Appendix: County Manufacturing Initiatives

Following the IEI co-sponsored manufacturing community forums, communities across the state were asked to share some of their promising alignment projects and initiatives. Below is a sampling of initiatives (listed by county). The "status" reports are current as of fall 2013.

Beaufort County

County	Beaufort
Project Name	Machining MacLab
Overview	In 2013 Beaufort County Community College received a $2.2 million grant from the US Department of Labor's Employment and Training Administration's Trade Adjustment Assistance Community College and Career Training program. The $2.2 million award is a portion of a larger $18 million grant awarded to a group of ten community colleges. The grant funding received by BCCC is being used for equipment and infrastructure upgrades of the Industrial Technology programs to meet local industry needs. Approximately $25,000 of the grant is being used to create the MacBook Laboratory.
Status	In progress. The new and upgraded facilities allow BCCC machining students to have more access to education and training in computer-assisted design. Hybrid and internet-based trainings are also integrated as a result.

County	Beaufort
Project Name	Pathways to Prosperity
Overview	Beaufort County is part of a northeastern NC four-county, regional effort to better align local secondary education with local community colleges and industry. This regional career and technical education (CTE) effort includes Beaufort, Halifax, Martin, and Washington Counties. Utilizing the Pathways to Prosperity Network, Beaufort County is better able to focus on the following core elements in developing and implementing their regional model: • Engaging manufacturers committed to work-based learning opportunities • Linking and integrating high school and community college curriculum, and aligning both with local and regional market-driven workforce needs • Implementing career and advising resources for students and families to make education and career pathway choices • Providing collaborative community networks of local and regional organizations able to provide infrastructure and support of pathway programs and resources.
Status	In progress. In July 2013, local leaders from education, economic development, and the manufacturing industry focused their first phase of strategic planning

	on education and workforce needs in healthcare. Phase 2 will focus on agricultural biotechnology and bio-manufacturing.

County	Beaufort
Project Name	Certified Production Technician Program
Overview	In progress. In Fall 2013, Beaufort County Community College was awarded a NC Back-to-Work grant to fund a new, manufacturing-related worker training program. The Back-to-Work program is a partnership between the NC Community College System and the NC Department of Commerce funded by appropriations from the General Assembly. BCCC's $120,000 award will fund course offerings and infrastructure for the Certified Production Technician program. The production technician certification is administered by the Manufacturing Skill Standards Council in four critical production areas (i.e. safety, quality and continuous improvement, manufacturing processes and production and maintenance awareness).
Status	The NC Back-to-Work program began in January 2014. The new funding for the certificate program allows BCCC to offer manufacturing career-ready certificates in its four-county service area—Beaufort, Washington, Tyrell, and Hyde.

Bladen County

County	Bladen
Project Name	STEM-Focused Curriculum and Infrastructure
Overview	Bladen County Economic Development is partnering with Bladen County Public Schools and Bladen Community College (BCC) to develop a STEM-focused curriculum in local high schools. The courses will allow students to transition seamlessly into BCC courses with a focus in chemistry, machining, and industrial technology. Prospective funding will add smart classrooms, labs, and simulation space at local high schools and BCC.
Status	In development.

County	Bladen
Project Name	New Schools Designation
Overview	Bladen County Public Schools has recently been announced as a member of the NC New Schools project. The goal is to use this new affiliation to help align local schools with local industries and attract more students to STEM, manufacturing, and high-tech career paths/options.
Status	Being planned. As stated by NC New Schools, the strategic intent of their alliances and partnerships is to collaborate with public institutions at all levels, the private sector, and philanthropists to transform public schools, including charter schools, to succeed in graduating all students ready for a

	rapidly changing society. This new designation for Bladen County Schools helps focus local educational alignment to local manufacturing industries and helps channel the attention of youth to STEM, manufacturing, and high-tech career pathways.

