For more than a decade, the lack of qualified technicians in HVACR has been a growing problem in the U.S. While this issue is often attributed to the larger HVACR trade, refrigeration is where the biggest challenge exists. In fact, if you’re a mechanically inclined entrant seeking technical training in the U.S., you may be hard-pressed to find a vocational school or technical college nearby that specializes in refrigeration.

Recent industry statistics help reveal the extent of the technician shortage. An ACHR News article estimated that more than 27,000 skilled technicians are projected to retire annually. Meanwhile, according to the United States Department of Labor, Bureau of Labor Statistics, only 15,000 trained HVACR technicians are entering the workforce annually, and the industry is expected to grow 21 percent through 2022. The most conservative estimates indicate the current technician shortage to be roughly 20,000, with that number expected to increase dramatically in the near future.

In annual contractor roundtables hosted by Emerson Climate Technologies, the lack of qualified refrigeration technicians is consistently cited as the number one challenge contracting business owners face. Although different HVAC initiatives have attempted to address the issue through the years, the situation for refrigeration has not improved. On the positive side, we’re beginning to better understand the roots of the problem and where to focus our efforts.

**What is the refrigeration gap?**

The refrigeration gap may be defined as follows: a shortage of qualified refrigeration technicians available to service increasingly diverse and complex refrigeration systems and applications, compounded by limited access to training programs offered throughout the nation’s career vocational schools and technical colleges. Adding to this challenge is an industry dealing with continually evolving regulations and emerging technologies.

While most of the nation’s technical schools offer accreditation in the AC trade — complete with hands-on training with the industry’s most commonly used equipment — very few of these schools are equipped to support the breadth of equipment and system architectures required to educate refrigeration technicians. Refrigeration technicians must be equipped to deal with a much broader range of refrigerants and application temperatures, as well as myriad system architectures.
The technician shortage was the focus of a spirited panel discussion at our most recent E360 Forum in Atlanta. Panelist Dan Steffen, vice president of AAA Refrigeration, talked about the misperception surrounding what is essentially an extremely viable career opportunity.

“At trade shows, I talk with many peers who don’t want their kids going into this profession,” Steffen said. “The truth is this is a great industry for smart people, and until they find another way to preserve food, this is a recession-proof industry. It’s an opportunity not just for a job, but for a career. We need to change perceptions from within,” he added.

Jim Alexander, chief technical officer at Epic Services, said that one way to attract a new generation of talent into the industry is by better engaging with them on social media. “The industry does not have nearly enough exposure to youths entering the job market. We need to do a better job getting our message out and meet them where they live on social media,” he said.

Ross Fazio, service director of Fazio Mechanical Services, shared that this career opportunity was never presented to him in high school. “When I told my friends I was a refrigeration contractor, they thought I fixed refrigerators. High schools need to do a better job in offering the trades instead of just college,” he said.

Vet2Tech co-founder George Nicholson, whose group connects U.S. military veterans with jobs in the HVACR, commercial food equipment and residential appliance repair industries, said vets coming back into the workforce want more than just a job. “They know they will start as a tech, but they want a career path. We need to show them where they can go with this career and give them a road map for how to get there,” he said.

Building an industry-wide coalition

While the panel discussion didn’t produce a solution to the growing problem, the panelists all agreed that it will take the concerted effort of the entire HVACR industry to turn the tide. Everyone has skin in the game, from contractors, OEMs, distributors, industry organizations and trade publications.

To be successful, we will need to leverage the collective strength of the entire industry and develop strategies to attract, recruit and retain new technicians to the HVACR industry.

Starting points for executing on this strategy could include:

- Bringing together industry stakeholders to holistically evaluate and address the problem, and determine a plan of action
- Expanding certification opportunities geared specifically toward commercial refrigeration
- Leverage new media to recruit the next generation of entrants into the refrigeration business
- Demonstrate a clear path for career advancement and longevity

We know that the commercial refrigeration trade offers tremendous potential to a new generation of job entrants. But, we need to figure out how to get this message out to the public. It will require the participation of all industry stakeholders to brainstorm new ideas and bring them together in a master plan.

Emerson Climate Technologies is committed to becoming a champion of this effort. Stay tuned for more information in subsequent E360 events and publications.