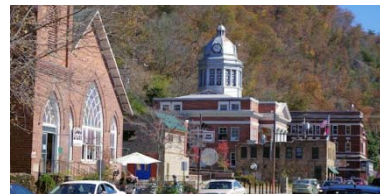




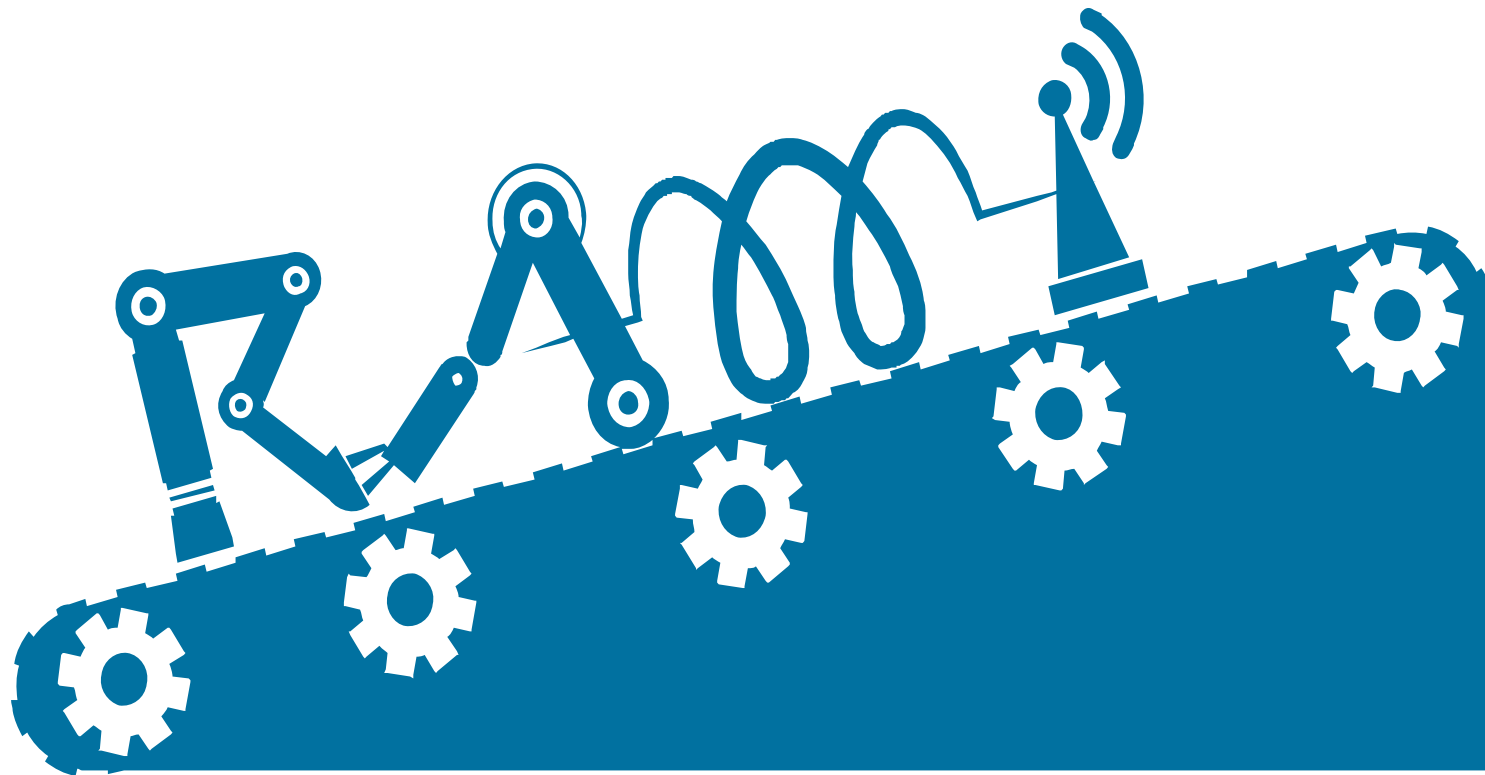
 **MOUNTAIN AREA**  
**workforce**  
development board

Presentation to Buncombe County  
Commissioners April 5, 2016





# Raising Awareness of Manufacturing Possibilities





# RAMP Vision & Mission



**Vision: To change the perception of careers in manufacturing** through a partnership with area manufacturers and workforce organizations.

