Written Testimony of Leah Curry

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Getting America Ready to Work:

Successful on the job, apprenticeship training programs to help workers and business get ready to work

SUBCOMITTTEE ON EMPLOYMENT AND WORKFORCE SAFETY

Sen. John Hickenlopper (D-CO), Subcommittee Chairman

Sen. Mike Braun (R-IN), Subcommittee Ranking Member

Committee on Health, Education, Labor and Pensions (HELP)

United States Senate

September 22, 2021

Good Morning, Chairman Hickenlooper, Ranking Member Braun, and members of the Subcommittee.

My name is Leah Curry and I am President of Toyota Motor Manufacturing, Indiana (TMMI), where we produce some of the most technologically advanced vehicles on the road today – the Highlander, Highlander Hybrid, Sequoia, and the all-hybrid Sienna minivan.

I want to thank the Subcommittee for conducting this hearing and giving me an opportunity to testify virtually. Workforce development is an extremely important topic for Toyota and all manufacturers in the United States. It is also one I care deeply about and try to impact daily.

Toyota in the US and Indiana

I am pleased to see many Senators on this subcommittee represent states where Toyota has significant operations, as well as workforce development partnerships. In fact, we have workforce development partnerships in all states represented on this committee minus two. In Colorado, in the Chairman's state, we have one program at Cherry Creek Innovation Campus in Centennial and our manufacturing program has been replicated at Pueblo Community College in Pueblo. Toyota has been a part of the cultural fabric in the U.S. for more than 60 years and our economic impact can be felt across the entire nation.

Over the years, we have invested more than $29 billion in the U.S. In June 2020, we completed our 5-year pledge to invest $13 billion in our U.S. operations one year earlier than anticipated. In April, my Indiana plant announced a new $803 million investment that will create an additional 1,400 jobs to build all-new, electrified Toyota and Lexus vehicles. It is the third major expansion at my plant in the past four years. With ten manufacturing facilities, nearly 1,500 dealerships and 180,000 people working across the United States, you can understand why the workforce pipeline is of paramount importance to Toyota.

Workforce Training

My passion for workforce development is directly connected to my own experience as a young woman trying to find her way both academically and professionally. Initially, I thought I wanted to be a chemist. Unfortunately, conducting chemical analysis in labs wasn't for me. Instead, when lab equipment failed, I learned that troubleshooting machines really excited me. So, I returned to school for industrial electronics. I started a long-term internship that allowed me to learn theory at school and apply it immediately on the job. That learning style suited me perfectly. Despite often being the only woman in the room, I was not deterred. I persevered and turned my passion for machines into an incredible manufacturing career.

As I reflect on those experiences, a few themes come to mind that are fundamental to how Toyota approaches workforce development.

First, exposure early in life matters. I came across the idea of pursuing technology as a career by chance after already embarking on a serious course of post-secondary studies. If I was exposed to technical or STEM programs before college, I would have landed on my pathway much soon. Since 2010, Toyota has provided $3.5 million to 184 K-12 schools in Indiana and across the country to implement Project Lead the Way programs that provide students with more STEM education and career pathways. Additionally, in the Princeton area, close to my plant, we have teamed up with four local high schools to create the 4T Academy, which is designed to connect upper-level students with career opportunities in advanced manufacturing. This effort has significantly increased the visibility of manufacturing career pathways in our region.

Secondly, combining classroom learning with on-the-job experiences is a powerful way to learn, particularly in manufacturing. In states where Toyota operates manufacturing plants, Toyota has collaborated with local community colleges to develop the highly successful advance manufacturing technician (or AMT) program. AMT students attend school two days a week and learn on the job site of their sponsoring company three days a week. They acquire technical knowledge, professional behaviors, and distinct manufacturing core skills through a focused co-op experience. Locally, in Indiana, I partner with Vincennes University. Nationally about 400 employers pool talent from 32 chapters in 12 states in what is known collectively as the Federation of Advanced Manufacturing Education or FAME USA. FAME USA is now led by the Manufacturing Institute, and it is quickly becoming America's premier home-grown manufacturing education network. Over 1,300 students have graduated since 2010, with more than 500 graduating since 2020 despite the pandemic.

Lastly, we cannot overstate the importance of intentionality around bringing historically underrepresented people into STEM careers. Toyota is collaborating with the National Alliance for Partnerships in Equity (NAPE) on it's "Make the Future" program, which provides tools to help educators, counselors, administrators, and recruiters increase the participation and persistence of women and other historically underrepresented student groups in education paths that prepare them for advanced manufacturing careers.

