Manufacturing Jobs Are There — Workers to Fill Them ARE NOT

And DMG MORI is doing something about that

Jack Mc Guinn, Senior Editor

An all too common — and disturbing — question these days: Are you having trouble finding skilled workers? Taking that a step further begs the next question — Are you having trouble finding *customers* with skilled workers to use your products?

This job skills dearth is quite the slippery slope, i.e. — while machinery/tooling manufacturers are beating the bushes for qualified machinists to *build their* machines for their gear-making customers, gear manufacturers are likewise constantly in search of qualified personnel to *operate the machinery*.

It is a two-part dilemma that continues to stump and bedevil manufacturers, with no overnight solution in the offing.

DMG MORI has been busily at work trying to make a difference in that regard. Realizing that there were no quick fixes to this problem, DMG MORI sucked it up and decided to do it themselves. Their work in that regard thus far was one of the presentations at the recent DMG MORI Innovation Days Open House event, held at their Hoffman Estates location just outside of Chicago.

But before talking about the good stuff, here comes the bad-tasting medicine to give you some perspective on just how dire this skills shortage dynamic has become. Now, open wide…

- In a survey on recent hiring results, 60% of manufacturing organizations are having difficulty recruiting specific jobs. (*Source: SHRM — Society for Human Resource Management*)
- It is clear that many jobs are not being filled due to a mismatch between job seekers and open positions. (*SHRM*)
- According to a BLS (Bureau Labor Statistics) labor market report from August 2014, the government stated that 9.6 million Americans were unemployed while employers posted 4.8 million jobs. The unemployment rate for July was 6.2; for August was 6.1; and Sept 5.9 Note that despite 4.8 million jobs posted, the unemployment rate remained essentially *unchanged.* (*BLS*)

Many feel that the reason the unemployment needle is not moving much in manufacturing can be attributed to bullet point two above; i.e. — the jobs are there, but qualified candidates to fill them are not. Following is a dismal object lesson illustrative of this statistic:

DMG MORI service apprentices in a training class working through a trouble shooting exercise (photo courtesy DMG MORI).

A CEO of a metalworking company in Northeast Indiana was in need of 100 skilled workers.

- The company received *130* applications
- Accepting those with *some* experience narrowed that list to *40*
- When those applicants were given industry tests, only *four* passed
- Those four were offered jobs; but *only one* accepted

The bottom line? A search for 100 skilled workers netted only one viable addition to its workforce. (SHRM)

No wonder we are finally witnessing a push for STEM (Science/Technology/Engineering/Math) courses in the schools as a belated but critically needed recognition of the fact that our elementary and high schools need to force-feed, if necessary, these disciplines to students — sooner than later. In today's brave new world of manufacturing, the sophistication level of worker skills that this coursework imparts is essential for any jobseeker.

And should you be a STEM-scoffer, check out these grisly facts comparing U.S. student skills with those of 21 other countries:

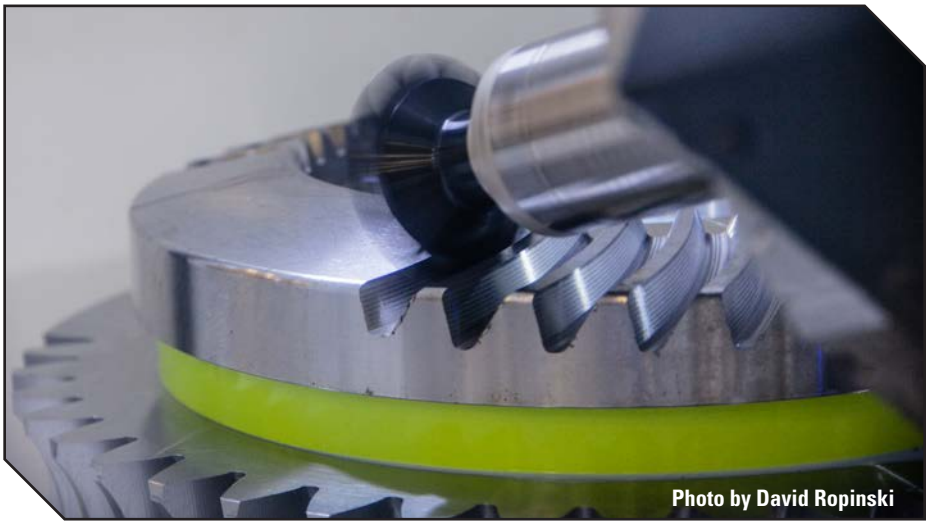


Photo by David Ropinski

- Reading and Writing skills ranked *20th*
- Nearly 67% failed to meet the *minimum* standards for working with numbers which placed America last
- 56% failed to meet the *basic* proficiency in Problem Solving/Technically Rich Environments (PS/TRE) category — ranking America *last* among the 22 countries
- The average U.S. scores for these skill levels have *declined* over the last 10 years

And yet the fact remains that if anyone seeks a career in manufacturing, they will have to be proficient in the areas targeted by manufacturers. Here's hoping our young people will step up, because it is a STEM future, and here are some impressive numbers backing that up:

- Job growth rate for STEM jobs is *dou-*

ble the rate for *all other* career fields
- In 2013, there were approximately two jobs available to each person entering these fields
- By 2018, the projection is that there will be *230,000 more jobs than people* entering these fields (*Source: Organization for Economic Co-operation and Development*)

Who will fill those 230,000 jobs?

