



# **A Blueprint for Bridging the Industrial Skills Gap**

**Urgent Call to Action from  
Greater Louisville Manufacturers**





# A Blueprint for Bridging the Industrial Skills Gap

**The needs of industry have changed. The preparation of workers has not.**

After more than three decades of decline, U.S. manufacturing is on the rebound, and technology and logistics companies are experiencing new growth. The Greater Louisville region, building on its history as a manufacturing and transportation hub, is experiencing a resurgence of good-paying jobs in these sectors, and the forecast for continued growth is positive.

However, today's jobs in these sectors are much different than those held by previous generations of workers. To be globally competitive, employers must have not only a robust pipeline of professional engineers and manufacturing managers, but access to well-trained entry-level and mid-skilled production employees who are:

- Work-ready, with developed employability skills, i.e., able to keep a regular work schedule, work in teams, have problem-solving and communications skills, and pass a drug screen
- Technically adept
- Academically prepared

**>600,000**

Number of manufacturing jobs nationwide that go unfilled because skilled workers cannot be found.

Source: National Association of Manufacturing (NAM)

Unfortunately, the current educational system and workforce training programs do not deliver sufficient numbers of qualified workers. As employers in fast-growing segments of the economy, we have an urgent need for fundamental change to the workforce development system. It has become clear that employers must drive that change. That is the only way the Greater Louisville region can fully realize its goal to become a major center for advanced manufacturing and manufacturing-related technology and services.

Acting collectively, and with the benefit of lessons acquired by our BEAM colleagues in the Lexington-bluegrass region, we have developed a three-part blueprint. This blueprint outlines the actions area stakeholders – in industry, education, government and the broader community – must take starting now to create a better-prepared workforce to meet the needs of companies in the region and to make the region attractive to manufacturing companies seeking to locate in an area where they can find ample qualified workers.

## Participating employers

- Atlas Machine & Supply
- Ford Motor Co.
- GE Appliances
- Nth Works
- Raytheon
- Reynolds Metals
- Shelby Industries
- Westport Axle
- Yamamoto
- Zoeller



# United for change

On April 28, 2014, GE Appliances invited representatives from Greater Louisville's largest manufacturing and industrial companies to the first-ever Workforce Development Summit. GE convened the Summit because of its recent hiring experiences: After investing more than \$800 million in the Louisville-based division, GE has experienced an ongoing challenge finding qualified job candidates, despite tens of thousands of applicants.

## August 2012 job posting by GE Appliances:

- 10,000 applications received
- 6,142 passed initial screening
- 730 hired
- 228 terminated in the first year
- 23% turnover rate

Although there are many workforce development programs on the federal, state and local levels, Summit participants agreed they do not produce adequate numbers of work-ready entry-level operators and technically qualified mid-skilled level candidates. The goal of the Summit was to agree on a common vision of how to close this gap. By joining forces, manufacturers and other industrial companies can do together what no one company can do on its own. And, they can act as the central body with which government, education and others can interact to ensure complementary, systemic solutions are enacted.

Summit participants shared similar stories about the difficulty of finding qualified workers, and how that problem will increase in the near term as experienced, skilled workers reach retirement age.

The shortcomings of workforce training in Greater Louisville can be summarized as follows:

- Most of the existing technical training programs were created for the construction sector and are not focused on manufacturing or other industrial operations.
- Many relevant programs are located outside Jefferson County, the county with the state's largest concentration of industrial jobs and potential job candidates.
- Manufacturers have had to build their own programs, duplicating efforts and resources.
- Current programs do not focus on work-readiness.

## Employability skills:

- Initiative
- Teamwork
- Communication
- Technologically adept
- Solving problems
- Able to self-manage
- Life-long learning
- Planning and organizing
- Work ethic
- Reliable attendance

***"We at GE are placing big bets on the competitiveness of U.S. manufacturing right here in Louisville. A skilled, ready-to-work, productive workforce is key to winning. But, we can't do it alone."***

***Chip Blankenship, president and CEO of GE Appliances***





# Origins of the industrial workforce skills gap

Mid-skilled manufacturing jobs offer tremendous employment opportunities. And, they are markedly different than those of two generations ago. Traditionally, manufacturing required laborers, with few skilled workers. Training was provided on the job. The skills gap is rooted in multiple causes, including.

- The loss of manufacturing jobs over the past 30-plus years and the negative image of manufacturing have combined to steer many talented people away from manufacturing careers.
- Fewer manufacturing jobs and lower student interest have meant fewer manufacturing-focused courses in high schools.
- Most vocational programs have not kept pace with the needs of advanced manufacturing and require substantial change to become part of the solution.
  - The outdated image of industrial workplaces as dirty, dangerous and low-paying has not encouraged interest by talented people.
  - Manufacturing is not viewed as a viable career option for the best students; the four-year college track is often presented as the only track.
  - Manufacturers generally have not told the story of the exciting career opportunities now available to properly prepared workers.

