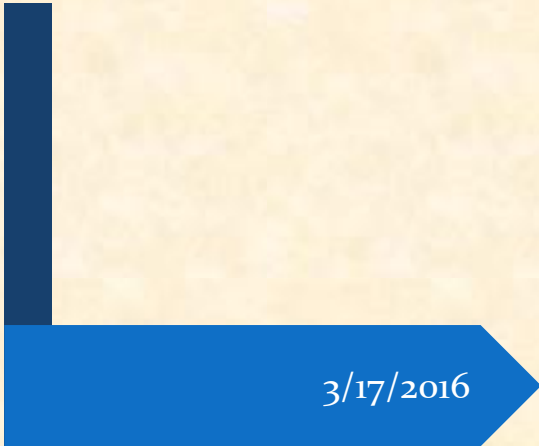




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TODAYS MACHINE TECH TRADE MEMO

*DYING TRADE OR HARD TO FILL
POSITIONS*



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Introduction

For the past twenty-five years high schools all over the nation have been closing their machine shop programs. Small class size, expensive shop equipment leasing, restricted funding, and an emphasis on four-year-college transfer has led to the demise of most manual arts programs in our high schools. High school counselors now direct 100% of their students towards going on to college and getting a BA. In fact, the number of students going on to a four-year college is their measure of success. Because of this the well of potential machinists has gone dry and large companies have simply abandoned their traditional high-school-to-work apprenticeship programs. The long-standing partnership of student, high school, and manufacturing has evaporated the machinists who became part of the program twenty-five years ago are now getting ready to retire. Some have called this the "graying of the machine shop work force" because the average age of a top quality machinist is 50+. As these machinists retire they will not only leave a void in the work force they will also leave a void in the mentoring pool which is the real mainstay of on-the-job training.

Problems and issues Machine Tech Trade Skills face

Today the preponderance of machine tool instruction is at the community college level but they too are under economic pressure to abandon expensive programs. In fact many community colleges have already given up their welding and machine shop curriculums.

Another problem is that there seems to be a prevalent feeling among the masses that machining is an unnecessary and dying trade and there will be no need for machinists in the future.

Although it is hard to project a grand outlook like the 60/70s aerospace boom it should be noted that this trade is an important field in every industrialized nation in the world no matter their history or current economy. For example today there are machinists in Hungary, England, Argentina, and South Africa and they all play a vital role in the maintenance of the infrastructure of their country as well as assisting in industrial processes (no matter how small their share of the international manufacturing pie). Machinists are respected and paid extremely well in these nations. It is a skilled and prideful trade worldwide and each country has a need to train and replace them.

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As an aside please note that at one time England was the manufacturing center of the world. They built the most machinery and employed the greatest number of machinists (called “mechanics” in that time). America took that honor from them and became the world’s most productive manufacturing nation and biggest employer of machinists. Then along came Japan followed by Taiwan followed by Korea and China. With all of these changes there was never, at any time, a total destruction of the manufacturing capabilities of any nation. They simply lost their leadership. Today Great Britain has a very highly skilled and productive force of machinists even though they no longer lead the world in manufacturing.

So what about the United States today? Have we moved to a “service economy” void of even the most minimal need for industrial production? Or is that all a futurists’ pipe dream? The answer is that it really doesn’t matter. We have a shortage of machinists in this country not because we are going to explode again as a manufacturing powerhouse and not because our aerospace and defense industry will keep us alive for another century.