Cabarrus County

County	Cabarrus
Project Name	Pathways to Prosperity
Overview	Under the leadership of Cabarrus County Schools' career and technical education (CTE) team, Cabarrus County is one of North Carolina's pilot communities for launching a work-based learning initiative based on the Pathways to Prosperity model. The Cabarrus County plan will focus on its strengths in transportation (with an emphasis on motorsports) and advanced manufacturing. Cabarrus County is one of seven districts in the state and one of three in its region to be chosen to participate in the Pathways pilot.
Status	Being planned. Consistent with the Pathways to Prosperity model, the Cabarrus County framework will focus on the following: • Engaging manufacturers committed to work-based learning opportunities • Linking and integrating high school and community college curriculum, and aligning both with local and regional market-driven workforce needs • Implementing career and advising resources for students and families to make education and career pathway choices • Providing collaborative community networks of local and regional organizations able to provide infrastructure and support of pathway programs and resources. Participants from Cabarrus County have been involved in work-sessions with intermediaries, secondary and post-secondary institutions, and business/industry representatives. Partners in Cabarrus have written a strategic plan addressing the four levers of Pathways to Prosperity. Cabarrus County has chosen a target sector of Transportation/Motorsports/Manufacturing.

County	Cabarrus
Project Name	Career Development Academies – Manufacturing
Overview	In an effort to better align K-20 curricula with business and industry, Cabarrus County Schools implemented seven career development academies. These academies are located within local high schools and provide specialized classroom and hands-on instruction. Here are two of the seven academies provide manufacturing related coursework: • Central Cabarrus High School – STEM Academy • Jay M. Robinson High School – Robotics Academy Cabarrus County Schools CTE will add manufacturing/engineering courses to their cadre of existing courses at Jay M Robinson High School, work with Rowan-Cabarrus Community College to offer college level courses, and determine which industry standard certifications will be offered when the new curricula are in full implementation.
Status	In progress. The Manufacturing Academy is scheduled to be in full

	implementation by August 2015. A new advisory board is currently being recruited for JMRHS, which will be determining the skills on which the academy should focus in the academy, and begin a PR initiative with parents and students.

Catawba County

County	Catawba
Project Name	The Extreme STEM Tour
Overview	The tour program exposes middle school students to manufacturing career opportunities with an emphasis on education and training in science, technology, engineering, and mathematics. In addition, students take tours of Catawba Valley Community College to learn about STEM degree and course offerings on campus. An overview of the STEM Tour program can be found on YouTube at http://www.youtube.com/watch?v=UX9UtNTiXO4. The tour series is a program of Education Matters in Catawba Valley (EM). EM is an initiative of Catawba Valley Community College and a partnership between business, government, and education working together to increase the value of education and educational attainment in Catawba County. Education Matters works with students in Catawba County Schools, Hickory Public Schools, and Newton Conover City Schools.
Status	In the last 18 months, behind-the-scene tours in manufacturing locations have allowed 4,851 8th graders to learn more about STEM careers.

County	Catawba
Project Name	Catawba Careers video series
Overview	Videos featuring manufacturing jobs and opportunities have been produced as a way to market and showcase emerging career opportunities in Catawba County. An accompanying website is being developed to list various education and training available, plus current job openings in manufacturing throughout the community. The website launched in January 2014. Local high schools are being targeted to promote these careers as well as the classes that students can take through the Career & College Promise program when they are juniors and seniors in high school. The website's link will also be posted on the webpages of the Catawba County Chamber of Commerce, Catawba County Economic Development Commission, and Catawba Valley Community College. http://educationmattersincatawba.org/wordpress/about/
Status	In progress. The video series is a program of Education Matters (EM). EM is an initiative of Catawba Valley Community College and a partnership between business, government, and education working together to increase the value of education and educational attainment in Catawba County. Education Matters works with students in Catawba County Schools, Hickory Public Schools, and Newton Conover City Schools.

