



The Students Speak

A recent focus group of students attending St. Paul College talked about the skills gap, opportunities in manufacturing, and why more students don't select a technical education

Did you know, early on, that you wanted to attend St. Paul College?

Not at all. It was not until I was just about out of the military when I decided where I wanted to go.

I like working with my hands. I was going to go into greenhouses ... either that or welding ... and I picked welding. We had our own greenhouse. The welding was a basic high school welding shop. We had a couple of booths and a couple of (BRAND) welders. We were a private charter school. We were publicly funded, and so we did what we could to get by.

I tried doing everything else; manufacturing-wise and assembly, some design work and different things, but machining is a core of a lot of that stuff.

I received a taste of machining at my last job and started looking for a program. I assumed it would be longer. We spent three semesters with really thorough instruction. I looked into it, found it, and thought it was a good deal. I know this used to be (SCHOOL). I used to go here and found out it is a college now—instead of a technical school. They had the program available. I live in (CITY), and it's close to home.

A long time ago we had a program in (CITY) where we could spend half the day at the (SCHOOL). It was there I took welding, and I enjoyed it. I always thought, "You know, someday when I grow up, I'll take the real welding course, you know, the full-fledged one."

What kinds of things did you do in between?

School ... lawyer ... computer tech ... computer consultant ... networking ... Finally, I said, "Okay, I'm done with all that crap. I want to go do welding."



How did you select this particular school?

There were two factors. Its location was probably the primary thing, followed by its reputation; it was the best school within a reasonable distance from my house. Another thing is I wanted to get into robotics. None of the other schools had any robots. I was looking to integrate my computer experiences with welding experiences and troubleshoot while dealing with robots, but there's not a lot of that.

I jumped out of high school and went to (SCHOOL). I spent about a year there and found I just couldn't get a lot of what I needed from my teachers because of how big the classes were. I strayed from that, tried working full time at (COMPANY), and performed cross-country forklift operations. I did some web designing on the side. I figured I'd give a school a shot again. I tried going for carpentry at (SCHOOL). I tried doing some fun stuff at (SCHOOL), but that didn't work out very well either. This one—the classrooms are small enough for you to learn a lot and get enough attention from your teachers. That's perfect for me.

In high school, there was more of the "read this by yourself, and you'll have a test on it." Here, my instructor will spend an extra hour in the classroom if we need to. We just finished a project, and half of us didn't understand it. He assigned another project so we would get it. That has not happened to me before.

Who else, college?

I went to (COLLEGE) for two years, moved back here, and went to (COLLEGE) for a semester.

(CITY) school? I was pursuing a degree in education for a while, but the whole four-year college thing was very expensive, and I figured out that wasn't really what I wanted to do. After a while of trying it and not feeling like that was my spot, I did a little research on welding, in particular, and where a good place to learn it would be. (SCHOOL) has a lot of awards and accolades about being the best place around here. I decided to try it out and have enjoyed it.

There are always fewer women than

I earned a degree, a bachelor of science in technical theater. ... Eventually, I decided that not having benefits, a 401(k), or any retirement future, was terrible. I took the skills I had and moved them into a different field that had those possibilities. Designing stuff—making stuff with my hands—transitioned into making things with metal instead of with 2x4s.

men in these classes. Do you think there will be more and more women getting into manufacturing and the trades?

What age, sex, or body type you have. You can fit in anywhere—no matter how strong you are.

I'm not trying to be sexist or anything, but I feel like our history is more of men in the trades. I feel like you have to be a certain kind of girl to break free from the norm and get into a trade. I believe that women are going to get into trades; hopefully, at least.

I went to (COLLEGE) for one semester while trying to take generals and figure out what I wanted to do. I hate sitting in a classroom. I wanted to get hands-on because I like to do stuff. I don't want to work behind a desk and sit there all day. My brother, he's a businessman, he said, "I'm going to (COLLEGE) because my friend goes there. He says it's not bad—and he had a job—and that was important to me." He looked into it with me, at all the best schools and price points. This is the top of the line school in my area, for sure.

What inspired you to go to (COLLEGE) first before trying this?

It was close by. I thought I had to do something school-wise because you're told in high school, "You have to get a degree," and all this stuff. Unless you gravitate toward being in a trade or doing that kind of stuff in high school, you don't know what's out there, how much money you can make from it, or that it is a good living.

