



## Appendix: Notable Initiatives

The following resources are examples of notable initiatives from across the country and North Carolina. They serve as examples and best practices of how communities (large and small) have been addressing the challenges faced in work-based learning, rebranding, and community networks.

### Work-Based Learning

- **National:** The NAM-endorsed Manufacturing Skills Certification System is a series of nationally-portable and industry-recognized credentials certifying the technical skills taught in the classroom and needed on the shop floor. Forsyth Technical Community College was one of four institutions in the country selected by the National Association of Manufacturers to pilot the NAM Certification System.
- **South Carolina:** Apprenticeship Carolina is a statewide program administered by the South Carolina Technical College System. The program works with manufacturing companies and provides free apprenticeship consultations. At present, all counties within South Carolina have benefitted from the program and 8,000 apprentices have been placed in over 500 businesses. For more information: <http://www.apprenticeshipcarolina.com/default.html>
- **Charlotte, NC Metropolitan Region:** Apprenticeship 2000 is a technical training partnership designed to develop the talent for local manufacturing positions. The training program recruits juniors and seniors in high school for four years of technical training. Partners include eight local manufacturers who recruit students from local high schools for careers as a tool and die maker, electronics technician and welding fabricator among other careers. Apprenticeship 2000 works in close partnership with Central Piedmont Community College. For more information: <http://apprenticeship2000.com> and our Commons story (<https://www.emergingissuescommons.org/voices/37>)
- **Lee County, NC:** Caterpillar, Lee County Schools, Central Carolina Community College and the North Carolina Department of Labor recently launched an apprenticeship program to train high school students for critical jobs in manufacturing. In the fall of 2012, 16 high school students enrolled and took classes while working at the Caterpillar facility three days a week. For more information: <http://www.cccc.edu/news/story.php?story=8936>

### Rebranding

- **National:** The Society of Mechanical Engineers Education Foundation has developed a "Manufacturing is Cool" website. The goal of the website is to inspire, prepare and support young people for careers in advanced manufacturing. The web portal provides information on and access to real-world people, careers and technologies. For more information: <http://www.manufacturingiscool.com>
- **Massachusetts:** Mass-TEC, a collaboration of Quinsigamond Community College and its partners, was formed to increase enrollment in manufacturing related courses and change the perception of manufacturing among career influencers (i.e. educators, parents, and counselors). Mass-TEC received a \$750,000 National Science Foundation grant to focus on a



public awareness and marketing campaign aimed at all people who influence a student's career decision making process. Brochures and documents outlining Mass-TEC's work and model are available online. For more information: <http://www.qcc.edu/mass-tec>

- **Union County, NC:** The City of Monroe and Union County launched a manufacturing awareness campaign funded by the private sector. The program encourages young people to consider manufacturing careers. In the first phase of the two-year program, the city brought all ten of the county's high school principals to tour several manufacturing facilities in the area.
- **Mecklenburg County, NC:** The STEMursion program, a program for K-12 STEM teachers, is a strategy that Central Piedmont Community College and area companies, including Siemens, have implemented to address issues of rebranding and how manufacturing is perceived. For two weeks during the summer, teachers are brought into factories across the region, shown how STEM skills tie into the work being done, and given lesson plans to take back to their classroom. For more information: <http://www.stemursion.com>

## Community Networks

- **Illinois:** The [Manufacturing Renaissance Council](http://www.manufacturingrenaissance.org) (MRC) is a coalition of business, government, and community leaders partnering to make Chicago a global leader in advanced manufacturing. Operating in a nine-county region, MRC focuses its efforts on reforming policy and implementing practical projects supporting advanced manufacturing. In 2007 MRC led a multi-party team of public and private stakeholders in establishing the Austin Polytechnical Academy (APA). APA is a nationally-acclaimed public college and career prep high school with a mission to educate the next generation of leaders in all aspects of manufacturing (including skilled production, engineering, management, and company ownership). For more information on Austin Polytechnical Academy: <http://austinpolytech.org/>
- **North Carolina:** Working in 10 communities across the state, the Advanced Manufacturing Alliance is an example of education and industry partnering with nonprofits and local workforce boards. With a vision of "accelerating education and training of a high performance workforce for careers in advanced manufacturing based on industry needs," NCAMA is working to develop the capacity of North Carolina communities to respond to local needs by engaging schools, community colleges, industry, and local stakeholders. For more information on NCAMA and participating community colleges: <http://advancedmanufacturingalliance.org/>
- **Catawba County, NC:** Education Matters for Catawba Valley is a public-private partnership of K-12, community college and businesses to increase the value of education and educational attainment in Catawba County. Their initiatives include the "Extreme STEM Tour" offering county 8<sup>th</sup> graders tours of local STEM businesses. <http://educationmattersincatawba.org/wordpress/>