**Mission: To develop a pipeline of workers** for manufacturing companies in Buncombe and Madison Counties and **to channel these workers into jobs and career pathways** aligned with the needs of area businesses.



## Why are Advanced Manufacturing jobs important?



<u>Employment / Wages by Industry</u>	<u>2015 2nd Qtr Employment</u>	<u>2014 Annual Employment</u>	<u>2015 2nd Qtr Avg Weekly Wage</u>	<u>2014 Avg Weekly Wage</u>
Total All Industries	166,478	166,250	\$707	\$718
Total Government	23,495	23,094	\$846	\$849
Total Private Industry	142,982	143,157	\$684	\$697
Agriculture Forestry Fishing & Hunting	257	257	\$489	\$492
Mining	115	110	\$791	\$779
Utilities	318	316	\$1,839	\$1,529
Construction	6,852	6,614	\$710	\$758
<b>Manufacturing</b>	<b>17,572</b>	<b>17,274</b>	<b>\$982</b>	<b>\$957</b>
Wholesale Trade	4,491	4,568	\$901	\$892
Retail Trade	22,521	22,469	\$459	\$474
Transportation and Warehousing	4,426	4,329	\$811	\$805
Information	1,829	1,946	\$988	\$890
Finance and Insurance	3,612	3,608	\$1,284	\$1,191
Real Estate and Rental and Leasing	1,767	1,788	\$650	\$658
Professional and Technical Services	6,376	6,111	\$900	\$970
Management of Companies and Enterprises	1,185	1,049	\$1,095	\$1,076
Administrative and Waste Services	9,042	9,133	\$526	\$538
Educational Services	11,022	10,284	\$664	\$678
Health Care and Social Assistance	32,193	31,902	\$891	\$954
Arts, Entertainment and Recreation	2,683	3,137	\$490	\$487
Accommodation and Food Services	20,977	21,731	\$316	\$327
Other Services Ex. Public Admin	5,146	5,114	\$492	\$504
Public Administration	7,802	7,945	\$863	\$846

Source: NC Department of Commerce Labor and Economic Analysis Division  
Buncombe, Henderson, Madison, and Transylvania Counties



## Buncombe County Manufacturing Employment and Wages



- Total employment: 124,332 jobs
- Manufacturing: 12,120 jobs
- Average wage county: \$740
- Average manufacturing wage: \$957/week
- **\$49,764 vs. \$38,480**

Source: US Bureau of Labor Statistics





## “Manufacturing's deep new pockets in Asheville”

[Emily Patrick](mailto:epatrick@citizen-times.com), [epatrick@citizen-times.com](mailto:epatrick@citizen-times.com) 6:55 a.m. EDT March 24, 2016

# CITIZEN-TIMES

PART OF THE USA TODAY NETWORK



“Peter Krauss embodies conflicting ideas of a CEO. He ascribes to the T-shirt/blazer combo and the expressive hand gestures of a Silicon Valley bigwig, but he leads a rather traditional manufacturing company. So, what better person to deliver similarly conflicting news in a town hall-style gathering of employees last week?”

Plasticard Locktech Industries experienced an unprecedented \$800,000 revenue shortfall during the first quarter of the year, the CEO explained. Yet, many of the 350 workers at the Asheville-based, employee-owned company would be getting a 30 percent raise. The move reflects more than just a new strategy for PLI, which makes the majority of the world's hotel key cards. It reflects manufacturing's new hold in the marketplace in Buncombe County. Krauss said he has to offer higher wages to compete in Asheville's labor market. And the company can afford to offer them, something that might not have been true 10 years ago when the manufacturing sector in Buncombe County was in the midst of a deep and steady decline. A raise from \$10 per hour to \$13 per hour at PLI means laminating machine operator André Cave will take home an extra \$520 a month (before taxes). He plans to help out his mom and one day start a family. “I’m almost speechless,” Cave said. “Everybody’s feeling overwhelmed by the good news.” At PLI, 150 employees in Cave's pay bracket will get the same pay boost.