My dad and I were looking into this school, we found there was a tuition assistance program, and I hit an age where I could qualify as independent. That gave me the opportunity to jump back into school and get federal grant money so I could go.

I wanted job security; that was first on my mind. I thought, going through UPS

and forklift operations, that the most I was going to make were \$45,000, at best, and they could replace you with anybody. In five minutes, somebody can learn how to run a forklift.

Doing the cooking, with management taking so long, I got stuck on second shift. My kids were finally old enough to recognize, "We don't see you anymore. Where are you? You need to stay home at night and tuck us in." I realized, "Ooh, I have to find a job which will let me do that." I knew right away that I was going to—even if it was line production—I was going to have to do some factory work, because they care. I have to get into some factory work, or some trade, where I'm required to do day shift.

If you're CNC or a good welder, you can go into business on your own and be quite successful. In fact, it's one of those career paths where you can start working for somebody, accumulate a little experience, and then you can take a step out into the industry on your own.

My dad owned his own machine business when I was younger. He eventually sold it, but I grew up around CNC machines my whole life, and I thought they were cool; you get to tell a robot what to do, and it makes parts. That's what I do.

I have a bunch of friends who live on farms, and all you do is fix stuff yourself. A bunch of my buddies have parents who welded, so I tried it there, tried it in high school, and I loved it. I heard (COLLEGE) had one of the best instructors and the best program. I asked, "Why not?"

I was home-schooled, but my local high school offered a program where you could take high school classes at (COLLEGE). One of those offered was called Auto Dismantling. Once a week we did welding. It wasn't a very big area, and I didn't care. At that point, I was just looking forward to

welding once a week, and then it took off from there. I decided to come here because a teacher talked about (COLLEGE) a lot if you want to do welding.

My parents don't come from any manufacturing background at all. My dad was in advertising, and my mom was a lawyer before she passed. When I got out of high school, it was, "You will go to a four-year college and get a degree." Coming out and saying, "No, I'm going to go to a two-year college and will get a technical degree," definitely was met with some skepticism at first. I think there's a lot more information out there now about how lucrative this career path can be. After showing my dad a few resources, he was convinced quickly that it was a good move.

When we interview manufacturing executives someone will always mention that one of their obstacles to recruiting new employees is that parents, teachers and school counselors are always pushing for the four-year degree. What do you say?

That's why I'm finally here; because I've done (COLLEGE) out of high school, (COLLEGE), (COLLEGE), and (COLLEGE) here. The only reason I went to (COLLEGE) out of high school is that they said, "You must get a four-year degree." The good thing here is I've been working with (NAME), the dean of our school, about... I'll end up with an associate's degree because of the accumulated knowledge. Something (COLLEGE) does is work through associate degree stuff with you, as well as your diploma or certificate, whatever program you're in. It's another piece of the puzzle put together to take to somebody and show them.

A lot of high schools don't push the technical stuff anymore. I lived in (CITY), ended up in (SCHOOL) because my parents worked there, and then I came here. I often joke with people that the only thing they taught me, there was white collar crime.

I agree with that. If you're not really in a shop setting the majority of the teachers will push you to a four-year college. Whereas, if you were to sit in a regular class and not a shop setting—English or something—they're going to push you

more towards the four-year. If you go to the shop setting part of the school, they're going to push you more towards trades and stuff like that. I have friends who are going to (COLLEGE), and they don't even know what the hell they want to do. They're just getting into generals. Everyone who was in the shop setting went into the trades, they all know exactly what they want to do, and they enjoy it.

Every teacher, my wife is a teacher, and all teachers are required to have four-year degrees. I think sometimes they miss the value. They miss the value of a two-year degree, but the school wouldn't be there if it weren't for trades and manufacturing.

What happened to change that? Back when I was in high school in the mid-'70s, they pushed me toward the technical thing. I did the welding, but I knew I wanted to go to college. I wanted to get a four-year degree. I did get all kinds of schooling. I'm hearing all the people now saying they don't even have a shop. We had a bell shop, a wood shop, an auto shop.

If you're CNC or a good welder, you can go into business on your own and be quite successful. In fact, it's one of those career paths where you can start working for somebody, accumulate a little experience, and then you can take a step out into the industry on your own.

Shops cost a lot of money in a high school.

The statistics show that people with a four-year degree, over a lifetime, make much more money than those who don't have one.

