

Testimony of D. Ray Perren, D.S.L.

President

Lanier Technical College, Oakwood, Georgia

A Unit of the Technical College System of Georgia

Before the Committee on Small Business

United States House of Representatives

“The New Faces of American Manufacturing”

May 12, 2016

Good morning Chairman Chabot, Ranking Member Velazquez, and members of the committee. I appreciate the opportunity to come before you today to discuss the changing face of American manufacturing and the need to assure we have a well-trained workforce. My name is Ray Perren. I am the president of Lanier Technical College. Lanier Tech is a public two-year postsecondary institution within the Technical College System of Georgia. I am just completing my thirty-sixth year as an educator. I spent my first twenty years in K-12 education serving in roles including classroom teacher, elementary school principal, middle school principal, system curriculum director, assistant superintendent, with my last four years in K-12 spent as district superintendent of schools. For the last 16 years I have served as dean of academic affairs for a university, and for the last ten as a technical college president. All of these stops along the way have allowed me to be involved in education from Pre-Kindergarten through graduate programs. I have been fortunate to be involved in education during the time of the Technological Revolution.

The New Faces of Manufacturing vs. Lingering Perceptions

I think it is a given that the face of manufacturing has changed greatly in the last few decades. In fact, the Technological Revolution has changed the face of manufacturing as much in the 21st Century as did the Industrial Revolution in the 19th Century. In his classic work, *The Wealth of Nations*, Adam Smith identifies the factors of production as land, labor, and capital. The technological revolution has allowed manufacturers to increase productivity and profitability by decreasing the costs associated with labor. We've all heard the comments, "Robots are going to replace humans in the workforce." Although this is a bit of an exaggeration, it is true that technological advances- such as robotics- allow manufacturers to increase productivity while managing labor costs. Technology allows us to produce more using less human labor. But technology does not and will not replace humans in the workforce.

We have all heard of the concept of "reshoring." Reshoring is where manufacturers who moved production from the United States in the last one-third of the 20th Century are bringing operations back. These operations are not returning in the same form in which they left. The jobs created by reshoring require a different skill set than the jobs lost by offshoring. It is no longer acceptable to simply have warm bodies working in manufacturing settings. Today's manufacturing environment requires highly skilled individuals who not only understand complex technological applications but also are adept at problem solving.

Although the face of manufacturing is changing, too often the perception of manufacturing has not changed. Too often, people think of manufacturing jobs as being physically repetitive work, carried out in dirty environments, with little or no ability to utilize critical thinking to improve job performance. Nothing could be further from the truth. The repetitive motions and monotonous tasks that would have been performed by workers of the past have been replaced by robotics and other forms of automation.

A couple of years ago, I had the opportunity to tour the manufacturing facility Caterpillar had recently opened just outside of Athens, Georgia. I was impressed by the cleanliness of the work environment, the focus on teamwork, and the encouragement of critical thinking by all employees. In Gainesville, Georgia, American Yazaki Corporation has a program that allows workers to change work assignments every two hours. This reduces the possibility of repetitive motion injuries and provides for a very flexible workforce. These are examples of how

manufacturers invest in and treat their workforce. All across this nation, the modern manufacturing environment is very clean and is very likely air conditioned. In fact, many if not most of our nation's manufacturers practice lean manufacturing and quality philosophies that require the workplace to be clean, safe and highly organized. Today's manufacturing jobs are well-paying. For example, graduates of our Industrial Systems Technology, Machine Tool Technology, and Welding Technology programs can expect entry level wages of \$35,000 to \$45,000 annually. Wages for people with five or more years of experience could easily reach \$55,000 and above. Very often skilled craftsmen earn six figure incomes when overtime pay is factored in. Yes, manufacturing has changed. It is important to note that education programs are also changing in order to meet the needs of today's manufacturers.

One lingering perception is that in order to be successful in this country one must have a four-year degree and a white-collar job. Parents, high school guidance counselors, and others who have influence over our young people tend to steer high school students away from technical colleges. Too often, those that are steered toward technical colleges are the ones that counselors feel are "not cut out for college." While there will always be a demand for individuals with four-year college degrees, the truth is that most- and I do mean most- of today's high-tech jobs can be filled by individuals with two-year degrees or shorter certificates awarded by our nation's technical colleges. These technical colleges are our nation's pipeline to assure manufacturers have the work force needed to thrive in the United States. If I may use Georgia's technical colleges as an example, these institutions are regionally accredited, connected to business and industry, and allow students to prepare for good paying careers without accumulating large amounts of debt.

Technical Colleges Provide Real-Life Education for Real-Life Careers

Georgia's technical colleges use a hands-on, lab based instruction model. Although our students learn theory, the majority of their course work is done in laboratory and clinical settings. Our instructors not only have the credentials needed to teach in a regionally accredited post-secondary institution, but they also have work experience in the field in which they are teaching. For example, all of our welding instructors have been welders, all of our mechatronics instructors have worked as maintenance technicians in manufacturing plants, and all of our engineering technology instructors have worked as engineers or engineering technicians in industrial settings. Additionally, instructors from each of our more than 40 program areas meet at least two times each year with industry advisory boards from the specific industry for which they are preparing our graduates. These industry advisory boards review curriculum, examine laboratory equipment, and keep the college informed of trends so that the programs stay current and relevant. Our programs not only focus on the hard skills necessary to be successful in the workplace, but also on the work ethic, soft skills if you will, that employers expect to find in employees. These work ethics include attendance, character, teamwork, appearance, attitude, productivity, organizational skills, communication, cooperation, and respect. Because of this hands-on instructional model, delivered by practitioners, regularly reviewed by industry partners, with additional focus on soft skills, we guarantee our graduates. If an employer hires a technical college graduate and finds that he or she does not perform at an acceptable skill level, then we will retrain the graduate at no cost to the graduate or the employer. Our nation's technical colleges are uniquely prepared to assure manufacturers have the workforce needed to keep America's economy the strongest in the world.

