Darlene Miller, president and CEO, Permac Industries

Business must help Minnesota improve preparation of young people for skilled jobs

A Civic Caucus Focus on Competitiveness Interview

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Present
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Summary
Darlene Miller believes business and industry can make a difference in education. She says most manufacturing jobs today require special skills and training, including strong math skills. Experiencing herself the widespread shortage of skilled workers for precision manufacturing jobs, she shepherded the development of Right Skills Now (RSN), a fast-tracked, credentialed education and internship program to train workers for those jobs. The program is currently in place on one private and three public community and technical college campuses in Minnesota and is spreading to other states.

Miller believes that taxes in Minnesota, especially property taxes, are too high and that the state's regulatory system is "onerous." But, she says, that is balanced off by the state's strong workforce, which, along with the strong supplier network her company needs, keeps Permac in Minnesota. She's emphatic that the quality of Minnesota's workforce is more important than any tax incentive another state might offer to try to lure Permac to relocate there.

But Miller worries that K-12 schools are not preparing students adequately for the skills they'll need in the workforce. She says many students are not well enough prepared to pass the entrance exam to enter the RSN program, because they are lacking math skills. She believes that cutting trade classes from high schools may have contributed to a higher dropout rate, because those classes helped many students understand why they should learn things like math.
Background
Darlene Miller is president, CEO and owner of Permac Industries, a precision parts manufacturing company located in Burnsville, Minnesota. She got her manufacturing jump-start at Honeywell. She later moved through the operational and sales ranks with other employers, gaining the solid background she needed to head a precision parts manufacturing company. She started as a sales representative at Permac in 1992, became part owner in 1993 and full owner in 1994.

Since Miller's purchase of Permac, the company has entered the global marketplace, especially in India and China. In its present location since 1998, the company has doubled its space to 34,000 square feet, including space for customer inventory management, assembly areas, engineering and administrative offices, and a quality control laboratory. Under her leadership, Permac won the national 2008 U.S. Chamber of Commerce Small Business of the Year award.

Since 2011, Miller has been a member of the President's Council for Jobs and Competitiveness, serving as co-chair of the High-Tech Education Committee with Paul Otellini, former president and CEO of Intel. In that role, she has shepherded the development of Right Skills Now, a fast-tracked, credentialed education and internship program to train workers for precision manufacturing. In 2005, she founded the local chapter of Hope for Tomorrow, a mentoring program that pairs business leaders with eighth- and ninth-grade girls and boys to nurture tomorrow's leaders. In 2006, she was named national U.S. Chamber of Commerce Small Business Person of the Year.

Discussion

Permac Industries is a precision parts manufacturing company located in Burnsville. Darlene Miller, president, CEO and owner of Permac, said the company has 25 employees, with openings for more. Wages at the company range from $13 an hour to more than $30 an hour. She noted that the company has a profit-sharing program, distributing 10 percent of its profits. Fifty percent of the profit-sharing pool goes to everyone who's eligible. Teams get 25 percent and 25 percent goes to individuals, both based on points earned for reaching particular goals.

Business and industry can make a difference in education. As a member since 2011 of the President's Council for Jobs and Competitiveness and co-chair of its High-Tech Education Committee, Miller said President Barack Obama challenged her and other members to look at what their industries could do to make a difference in education.

Miller took the challenge to heart. "All I've heard during 25 years of being in business is that we can't find qualified machinists," she said. "It's a complaint of mine and of everybody I know. The talent just is not out there. It doesn't matter what state you're in. I can visit anywhere and they have openings in manufacturing. This is a worldwide problem."

Miller said schools were producing machinists, but not quickly enough and not always with the skills manufacturers needed. "There was a gap between what schools thought we needed and what we really needed," she said. "Strong, strong math skills were a huge part of that and some of the soft skills and problem-solving skills, too."
Right Skills Now (RSN) is a fast-tracked, credentialed, stackable credit program that is transferable from company to company and from state to state. The key components are the earned credentials and internships with manufacturers.

Several years ago, Miller approached Barb Overshaw and E.J. Daigle at Dunwoody College of Technology in Minneapolis about developing a fast-tracked, credentialed training program for machinists. "I told them that I needed something today," she said. "We're all stagnated and can't grow our businesses." She worked with Daigle to condense the program down from two years to 24 weeks, including an internship with a manufacturing business. "I want them to be able to get a job when they get out," she said. They called the program Right Skills Now.

As people get closer to graduation, prior to going on internship, they have to earn the National Institute of Metalworking Skills (NIMS) credentials, which certifies their competency in skills very specific to manufacturing, such as milling, turning, safety, math and blueprint reading.

"It's a win for the school that ends up with a course supported by employers, and it's a win for employers, because credentialed graduates will come with known skills," she said. "It's a win for the students, because they'll have a job. They can stay with the company and continue their education in the manufacturing sector, and we'll pay them to do that."

At Miller's behest, workforce centers and community colleges utilize a "silver level" National Career Readiness Certificate (NCRC) test developed by ACT as an entrance test for the program. Anyone who goes into this program has to pass this test; if not, they can take remedial courses to get there, she said. "We want the people in the program to succeed."

The RSN program is spreading to other states. Miller said RSN is "still in its infancy. We're only in four campuses now in Minnesota. But to have this kind of program spreading across the country is good. It'll still take time." She noted that there are similar programs in other community colleges that are NIMS-credentialed and that RSN isn't and doesn't have to be the only program of its kind.

Miller said she meets with quite a few different colleges and business owners to tell them about RSN. "You have to engage both schools and businesses," she said. There are 30 to 35 Right Skills Now programs in seven or eight states now. "The word is really getting out," she said. The National Association of Manufacturing (NAM) will help any college or community college to start RSN and NIMS will help with the credentialing, she said.