County	Catawba
Project Name	Apprenticeship Catawba

Overview	Apprenticeship Catawba is a partnership between advanced manufacturers in the Catawba Valley region, Catawba and Alexander County Schools, and Catawba Valley Community College. Program partners also include Technibilt, Tenowo Nonwovens, Sarstedt, ZF Lemforder, and the NC Department of Labor. Integrating the Career & College Promise program of the NC Community College System, Apprenticeship Catawba is a work-based learning program consisting of the following: • Four-year program: one day per week at CVCC, combined with 8,000 hours of on-the-job training provided by a local manufacturing company • Journeyman Certificate • AAS Degree in Mechatronics Engineering Technology or Computer Integrated Machining Technology from CVCC • Earn a paycheck while earning a degree and learning manufacturing skills • College education is free; the company will pay 100% of tuition and books • Guaranteed employment opportunity with four years seniority (based on successful completion and satisfactory job performance) • Additional scholarship opportunities to continue education and obtain four year degree (may vary by company) http://www.cvcc.edu/Workforce_Development/PDF/Apprenticeship_Catawba_092013.pdf
Status	Launched in the summer of 2013, Apprenticeship Catawba is currently recruiting students. Program website: http://www.cvcc.edu/Workforce_Development/Apprenticeship_Catawba.cfm Informational podcast: http://themesh.tv/2013/11/19/education-matters-25-apprenticeship-catawba/

County	Catawba
Project Name	Furniture Manufacturing Exhibit
Overview	Education Matters has partnered with the Catawba Science Center on a new manufacturing-focused exhibit. The partnership is working with Catawba Valley area furniture manufacturers to create a hands-on science exhibit featuring the science and technology used in furniture manufacturing. The furniture-manufacturing exhibit will open to the public beginning the summer of 2014.
Status	Being planned. Education Matters is an initiative of Catawba Valley Community College and a partnership between business, government, and education working together to increase the value of education and educational attainment in Catawba County. Education Matters works with

	students in Catawba County Schools, Hickory Public Schools, and Newton Conover City Schools.

Chatham County

County	Chatham
Project Name	Central Carolina Community College Innovation Center
Overview	The Innovation Center is a dedicated space for industry training (i.e. manufacturing, processing, and maintenance). Training programs through the Innovation Center are customized to industry and employer needs with a strong emphasis on manufacturing and industrial maintenance. The Center provides service for CCCC's three-county service area (Chatham, Harnett, and Lee). The Center is unique in that it offers flexible, rapid-response workforce training for companies. Equipment and training resources at the Center include a portable robotic welding education center, pneumatics, and industrial control panels.
Status	As of August 31, 2013, the Innovation Center has served 18 organizations, provided 1,502 hours of training, and trained 526 unduplicated students/workers. Training is provided at no cost to companies located within CCCC's service area. Fee structures are in place for companies outside of the CCCC service area.

Cumberland County

County	Cumberland
Project Name	Advanced Manufacturing Customized Training
Overview	Recent efforts within Fayetteville Technical Community College's customized training program are focused on opportunities in advanced manufacturing. Initiatives with industry partners produced product specific customized training, and these training programs created new partnerships between FTCC, industry partners, NC State University, and BioNetwork (a program of the NC Community College System).
Status	Initiatives with industry partners have produced site-specific training projects aligned with their needs to ensure that new and incumbent employees have the skills necessary for success in today's work environment. Partners in the advanced manufacturing space include Clear Path Recycling, Eaton Corp., and Puralotor.

County	Cumberland
Project Name	Partnership with the NC Advanced Manufacturing Alliance (NCAMA)
Overview	To create a pipeline of well-trained, highly skilled workers, Fayetteville Technical Community College partnered with the NC Advanced Manufacturing Alliance. Through the NCAMA partnership, Fayetteville Technical Community College is offering programs for current students in computer integrated machining, HVAC, and welding. Students matriculating through the FTCC-NAMA program(s) become eligible for industry recognized national certifications. The North Carolina Advanced Manufacturing Alliance is a consortium of ten community colleges, local Workforce Investment Boards (WIBs), industries, non-profit entities, and local education authorities. Its goal is to increase the number of North Carolinians with certificates, diplomas and degrees in advanced manufacturing disciplines within a two-year period.
Status	Implemented.

