

# MANUFACTURING IN OREGON TAKES TENACITY

## Meeting the challenge with hard work and higher ed

By Greg Eiden

Oregon stands at a crossroads. Crushing unemployment lingers. The state faces multiple financial crises. Funding higher education continues to be a major challenge. And it's all within a tax structure that many manufacturing concerns consider tough on business, if not flat-out anti-business.

Even in that milieu, Oregon's manufacturing industry is not only fighting for its life, it's digging in and working to expand sales and yes, jobs.

However, state trends show it will be 2018 before we're close to the 2008 levels for manufacturing jobs.

Manufacturing firms doing business in Oregon also face a problem companies are encountering nationwide: Labor cost disparities are so high they've driven many manufacturers to ramp up production outside the U.S.

### Global labor costs

U.S.	\$32.36
Singapore	\$18.77
Korea	\$16.27
Taiwan	\$8.68
Mexico	\$4.04
China	\$1.80-\$3.09
Philippines	\$1.68

Cheaper labor, however, comes with a price. Defects and delays, and even stolen trade secrets are big problems.

Why, then, are many manufacturers sticking it out, and doing business in Oregon?

### Oregon Employment Forecast

	2008	2018
Total payroll employment	1,765,900	1,926,200
Education & health services	219,500	269,300 (+23%)
Leisure & hospitality	173,100	194,600 (+12%)
Manufacturing	195,400	190,100 (-3%)

Source: Oregon Employment Department, Oregon Labor Trends, December 2009

### A Commitment To Oregon

Jake Nichol, President and CEO of Leatherman Tool Group, Inc., believes in the strong commitment to keep their manufacturing business in Oregon that he and founder Tim Leatherman have made. For them, producing in Oregon is a priority.

Of course some of the difficulties, such as labor costs, won't go away and must be addressed. As China becomes better able to produce costs with increased quality, the issue is exacerbated. The Leatherman management team has worked hard to deal with that labor cost gap, and has even created lower price point products to address it.

"Leatherman is always working on new ways to do what we do in Portland and keep a competitive price. We introduced the Wingman multi-tool to show we can create quality products priced to compete with those produced in China, while doing much of the engineering, assembly and manufacturing here in Oregon," Nichol said.

Such commitment to quality, hard work and innovation are attributes Oregon manufactur-

ers must continually demonstrate to compete in today's challenging environment.

### Oregon Pride, And Innovative Thinking, Yields Higher Quality

Howard Werth, CFO of Leupold & Stevens, Inc., points to the ongoing quality and workmanship of Oregon workers as a necessary component of the overall Leupold business model. The precision and ultra-high quality of Leupold products simply demands human interaction, and a high-degree of quality control. "Much of the machining of aluminum tubes is done in Oregon, as well as engineering and corporate functions," Werth said. Leupold manufactures rifle and spotting scopes, as well as binoculars.

Crimson Trace Corporation (CTC) President Lane Tobiassen notes similar needs in the production of his company's grip-activated laser sight products for the firearms market. "With our laser sight products, improved technology won't replace many of our production functions that require very hands-on manual skills. They require dexterity and judgment



*Leupold & Stevens believes the ongoing quality and workmanship of Oregon workers is a necessary component of the overall Leupold business model. Photo courtesy of Leupold & Stevens*

that's just not possible with mechanical assembly," Tobiassen said.

Advanced technologies applied where they make sense, however, are leading Crimson Trace and others down a more productive path.

### **Technology Breeds Efficiency, Which Ultimately Yields Jobs**

Smarter manufacturing strategies and advanced technologies used by many of Oregon's key manufacturing concerns lead to better efficiencies. It helps them expand their capabilities, sometimes through the use of lean processes and systems.

According to Nichol, several things are central to the Leatherman lean process.

Workflows are better organized. Waste is found and promptly eliminated. Lead-time reductions help get products to market faster. And, it is critical to effectively teach and train

people.

Tobiassen said that being more efficient in manufacturing, through common parts usage, better planning and precise supply timing, often leads to fewer hours needed to achieve the same output.

"Better productivity has enabled us to move assembly jobs from surrounding areas into Oregon. For example, we eliminated 200 sub-contractor jobs elsewhere and moved those functions here," Tobiassen said.

Along with advanced technology, such refinement in Oregon manufacturing efficiency may seem to require fewer jobs, but, it could be argued, may ultimately lead to more job creation. These other job creations come in the form of vendors and contractors needed to manufacture many of the parts Oregon manufacturers use in their more efficient, updated processes.

For example, Leupold's Werth observed that in order to accommodate a business spike from, say, a new military contract, it could lead to outsourcing products in the local area and using temporary workers to quickly fill inventory needs.

Such overflow "outsourcing," or trickle down manufacturing jobs, were also mentioned by Tobiassen. "Take the example of the mold companies we use," he said. "They are local. Crimson Trace relies on the assistance of these local companies for raw materials. As we grow, they grow."

### **Possible Training Program Inspired By Germany**

Jake Nichol also likes to talk about the *Oregon Manufacturing Workforce Strategy* to "create industry-specific and regional based centers" of manufacturing activity across the

***“Better productivity has enabled us to move assembly jobs from surrounding areas into Oregon. For example, we eliminated 200 subcontractor jobs elsewhere and moved those functions here.”***

**— Lane Tobiassen , President, Crimson Trace Corporation (CTC)**

state and leverage resources and share best practices. Its particular focus is on being proactive, promoting education and countering negative opinions and a perceived lack of a trained workforce.