I graduated from (SCHOOL), just down the road, and the closest thing we had to a metal shop—or any other kind of shop—was the technical theater that was tucked into the corner with some hand-me-down

saws and everything else. God, I wish there were some counselors who even bothered to suggest going to technical schools.

They were aware of it, but it was frowned upon. You're going to a private campus school, so it's assumed, with your better education, higher pay, and the money you're putting into it, that you're going to be the better student who can go and get a four-year degree and then keep going up. This is short-sighted in the fact that the parents might have had higher aspirations, but I had my ten-year reunion, and the number of people who are now at (COMPANY), (COMPANY), and (COMPANY) moving boxes is phenomenal.

I earned a degree, a bachelor of science in technical theater, from (SCHOOL). I bounced around doing what I loved—theater related stuff—because that was what I was familiar with. Eventually, I decided that not having benefits, a 401(k), or any retirement future, was terrible. I took the skills I had and moved them into a different field that had those possibilities. Designing stuff—making stuff with my hands—transitioned into making things with metal instead of with 2x4s.

I went to (SCHOOL), and they had a lab with 3D printers and stuff like that. The counselors never told me to go to a trade school. They always told me to try and be an engineer or go to a four-year college and stuff like that. My shop teacher knew I didn't like school, so he mentioned, "I think a trade school would be perfect for you." I went to a trade school. I was never told once by a counselor to go to a trade school.

I was homeschooled for pretty much all of my life. I took some courses. What helped me get into the program was PSEO. That was a big deal. I was going to opt-in (SCHOOL) and ended up taking an auto body course. I did some welding on that one. I enjoyed the welding and the auto body, but once I decided to go for the full degree, the welding portion was fantastic, and I loved it. The auto body, not so much. It was not my thing; I don't know.

Is there anyone here that has any doubt that there's a job awaiting them when they finish?

No doubt, but I plan on building resumes at the end of April or beginning of May so



that I can time it right. I was going to do informational interviews because this is new to me. I don't know anything about the companies, the work environments, or anything. I was going to do that and try to find one to work at this summer.

I don't see an issue with trying to find

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a job as a welder or for any manufacturing. It's not the type of manufacturing or anything like that. There are a ton of positions, and they're all open. I'm linked to a website, and I get an email for every job that pops up for welding. There's not enough, my personal belief, welders for the jobs that need to be filled.

But then you get that picky type of person, "Oh, I only want to be a (blank) for this company. Oh, I can't find a job." Being a welder, you're very versatile as to what you can do. There are multiple types of welding: TIG, MIG, short arc, and spray. It's people getting the idea they want to do just one job for the rest of their life. It just doesn't work out.

What surprised you about being a student here?

In high school, I felt like the teacher didn't know what the heck she was talking about. I felt like my teacher was uneducated about welding. I hate to bash on the school, but when I came here it took me by surprise.

When we are in class, it's kind of like we're on the floor, you know? We're informed either the day prior, or the Monday prior, what we have to get done. We clock in, and we do it. You hear whether we choose to take it or not. Break time, or eat? It's just like in the real world. We're being put in an environment where, although

we're in school, we're still working.

It's simple enough to understand. I know we had one guy in our class, when we were working on tubes and trying to find the surface area of them, he was having such a hard time trying to grasp it. There are two circles you have to work with, but, after an hour of explaining, he finally figured it out. It takes time, but math is simple.

I'm here from the military where I was an infantryman. I didn't want to go to school, couldn't apply myself to school or anything like that, at the time. I was honestly impressed with what my actual math and English scores were.

Another student and I had low scores on the math. The teachers got together and hired a tutor. The tutor was amazing. The math is hard for me.

We struggle because some of us are fine with the math and would like to move on but another portion of the class is struggling hard with it. It makes it difficult to gauge what the right speed to go at is for some of the math, depending on the student.

Manufacturing executives tell us that the skills gap is still a big challenge for them. What advice would you give them?

Internships—I haven't had one. There have been a couple of different places I've talked to about them, but I've seen internships as a trial for everybody. You get to learn the company or the job. You get to learn, and the company gets less expensive labor. There's some risk involved for them, of course; learning or teaching and having somebody walk away, but that's experience.

I would agree with that because right now the amount of comfort I have going into the welding is (low). If I were to have an internship, if there were more available options for an internship, I'd be more comfortable going into the field, whether it's that you're slowly moving into it, or you're jumping into it right away.

All my jobs have been internships, and I was working with the baby boomer who has worked the job. Not this job, so much, but my last two. Learning from them and knowing the way to do it at a low price for them—I didn't get benefits—well, I did with the union, but it's cheap labor, compared to their entry...