Franklin-Vance-Warren Counties

County	Franklin-Vance-Warren
Project Name	Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant
Overview	As a member of a four-team consortium, Vance-Granville Community College was awarded a TAACCCT grant from the U.S. Department of Labor. Other consortium members include Randolph Community College and two community colleges in Florida. Pending NCCCS board approval, the TAACCCT funding will allow VGCC to offer a mechatronics degree in addition to expanding resources and course/training offerings in welding and industrial maintenance. The degree and curriculum are also approved at the campus-level. New program offerings will be based on stackable credentials in areas such as safety, Lean Six Sigma, production, industrial maintenance, and quality assurance.
Status	In progress. Grant funding will be available to support programmatic equipment needs as well as hiring a dedicated project manager. Rollout of the new program (upon approval) is slated for Fall 2014. TAACCCT will allow VGCC to further align with manufacturers and public schools in its four-county service area: Franklin, Granville, Vance, and Warren.

County	Franklin-Vance-Warren
Project Name	Essential Skills in Advanced Manufacturing
Overview	Essential Skills in Advanced Manufacturing is an initiative targeting occupational and technical training programs preparing students for employment in advanced manufacturing. The initiative is a regional effort serving the counties of Franklin, Vance, and Warren. The initiative is a partnership between Vance-Granville Community College, Franklin County Schools Career and Technical Education (CTE), and Franklin County Economic Development Commission. The goal of the initiative is to close the manufacturing skills gap, increase the number of highly skilled technical workers, and better align local educational systems with identified employment opportunities.
Status	In progress. The initiative was awarded a $469,000 Golden LEAF grant in November 2013. Curricula for the initiative are currently being prepared for implementation in 2014.

County	Franklin-Vance-Warren
Project Name	Lunch & Learns
Overview	The Franklin County Economic Development Commission in conjunction with local chambers of commerce, Vance-Granville Community College's Small Business Center, Vocational Rehab of Louisburg, and the Franklin County Committee of 100 conducted 11 Lunch & Learn seminars in 2013. The lunch series is designed to educate businesses on a range of topics and to

	promote training opportunities for businesses. The lunches also serve as networking opportunities between industry and educational institutions.
Status	Since the series inception in 2013, the program has seen an average of 30 attendees per session and has proven so successful the 2014 calendar of Lunch & Learns is already established.

County	Franklin-Vance-Warren
Project Name	Advanced Manufacturing Training Grants
Overview	In partnership between Vance-Granville Community College and Franklin County Economic Development Commission, several local manufacturers have provided grants to support classes and trainings to meet various workforce needs/demands: • Amor ($50,000 grant) – Essentials of Leadership and Communication; Substance Abuse in the Workforce; Systems Troubleshooting • Eaton ($60,000 grant) – Advanced Manufacturing including technical skills such as soldering, crimping, assembling, and electrical/PLC troubleshooting • Palziv ($32,000 grant) – Electrical/PLC troubleshooting and Essentials of Leadership • Sunstone Water Group (Amount to be determined) – Training needs are currently being defined • K-Flex USA (Amount to be determined) – Systematic Troubleshooting and Essentials of Leadership
Status	Classes and trainings sponsored by local manufacturers have reached over 250 employees and managers. Classes and trainings will continue into 2014.

County	Franklin-Vance-Warren
Project Name	Job Fair
Overview	Sponsored by Franklin County Economic Development Commission, Vance-Granville Community College, Franklin County Chamber of Commerce, Wake Electric, and the Veterans Administration, local partners are hosting a job fair for Piper Technologies. Piper is a company new to Franklin County and is rapidly expanding and in need of assistance finding employees. Piper is an advanced manufacturing company requiring workers with high-tech skills.
Status	In progress.

Granville County

County	Granville
Project Name	Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant
Overview	Awarded a TAACCCT grant from the U.S. Department of Labor, Vance-Granville Community College is a member of a 4-team consortium. Other consortium members include Randolph Community College and two community colleges in Florida. Pending NCCCS board approval, the TAACCCT funding will allow VGCC to offer a mechatronics degree in addition to expanding resources and course/training offerings in welding and industrial maintenance. The degree and curriculum are approved at the campus-level. New program offerings will be based on stackable credentials in areas such as safety, Lean Six Sigma, production, industrial maintenance, and quality assurance.
Status	In progress. Grant funding will be available to support programmatic equipment needs as well as hiring a dedicated project manager. Rollout of the new program (upon approval) is slated for Fall 2014. TAACCCT will allow VGCC to further align with manufacturers and public schools in its four-county service area: Franklin, Granville, Vance, and Warren.