Not afraid to tackle the need for more well-educated and well-trained workers head-on, Nichol is intrigued by the many high quality tool-and-die makers and engineers BMW consistently turns out in Germany. “They continually make progress in engineering and machinist training,” Nichol said. “I could see Leatherman starting such an apprenticeship program.”

While there has been a call for better state funding for education and workforce training, in some ways industry has taken the matter into their own hands.

**Top Minds Needed:  
Industry Invests In Our Future**

Oregon has an opportunity to take the lead, rather than lag behind, when it comes to developing a world-class workforce. If innovation and new product development at companies like Leatherman, Leupold and Crimson Trace are going to continue to drive success, they’ll need more access to a well trained, highly educated engineering force.

“A more vibrant state economy begins with a more robust, trained, educated workforce,” Werth commented.

Tobiassen said that finding the right engineers to fuel growth is tough. “Every year, recruiting seems to take longer. It’s not as much of a challenge finding

skilled workers as it is finding talent on the engineering side... the talent’s there, it’s just been more difficult.”

Toward that end, many of Oregon’s top manufacturing firms have co-funded a successful internship program to create internships and help develop top-flight engineers.

**Multiple Engineering  
Co-Op Program (MECOP)**

The hub of the education/training wheel serving Oregon manufacturers just may be the

*Multiple Engineering Co-op Program (MECOP).* It embraces engineering and management students from Oregon State University, Oregon Institute of Technology and Portland State University.

Program director Gary Petersen said “We recently helped place more than 420 students in engineering internships with many of the state’s top manufacturing firms.”

“It’s an atypical internship. The biggest winners are the students. But the second winner is industry, with a pool of talent that can be

***“A more vibrant state economy begins with a more robust, trained, educated workforce.”***

**— Howard Werth, CFO and Treasurer, Leupold & Stevens, Inc.**



*Manufacturing pay premium in Oregon was 34% over annual compensation averages for the rest of the Oregon workforce, according to the National Association of Manufacturers’ calculations.*

*Photo courtesy of Leupold & Stevens*

depended on," Petersen continued.

The goal: turning out the highest quality engineers possible for the Northwest workforce.

With turnover being a huge expense for most companies, internship and training programs such as MECOP have proven invaluable, both to the students, and to the manufacturing sector.

**Education: The Foundation of Manufacturing Growth**

"The only way we'll compete in the U.S. is to outthink the rest of the world," said Fred Vetter, VP of Manufacturing at Oregon Freeze Dry.

To do that, Oregon must expand the ways it can accommodate and train the engineers and technicians of tomorrow. "MECOP has been wonderfully successful. It shows how business and industry have effectively taken the lead," Vetter pointed out.

And while degreed engineers are a huge need, it's outstripped by growing demand for technicians, machinists, tool-and-die operators and maintenance professionals. "To be successful, every engineer needs a dozen good technicians," Vetter believes. He has been instrumental in helping develop that technical savvy. With his help, Linn-Benton Community College developed an innovative program to help educate the kinds of technicians required to enable technology.

The Linn-Benton Community College program is called Mechatronics (the word is from a combination of "mechanics" and "electronics"). Still in its infancy, Mechatronics is the type of program that needs to be nurtured and encouraged with state support. It's symbolic of the type of positive thing Oregon needs to be known for, rather than the dearth of negative feelings surrounding the state business climate.

**Tax Structure: Barrier to Business, Ammo For Other States?**

Fueled by the fact that Oregon passed the toughest water purity laws in the nation and tax Measures 66 and 67, neighboring states have been particularly emboldened to try and poach manufacturing businesses from Oregon.

Howard Werth wonders what message we



*Jake Nichol, President and CEO of Leatherman Tool Group, Inc., believes "We need to let free enterprise work. Don't encumber business with excessive government regulation."*

send business with Oregon's tax structure, and its incumbent difficulties. "You have to wonder 'what are we telling people here?' At times it feels like a very mixed message," he said.

The actual tax implications unleashed by the passage of Measures 66 and 67 was perhaps overshadowed by the way it has emboldened neighboring states. Since their passage, aggressive administrations in other states frequently come knocking on the doors of Oregon business.

Werth said, "We want to retain Oregon jobs, versus folding to the pressure to move out of state." And that pressure has been relentless, particularly from Idaho, Washington, Tennessee and Kentucky.

His belief is that confusion associated with the passage of the tax measures could have been stemmed somewhat with better communications from government about what programs mean, and what the implications truly are, both for individuals and manufacturers.

"Really, we need better ongoing communication with the public at large from the state," Werth noted.

**Charting a Proactive Course for Growth**

At this point, what the new Kitzhaber administration will do to incent the growth of

manufacturing is unclear. Early indications are that he may continue pursuits of green energy initiatives. But some wonder if we're ready for that kind of investment.

"Green industry incentives are okay, but only if there are enough customers demanding their products. Front-end tax abatements are fine, but just be sure that on the back-end there are enough customers to justify it," Tobiassen said.

Regardless of which way Oregon's tax structure or state incentive programs are headed, manufacturers seem to be in agreement on what's needed now.

- Education funding for engineering programs
- Expanding technical training programs and education
- Ongoing efforts to make tax-structures more business friendly

Noting the way government tends to become over-involved in business, Jake Nichol had one final request that summed up how many manufacturers feel: "We need to let free enterprise work. Don't encumber business with excessive government regulation."