Coming straight out of high school, it's

going to be my first real job ever. I guess I'm nervous. I've never had a full-time job before. I worked part-time, 30 hours a week. I want a full-time internship, so I can get up, go to work every ... five, six days a week, and have that feeling I can do it.

I don't know if there's anything like this, but if there was an available list of which companies are readily available to give out internships... (COLLEGE) had a list of who was looking for interns—who they're willing to teach while they're working—stuff like that. That would also help. I think that would also help bring more people in and it would also help the workers,

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themselves, become more knowledgeable about the job.

When I went to HVAC school, they had postings of about 30 different jobs. I thought that was nice. The problem with that is they say HVAC is one of the highest paid trade jobs, but they want three years of experience. The big issue was you can get paid \$60,000-70,000 coming right out of school—some are willing to pay that if you're willing to sell a bunch of crap. I would look up HVAC jobs, and most of them were looking for five or ten years of experience, and they were willing to pay six figures.

Some manufacturers have challenged with the so-called soft skills of younger employees. You know, coming to work on time, staying all day, staying off the phone, things like that. Do you agree that is an issue?

One of the biggest issues.

We lost out on our math portion last

semester because half of our class would show up about two hours late and then stay for three hours... not even three hours... maybe like an hour and a half, and then go home. The rest of us, we're trying to learn as much math as we can.

Thinning the herd.

(SCHOOL) does that.

That's what our instructor did.

Three days and he lost one letter grade.

Four days and he lost another...

We had people who fell off the face of the earth. Honestly, we don't know where they went. We have people who show up when they want to. If they want to sleep in an extra couple of hours, they say, "Oh, I'm just going to go in late."

I was going to say, for some people, at least in our class, we'll have a Wednesday class where it's a half-day. A lot of times the people who are driving in for 50 minutes, for them, they weigh it. "Okay, I'm driving almost two hours for a half day of school, maybe it's better if I just stay home."

There are also the people who work 40 hours a week. I work a full-time job and go to school full time. A lot of times, around 11:30 or 12:00, I'll leave school and go to work so I can make my hours and make my money to go here. Alarm clock issues? I'm a prime example. I have three different alarm clocks, and I have eight different alarms on my phone. I won't wake up to it at all.

Yeah, and some of us have been around long enough to figure out that, when you lose a job once, it's, "Whoops, I won't do it again."

I'll piggy back on that one. I paid for my education, worked hard, and I want to be here as much as I can be here—even if I stay late sometimes. "Okay, I have to stay late. I have to get my stuff done."

I work at a car dealership and the turnaround... I work in the quick lane at a (COMPANY) dealership and the turnover rate for every person... Maybe that person will be there for about two months. It's ridiculous.

The majority of them are high schoolers, but still, that's ... They're starting out in that state of mind. "Oh, that's just a simple job, I can just go get another one." ■

The State of Manufacturing®

2017 State of Manufacturing® Event Schedule

The State of Manufacturing® results will be unveiled at a series of meetings statewide. All are invited. You can register at www.stateofmanufacturing.com.

Here's the schedule.

Statewide Survey Release Event

Tuesday, May 9

4 - 7 pm

Minneapolis Convention Center
1301 2nd Ave S. - Room 101
Minneapolis, MN 55403

Southern Minnesota

Wednesday, May 10

9 am - 12 pm

Steele County History Center
1700 Austin Road
Owatonna, MN 55060

West Central Minnesota

Wednesday, May 17

9 am - 12 pm

Bigwood Event Center
Kempfer Room
925 Western Ave
Fergus Falls, MN 56537

Central Minnesota

Thursday, May 18

9:30 am - 12:30 pm

St. Cloud State University
Atwood Memorial Center
651 1st Ave S.
St. Cloud, MN 56301

Southwest Minnesota

Monday, May 22

9 am - 12 pm

Southwest Minnesota State University
Conference Center - Upper Ballroom
1501 State Street
Marshall, MN 56258

Northwest Minnesota

Tuesday, May 23

9 am - 12 pm

Northwest Minnesota Foundation
201 3rd St. NW
Bemidji, MN 56601

Northeast Minnesota

Thursday, Jun 8

1:30 pm - 3:30 pm

Detroit Diesel Remanufacturing
3895 South Hughes Road
Hibbing, MN 55746

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