This knowledge brief will identify the challenges associated with the skilled worker shortage in the heavy equipment industry. Its purpose is to provide awareness of its causes and explain the resulting impact on businesses.

**LIMITED SKILLED LABOR FOR TRADE VACANCIES**

How do you successfully grow your business, increase profits and provide superior customer service when there are not enough workers to fill the positions in your company? That is the challenge many businesses in the heavy equipment industry face today—and, will face in the near future.

The talent shortage has affected numerous segments of the U.S. labor force, most notably in those fields requiring skilled trades. By some estimates, the lack of skilled workers could be costing manufacturers around 9 percent of foregone yearly earnings.

The Manufacturing Institute (MI), in conjunction with Deloitte, first noted the mismatch between the skills of available workers and the skills manufacturers demand in 2001, and warned of the ever-widening skills gap. In their recent 2015 Skills Gap Report, MI and Deloitte reinforced the talent challenge they had noted fourteen years earlier, reporting that six out of every ten job openings in manufacturing today go unfilled. Over the decade, they predict, only 1.4 million of the 3.4 million manufacturing jobs expected to open up through retiring Baby Boomers and new job creation will likely find qualified applicants. The skills gap in manufacturing is anticipated to more than triple between 2011 and 2025.

Why is it so difficult to fill skilled trade worker vacancies? According to human resources consulting firm ManpowerGroup, there are five key reasons skilled trade vacancies have been the hardest to fill for seven of the last eight years. In its 2015 Talent Shortage Survey, the company reported that the 41,000 employers surveyed attributed the difficulty to (1) a lack of available applicants or no applicants, (2) lack of technical competencies, (3) lack of experience, (4) lack of workplace competencies and (5) the desire for higher wages by those applying.

Thirty-eight percent of those surveyed had difficulty filling jobs last year—a 2 percent increase over 2014, and the highest percentage since 2007. Fifty-four percent felt the talent shortage had
a medium to high impact on their client-facing relationships. In addition, more than 40 percent expected the talent shortage to hinder customer service and cause a reduction in competitiveness and productivity.

But perhaps the most surprising fact that came out of the survey is that while these employers are acknowledging the impact of talent shortages on their businesses:

- More than 1 in 5 is not actively pursuing strategies to address the talent shortages.
- Only 1 in 20 is redefining qualifying criteria to include individuals who present a “teachable fit.”
- Only 1 in 20 is looking to enhance benefits or increase starting salaries.
- Only 1 in 5 is providing additional training and development to existing staff.

In short, employers are not doing enough to bridge the gap. The Associated Equipment Distributors (AED), an international trade association representing the heavy equipment distribution industry, conducted an independent survey and found that the job opening rate (JOR) for some of its members was more than three times the national average of 28.1 business days. That is, the mean and median values for the number of days a position remains open are 76.4 and 45 days, respectively. In some cases, positions remain open for as much as a year or more.

AED concluded that the inability to find and retain technically skilled workers could be costing the industry approximately $2.4 billion each year, or around $6.1 million per member business. Those employers who do not have a solution in place to combat the talent shortage will continue to see their businesses suffer.

**CAUSES OF THE SKILLS GAP**

To fully understand the impact of the skills gap, one has to understand its genesis and why it has expanded so much in the last fifteen years. Most experts identify three causes that have contributed to the crisis.

**The Baby Boomers.** Seventy-six million Americans were born between 1945 and 1964. Due to their sheer numbers, the median age of the U.S. workforce has steadily risen. The Bureau of Labor Statistics projects that by 2020, approximately 25 percent of the American workforce will be age 55 and older.

However, many of those Post-WWII children are now in their seventies, with millions more retiring at a rate of 10,000 per day. Approximately 2.7 million Baby Boomers (22 percent of existing workforce) will retire between 2015 and 2025, causing the labor force participation rate (the ratio between the labor force and the size of its cohort—in this case, the Baby Boomers) to understandably decline for the remainder of this decade and into the next.

Simply put, the Baby Boomers will have a deeply profound effect on the workforce and economy. While
some doubt the proposition that the first wave of Baby Boomer retirements ushered in the recession of 2007–2008, no one denies that the embedded knowledge and trade skills this generation will take with them into retirement will further widen the skills gap.

**Poor Perception of Skilled Trades.** There is a misperception that white-collar work is more admirable because it pays better than skilled labor. The truth is, there is not quite the gap in salary disparity across the board between college graduates and skilled workers as some would believe. The National Association of Colleges and Employers (NACE) 2015 Salary Survey reported that average salaries for college graduates ranged from $45,042 (humanities) to $62,998 (engineering). Compare this with the National Association of Manufacturers 2014 report in which data revealed that the average manufacturing worker earned $79,553.

Where there does exist a disparity is in how the American public views skilled trades. For example, while 90 percent believe that manufacturing is important to economic prosperity and 82 percent say they would support further investment in the manufacturing industry, according to the MI and Deloitte survey only 33 percent of parents would encourage their children to pursue degrees in manufacturing.

**Failure of the Educational System.** Walking hand in hand with poor perception is the lack of visibility for skilled trades in the educational system. According to 87 percent of the manufacturing executives surveyed in the AED report, the school system contributes to the skills gap by providing limited opportunities to explore technical careers.

While there has been an effort in recent years to put more focus on STEM (Science,
Technology, Engineering and Math) subjects, consider this: From 2000 to 2012, enrollments in four-year colleges increased by 46.6 percent while two-year colleges, many of which offer technical degrees, increased by less than half that amount, only 20.6 percent. Additionally, the MI and Deloitte survey reported that since 2000 there has been a 40 percent decline in apprenticeships in the United States.

For the trade industry, having a robust pipeline of new workers is critical to ensuring business growth and financial success. As aging Baby Boomers continue to retire, companies must have a ready supply of new and skilled workers who can fulfill the vacancies. Technical training schools, which historically have not grown to the same levels as their counterparts, must receive the same visibility in secondary school systems or the skills gap will grow to an alarming rate for future generations.

**DOMINO EFFECT OF THE SKILLS GAP**

According to the MI and Deloitte report, every job in manufacturing creates 2.5 new jobs in local goods and services, and for every $1 invested in manufacturing, another $1.37 in additional value is created in other sectors. However, the talent shortage for this sector is taking a heavy toll, costing the U.S. economy nearly $180 billion in revenue.

For individual companies, the gap has reverberated across all aspects of business operations. In ManpowerGroup’s 2015 Talent Shortage Survey, employers acknowledged:

For the manufacturing industry, where skilled production occupations account for more than 50 percent of the workforce and many jobs cannot be automated, the shortage is having severe consequences. Seventy-four percent of AED members reported that the skills gap hinders their ability to meet customer demand and 57 percent reported increased costs through additional overtime and inefficiencies. All this adds up to low industry growth and lost opportunities for businesses.

**CONCLUSION**

In an ideal world, there would be no mismatch between the skills of workers and the skills trade industries require. However, employers in such industries as manufacturing and heavy equipment can attest to the fact that we do not live in an ideal world right now. What is encouraging, though, is that America has overcome labor force crises before, each time applying smart solutions to fill vacancies and keep the economy strong.

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