The Disconnect

According to the National Association of Manufacturers, 98.5% of our nation's 256,363 manufacturers are considered small business. Three-fourths of all manufacturers employ fewer than 20 people. Manufacturers are in almost every community across the nation. The average manufacturing worker in this country earns over \$52,000 per year. When benefits are factored in, the average compensation for manufacturing jobs is just short of \$80,000 per year. The overwhelming majority of these workers participate in health insurance programs through their employer. Over the next decade, nearly 3.5 million manufacturing jobs will be needed. Although manufacturers provide excellent pay and benefits, nearly 2 million of these 3.5 million jobs are likely to go unfilled due to the skills gap.

So we have good jobs. Today's young people represent the brightest generation this country has ever raised. So why the disconnect? I believe it goes back to perception and our long-standing definition of the American Dream where we all have good paying jobs, with benefits, allowing us to support a happy, healthy family. More discussions such as the one we are having today are necessary to help change the perception. These discussions need to be held not only in the halls of Congress, but also in every community in America. We need events to encourage this discussion such as the Manufacturer's Forum held by the Greater Hall Chamber of Commerce which bring together community leaders, high school administrators and counselors, business leaders, parents, and students. We need creative, outside the box solutions such as the partnership between Lanier Technical College, the Hall County and Gainesville City School Systems, Goodwill of North Georgia, and the Georgia Governor's Office of School Achievement which provide an alternate pathway to high school completion and career preparation for the growing number of very bright young people who have disengaged from the education process because they don't see the relevance. This program has provided outstanding results and has allowed a group of young people to go from being potential high school dropouts to skilled welders working for manufacturers such as Kubota.

What Can Congress Do?

I truly believe that in order to create awareness of the amazing careers available in manufacturing- and the critical nature of providing a highly-skilled, job ready workforce to meet the needs of manufacturers- this nation needs to experience a Sputnik Moment. Just as the nation got behind the effort to become the world's leader in space exploration in the 1950s and 60s, this nation needs to get behind the effort to secure our nation's role as the world's leading manufacturer. Our world-wide communications and defense systems would not exist today without the efforts to lead space exploration 50 years ago. Our place in the global economy 50 years from now will be determined by how we address the need to prepare today's young people to enter the nation's manufacturing workforce today.

While I believe that local efforts are essential, I also believe there is a role for the Congress and the Federal Government. I believe the Congress has a unique opportunity to support technical colleges in workforce development as you reauthorize the Carl D. Perkins Career and Technical Education Act. I urge you to use this opportunity to encourage secondary and postsecondary institutions to work together with local business and industry partners to develop career pathways that support manufacturing and other careers in each specific community. A "one size fits all approach" to career pathways is not practical in a nation as large and as diverse as is ours.

If a community is heavily engaged in manufacturing, then career pathways should reflect manufacturing. If a community is significantly engaged in manufacturing, health care and logistics, then career pathways should support those specific workforce sectors. These pathways should lead to postsecondary awards (degree, diploma, or certificate) and/or an industry recognized licensure or credential.

I also ask that you consider funding year-round Pell. Just as manufacturers and other employers never stop operations for more than a week or two, most technical colleges operate on a year-round calendar. Students are expected to attend fall, spring, AND summer semesters. Because many of our programs are “lock-step” in nature, students must go summer semester or risk having to sit out until that coursework is offered again. Technical training to support manufacturing is very rigorous. It requires the individual to learn a skill and become a proficient problem solver on a year-round basis. Manufacturers and businesses are looking for a steady stream of graduates- not just in May. Many of our students rely on Pell Grants and other forms of state and Federal financial aid to help them afford postsecondary education. Year-round Pell would go a long way to helping college become even more affordable for many of our students.

As we look to create a “Sputnik Moment” for career education, I would like to ask Congress to consider providing funds to improve our nation’s education infrastructure. Many of our technical colleges were built in the 1960s. Although technical colleges work to keep equipment up-to-date, some equipment is in service much too long due to lack of resources. Just as our nation’s highways and bridges form critical transportation infrastructure, education infrastructure provides the pathway from today into the future. I would also like to ask Congress to consider tax credits for businesses that invest in technical colleges by purchasing new or donating gently used equipment to help keep our infrastructure as current and modern as possible.

Finally, every time I come to this place I am in awe. I am in awe of the great history of this place. I am in awe of the great leadership this nation has been blessed with. I am in awe of the work you do here every day. I ask that you be in awe of us. Be in awe of the amazing work that happens in our nation’s technical colleges. Be in awe of the life-changing work we do in preparing young people and adults to enter the workforce with skills the skill sets that in high demand. Be in awe that the changes we are effecting are generational in nature. Grandchildren yet unborn will have a better quality of life thanks to the work our technical colleges are doing with their grandparent today.

Conclusion

In conclusion, I appreciate the time you have afforded me and this panel to discuss the new faces of American manufacturing. I ask for your help, and the help of the entire business and manufacturing community, in assuring our nation’s technical colleges provide the trained workforce our nation needs in order for our economy to prosper for generations to come. Help us facilitate that “Sputnik Moment” to business, industry, young people, parents, and others who influence the decisions of our youth and make them aware of the high-tech nature of today’s manufacturing environment, the excellent jobs with strong pay and benefits that are available in almost every community, and the understanding that you can attain the American Dream through graduating from one of our nation’s technical colleges. Thank you. I will be happy to answer any questions.