Policy Recommendations

As the full Committee considers next steps, I want to offer two policy suggestions.

First, because exposure early matters, I want to emphasize the importance of considering workforce development policies in conjunction with education policies. If education policies are not flexible enough to allow students to explore various pathways, students may ultimately bypass even the best workforce development opportunities.

Second, I urge the Committee to prioritize the reauthorization of the Workforce Innovation and Opportunity Act (WIOA). In doing so, the Committee should continue to allow for greater private sector participation in the workforce system. The FAME USA system proves that employers want to and can drive workforce development to new heights.

I very much appreciate this opportunity today to testify before you. I am happy to answer any questions you have.

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APPENDIX #1

The Advanced Manufacturing Technician (AMT) program, created and established by Toyota Motor North America back in 2010, and the Federation for Advanced Manufacturing Education (FAME) USA employer collaborative, stewarded by The Manufacturing Institute, is America's premier advanced manufacturing education program and network. It produces global-best, entry-level, multiskilled maintenance technicians through a concentrated co-op program of study that culminates in associate degree and an assured ticket to a career in advanced manufacturing.

The AMT curriculum is delineated by three fundamental components: a Technical Core, Manufacturing Core Exercises (MCEs), and Professional Behaviors.

The Technical Core includes many of the most in-demand skills sought by all manufacturers: electrical, fluid power, mechanics, and fabrication. Combined, they form the foundation of the global-best multi-skilled technician able to operate in an advanced manufacturing setting.

Students also develop a deep appreciation for manufacturing cultures, including "lean manufacturing" practices, that fully equip the AMT graduate to produce bottom-line company improvements. The MCEs include Safety Culture, 5S/Visual Workplace Organization, Lean Manufacturing for Maintenance, Problem Solving, and Machine Reliability. Each topic is introduced sequentially and reinforced consistently after introduction. Additionally, these exercises are paired with real-world experience to increase engagement and skills retention.

The daily reinforcement of professional behaviors and actions hone a student's ability to stand apart in today's workforce. This component complements both the technical core and MCEs and these behaviors are introduced, reinforced, and practiced daily to ensure the AMT gains the professional wherewithal to be successful in any environment.

New cohorts start each Fall semester and pursue a five-semester schedule composed of three days of learning at work paired with two days in a shop-floor emulation (known as the "Advanced Manufacturing Center" (AMC)) at the college campus. This schedule of paid work alternating with academic preparation enables students to earn a paycheck that can defray tuition and fees as they complete an associate degree while growing personal and professional skills that will greatly accelerate their manufacturing career.

A K-12 career pathway is supported by local chapters to build awareness of STEM and manufacturing careers early, while emphasizing recruitment from underrepresented populations. Additionally, AMT students earn an associate degree that opens options to related

bachelor's programs thus creating a career pipeline from kindergarten through post-secondary and into a fulfilling lifetime career.

There are currently 32 FAME Chapters nationally across 12 states. States with an active FAME chapter include Alabama, Colorado, Florida, Indiana, Kentucky, Louisiana, Michigan, Mississippi, Tennessee, Texas, Virginia, and West Virginia. These chapters collectively have produced more than 1,300 graduates for the nearly 400 manufacturing companies that currently make up the FAME USA network.

The FAME USA network or employer collaborative is unparalleled in workforce development networks in the United States. With nearly 400 employers pooling talent from the network, there is a wide range of types of manufacturing companies, of all sizes, from various regions of the country involved. FAME employers are integral and active participants at the local chapter level in establishing and sustaining the initiative in their community. They are in regular and constant contact with their education partner, in all cases a community college, to ensure the most up-to-date methods and skills are being addressed. Employers want to be a part of this network where they can learn from each other and dramatically improve their talent pipeline in two short years. The network operates on the pull-system, ensuring employer need only commit to sponsoring students they eventually will need to hire. For participating community colleges, a robust network ensures the consistent need for the program and consistent feedback from the employer community to remain relevant to the needs of the local marketplace.

Companies currently involved in the FAME USA network include, but are not limited to, Toyota, Honda, Hyundai, Koller Craft, Prince Metal Stampings, Eastman, TapeCraft, Krono Spam, Trane Technologies, Steel City Solar, Vestas, Hudson Technologies, Everglades, Micopulse, Steel Dynamics, Hershey, 3M, Xerox, Flour, Buffalo Trace, SpanOn, UGN, Adient, Stanley Black & Decker, Delta, Conagra, Gerdau, HEB, Caterpillar, Pepsico, and KraftHeinz.