“I’d love to sit here and say I’m up on my high horse, and we’re trying to make some sort of political statement — that’s not it at all,” Krauss said. “We’re doing this to be employers of choice.” The first quarter shortfall, it turns out, wasn’t a big deal, although Krauss could have eliminated it with the money earmarked for raises, he said. A big order simply got delayed, so the company is already on track to more than recoup the deficit during the second quarter of the year, Krauss said. That’s not surprising for a place that quintupled its business and grew into a more than \$100 million company in the last five years.

The wage increase that will allow PLI to compete in the labor market is urgent. The company’s retention rate for new employees was about 11 percent last year. Krauss said workers were leaving for better job offers. That competition might be bad news for PLI, but it’s good for Asheville. The indication of a strengthening economy is a reason to be optimistic, said Heidi Reiber, of the Asheville-Buncombe Economic Development Coalition.

“We were in a free fall. It was declining year after year for a long time, and then to slowly but surely grow and sustain itself out of the red,” she said. “That’s a very positive and noteworthy thing. It’s hard to say in this climate if ... that is going to be sustained over a long period of time, but it is very promising.”

### A new way of making

Manufacturing in the United States peaked in 1979, according to the U.S. Bureau of Labor Statistics. But the sector has seen small blooms, and locally, those job gains are significant. **In 2014, Buncombe County's manufacturing jobs increased by 3 percent, more than double the state and national figures. The increase is more than a fluke, although its duration isn't long enough to call it a trend. Still, preliminary numbers from 2015 indicate Buncombe's manufacturing job gains could be as high as 8.8 percent.**

Manufacturers such as AvL Technologies, Linamar and GE Aviation have announced plans to continue hiring over the next few years, so local hirings are likely to continue.

“The manufacturers that we have today are as strong as they have ever been,” said Ben Teague, executive director of the economic development coalition.

Although smaller, these manufacturers offer a new kind of strength that separates Buncombe's current manufacturers from past flagship companies such as Beacon Blankets, which famously employed more than 2,000 people during its heyday in the mid-20th century.

“Manufacturing in this area has a strong technology bent to it,” Teague said. “Look at GE Aviation. Look at Linamar. Those are tech companies that happen to manufacture things.”

Tech manufacturing isn't a guarantee. Arvato Digital Services, which makes and distributes CDs and DVDs, is in the process of closing its Weaverville plant. It will lay off its 120 employees in the process, it announced in late 2015. But by and large, Asheville's technology manufacturers are diverse: AvL Technologies makes antennas. Linamar makes automobile components. New Belgium makes beer. Eaton Corporation creates parts for motors and electrical systems. GE Aviation builds aircraft systems. Thermo Fischer Scientific produces refrigeration systems. Jacob Holm manufactures fibrous paper products. Kearfott builds navigation systems. They're unlikely to be shuttered by a single trend. And it's possible years of decline have created more resilient businesses.



# Economic & Workforce Need



## Announced Manufacturing Expansions 2015-2017

GF Linamar – new plant	350
AvL Technologies – additional facility	90
Borg Warner Turbo	154
Continental Automotive	100
GE Lighting	100
GE Aviation	52
Linamar	150
Jacob-Holm, NA	66
Kearfott	75
Sigma Plastics/New Excelsior Pkg.	80
Raumedics – new plant	138
Nypro Medical	200

**Total**

**1555**





## Economic & Workforce Need



### Accommodate regional demand for jobs

Recent manufacturing expansions



Additional small-midsize companies

\*Projected over 1555 jobs over the next 2 years

### Economic Need/Community Vision

- \* Asheville Chamber 5x5 Plan
- \* WDB Strategic Regional Plan  
(encompasses 11 counties)
- \* High Growth Sectors
  - Advanced Manufacturing
  - Hospitality and Tourism
  - Healthcare
  - IT
  - Skilled Trades