The first Right Skills Now programs started in January 2012. Dunwoody and South Central College, a two-year community and technical college with campuses in Faribault and North Mankato, initiated the program at the same time. And St. Paul College recently started the program. The first RSN class had 20 to 24 students, with only two dropouts. The students' average age was and is 38, with people ranging in age from 18 to 54.

Most manufacturing jobs today require special skills and training. Machinists need high-level math skills, Miller said. "We need the brightest and the smartest. The days are gone when you could get a job in a factory without training. Back in the '70s, about 78 percent of manufacturing jobs were entry-level jobs you could get after finishing high school. Now that same percentage of low-skill entry-
level jobs is in the low 20s. For the most part, you have to have the higher level skills and training. We have very few entry-level jobs. It's really changed from where we were 35 to 40 years ago.

**Every student needs advanced education, but not necessarily four years of college.** Miller said she made that point to President Obama after he had said every student should have the opportunity to get a college degree. He agreed with her.

**We must change students’ perception of the importance of math skills early.** An interviewer who is a retired math teacher commented that eighth-grade girls saw no relevance to math, until they got into home economics or wood-shop classes, where they actually used the math. "You need to change their mindset by sixth or seventh grade," he said.

Miller agreed. She described the dual internship system in Germany, which starts when students are 11 or 12 years old. They spend two weeks every year at whatever type of business or trade they're interested in. They don't go to university, unless they're going to be a doctor, lawyer or teacher, until they finish their apprenticeship. They train through the trades and then they can go on to university, if they wish.

An interviewer asked whether high school readies kids for the initial ACT entrance test to RSN. "My gut reaction is no, because of the math skills," she said. "There is no doubt" that needs to change for us to have a qualified workforce.

An interviewer commented that Minnesota’s Postsecondary Enrollment Options program (PSEO) could provide an interesting way to penetrate the high schools. High school students could use PSEO to participate in community college programs that provide this type of manufacturing skills training, he said.

**Cutting trade classes from high schools may have contributed to a higher dropout rate.** An interviewer commented that a critical problem in Minnesota is the big gap for kids who are underachieving. Miller said she thinks the problem goes back to when schools stopped offering industrial arts, home economics and any trade classes. "High school dropouts increased to 30 percent," she said. "I think there's a correlation. Lots of people in high school don't have the stimulation they need to understand why they are learning certain things. And a lot of schools are teaching things the kids are never going to use. Why are we teaching Greek mythology instead of math? These kids need the stimulation, and to get that, they need the awareness of what potential there is out there."

**A strong workforce and strong supplier network keep Permac in Minnesota.** An interviewer asked about Minnesota’s foundational competitiveness in things like an educated workforce, a good education system, infrastructure, higher education, health care and transportation. "All those infrastructure things are so critical to our success," Miller said. "We create five to eight other jobs for each manufacturing job we create." And, she said, her company needs other companies, which can be located anywhere in the state, to do things like heat treating, plating, finishing and tooling. Minnesota is strong in that supplier support and in all the other services, like payroll and health care, she said.
"Are taxes too high?" she asked. "Absolutely. We're punished as businesses by property taxes, but there is the balance of the good workforce.

An interviewer asked whether Miller is approached to move her business to other cities in Minnesota or to other states. She said she's approached mainly by South Dakota, North Dakota and especially Wisconsin, which does aggressive promoting. "I think the workforce in Minnesota is so much better," she said. "The work ethic here and the people here are so much better than in many other areas. I have no interest in moving. I looked at Wisconsin years ago, but I think we're better off here."

"I can't take my workforce with me," she said. "The quality of the workforce is absolutely more important than any tax incentive we might get."

Miller offered that it's sometimes hard to see other companies lured to Minnesota by various local or state government financial incentives. "But if I'm going to add 100 new jobs, I can't go back to the city or state and ask for something like a tax abatement," she said.

**Minnesota's regulatory system is onerous.** "Over-regulation by both state and federal agencies is affecting all of us," she said. "Why do we have to have both?" She said businesses are punished by regulatory paperwork. It can take 40 hours just to fill out paperwork to confirm that the company doesn't use any toxic chemicals. "It's assumed we'll do something wrong and they're going to catch it. We're considered guilty before we're proven innocent. The people who come out are not really trained to do their jobs. They're not educated as to what industries do. It's not always a friendly, collaborative environment."

**Permac doubled its space in 2008, but may soon outgrow its current building.** When asked if Permac has expansion plans, Miller said the company doubled its space in 2008 to 34,000 square feet of space. "We're now at the max for this building," she said.

Miller said she gets along well with the city and that it was very helpful with regulations when Permac did its expansion. "The planning commission was a challenge," she said. "The city council members were very helpful people."

**Hope for Tomorrow is a mentoring program that pairs business leaders with eighth- and ninth-grade students for eight months.** In 2005, Miller co-founded the local chapter of Hope for Tomorrow. Each mentoring pair meets once a month, giving kids the support of another adult in their lives, she said. The pairs are matched randomly. Mentoring groups for boys and girls are separate. "We work on self-esteem, confidence, leadership and career building," she said. "We take them to colleges and businesses and show them the opportunities in their lives. We have seen transformations that are just unbelievable." She added that 13 schools in Minnesota have the program now and that Chattanooga is about to start one.

**Conclusion**
An interviewer summarized that one clear message from Miller is that Minnesota needs to be more systematic in preparing its young people for jobs that are available and today we're not doing a decent job of that. "That is very, very true," Miller said. "The other part is that business must be engaged in helping make that happen."

Further, Miller said that her second message would be that the burden of paperwork imposed by regulatory agencies is overwhelming and has a chilling effect on decisions to invest in new technologies that could create additional jobs.