FAME USA is managed and supported by The Manufacturing Institute. To learn more or become a part of the network, contact Tony Davis (LinkedIn), email FAME@nam.org, or visit FAME-USA.com.

FAME USA by the Numbers

32 active chapters	Almost **400** employer partners
9 new chapters in Fall 2021	Community college partner for every chapter
1,300+ graduates since 2010	**500+** graduates during the last two academic years, despite the global pandemic.
1,800 hours of on-the-ground experience for each graduate	**85%** of graduates proceed to direct employment with sponsoring company
AMT students are paid a competitive hourly wage by their sponsoring employer that can cover the educational costs of the program, enabling students to graduate debt-free.	The starting wages of AMT graduates are typically more than **25% higher** than non-FAME manufacturing CTE graduates
Founded in June 2010 in Kentucky through a partnership between **Toyota** and the **Bluegrass Community and Technical College**.	The current FAME USA initiative is stewarded by the **Manufacturing Institute**.

PARTNERSHIP OVERVIEW

TOYOTA | PLTW

Since 2010, Toyota USA Foundation has provided $3.5 million to 184 K-12 schools across 16 states to implement Project Lead The Way (PLTW) programs. As a national leader in education, PLTW creates pathways and equitable experiences that provide students with increased opportunities to develop key subject matter knowledge and transportable skills, enabling them to become inspired problem solvers and to pursue critical and enduring career paths. Through strategic work and partnerships with programs like AMT and T-TEN, Toyota and PLTW are connecting students to advanced manufacturing and other high-demand, high-growth career opportunities. Through additional collaborations and events with local Toyota plant leaders, other non-profit organizations, state legislature offices, and community stakeholders, PLTW and Toyota continue to make a collective impact.

In 2017, Toyota joined PLTW as a Transformative Partner, the highest level of commitment for PLTW partners. The partnership is a testament to Toyota's focus on workforce development and connecting students to advanced manufacturing and other high-demand, high growth career opportunities.

TOYOTA'S IMPACT

Total Invested
$3.5M

PLTW Programs
184

PLTW Present States
16

Teachers Trained
841

Hours of Teacher PD
34,000+

We get the best from PLTW. We have found PLTW to be the best preparatory program in high school to make us a globally competitive manufacturer. PLTW's high-quality curriculum and its development of students' problem-solving, teamwork, and written and verbal communication skills is unmatched. Additionally, the national scope of PLTW means we can replicate our strategy across all of our plants. We highly value the engaging and sincere partnership with PLTW."

- Dennis Dio Parker, Consultant – North American Regional Talent Development
Toyota Motor North America

> **Toyota and the Toyota USA Foundation have been tremendous partners for many years, helping us engage and inspire students in their K-12 education and future careers. Through the foundation's continued support, we will train hundreds of teachers and engage thousands of students in PLTW's hands-on, transformative learning experiences. These programs help prepare students with the knowledge and skills to compete in the workforce, solve challenges, contribute to global progress, and create a lasting impact on their communities and our country."**
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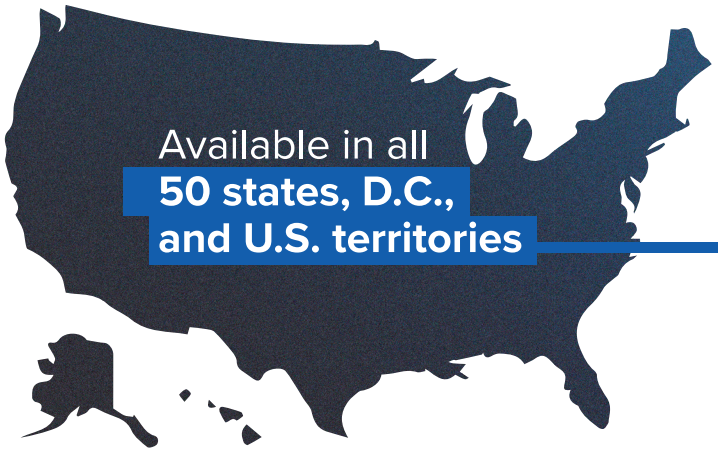
> *- Dr. Vince Bertram, President and CEO, PLTW*

ABOUT PLTW

PLTW is a nonprofit organization that provides a transformative learning experience for PreK-12 students and teachers across the U.S. by creating an engaging classroom environment unlike any other. PLTW empowers students to develop and apply in-demand, transportable skills by exploring real-world challenges through pathways in computer science, engineering, and biomedical science. PLTW students not only learn technical skills but also learn to solve problems, think critically and creatively, communicate, and collaborate.