## Where will we find the talent for advanced manufacturing jobs?



1. Baby boom generation is retiring
2. Advanced manufacturing firms are growing
3. Advanced manufacturing firms are high tech enterprises requiring highly skilled workers
4. Advanced manufacturing jobs are STEM jobs





# Timeline



- November 2013 -  and others approached MAWDB
- June 2014 – SWAT analysis conducted by NC State
- July 2014 –  receives Career Pathways Grant/\$70,000
- August 2014 – RAMP Leadership Committee formed
- Fall 2014 – ETA – Atlanta; Sector Strategy Conference
- December 2014 – Event at STEM School; metals data shared
- January – March 2015 – Committee expansion; 3 to 8 employers
- June – July 2015– Plastics survey & colleges/WDB planning meeting
- August – September – RAMP event planning; Career pathways planning grant application submitted;
- Fall 2015 - Spring 2016 Outreach to students
- **October 1, 2015 RAMP kickoff at**  Jacob Holm.
- November 2015   page launched [facebook.com/RAMPWNC](https://facebook.com/RAMPWNC)
- April 6, 2016 RAMP Presentation to NCETA in Greensboro





# Advanced Manufacturing Sector Strategy



## Initial Partners



\* Elected Officials

## Possible Pathways

~Advanced Manufacturing~

- \*Metal Machining Technology
- \*Industrial Systems Technology/Maintenance
- \*Plastics Processing





# Employer Engagement



## Participation

- \*Manufacturing Week - April 2015
- \*Manufacturing Day – October 2015
- \*Job Fairs/Career Expo- March & May 2015
- \*Summer STEM Camp- June 2015
- \*Manufacturing Career Awareness Professional Development Expo- June 2015

## Current Articulation

- \*High School Machining
- \*Fundamentals of Automated Machining
- \*AAS in Computer-Integrated Machining

## Industry Credentials

- \*CRC for CTE students
- \*Machining Certificate
- \*MSSC Cert. Logistics Tech.
- \*MSSC Cert. Product. Tech.
- \* OSHA 10 & Forklift Cert.
- \*Machinist Apprenticeships





# Program of Study 9-14



*Public Schools: Trade and Industrial Education Track*



**Computer-Integrated Machining Technology:  
Certificate Pathway**

**Associate in Applied Science  
Computer-Integrated Machining  
Technology**

## HIGH SCHOOL SCHEDULE

9 <sup>th</sup>	10 <sup>th</sup>	11 <sup>th</sup>	12 <sup>th</sup>
English I	English II	English III	English IV
Algebra I	Geometry	Algebra II	Math
Earth Science	Biology	Physical Science	Civics
Success and Leadership Skills	World History	US History	Elective
Healthful Living	Elective	Elective	Elective
Elective	Elective		
Elective			MAC 124 CNC Milling
Elective	Metals Manufacturing Technology I 7641	Metals Manufacturing Technology II 7642	Blueprint Reading: Mechanical BPR 121
			MAC 122 CNC Turning

TERM	Year 1	Year 2
FALL	ACA 115 – Success and Study Skills Social Sciences Elective BPR 121 – Blueprint Reading Mechanical	MAC 226 – CNC EDM Machining MAC 241 – Jigs and Fixtures I MEC 231 – CAM I Mathematics Elective WLD – Basic Welding Processes
SPRING	English Composition MAC 112 Machining Tech II MAC 152 – Adv. Machining Calc. Communication Elective	MAC 222 – Advanced CNC Turning MAC 224 – Adv. CNC Milling MAC 245 – Mold Construction I MAC 247 – Production Tooling MEC 232 – CAM II Humanities/Fine Arts Elective