Richard Templeton, chairman, president and CEO of Texas Instruments, would certainly like to know. "In Texas alone, the economy is poised to add nearly 760,000 STEM-related jobs within the next four years. Nationally, demand for scientists and engineers will increase four times faster than for all other positions over the next decade." (*Source: Dallas Morning News, July 2014*)

Societal issues are at play as well. But this one — the shrinking of middle-class America — seems to be one of those "can't see the forest for the trees" scenarios. For those paying attention, like the clichéd slow train wreck, we see the disappearing act right before our eyes, yet do nothing.

Put another way, "The erosion of the middle-class has made it hard to fill open jobs requiring more education and training than a high school diploma but less than a four-year college degree. (*Source: "Bridge the Gap: Rebuilding America's Middle Skills," SHRM Magazine Dec 2014.*)

What to do? One suggestion:

"Policymakers and other stakeholders will need to shift the conversation from one of educational attainment to one that acknowledges the importance of skills. (*SHRM Study: "U.S. Millennials' Skills Don't Match Education*")

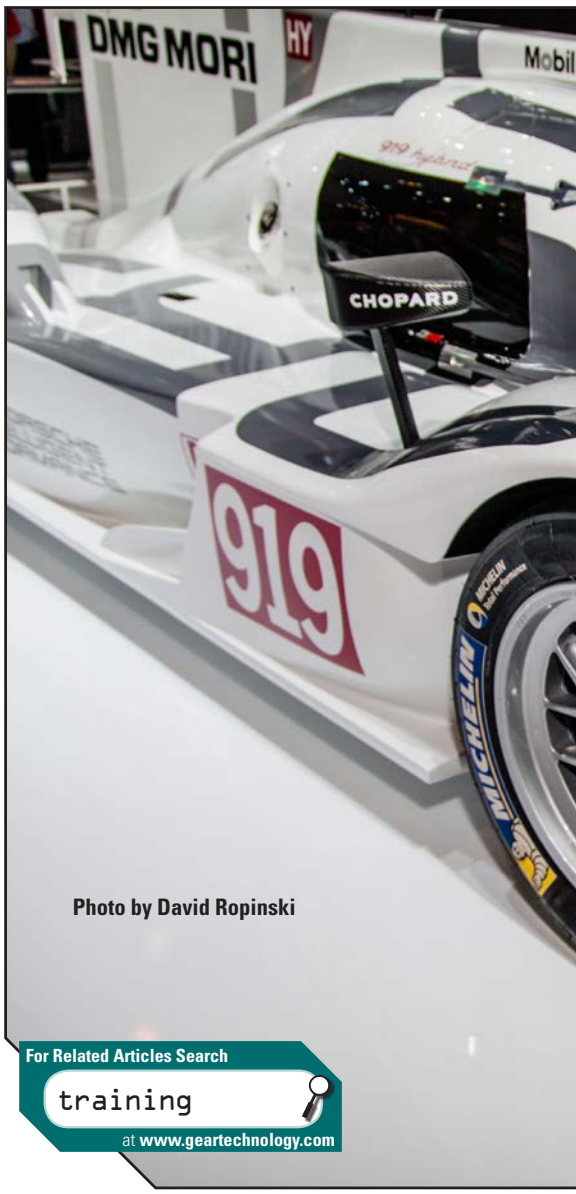
Infinitely easier said than done. Only 20% of those polled believe "the school system in my community encourages students to pursue careers in manufacturing. And, only 35% say they would "encourage their child to pursue a career in manufacturing." (*Deloitte* and the *Manufacturing Institute)*

All of which brings us back to DMG MORI's own problems with finding qualified help. They eventually determined there were only two options available to them in adding necessary skill sets to their workforce in the short term, i.e. — hire from the current workforce and/or "grow your own."

Finding themselves in the same leaky boat as manufacturers all across the country, they chose the latter — and in a meaningful way.

"The decision to move forward with our own service and apps engineering training/development programs occurred after the company conducted a series of nationwide recruitments, but could not identify candidates with the basic skill sets for those positions," says Bill Gaeth, DMG MORI lead, apprentice program & online training customer interface.

And make no mistake — the curriculum regimen and completion requirements for apprenticeship status at the



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DMG MORI Academy is no collection of ho-hum, jolly-numbers exercises (*dmgmsaondemand.com*). Areas covered include Machine Programming & Operation; Machine Maintenance & Repair; EOD Machine Operation (Online); EOD Machine Programming (Online); Manufacturing Skills; Quality, Measurement & Gauging; Fluid Power & Mechanical; Green Energy and numerous other skills-specific offerings. And after the Academy coursework is done, even more remains.

"An apprentice must also complete shadow training with an experienced employee and a regime of factory training. The programs are competency-based, but usually take an apprentice two to three years to reach the level of competency we look for to graduate from the program," Gaeth explained.

Seeing the DMG MORI programs in operation, one wonders why more companies are not doing this. Is it a matter of won't or can't with them?

"It is more 'can't' than 'won't,' stated John Roufis, Manager of Technical Instruction "because, for the most part, our customers don't have the resources to provide the machine-specific training they want their employees to have."

"And so," Roufis continued, "the DMG MORI Academy is set up to provide training that their customers require because we have the equipment, the instructor staff, and the facilities to train their employees."

For more information on DMG MORI Academy, please visit *www.us.dmgmori.com.*