.
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The grant will serve a diverse population of 3,500 participants, 3,000 unemployed and underemployed job seekers and 500 incumbent workers, with an emphasis on veterans, military spouses, transitioning service members, women, people of color, and ex-offenders. The grant currently served 534 participants.

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The advanced manufacturing industry represents significant job growth over the next decade, with a quarter of the manufacturing workforce being over the age of 55. Advanced manufacturing career paths lead to a multitude of good jobs characterized by living wages, good benefits, diverse occupations, and multiple paths for advancement. The substantial industry growth demands middle-skilled workers developed and up-scaled to fill voids that will be created over the next decade from the retirement of Baby Boomers.

NAMAP efforts will hire and train manufacturing workers to support the demands of the advanced manufacturing sector. NAMAP will support anchor employers’ efforts to scale successful apprenticeship models, leveraging their best practices and lessons learned to help small to medium-sized manufacturers. NAMAP will utilize metrics to recognize successful programs and create sustainability plans for training efforts.
Lockheed Martin’s Electronic Associate Apprenticeship Program (EAAP) is responsible for 86% of the current NAMAP apprentices. The bulk of the EAAP apprentices are from Lockheed Martin’s Missiles and Fire Control (MFC) division, located in Ocala, Florida. The apprenticeship is a two-year program with the first two-weeks of Related Instruction occurring on-campus at the College of Central Florida. Lockheed Martin and the College of Central Florida, through a public/private partnership, established a soldering training lab dedicated to Lockheed Martin on campus. The remaining Related Instruction occurs onsite at Lockheed Martin’s Ocala, Florida site.

MFC Ocala Electronic Associate apprentices are responsible for performing soldering, bonding, wiring, routing, riveting, assembly, disassembly, touch-up, rework, cleaning, minor modifications, assemblies, and subassemblies within the facility including mechanical, electromechanical, electronic parts and components using a variety of hand tools, in-process checks, and special assembly and alignment tooling. Lockheed Martin apprentices will receive industry-recognized credentials: SMT Surface Mount Technology Solder Certification, Plated Through Hole (PTH) Solder Certification, and Lockheed Martin MFC Harness/Cable Fabrication Certification once they successfully complete the training.
Philip McFarlane joined Lockheed Martin MFC Ocala Electronic Associate apprenticeship program in August of 2020. Philip was working in the automotive field as a service consultant but was laid off due to the COVID-19 pandemic. Even before the pandemic, Philip considered returning to school to learn a new skill, but he knew couldn’t quit his job and sustain the same lifestyle for his family. Philip decided to take advantage of the opportunity with Lockheed Martin to learn something new and take his career in a different direction. Philip knew schematics, circuitry and soldering were teachable skills, and the program offered a chance to earn while you learn during the training. As an automotive consultant, Philip received a week-long training without mentorship and he felt like you were just “thrown into the fire”. With Lockheed Martin, Philip received a month-long training where he was able to learn and develop the skills necessary for the job. During the Lockheed Martin training, Philip was able to learn technical skills, while also developing his leadership and communication skills. Philip stated, “The first day of training, the other apprentices on my team were ahead of me in the program, so they helped me. In the last eight months, I have evolved in my role and responsibilities, while the others have moved on, I’m now the experienced one and I get to help teach the newcomers. I eventually want to become a supervisor because I love being able to teach others”. Mentorship has been a key element to Philip’s success in the program. Lockheed Martin provided Philip with a mentor with 20 years of experience in the workforce. His mentor motivates, prepares, and ensures he has the tools to be successful.
Grant Kick-Off

On February 3rd, Connecticut State College & Universities (CSCU) hosted the virtual NAMAP Kickoff. The event was attended by all 4 anchor employers, manufacturing associations, workforce, and education partners. The Labor Commissioner of the Connecticut Department of Labor and Interim President of CSCU provided the opening remarks. CSCU led a presentation that provided an overview of the grant goals, fiscal and performance reporting requirements. The presentation included sections detailing the partnership with the National Institute of Metal Workers (NIMS), Higher Ed Insight, and Achieving the Dream.

National Advanced Apprenticeship Forum

The NAMAP Team hosted its first National Apprenticeship Forum (NAF). The National Institute of Metalworking Skills (NIMS), credentialing and training expert, presented to a group that included all 4 anchor employers, education, and workforce partners. Widely known as a credentialing expert, NIMS presented on the services they can provide to enhance apprenticeship training.

Upcoming Events

The NAMAP team is working with Achieving the Dream to create an Equitable Recruitment & Retention Roundtable. The roundtable will be an employer-driven platform designed to build equitable recruitment and retention practices within each employer partner. The roundtable will focus on identifying challenges faced by apprentices, best practices, and effective partnerships.