# Pathways to Prosperity



Draft for the RAMP Project

Pathways to Prosperity Project- A collaborative project between Asheville City, Buncombe County and Madison County Schools Career and Technical Education										
www.ncschools.org Manufacturers										
High School Courses Required for Graduation	9th grade	10th grade	11th grade	12th grade	Cluster Foundation Courses					Cluster Enhancement Courses
English Requirements	English I	English II	English III	English IV	Production	7400U10 Introduction to Trade and Industrial Education	7521M41 Welding Technology I	7522M42 Welding Technology II (1 credit)	8595C55 CTE Advanced Studies	8145C45 Career Management 8417EM10 Multimedia and Webpage Design 8417EM10 Microsoft Word, PowerPoint, & Publisher 8417EM20 Microsoft Excel & Access 8231A231 Ag Mechanics I 7921A231 Drafting I 8725BF05 Personal Finance (BFIT, FACI, & MEE) 8595C55 CTE Apprenticeship 8595C57 CTE Internship
Math Requirements	Math I	Math II	Math III		Production	7400U10 Introduction to Trade and Industrial Education	7541M41 Metals Manufacturing Technology I	7542M42 Metals Manufacturing Technology II (1 credit)	8595C55 CTE Advanced Studies	
Science Requirements	Physical Science	Biology	Environmental Science							
Social Studies Requirements	Civics and Government	World History	American I	American II						
Health and PE	Health and PE									
World Language	Not required for graduation but by UNC Act/Policy				CTE concentrators take 3 or 4 foundation courses or 3 foundation courses and 1 enhancement course					
Additional Opportunities in the Manufacturing Cluster										
RACE- Regional Articulation in Career and Technical Education Earning articulated credit is easy! Register for a Career and Technical Education Course, make a 95 or above on the CTE Post Assessment and earn a 95 or better in the course. Then complete the RACE application for credit and college credit can be awarded when you sign up for college course. What a win-win for everyone!	Production				Production					CTE Foundation Courses
	Production				Both Pathways	84145010 articulates to WEB 110 OR WEB 120	84175M10 articulates to CIS 110 OR OST 136	84195M20 articulates to CTS 130 at Ad Tech and BRCC *Microsoft Certification is Required	8725BF05 articulates to BUS 125	CTE Enhancement Courses
Career and College Promise (CCP)- A-B Tech						Industrial Systems Certificate	Welding Technology Certificate	Machining Fundamentals Certificate	Heavy Equipment and Thermal Technology Certificate	
Certifications students can earn in high school						10 Hour OSHA Safety	SNIAW & GMAW American Welding Society	NIMS Measurement, Materials and Safety, NIMS Job Planning, Benchmark, and Layout	National Career Readiness Certification WorkKeys	
Career and Technical Student Organizations students can join in middle and high school						North Carolina Division SNIAUSA <a href="http://www.sniausa.org/">http://www.sniausa.org/</a>	SNIA USA <a href="http://sniausa.org/">http://sniausa.org/</a>	NC PFA <a href="http://ncpfa.org/">http://ncpfa.org/</a>		
Middle Schools Career and Technical Education Courses	8159C55 Exploring Career Decisions	82075U10 Computer Skills and Applications	82085U20 Exploring Business, Marketing, and Entrepreneurship	8209TP10 P-LTW Gateway to Technology						
Work-based Learning opportunities for middle and high school students	Summer Advanced Manufacturing Camp at A-B Tech	National Manufacturing Day Industry Visits	A-B Tech Advanced Manufacturing Day Visit and Tour	Students at Work Week (Middle School Students)				Virtual Job Shadowing	Raising Awareness of Manufacturing Possibilities (RAMP) Initiative	
Transitioning to Post-secondary or a career after high school	Possible All Tech AAS, Diploma, and Certificate Options: Welding Technology Associate to Applied Science, Basic Welding Certificate, Welding Technology Diploma, Basic Maintenance Certificate, Industrial Systems Technician AAS		Possible Careers: For individuals with existing experience, welders can work in the aerospace field, advanced manufacturing, agriculture, automotive, and many other areas where that skill is needed.		Possible Careers: For individuals with machining experience, welders can work in the advanced manufacturing field, automotive, work as a robotic controller, systems engineer, and many other areas where that skill is needed.					

