

# Filling in the 'Skills Gap'

*Central New York  
exploring ways to  
fill serious void in  
workforce*

**By Lou Sorendo**

**I**t is glaringly apparent in Oswego County — and for the Central New York region and nation — that a “skills gap” exists that has the potential to hobble economic growth.

A skills gap is the mismatch between the needs of employers for skilled talent and the skills possessed by the available workforce.

The market for middle-skills jobs — those that require more education and training than a high school diploma but less than a four-year college degree — is plaguing economic sectors throughout the United States.

Martha Ponge is the director of apprenticeship for MACNY, Manufacturers Association of Central New York. She is on the front lines of the regional battle to fill the skills gap.

“It is the No. 1 challenge our member companies are having today,” Ponge said. “I would not characterize it as regional either. It is happening all across the country.”

Experts note the reasons for the skills gap is due to aging population demographics, which is expected to intensify in the years ahead, according to bloomberg.com.

In addition, middle-class jobs are increasingly requiring higher skill levels, the online site stated.

To counteract these trends, Oswego County is exploring various ways to expand its workforce and help improve productivity.

Lawmakers, businesses and educational institutions are collaborating to create skills training programs that enable workers to either join the workforce or improve their skills so they can handle higher-paying jobs.

According to bloomberg.com, the



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skills gap in the U.S. is substantial. The National Federation of Independent Business states as of first-quarter 2017, 45 percent of small businesses reported that they were unable to find qualified applicants to fill job openings.

Dallas Fed surveys of businesses also indicate a significant skills gap. Chief executive officers report shortages of workers for middle-class-wage jobs.

The labor force participation rate for prime-age workers is only 76 percent for those with a high school diploma and only 66 percent for those who have less than a high school diploma, bloomberg.com reports.

## Defining the unskilled worker

Ponge said an unskilled worker and the middle skills gap are “very different things.”

An unskilled worker typically enters the workforce with little to no experience in manufacturing, she said.

“He or she begins working and learns their job primarily through on-the-job training,” she said.

Ponge noted it takes a significant amount of training to get them up to speed enough to be independent and 100 percent productive.

Meanwhile, the middle skills gap addresses the “gap” left as skilled trades people leave the workforce, she said.

“Many of these skilled tradesmen, sometimes referred to as journeyman workers, have many years, typically 30-plus, of relevant experience and a great deal of what companies refer to as ‘tribal knowledge,’” she noted.

Tribal knowledge is any unwritten information that is not commonly known by others within a company.

Ponge said many older workers learned their trades originally as apprentices that involved over 8,000 hours of on-the-job training and approximately 600 hours of related technical instruction.

“Manufacturers need about two to three years to train an incumbent worker with experience to replace these positions,” she said. “The problem is many companies don’t have two years left. The journeyman workers are retiring at a pace that well exceeds that two-to-three year window.”

Ponge said the bottom line is the average age of a skilled worker in New York state is approximately 56 years old.

“They are retiring and taking their knowledge with them,” she said. “For example, it takes a minimum of four years to train a toolmaker and in four years, many of the existing journeymen toolmakers will be enjoying their retirement in sunny Florida,” she said.

## Focus on apprenticeships

MACNY, however, is heeding the call. It is an organization that advocates for more than 300 businesses and organizations across Central and Upstate New York.

MACNY has become one of the first intermediary sponsors of apprenticeship in New York state.

“We are definitely the first manufacturing association in New York to become a sponsor on behalf of our local companies,” she said.

The New York State Manufacturers Alliance Intermediary Apprenticeship Program supports seven registered trades: electronics technician, maintenance mechanic, toolmaker, CNC machinist, welder, quality assurance auditor, and electro-mechanical technician, which is new to New York state.

MACNY received a legislative appropriation to help establish intermediaries for sponsorship of registered

apprenticeships all across the state, Ponge said.

She said Bruce Hamm, the previous director, worked hard to establish working relationships statewide that allow MACNY to form working partnerships and launch the program in CNY.

“It’s been a year in the planning but we started our first cohort of apprentices from 11 different companies this fall,” she said. “More are being added every week, but there is always room for more.”

Ponge said MACNY acts an intermediary between companies and the New York State Department of Labor and helps them with the administrative burden and managing the process of related technical instruction.

Ponge said the program features 21 apprentices to date and is looking forward to adding 10 more as a result of MACNY’s partnership with Onondaga Community College’s Accelerated Apprenticeship Career Training program.

“Through the Manufacturers Alliance, we are providing support to our alliance partners to set them up as intermediaries in their geographic locations,” Ponge said.

To date, MACNY is working with the Rochester Institute of Technology, the Manufacturing Association and the Council of Industry in Poughkeepsie.

It is also talking with the Manufacturers Association of the Southern Tier in south of Buffalo as well, “and that will be our next point of expansion,” Ponge said.

## It starts with students

Ponge said MACNY works closely with Partners for Education & Business (PEB) to help youngsters become aware of the pathways available to them in manufacturing and technology.

Last year, PEB impacted approximately 5,000 students and adults and 55 teachers while engaging nearly 100 businesses.

PEB supports the P-TECH (Pathways in Technology Early College High School) programs in Auburn and Syracuse.

P-TECH offers a six-year integrated high school and college curriculum for grades 9-14 that focuses on advanced manufacturing pathways and the acquisition of essential workplace skills.

PEB coordinates the CNY STEM

Hub, which is an education initiative focused on impacting the classroom by ensuring an emphasis on science, technology, engineering and math through problem-solving and multi-disciplinary teaching methods that will increase the quantity and quality of the skilled workforce in the region.

She said MACNY has always been a trusted partner in the CNY business community.

“Our goal is to support manufacturing not only for our member companies, but for the Central New York geographic area in general,” she said. “We work to help develop processes or programs that facilitate success for the entire manufacturing community.”

MACNY is utilizing community colleges to support the related technical instruction of apprenticeship.

Mohawk Valley, Monroe, Onondaga, Cayuga Community and Finger Lakes community colleges “are open to working together. We are fortunate to have so many local educational institutions,” Ponge noted.

In terms of how the skills gap came about to begin with, Ponge said it is not a matter of technology outpacing education.

“I think we as a community became complacent,” she said. “For a number of years, when a company needed a skilled worker, it was relatively easy to find them. In the last 10 years or so, we have been — for a lack of any other term — ‘poaching’ them from one another with the promise of a little bit more per hour.”

Ponge said advanced technology is a factor in terms of job demand, but mostly due to the fact that today’s skilled trade workers are multi-skilled, multi-trained and cross-trained.”

“Their skill set is even more advanced than their predecessors,” she said.

Ponge noted that one of her clients said the new electro-mechanical technician trade certification in New York state is “pretty close to a four-year degree in engineering academically, and even more hands-on.”

Ponge said MACNY gets requests from companies for entry-level workers, but also sees the need for skilled trades.

“When we decided which trades to sponsor, we relied on data for a six-county region that surrounds us as well as member surveys,” she said.

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