Lincoln County

County	Lincoln
Project Name	8th Grade CTE Curriculum
Overview	Lincoln County Public Schools, in partnership with Lincoln County Economic Development Association and local manufacturers, are designing and implementing a new 8th grade career and technical education (CTE) curriculum. This new CTE curriculum will incorporate a unit focused on advanced manufacturing. Tours of local manufacturing facilities will also be integrated into parts of the curriculum.
Status	Being planned. The new 8th grade curriculum is currently being developed and will be piloted. Ultimately, the goal is to implement the 8th grade program countywide in the public school system exposing a large number of students to advanced manufacturing.

County	Lincoln
Project Name	Pathways to Manufacturing
Overview	Based on the Siemens Mechatronic Systems Certification Program (SMSCP), Lincoln County Public Schools is designing and implementing a new career and technical education (CTE) curriculum. The high school level manufacturing program will offer three courses at the Lincoln County School of Technology (MFG 1, MFG2, and MFG3). A central theme in the SMSCP is the System Approach, a special set of teaching and learning methods developed over 25 years in Siemens technical schools in Germany.
Status	In progress. $650,000 from a bond designated for hospitality education and training has been re-assigned to the new Lincoln County manufacturing. The Siemens Mechatronic model is a comprehensive industry skills certification program offered together with partner schools worldwide. The manufacturing curriculum will be offered beginning in the fall of 2014. A January 2014 summit between Gaston College, Lincoln County Schools, industry, government and the Lincoln Economic Development Association explored how the community college will continue the work of the local schools within the new curriculum.

County	Lincoln
Project Name	Foundations of STEM (Middle School)
Overview	At the middle school level, Lincoln County Public Schools is adding a Foundations of STEM curriculum. Introductory STEM courses will be offered at the 6th grade level. Introductory courses in robotics and manufacturing will be offered at the 7th and 8th grade levels. Under this model, students are introduced to high-tech skills found in advanced manufacturing and given the chance to explore career opportunities available throughout manufacturing.

Status	Being planned. The Lincoln County Foundations of STEM program is being designed as a feeder for STEM courses at the high school level. This type of curriculum programming provides seamless pathways from middle school through high school into post-secondary education.

County	Lincoln
Project Name	Industry – Education Discussion Panels
Overview	Under the leadership of the Lincoln Economic Development Association, periodic panel discussions have been hosted to further align local manufacturing industry and education leaders. Principals from local public schools were brought together with local manufacturers to explore current and future workforce trends as well as ways in which they can work together locally to strengthen and maintain a robust workforce pipeline.
Status	These are ongoing and periodic events. The group continues to establish focused dialogue around ways to work collaboratively around aligning industry demands and educational assets/resources.

Rutherford County

County	Rutherford
Project Name	Comprehensive Applied Science Center
Overview	The Comprehensive Applied Science Center (CASC) is a project and partnership between Isothermal Community College, Rutherford County Schools, and county government. The STEM-focused CASC initiative will include activities relating to the local manufacturing economy and workforce pipeline. Primarily, the center will focus on training high school students in high-tech skills critical to advance manufacturing and continue their education and work-based learning at Isothermal Community College.
Status	Being planned. In October 2013, the Rutherford County Board of Commissioners opened discussions on various elements of the CASC. County partners are moving ahead with exploring the design and implementation of an applied science center. Discussions continue to be in the strategic planning phase and exploring potential grants and other revenue streams to pay for a center.