**CTE** Learning that works for North Carolina

4/20/14



# Career Awareness



## Career Advising & Support Services

- \* High school CTE teachers/counselors
- \* A-B Tech recruiters/coordinator of RAMP/workforce development
- \* NCWorks career center staff
- \* Business services staff of WDB
- \* Online Career Coach
- \* Manufacturing career awareness professional development training for middle & high school teachers

## Secondary, Postsecondary links & Work Based Learning

- Internships/Co-ops
- Apprenticeships



- Paid work experience & OJT
- Externships
- Job Shadowing
- Manufacturing Tours
- RAMP scholarship - TBD
- Senior projects
- UNC Asheville, WCU, NCSU transfers





# Building a Talented Pipeline for the Future



**Engaging Stakeholders- K-12 (Students, Parents, Teachers, Counselors, Administrators, and Community Members)**

Elementary School - STEM days; Advanced Manufacturers can be sponsors and presenters



who makes centrifuges displayed their products and explained how they worked; another company came in and judged the projects that students built that day- name recognition goes a long way.

Middle School - PLTW Engineering Curriculum; Robotics Judges; Robotics Sponsors; Showing how CAD is used in the industry; Students@Work Host Sites; Guest Speakers; Quality Control Experts, Summer Camps

High School - Drafting, Welding, Ag Mechanics, PTLW Curriculum choices, Articulation with Community Colleges, Career Technical Student Organizations (CTSO's), Career Events, Job Fairs, Guest Speakers, Pathway Development Experts, Robotics Judges, Teachers@Work, Educators In Industry Events, Summer Camps, Internship or Apprenticeship Site, Host a Soft Skills Workshop, Assist with Senior Projects, Sponsor a night at a sporting event, Virtual Job Shadow site, College and Career Promise, and many others





# Coordination



- \*Education partners- Buncombe County Schools, Madison County Schools, & Asheville City Schools
- \*Workforce partners- Mountain Area WDB, A-B Tech, Blue-Ridge CC, NCWorks apprenticeship, Goodwill, Green Opportunities
- \*Employer partners- More than 25 manufacturing companies have expressed some level of support
- \*RAMP Leadership Team- Manufacturers, WDB, A-B Tech, NCWorks apprenticeship, Elected Officials, High School CTE Directors, CDC, & CTE Instructors





# SUCCESS MEASURES



- \*Employer Leadership & Engagement
- \*Increase student enrollment in manufacturing career pathways
- \*Increase number of apprenticeships, internships, co-ops
- \*Additional engagement of workforce partner support
- \*Job placement and retention in manufacturing jobs
- \*Increase number of students registered in NCWorks
- \*Increase number of students earning certificates & certifications





## Interim Benchmarks



- \*Quarterly meetings of leadership team
- \* Regional meetings of workforce partners
- \*Meeting goals outlined in career pathways and planning grants
- \*Successful awareness event - launch RAMP- October 1, 2015
- \*Completion of short-term marketing plan goals
- \*Alignment of activities with RAMP strategic plan
- \*Additional manufacturing companies on leadership committee
- \* Transfer of leadership to companies



# Project Update



- \* is now employer led- Chair & Co-Chair
- \* 9 manufacturers on leadership committee working to define goals
- \* Increased employer participation
- \* Successful launch of RAMP – October 1, 2015
  - At **Jacob Holm** 30 manufacturers represented
- \* Completion of marketing plan goals
  - Video/Brochure/USB
  - MAWDB received \$30K Career Pathway Planning & Implementation grant to help with marketing
  - RAMP Facebook page- <https://www.facebook.com/RAMP-897056193681787/>
- \* New certificate- Manufacturing & Maintenance Engineering
- \* Successful participation in 10 hr OSHA and Forklift certification- 12 students/Fall 2015
- \* CRC participation up - 1032 HS students have earned Career Readiness Certification Fall 2015
- \* 30 students in Registered Apprenticeships with six employers
- \* Successful internship placement- 6 students placed at ASI, Atlas, AVL, Baldor, Peco





How will we meet the workforce needs of employers, bridge the skill gap and help people find employment?



## TEAMWORK

1. Employers, educators, governments, nonprofits and others all working together.
2. We can change lives, help our businesses grow and provide employment opportunities for the people of our region.
3. We thank you for your support!



# Thank You



and

Buncombe County Commission, Economic Development Coalition for Asheville-Buncombe County, Madison County Commission, NCWorks Apprenticeship, NCWorks Career Centers/Asheville & Madison County, and Supporting Manufacturing Companies





# Questions?

