



How Rural Millennials Will Sustain Ohio's Manufacturing

The classic image of a Millennial is an urban dweller who lives in a walkable neighborhood, relies on shared transportation, and has a high-tech career. Rural Millennials, admittedly a smaller percentage of 18- to 35-year-olds, are rarely acknowledged in the media. Yet it is precisely this cohort that will sustain, enhance, and expand Ohio's manufacturing sector which is predominately located in small towns and rural areas.



Here are five reasons.

1. Baby Boomers will be replaced by robots.

As manufacturers throughout rural Ohio face mounting Baby Boomer retirements, how will the employment ranks be backfilled by the Millennial generation?



A June 2015 study by Ball State University's Center for Business and Economic Research shows that almost 88 percent of job losses in manufacturing in recent years can be attributed to productivity growth, specifically automation and robots. The study reveals that had we kept 2000-levels of productivity and applied them to 2010-levels of production, we would have required 20.9 million manufacturing workers. Instead, we employed only 12.1 million.

As Baby Boomers retire, the workforce will not be replaced one-for-one with new workers. As factories become ever more automated, the skillsets for new employees will include robotics, programming, machinery maintenance, and technology. Far fewer employees will manage the same or greater volume of work.

2. Rural Millennials are digital natives, too.

Just like their urban counterparts, rural Millennials are digital natives. Thanks to efforts initiated with Ohio's manufacturers two decades ago, Ohio's rural high school and adult students have access to industry-leading robotics education and training at vocational schools and community colleges.

In 1997, Tri-Rivers Career Center in Marion, Ohio, developed the Robotic Advanced Manufacturing



Technical Education Collaborative (RAMTEC) to prepare workers for careers in robotics and automation.



The nearly \$15 million RAMTEC Statewide Advanced Manufacturing STEM/Career Technical Education Consortium grant through Ohio's Straight A Fund expanded RAMTEC to eight additional career centers two years ago. By 2017, RAMTEC will be operating in 23 Ohio locations.

Ohio's smaller communities, they are likely to find precisely the knowledge and skill sets needed by forward-thinking manufacturers.

3. The rural Millennial manufacturing talent pool is twice as deep.

Millennials have grown up expecting equality in all realms—pay, access to jobs, education, gender and marriage. Millennial men expect to be much more involved in raising their children than previous generations. Rural Millennial women are as likely as men to consider high tech manufacturing job opportunities; the stigma that manufacturing (or any other job) is for men only, is simply not true for this generation.

4. Rural Millennials choose their location and lifestyle.



Rural Millennials tend to be rooted in their communities by choice, not by lack of opportunity. Many rural Millennials prefer the small town, laid-back lifestyle and the ability to engage in local food initiatives, part-time agriculture, and meaningful community leadership roles.

Economic development officials in Ohio's Electric Cooperatives' rural communities point out that rural employees including Millennials, tend to commute farther distances to work, but don't necessarily spend more time in route. In rural communities, a 30-minute commute covers 30 miles versus a 30-minute

Co-located on the campus of Marion Technical College and The Ohio State University Marion Regional Campus, RAMTEC is a nationally recognized high school-to-college robotics education program.

Students learn advanced manufacturing and engineering skills including how to program and use robots made by FANUC, Yaskawa Motoman, and Universal Robots. They also learn various software platforms, robotic welding, PLCs, hydraulics, pneumatics, CNCs, computer-aided design, 3D printing, and machine vision.

As Mark Williams, founder and president of Strategic Development Group, warns in the Oct./Nov. 2016 fDi Intelligence article Ten Site Selection Errors Made by Manufacturers, "Manufacturing investments today are increasingly capital intensive and require access to employees with sophisticated skillsets. Verifying an adequate short- and long-term labour force is one of the most significant factors for today's site-location projects; in the future, the importance of qualified labour will only increase."

When site selectors dig into the specific skills available in



Ohio's Electric Cooperatives 2016 Youth Tour participants shown here at the U.S. Supreme Court are indicative of the gender equality Millennials expect in industry and public service leadership roles.

urban commute that may travel only 10 miles. Many rural Ohioans are within an hour's drive of urban life—they can enjoy all that Ohio's vibrant cities offer, yet sustain a rural lifestyle. It's not an either-or choice, but rather "yes" to both.

5. Millennials ask: How can we do this better?

John Longshore, senior consultant for Global Location Strategies (GLS), and Cameron Williams, project director at Strategic Development Group—both Millennials—shared their Millennial insights at Ohio's Electric Cooperatives' November 2016 Economic Development Seminar. Williams noted that Millennials expect progress and expect it fast; they haven't known anything different.

Longshore also shared that Millennials expect innovation. As Tom Brokaw noted in the 2013 Time article, *The Me Generation*, "Millennials' great mantra has been: Challenge convention. Find new and better ways of doing things."

Millennials were raised by parents who asked for and considered their children's input. These children—now young adults—have entered the workforce with the expectation that their opinions are valuable to their employer.

Rural Millennials, who likely benefitted from hands-on learning-by-doing, may be particularly adept at the type of practical innovation most needed by manufacturers.

Rural Millennials will sustain, enhance, and expand Ohio's manufacturing sector

Millennials—the largest generation the world has even seen—already hold 50 percent of U.S. jobs and are projected to account for 75 percent of the workforce by 2030. Less of this workforce will be employed in manufacturing, but Ohio's manufacturers will find that rural Millennials are well-prepared to increase productivity and help expand their business.

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