County	Rutherford
Project Name	Four County Regional CTE Program
Overview	Rutherford, Polk, Cleveland, and McDowell Counties are teaming together to develop a regionally focused Career and Technical Education (CTE) curriculum framework based on the Pathways to Prosperity program. Consistent with the Pathways to Prosperity model, Rutherford County is focused on the following core elements in developing and implementing their regional model: • Engaging manufacturers committed to work-based learning opportunities • Linking and integrating high school and community college curriculum, and aligning both with local and regional market-driven workforce needs • Implementing career and advising resources for students and families to make education and career pathway choices • Providing collaborative community networks of local and regional organizations able to provide infrastructure and support of pathway programs and resources.
Status	Being planned. The strategic planning process undertaking by regional stakeholders is broken into three phases. Phase 1 focused on creating a framework and pathway targeting healthcare, phase 2 manufacturing, and phase 3 is yet to be determined. For Rutherford County, the IEI manufacturing community forum was the impetus for this industry-education alignment focus and effort to align resources within their community, as well as neighboring counties.

Stanly County

County	Stanly
Project Name	Training for Tomorrow's Workforce
Overview	This initiative focuses on new CTE programs and curriculum specific to the needs of local and regional manufacturers. The Career & College Promise (CCP) programmatic relationship between Stanly County Public Schools and Stanly Community College is based on the NC Community College System's CCP framework. CCP allows "qualified high-school-aged students in North Carolina the opportunity to pursue certificate and degree program options, tuition free, while they are in high school, allowing them to get a jumpstart on their workplace and college preparation." Students can begin as early as their 10th grade year in the CCP program.
Status	Stanly County Schools' CTE has been realigned to expand the rigor and scope of technical skills education. This new alignment has produced manufacturing specific programming under the Career & College Promise program with Stanly Community College. Local high schools have partnered with SCC to provide seamless transition and entry from high school to SCC for certificate and degree programs in welding, machining, and HVAC.

County	Stanly
Project Name	Advanced Manufacturing and Industrial Technology
Overview	Stanly Community College has established a capital campaign to expand "instructional programs in advanced manufacturing and industrial technology." The campaign will fund facility renovations for expanding existing programs, upgrading technology, and creating new course and degree offerings in advanced manufacturing and industrial technology. For example, expanding facilities will help provide instructional space for SCC's new Computer Numerical Controlled (CNC) Machinist certificate program. In addition, industrial technology expansions will be able to support course offerings in Automotive/I-CAR; Electrical Lineman; Heavy Equipment Operations; Heating, Ventilation and Air-Conditioning; Industrial Systems Technology; Welding; and Industrial Automation/Mechatronics.
Status	In progress. The capital campaign—launched in July 2013—seeks to raise $3 million with an initial $500,000 commitment approved by the Stanly County Board of Commissioners. Economic data provided by the Centralina Workforce Development Board indicates significant future job growth for Stanly County in trade contractors, metalworking machine manufacturing, fabricated metal product manufacturing, and automotive repair and maintenance.

Wilson County

County	Wilson
Project Name	Pre-Engineering Curriculum
Overview	Local industry, Wilson Community College (WCC), Wilson Public Schools, and Wilson County Economic Development are partnering on creating a new STEM curriculum for public schools. The new STEM curriculum will launch in high schools, offering students classroom instruction in industrial maintenance and welding. Students will apply in either their 9th or 10th grade years. During their senior year, these students will participate in a yearlong internship with an industry partner. After graduating from high school, students will be prepared to enter programs at WCC or a four-year university. Additionally, students will leave the program after high school ready for employment.
Status	Being planned. Only 50 students per year will be accepted into the program beginning in Fall 2015. Funding is being explored from various foundation, state, and federal sources. Funding resources will be used to update labs at local high schools. In addition, a local advisory board is being established to provide leadership and lend programmatic support where necessary.

County	Wilson
Project Name	Regional Life Science and Biotechnology Initiative
Overview	Wilson County Economic Development, in partnership with Nash, Pitt, and Johnston Counties, is defining future workforce needs to determine the educational resources that will be needed for the long-term growth of a life sciences and biotech industry throughout the region. This includes, but is not limited to, bio-manufacturing. Collectively, the counties are crafting a framework for identifying workforce needs; determining educational resources; sharing information between industry, schools, and community colleges; and better linking curricula with industry demands.
Status	In progress. The joint strategic effort began work in January 2014.