**Salaries for mid-skilled workers can range from \$30,000 to \$80,000.**

Source: <http://www1.salary.com/Upper-Middle-Income-Skilled-and-Trades-Salaries.html>

**In Jefferson County Public Schools, 55% of students enroll in college the fall after graduation. Approximately 31% earn a degree within six years of graduation.\***

\* Source: <http://www.jefferson.kyschools.us/Departments/AcctResPlan/CollegeAggregateReports/000.pdf>



# A Blueprint for Bridging the Industrial Skills Gap in Greater Louisville

As manufacturing employers of Greater Louisville, we have agreed to this three-part blueprint to bridge the skills gap and create necessary systemic change to support the growth of advanced manufacturing in the region:

**1** Replicate KY FAME in the Greater Louisville region, adopting its AMT curriculum and program, which allows students to earn an associate's degree in advanced manufacturing technology (AMT)

## Immediate actions needed:

- Solicit proposals from area educational institutions for an associate's degree-issuing program; the program should lay the foundation for a four-year technology-focused degree for students who wish to pursue one
- Integrate the new program with employer-operated apprenticeship programs and other employer training to create a workforce with the mid-skills needed for the employers participating in the AMT program
- With a successful proposal from an education institution in hand, work with interested high schools and veterans' advocacy groups to recruit a first AMT class
- Work with Lexington-Bluegrass KY FAME to create a state-wide organization of regional chapters, including Louisville
- Work with the Kentucky Association of Manufacturers (KAM) to explore housing the new statewide skills training organization in KAM, with guidance from a stewardship board composed of AMT-program participating employers
- Launch first class in the 2014-2015 school year

## What is KY FAME?

The Kentucky Federation of Advanced Manufacturing Education (KY FAME) is a training program founded by Toyota Motor Manufacturing Kentucky and now includes multiple manufacturers. Students attend classes two full days each week and are paid by the sponsor company for work on the other three days. In two years, the student earns an associate's degree in advanced manufacturing technology and 70 to 80 college credit hours, and gains two years of work experience. The combination produces ideal job candidates for participating employers. In Lexington, the program is operated in partnership with the Bluegrass Community and Technical College (BCTC).

**2** Work with public schools to create programming that **expands awareness of and training for manufacturing/industrial careers**, and fill the pipeline now

## Immediate actions needed:

- Meet with high school administrators to express the needs of manufacturing and other industrial employers and establish a partnership for the future
- Identify bright students who do not wish to attend four-year institutions, have more immediate financial needs, prefer more hands-on careers and are interested in alternative career paths
- Work closely with Greater Louisville school districts to integrate college and career efforts and align curriculum, for example, JCPS adoption of the Ford Next Generation Learning initiative
- Advocate for inclusion in the curricula of a broad range of high schools the Manufacturing Skills Standards Council (MSSC) and Certified Production Technician Certificate certificate program and stackable credentials framework
- Expand student and school participation in SkillsUSA, coupled with regional external support from aligned employers
- Create a manufacturing-focused mentoring/internship program and work with school systems to identify qualified students
- Urge the state government to fund and locate in Jefferson County an appropriately equipped Training Center where secondary and post-secondary students can gain hands-on experience with advanced manufacturing hardware, tooling, and CNC/programmable machinery and controls, and thereby develop the skill sets required in advanced manufacturing

**3** Launch a local campaign aligned with KAM and the National Association of Manufacturers (NAM) to **promote manufacturing as a great career option**

## Immediate actions needed:

- Customize NAM-created campaign materials for Kentucky/ Greater Louisville and support KAM efforts to promote manufacturing careers



## Our vision

This blueprint will guide the community to develop next-generation skilled workers who exhibit definable characteristics and are positioned for a good-paying careers with advancement opportunities.

- Multi-skilled (Electrical / Fluid Power / Mechanics / Fabricator)
- Strong math capability
- Fast technical learner
- Uses and learns with digital media
- Strong problem solver
- Effective verbal and written communicator
- Effective interpersonal skills
- Conflict resolver
- Team worker

**Atlas Machine & Supply**  
**Rich Gimmel**  
**President**

**nth/works**  
**Tom Hudson**  
**President**

**Shelby Industries**  
**Vivek Sarin**  
**President & CEO**

**Ford Motor Company**  
**Gabby Bruno**  
**Regional Government**  
**Affairs Manager**

**Raytheon Co.**  
**Keith Stewart**  
**Site Manager**

**Westport Axle Corporation**  
**Rena L. Sharpe**  
**Vice President of Operations**

**GE Appliances**  
**Chip Blankenship**  
**President and CEO**

**Reynolds Metals**  
**Scott Russ**  
**Plant Manager**  
**Jerry Peter**  
**HR Generalist**

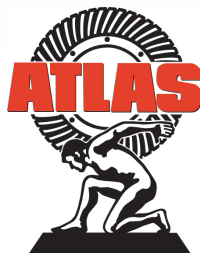
**Yamamoto**  
**Bill Mayes, Plant Manager**  
**Molly Hensel, HRM**

**Zoeller**  
**Dwight Newton**  
**Employee Development Manager**



**Raytheon**

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