80,000+ teachers

15,000+ programs

12,200+ schools

PLTW High School graduates
3x MORE LIKELY
to major in STEM[1]

1 Pike, Gary and Kirsten Robbins (2014). Using Propensity Scores to Evaluate Education Programs. Indiana University-Purdue University-Indianapolis.

APPENDIX #3

Toyota's 4T Academy Fact Sheet

Mission:
Provide students with an innovative learning experience that couples a high-tech curriculum with hands-on learning, while preparing them for a successful and rewarding career.

The Goal:
To help connect upper-level students at four high schools in the surrounding counties with career opportunities in advanced manufacturing. By collaborating with local schools, we are providing greater visibility to students about real career pathways in the region.

Curriculum:
The 4T curriculum includes classes on manufacturing, engineering, computer science, precision machining, Industrial automation & robotics, industrial maintenance and environmental sustainability. The high school-based advanced manufacturing curriculum is also dual credited by Ivy Tech & Vincennes University-Jasper. And as a part of the 4T program, students will also participate in hand-on job training at Toyota Motor Manufacturing Indiana.

4T 1st Year success:
2020-2021 (Launch of 4T)
- 21 Graduating Seniors
  - 7 Hired into Production Positions
  - 3 Enrolled in the Advanced Manufacturing Technician associate degree program
  - 9 Pursuing secondary education
  - 1 Military
  - 1 Undecided

Partners:
Toyota Motor Manufacturing of Indiana
4 Area High Schools:
- Princeton Community High School (Gibson County)
- Wood Memorial High School (Gibson County)
- South Gibson High School (Gibson County)
- Southridge High School (Dubois County)
- *New high school coming on board in Fall of 2022 (not yet released to the public)

Ivy Tech
Vincennes University-Jasper

Toyota Grant:
$1 million was given to the 4T Academy over 4 years to help the establishment, growth and sustainment of the program.

APPENDIX #4

Make the Future™

Toyota's most recent association with the National Alliance for Partnerships in Equity Education Foundation (NAPE) began in 2016 when Toyota's KY FAME team was given the Teamwork award at NAPE's National Summit for Educational Equity. Since then, NAPE has been advising the FAME program on the strategies to increase the diversity and inclusion of their Advanced Manufacturing Technician (AMT) program.

In 2017 NAPE was awarded a grant from the Toyota USA Foundation to formalize these practices. As part of the Make the Future™ Initiative (MTF), NAPE curated the best practices for increasing the participation and retention of women and women of color in STEM and CTE education leading to careers in advanced manufacturing. Make the Future™ Phase I included a literature search, resulting in NAPE's Make the Future™ Nine Best Practices – Equitable Recruiting Strategies. This can be found at the webpage: napequity.org/special-programs/make-the-future. This resource is a synopsis of programs and practices that excel in attracting females to STEM careers. In addition, a website was created which contains downloadable promotional materials; a YouTube Channel of curated videos; a series of webinars on the nine best practices; a recruitment planning guide; a social media toolkit and a student facing social media campaign, called WoManufacturing. The WoManufacturing campaign shares rich, compelling stories of female Hispanic students in the San Antonio AMT program which were captured in a series of recruiting videos.

How the San Antonio, TX and Vincennes, Indiana sites were successful in recruiting female students are the subjects of Make the Future™, Phase II Case Studies. The case studies will highlight lessons learned at each site, and validate the nine best practices from the literature review developed in MTF Phase I. The case studies will be used to inform the field about best practices, and they will be utilized during the Phase II, Stage II Program Improvement Process for Equity™ (PIPE) implementation with teams from two FAME chapters this coming school year.

NAPE's Program Improvement Process for Equity™ (PIPE) has been successfully implemented with school districts across the country to close gender gaps in CTE career pathways leading to nontraditional career fields. PIPE engages teams of educators, industry leaders, community members, and other stakeholders to: use data to conduct a performance and participation gap analysis; learn about the research literature on root causes for these gaps; conduct action research to identify the root causes in play at their institution; select and implement an aligned intervention that directly addresses the identified root causes; and measure and evaluate their success. This iterative process is being applied to the specific context of manufacturing, with the intent to increase the enrollment, matriculation, graduation, and transition to and competitive employment of women and women of color in advanced manufacturing pathways.

Contact Information:

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