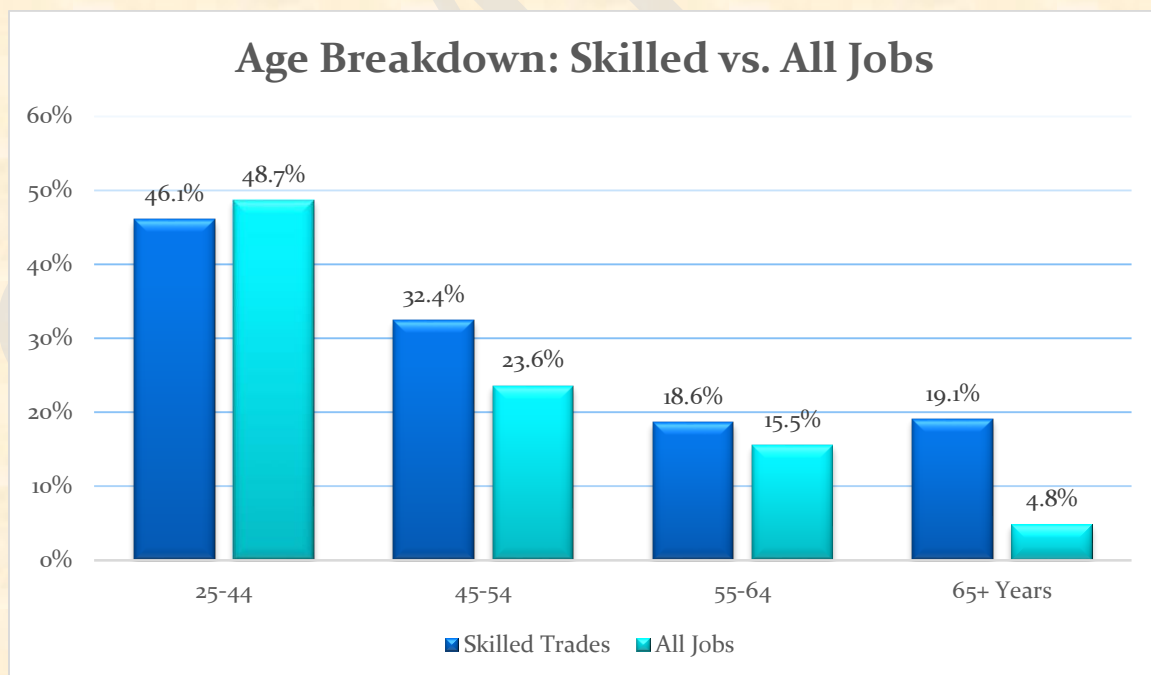
Demands for the Skill Trade

We need more machinists today because there are nearly NONE coming up to replace this country's core needs. For every 100 machinist we had in the 60s and 70s we may need only 20 today. Since the beginning of 2011, the manufacturing industry has added over 100,000 jobs to the economy. Economists expect this trend to continue, predicting that manufacturing employment will increase by another 230,000 jobs before year end. Add to that twenty-one consecutive months of revenue growth and you've got a much improved picture of US manufacturing.

Challenges when trying to hire and find Tech Trade skilled people.

However, the industry is not without its challenges. For 60 percent of survey respondents the top concern is a shortage of skilled labor. Right now there is an immediate need for 270 CNC machinists, for example. In the next two years that number will climb to 700. Engineering jobs have been the most difficult positions for employers to fill in this country in 2008-2015, according to a survey released this week by Manpower Inc. They're followed by: machinists/machine operators; skilled trades; technicians; sales representatives; accounting/finance staff; mechanics; laborers; IT staff; and production operators, according to the employment services company.

It is clear that across the country employers are experiencing a mismatch between the talent their businesses need and the skills and abilities potential employees possess.



An example of today's Tech Trade skills hiring problems; Ron Overton, president of Overton Industries in Mooresville, Ind., has been trying in vain to hire about 10 engineers, machinists and

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tool and die specialists so he can ramp up production. "We lose a lot of work because we can't turn it around quick enough," he says. He's seeking employees with good math and science skills who can work with their hands.

Manufacturing recover and revival

The economic recovery has been driven by a manufacturing revival in the past years. But the strength of that revival could be threatened by the challenges facing a small and beleaguered sector of manufacturing that evokes images of a quainter, more labor-intensive era: the tool and die industry. These skilled manufacturers are vital. They produce tools, dies and molds that other makers use to shape products — from car fenders and dashboards to shampoo bottles and cellphones.

Unlike manufacturing workers who run mass-production machines, tool and die makers take months to create a single, custom-designed part that's used to crank out hundreds of thousands of a product's components. Dies, for example, are steel forms that stamp out metal components such as car fenders and washing machine panels. Molds shape plastic and ceramic parts such as dashboards and hairbrush handles.

Most basic parts are now made in computerized machines. But workers must design and piece together the parts to form dies and molds, often manually, relying on an unusual level of judgment and precision skills from a person.

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Recommendations

The need for younger generation to pursue Tech Trade skills is vital to our society and workforce yet many such candidates perceive manufacturing as a dying field. The tool and die industry is working with community colleges to offer training and job placement for qualified skilled positions. The need for this trade skill is overwhelming due to the large number of retirees and lack of upcoming knowledge to replace them. As older workers move out of these positions, companies will often replace them with younger workers – if they can find them. So the aging workforce is not all bad news for businesses that rely on skilled labor, particularly advanced manufacturers who need tech-savvy workers. It's a win win for businesses and also Tech Trade workers looking for work in the future.

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